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DO COGNITIVE ASSESSMENT SCORES POST STROKE CORRELATE WITH THE MRR?
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Background: Data from Levine et al. (2015) suggest that cognitive function declines both acutely and over the long term after incident stroke. The aim was to determine if cognitive assessments in conjunction with MRIs were a predictor of cognitive decline after a stroke.

Methods: Patients with a confirmed stroke as their reason for admission were included. All stroke subtypes were included in the analyses. Retrospective chart audit identified 26 patients post stroke from November 2007–April 2018 as having a cognitive assessment completed by an Occupational Therapist.

Each patient had one of the following completed dependent on Occupational Therapy clinical reasoning: M-ACE, ACE 3 and MoCA. MRIs were evaluated by a blind observer using standard assessment tools. The MRI scanner is a 1.5T from a coding viewpoint. The risk detection for the 3 MRI variables were the same - white matter change, infarct size and brain volume.

Results: 12 were female with a mean age of 75. From MRI coding, 4 (n = 3) indicated normal cognition, 3 (n = 6) mild cognitive impairment, 2 (n = 13) moderate cognitive impairment and 1 (n = 6) severe cognitive impairment from MRIs. There is a stronger correlation between cognition and volume size 0.62 p = 0.007 and white matter change (WMC) 0.539 p = 0.0045. There is only a weak association with infarct size 0.159 p = 0.4375.

After adjustment for age and gender brain volume still remains statistically significant in the prediction of post stroke cognition p = 0.0421. The correlation between the MRI and cognitive assessments was 92%.

Conclusion: Our findings indicate brain volume and background ischaemic change correlated more strongly than infarct size with cognitive impairment post stroke. Patients and families often report cognitive changes post stroke where none had been reported previously, but this is not due to the stroke alone. High quality imaging is important to guide diagnosis of cognitive impairment, and patients should be closely monitored following discharge.

A CHANGE IN THE AGE PROFILE OF PEOPLE SUSTAINING SPINAL CORD INJURY IN IRELAND
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Background: Historically, Spinal Cord Injury (SCI) was a condition affecting young males and may still be considered so. In Ireland, as in much of the developed world, the epidemiology of SCI is changing. Falls have replaced road collisions as the leading cause of traumatic SCI while non-traumatic SCI occurs at over double the incidence of traumatic SCI.

Aim: To assess and compare the age profiles of adults sustaining SCI since 2010.

Methods: Data from 3 population-based epidemiological studies were pooled and re-analysed. In a repeat study of traumatic SCI, 2010 – 2015, prospective studies of traumatic SCI, 2016 and non-traumatic SCI, 2017.

Results: Incidence of traumatic SCI ranged from 11.5 to 13.3 per million per year and non-traumatic SCI was 26.1 per million per year. Mean (SD) age at traumatic SCI onset increased from 44.1 (19.3) years in 2010 to 53.4 (19.5) in 2016. Upper end of age range at traumatic SCI onset was 98 years. Age at traumatic SCI was significantly higher in those sustaining falls compared with all other causes. Mean (SD) age at non-traumatic SCI onset was 59 (15.4) years, upper end of range was 87 years. People aged 65 years and older accounted for 43.2% of all non-traumatic SCI. Degenerate conditions were the most common cause of non-traumatic SCI. Using the age categories of the ISCoS (International Spinal Cord Society) reporting guidelines, the largest group of people sustaining traumatic and non-traumatic SCI was 61 – 75 years.

Conclusion: There is a trend of increasing age among people sustaining traumatic SCI. Non-traumatic SCI also appears to be a condition with a predilection for older people. This may necessitate a change in the delivery of rehabilitation services nationally.

BANK STAFF’S EXPERIENCES OF FINANCIAL ABUSE OF OLDER PEOPLE
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Background: Financial abuse is a significant issue for older populations and was identified as the most common form of maltreatment in a 2010 Irish prevalence study (Naughton et al. 2010). Yet, this area is under researched, under-recognised and under-reported. This study examined how abuse was recognised, experienced and responded to by staff in five Irish banks.

Methods: A mixed method approach was used. Firstly, an online survey was undertaken with frontline staff in the five banks. This yielded 898 responses. We also interviewed 20 bank managers and five members of the National Safeguarding Committee to explore understandings, experiences and responses to financial abuse.

Results: Findings from the survey demonstrate that more than half of the respondents (46.5%) had previously suspected a customer to be experiencing some form of financial abuse. The most frequently cited source of guidance in responding to suspicions of abuse was individual judgement and previous experience. Length of professional banking experience was a significant factor influencing how respondents viewed five different scenarios describing potential abuse of vulnerable adults. Findings from the semi-structured interviews demonstrate the complexity and wide variations of case experiences of bank managers and the National Safeguarding Committee. These include being financially abused in the context of undue influence, scams, fraud and some cases described the naivety or potential naivety of some customers who may have capacity challenges, engage with strangers through social engineering scams, share PINs or open bank accounts without fully understanding the consequences.

Conclusion: All staff had some experience of a suspicion of financial abuse and employed various strategies to respond to their suspicions. Recommendations for both the banking sector and policy makers will be discussed including the need for inter-sectoral collaboration and the need for increased public awareness of financial abuse.

ESTABLISHING A NETWORK OF COMMUNITY BASED MEMORY TECHNOLOGY RESOURCE ROOMS
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Background: The Assistive Technology (AT) Project aims to establish a minimum of two Technology Resource Rooms (MTRRs) in each Community Health Organisation (CHO) area in Ireland. A total of €600,000 funding was secured through the Department of Health Dormant Account Funds to facilitate implementation of this project.

Methods: MTRRs provide a service to people with dementia, people with cognitive impairment, families and carers, and also acts as a resource for healthcare personnel and voluntary agencies. Each person attending the MTRR engages in a collaborative, client centered needs assessment focused on occupation and assistive technologies. Each client then receives a demonstration of appropriate assistive technology (AT) devices as per their needs. Where feasible, clients are able to borrow equipment for a trial period. The MTRR also gives clients the opportunity to meet staff who can advise or signpost them to other relevant services and works together with existing community services.

Results: Each CHO area nominated local personnel to coordinate and drive the establishment of the MTRRs in their area. Training in AT was provided to all relevant staff, and a MTRR Network Group established. The group provides peer support for all MTRR personnel, and works to ensure standardisation of policies, processes and evaluation of the MTRRs.

Conclusion: There are currently 6 MTRRs established in Ireland, with an additional 15 scheduled to be opened by July 2018. These MTRRs provide valuable post-diagnostic support to people with dementia and cognitive impairment.

DEVELOPMENT OF A MULTIDISCIPLINARY ‘GERIATRIC EMERGENCY MEDICINE’ EDUCATIONAL PROGRAMME
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Background: The proportion and absolute number of older adults attending the Emergency Department (ED) continues to rise as a consequence of population ageing and emergency medicine is adapting to meet the needs of this patient group. It is not clear what the learning needs of the Emergency team are, or whether different professional groups working in this environment share common learning needs around care of older adults.

Methods: A mixed methodology was used to assess learning needs of the Emergency Team related to care of older adults. A combination of surveys, critical incident reports and patient complaints were used to identify learning needs. The results of this analysis were used to develop the content for a ‘Geriatric Emergency Medicine Bootcamp’ event. Learning objectives were developed by group consensus from a shortlist of key topics derived from the results of the needs assessment. The course was evaluated using Kirkpatrick’s levels of impact (1.Reaction, 2.Learning, 3.Behaviour, and 4.Results).

Results: From learning needs analysis 28 main themes were identified related to care of older people which included clinical care including management of specific clinical syndromes, communication, and process/system challenges. Using these themes a set of learning objectives were developed for the emergency team through an iterative process and a ‘bootcamp’ learning event was developed. Using Kirkpatrick’s levels it was possible to demonstrate reaction formation, learning and behavioural change (level 3).
AN EXPLORATION OF MODIFICATION OF POTENTIALLY INAPPROPRIATE PRESCRIBING AND POTENTIAL PRESCRIBING OMISSIONS FOLLOWING FALL-RELATED HOSPITALISATIONS

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Background: Fall-related hospitalisations should trigger medication review. The STOPP/START 2 criteria recommend stopping specific sedatives and vasodilators and starting vitamin D among those experiencing falls. This study aimed to examine the prevalence of these indicators of potentially inappropriate prescribing in older people with fall-admissions and to explore post-admission prescription patterns.

Methods: Prescribing and hospitalisation data for patients aged ≥65 were collected from 44 Irish general practices using patient-management software. The Irish College of General Practitioners granted ethical approval. Hospital admissions for falls, fractures and syncope were selected. The prevalence of prescripions for benzodiazepines, neuroleptics, ‘z’-drugs, vasodilators and vitamin D were estimated from GP records in the 12 months pre-admission and using hospital discharge and GP records in the 12 months post-admission. Pre/post-admission prevalence was compared with Mc Nemar’s test.

Results: A total of 1,047 patients with potentially fall-related admissions were identified between 2012 and 2016. 944 individuals (67% female), with prescription data available before and after hospitalisation, were included in the analysis. Average age at admission was 72 years (SD 8.6). The admitting diagnosis for 43% of individuals (n = 421) was fracture, for 22% (n = 257) was a fall without fracture and for 28% (n = 266) was syncope. Median length of stay was 7 days (IQR 2–17). The proportion of those prescribed vitamin D significantly increased post-hospitalisation (n = 547 (37%) before, n = 485 (51%) after, p < 0.01). The proportion with benzodiazepine, neuroleptic or z-drug prescriptions also significantly increased (n = 373, 40% before, n = 425, 45% after, p < 0.01). Over half were prescribed vasodilators at both time periods (n = 505, (54%) before, n = 510 (54%) after, p > 0.05).

Conclusion: Preliminary results from univariable analysis suggest an increase in vitamin D prescription after a fall-related admission but other improvements in prescribing according to the STOPP criteria are not evident. Further multivariable analysis is planned to identify factors associated with prescription modification in this cohort.

WHAT ARE THE POLITICAL IMPLICATIONS OF POPULATION AGEING? AN ANALYSIS OF MEDIA REPRESENTATIONS OF OLDER VOTERS FOLLOWING THE BREXIT REFERENDUM

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Background: Gerontologists have made substantial progress in assessing the social, economic and health implications of population ageing. However, the political implications of population change have been ignored. Demographers like Tethechew (2015; 387) argue that the intersection of politics and demographic change (political demography) has been ‘excluded to political activists, pundits and journalists.’ The result has been a ‘gobbled interpretation’ of how demographic affects issues such as the balance of power between states, human rights, international migration and national identity. The neglect of political demography has occurred within the context of a rapidly changing world. In the same period, we have seen the Balkanisation of identity politics, facilitated by the echo chamber effect of on-line/social media platforms.

Methods: A critical gerontology framework is employed to investigate media representations of baby boomers as voters in the aftermath of the EU referendum in 2016. The Nexis database was used to undertake a global media analysis of newspaper coverage of the referendum. A critical gerontology framework is employed to investigate media representations of baby boomers as voters in the aftermath of the EU referendum in 2016. The Nexis database was used to undertake a global media analysis of newspaper coverage of the referendum.

Results: Preliminary analysis suggests that boomers did not feature in media reports before voting. Reports of high levels of intergenerational conflict followed. Reports of high levels of intergenerational conflict followed. Reports of high levels of intergenerational conflict followed.

Conclusion: Our survey showed a high level of dissatisfaction with the delivery of home care. Limitations of accessibility to services due to geography lead to inequity in healthcare delivery. Many clients feel their hours are insufficient, and families supplement care for the majority. Older persons’ autonomy is less meaningful when the necessary supports are not provided in their homes.

GENERAL PRACTITIONERS’ KNOWLEDGE OF AND ATTITUDE TOWARDS THE ASSESSMENT AND MANAGEMENT OF PAIN IN PEOPLE WITH DEMENTIA

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Background: Pain in people with dementia is often underdiagnosed, underreported and under treated. Pain can be a trigger for behavioural and psychological symptoms of dementia (BPSD). Not correctly identifying pain as a cause of BPSD can lead to the inappropriate prescribing of potentially harmful psychoactive medications. General practitioners (GPs) play a key role in managing pain in people with dementia, however, no research has explored GP knowledge of and attitude towards pain in dementia.

Methods: A postal questionnaire was sent to a random selection of GPs in Cork city and county. A questionnaire that was previously developed for use with nurses was adapted for use with GPs. The adapted questionnaire was pilot tested with 5 GPs and minor amendments were made. SPSS was used for data analysis.

Results: A total of 107 completed questionnaires were received, representing a response rate of 53.5% (107/200). Over two-thirds (74/107) of respondents had a nursing home commitment. These GPs provided care to a total of 1.396 people in nursing homes, over half of whom (851/1,996) had dementia. Of the respondents with a nursing home commitment only 16/22(74) were aware of guidelines/policies on pain management in the nursing homes they attended. The majority of the respondents (74/107) felt that pain was under-recognised in people with dementia. Overall, respondents were knowledgeable on many aspects of the assessment and management of pain in people with dementia. Neither the number of years the GP was in practice, nor the extent of the GPs experience managing dementia were found to correlate with their knowledge of or attitudes towards pain management in dementia.

Conclusion: Guidelines on the assessment and management of pain in dementia are not translating into clinical practice. However, the high levels of knowledge and of positive attitude towards pain management in dementia is encouraging.

QUALITY IN HEALTH CARE DATA: THE CHALLENGE?

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Background: In 2017, we were informed by the National Lead for Stroke that our discharges to nursing homes were excessively high. Stroke disease is a leading cause of severe disability. Given that stroke is common in the older patient, a quality outcome measure of a service will be the numbers of patients discharged to a nursing home. Methods: From our Hospital In-Patient Enquiry (HIPE) system we obtained the data for the period 1st January 2015 to the 31st of July 2017 of stroke patients discharged from our hospital and their coded place of discharge.

(1) By reviewing the discharge summaries from the hospital, we were able to determine who had been transferred to a nursing home and who had been transferred to another hospital to continue their rehabilitation.

(2) Those patients who had been admitted from a nursing home with a stroke event were classified as Previous Nursing Home (PNH).

Results: In the period 1st January 2015 to 31st July 2017, there were 985 stroke patients admitted to our hospital. The National database suggested that 27.2% (270 patients) of our patients were discharged to a nursing home. Following review of the discharge letters of these nursing home patients we were able to determine that only 6.8% (n = 87) had been discharged to a nursing home, 3.6% (n = 35) had returned to their nursing home (previous address) and 11.8% (n = 114) had been transferred to a rehabilitation unit.

Conclusion: Good quality data allows clinicians to review their services and make adjustments to continue to provide excellence in care. By working with coding departments we
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determined that patients were being wrongly coded. Unfortunately, this problem appears not to be a localized to us and this does raise concerns about the quality of national data being produced.

INTEGRATING PRINCIPLES OF GERIATRIC CARE INTO ONCOLOGY – A COLLABORATIVE APPROACH TO MANAGING OLDER PATIENTS WITH CANCER
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Background: Older adults comprise 60% of patients with a new diagnosis of cancer. Treatment decisions amongst this group pose unique challenges. Concern regarding higher risk of treatment-related toxicities can lead to under-treatment whilst a lack of recognition of inherent vulnerability can lead to over-treatment. Comprehensive geriatric assessment (CGA) has been proposed as a tool to evaluate older oncology patients and support decision-making for clinicians. We present the experience of a dedicated geriatric oncology clinic (GOC) at a major Irish teaching hospital and cancer centre.

Methods: Patients ≥70 years are eligible for referral to the GOC and are selected on a case-by-case basis. In clinic, medication review is performed by a pharmacist and nutritional assessment by a dietitian. For other multidisciplinary services, a screen & referral model has been adopted, with patients undergoing assessments of function, mobility, nutrition, psychosocial wellbeing and cognition using validated tools. A pathway exists for expedited review by geriatric medicine and psychiatry of old age services as appropriate.

Results: Sixty patients with a median age of 78.5 were reviewed, of which 34 (56%) were male. Cancer diagnoses included colorectal (n = 18; 30%), gastroesophageal (n = 11; 18%), breast (n = 6; 10%), and prostate (n = 4; 6%). 24 (40%) had metastatic disease. The median number of medications per patient was 6 (range 4–13). As per the Mini Nutritional Assessment (MNA), 47 (72%) patients were malnourished or at risk. Using the Geriatric Depression Score (GDS), 19 (32%) patients screened positive for depressive symptoms. Median Timed Up and Go (TUG) was 11 seconds (range 8–38) and 7 (12%) patients had reported a fall in the last 6 months.

Conclusion: We present data from the first Irish experience of a dedicated GOC. Our approach facilitates more personalised cancer treatment decisions for our older patients and allows the careful selection of patients most likely to benefit from early intervention by geriatric medicine services.

EVALUATING OUTCOMES AFTER HIP FRACTURE IN PATIENTS WITH PARKINSON’S SYNDROMES
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Background: Patients with Parkinson’s Disease (PD) are at increased risk of falls and fractures. Osteoporosis is common and undiagnosed. The outcomes for patients with PD after hip fracture are thought to be poorer than those without.

Methods: The aim of this study was to compare outcomes for patients with and without PD presenting with hip fracture over one year. A database is kept of patients admitted with hip fractures. History of osteoporosis, bone protection, discharge destination and length of stay (LOS) is recorded. Patients are virtually followed up at one year. Patients with PD were identified through retrospective review of records.

Results: 27% of patients admitted with hip fractures in 2016, 4.4% (n = 12) had a Parkinson’s syndrome; 50% (n = 6) were female. Age range was similar between the two groups. In those without PD, 73% (n = 199) were female; 25% (n = 3) of patients with PD were on bone protection on admission, despite 58.3% (n = 7) having known osteoporosis and 50% (n = 6) having a previous fracture. Patients with PD had an average LOS of 31.4 days, compared to 17.7 in those without. Of patients with PD, 16.6% (n = 2) died during admission, 50% (n = 6) were discharged to rehabilitation and 8.3% (n = 1) were discharged home. In contrast, of patients without PD, 6.5% (n = 17) died during admission, 45.2% (n = 119) were discharged to rehabilitation and 15.6% (n = 41) were discharged home. At one year, mortality in the PD group was 25% (n = 3), 33% (n = 4) were in a nursing home and 41% (n = 5) at home. In the non-PD group at one year, mortality was 16.3% (n = 49), 20.2% (n = 5) were in a nursing home and 60.5% (n = 159) at home.

Conclusion: Patients with PD were overrepresented in the hip fracture population. A small proportion were on bone protection pre-fracture. The mortality for patients with PD was higher, LOS was increased and they were more likely to be nursing home residents at one year.

DEMOGRAPHICS AND DIAGNOSES OF NEW PATIENTS SEEN AT MEMORY CLINIC: HOW APPROPRIATE ARE REFERRALS?
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Background: Memory clinics see a high volume of referrals with finite resources. This study aimed to examine characteristics of patients referred and diagnoses given to determine how appropriate those referrals may be.

USING THE SEDATIVE LOAD MODEL IN OLDER ADULTS WITH INTELLECTUAL DISABILITIES
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Background: The Sedative Load (SL) model is a quantitative measure of exposure to regular sedative medications. Exposure to these types of medications has been associated with poorer physical function in older adults.

Objectives: To describe SL in a cohort of older adults with intellectual disabilities (ID) and evaluate its relationship with demographics and clinical characteristics.

Methods: Data from Wave 2 of the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing (IDS-TILDA), a representative observational, cross-sectional study on ageing of people with ID in Ireland, were analysed. Quantitative data analysis was used. Chi square analysis was used to assess associations between SL scores and categorical variables (gender, age, type of residence, level of ID, history of falls, epilepsy). Analysis of Variance was used to assess associations with continuous variables (comorbidities, measured by Functional Comorbidity Index, and Barthel Index activities of daily living).

Results: 677 (95.6%) participants had medication data available for analysis. 73.3% (n = 496) of participants were exposed to a regular sedative medication. Mean SL score was 2.7 (SD 2.5). SL score was significantly associated with gender, level of ID, type of residence, behaviours that challenge, epilepsy diagnosis, having a mental health condition, number of comorbidities and Barthel Index (p < 0.001). SL score was not associated with age range (p = 0.356) or history of falls (p = 0.156).

Conclusion: Overall sedative exposure and SL scores for this group were much higher than for studies of the general older population. While associations with demographics are similar to that seen in older adults without ID, history of falls was not associated with SL score. This could reflect the greater monitoring and lower physical activity levels in this population. The potential impact of high sedative load on quality of life requires further investigation and could provide knowledge for effective medication therapy review.

PROGRESSIVE RESISTANCE TRAINING IN A POSTACUTE, OLDER, INPATIENT POPULATION: A RANDOMISED CONTROLLED FEASIBILITY TRIAL
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Background: Sarcopenia is an age-related loss of skeletal muscle mass and is directly responsible for functional impairment and loss of autonomy. Progressive resistance training (PRT) is a type of exercise where participants exercise their muscles against resistance that is progressively increased and is an effective intervention known to target and improve sarcopenia and functional capacity. This study aims to determine the feasibility of a 6-week supervised PRT exercise programme in a postacute, older inpatient population.

Methods: This was a prospective, single-blinded, randomised feasibility trial, recruiting consecutive appropriate inpatients in a postacute rehabilitation unit. There were two arms (0% and 5% of intervention) and 24 sessions per week. Both groups received routine inpatient rehabilitation. The intervention group also received twice weekly PRT for six weeks. Feasibility (including recruitment, participation, adverse events and tolerability) of the design and intervention were evaluated. Measures of strength, functional mobility, quality of life and frailty were also recorded. Assessments were completed at entry to the study (T1) and at the end of both the intervention and control phases (T2 and T3).

Methods: Retrospective analysis of new referrals seen at memory clinic in one Health and Social Care Trust between 1/8/10 and 31/7/17. Data was obtained from clinic letters on the Electronic Care Record system. Age, sex, anticholinergic burden (ACB) score of medications, mini mental state examination (MMSE) and/or Addenbrooke’s ACE-III score and diagnoses were recorded. Age, sex, cognitive test scores and ACB scores were compared across diagnoses.

Results: 242 new patients were seen and had clinic letters available. 62% (n = 150) were male, 38% (n = 92) were female. Patients’ ages ranged from 24–103 years (mean 71; standard deviation 13.6). Mean MMSE score was 24 (standard deviation 5.3; range 2–30); mean Addenbrooke’s ACE-III score was 75 (standard deviation 15.9; range 24–100); ACB scores ranged from 0–8, with median of 1.

In 23% of patients (n = 55), no significant cognitive deficit was identified. These patients had lower mean age but were similar to patients who had a deficit detected in terms of sex and median ACB score. 36% (n = 88) were diagnosed with dementia (all types) and 23% (n = 56) with mild cognitive impairment. 17% (n = 41) of patients were diagnosed with depression, 15% (n = 12) with medication-related problems and 5% (n = 12) with alcohol-related problems. <1% (n = 2) were diagnosed with delirium.

Conclusion: In almost a quarter of patients, no significant cognitive deficit was identified. These patients tended to be younger than those in whom a deficit was detected. Patients had a wide very range of ages, posing particular diagnostic challenges. Depression, medication- and alcohol-related problems were frequently encountered. These results suggest more detailed cognitive testing as well as lifestyle and medication reviews prior to referral might improve appropriateness.
again at six weeks (T2). Data was presented using descriptive statistics, two sample t-tests and paired t-tests. Results: Thirty-three participants were recruited into the study (16 men; mean age 82.8 years). Recruitment – 29% of patients who transferred to the rehabilitation unit were eligible to participate, 89% of these consented to participate. Participation – 24% did not complete the intervention. Factors included – transfer to another ward, discharge home before T2 and dropouts. Adverse events – there were no serious adverse events for those participating in the intervention group. Tolerability - the intervention was well tolerated overall. Due to the sample size, the study was unable to provide information regarding the efficacy of the intervention.

Conclusion: This study has detailed the process by which the feasibility of a PRT programme in older hospital inpatients was examined. PRT has been shown to be a safe and tolerable intervention in this population.

DELYING AND REVERSING FRAILTY: A SYSTEMATIC REVIEW OF PRIMARY CARE INTERVENTIONS
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Background: Frailty is a fast growing medical and societal challenge given our ageing population and advances in life expectancy. Routine frailty screening is now recommended in primary-care internationally. However, there is a lack of evidence on the most effective and practical interventions once frailty has been identified. We conducted a systematic review of primary-care interventions for frailty and mapped their effectiveness and ease of implementation.

Methods: We searched PubMed, CINAHL, the Cochrane Library and PEDro up to September 2017 for English language RCTs or cohort studies on primary-care interventions for frailty. Selected studies were analysed for frailty screening method, type of intervention and outcomes. Outcomes were scored for effectiveness in terms of impact on frailty status or frailty criteria and scored for ease of implementation in terms of human resource, marginal cost and time requirements.

Results: 894 studies satisfied our initial search criteria and 43 were selected for full analysis. The total number of participants in selected studies was 15,440 and the average study size was 377. The studies reflected broad heterogeneity of interventions. 20 studies involved physical activity interventions and other reported interventions included health education, nutritional supplementation, home care visits, hormone supplementation and counselling. Two thirds of studies involved more than one intervention. 14 studies reported the outcome of an intervention on frailty status and 10 of these (71%) demonstrated significant improvement. 29 studies reported the outcome of an intervention on singular frailty indicators or other criteria and 19 (66%) demonstrated significant improvement. Interventions with both muscle strength training and protein supplementation were consistently placed highest for relative effectiveness and ease of implementation.

Conclusion: A combination of muscle strength training and protein supplementation was the most effective intervention to delay or reverse frailty and the easiest to implement. We have created a map of published interventions to inform choices for managing frailty.

ACUTE CARE AT HOME - A SOUTHERN TRUST REFLECTION
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Background: The Acute Care at Home Team has been operational since 2014. We are a consultant led multidisciplinary team delivering acute care and interventions to patients at their usual residence. We aim to provide a comprehensive geriatric assessment and develop a holistic plan of care for our patients.

Methods: Quantitative, a retrospective analysis of referrals, source of referrals, interventions undertaken, frequency of multidisciplinary team input and conversions to hospital from the service.

Results: In the year 2017/2018 we had 2,690 referrals to the service. This is an average of 8.2 referrals per working day. Referrals are made via a telephone conversation with a member of senior medical staff. Referrers include general practitioners, acute hospitals, ambulance, heart failure nurse, OPDO nurse. 65% of referrals were accepted. The commonest reasons referrals were declined were team capacity, patient out of catchment area for the service, or not requiring Acute Care at Home with alternative advice being given. We had a conversion to hospital in 8% of patients following admission to the team. All patients had medical and nursing input, 56% have physiotherapy input and 30% have occupational therapy input. 79% of patients have pharmacy input. We have also recently had the addition of a full time speech and language therapist to the service. Interventions provided included intravenous therapy in 66% of patients, 54% had haem therapy and 5% required oxygen therapy.

Conclusion: We see an excellent alternative to acute hospital care for our older population. Feedback to the service is overwhelmingly positive from patients and their carers. There are challenges in securing and retaining staff, ensuring adequate training and escalation procedures and actually geographically accessing patients.

ANALYSIS OF NATIONAL PRESCRIBING DATA AND THE IMPACT ON THE RATE OF STROKE
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Background: Atrial Fibrillation is associated with more devastating strokes and its incidence increases with age. The availability of Direct Oral Anticoagulants (DOACs) and increased attention towards detecting atrial fibrillation have resulted in an increase in the number of people anticoagulated. We examined whether the increase in rate of anticoagulation was associated with changes in the incidence of intra cerebral haemorrhages and infarcts.

Methods: The SAFE Report on stroke projects a 20% increase in stroke numbers in Ireland over the next 10 years. We compared the annual haemorrhagic stroke (ICD 60 and 161) and cerebral infarcts (I63) Hospital In-Patients Enquiry (HIEP) data admitted to public hospitals from 2009 to 2016 and compared them with national medicines prescribing data for anticoagulants (Warfarin and DOACs). Data was compared with baseline incidence period 2004–2009.

Results: The number anticoagulated increased by 84% over the seven year period January 2010 to January 2017 (38,073 – 60,800). Numbers receiving Warfarin dropped by 30.7% in that time. Proportion of patients on DOACs increased from 0.9% to 62.9% over this seven years.

Baseline average rate of ischemic stroke increased by 3.6% per annum (4,714–4,781 (14.35%)) in the baseline period but only 0.5% from 2009–2016 (4,781–4,994 (3.4%)). Rate of haemorrhagic stroke fell by 2.1% per annum on average in the baseline period (1,374–1,256 (8.6%)) but increased by 12% on average from 2009–2016 (1,256–1,358 (9.1%)). There was no correlation between annual change in ischemic incidence and change in anticoagulation prescriptions (r=0.07, p=1.0)

Conclusion: The rate of anticoagulation increased by 84% and was associated with a slowing in the rate of increase in ischemic stroke and a non-correlated, marginal increase in haemorrhagic stroke incidence. The increase in anticoagulation with DOACs is one possible explanation for less than expected increase in stroke incidence.

FEASIBILITY OF A RESILIENCE-ENHANCING RESOURCE FOR FAMILY CARERS OF PEOPLE WITH DEMENTIA
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9Mercer’s Institute for Successful Ageing, St. James’s Hospital, Dublin, Ireland

Background: The WHO recommends involving carers in designing support programmes for people with dementia and their family carers. Moreover, researchers need to develop cost-effective and inclusive models of research in dementia care. Working with a network of current and former family carers of people with dementia, we co-designed an information and support resource to enhance the resilience of family carers of people with dementia. Branded Take Care of Yourself, the support resource comprises a website containing short video testimonials of former family carers of people with dementia, seeking and inclusive models of research in dementia care. Working with a network of current and former family carers of people with dementia, we co-designed an information and support resource to enhance the resilience of family carers of people with dementia.

Methods: We conducted a study to establish the feasibility of the resource, in terms of its acceptability and usability among family carers of people with dementia. To test the feasibility of the resource, we developed a logic model in which we established short-, medium- and long-term indicators of success, to identify which aspects of the resource were most effective in enhancing family carers’ resilience. To capture these indicators, we conducted a series of workshops among a purposive sample of current and former family carers of people with dementia and other stakeholders, including carers’ advocates and healthcare and support staff.

Results: We report the findings of the feasibility study, with reference to the carers’ and other users’ experiences of and responses to the resource, including their perspectives on its content, quality, relevance and capacity to enhance resilience. We present our findings using thematic headings, supplemented with data extracts that exemplify the emergent themes.

Conclusion: Consistent with the principles of empowerment and inclusion in research, support resources for family carers of people with dementia need to be developed in partnership with current and former family carers themselves. Moreover, to be effective in meeting the needs of those for whom a resource is designed, the resource content must have fidelity and resonate with users’ real-world experiences.
Age and Ageing

Background: Multidisciplinary integrated care teams for older persons aim to develop and implement integrated services and pathways for persons over 65 with complex health and social care needs. The teams act as a communication bridge working across, and joining this service and community health and social care services. The goal is to provide community-based care that is anticipated, timely, well-coordinated and evaluated as improving quality of life and outcomes (ICPOP, 2016).

Integrated Care means “changing the way that care is provided” (ICPOP, 2015: 1). It will involve disciplines and teams working across public, private and voluntary service boundaries “to provide a flexible network of care responsive to the changing needs of patients and their families” (ICPOP 2015: 1). Professional relationships and good communication will be a critical factor in the success of integrated care (Valentini et al, 2013). It will require key professionals across all levels to facilitate and lead the change management process (WHO, 2013): “Social workers and GPs, working together, are best placed to coordinate the efforts” (TCSW & RCGP, 2014).

Methods: The paper reviews and considers the evaluation of a number of initiatives that the author has lead on in her role as social worker on the integrated care for older persons team in Dublin North, namely the introduction of a quality of life focus, service user feedback and a professional’s speed networking event.

Results: The authors argue that social work’s person centred, interpersonal, facilitation and negotiation skills in navigating systems, mediating conflict and mobilising resources position the profession as key enablers in the change process.

Conclusion: Social work’s relationship building and facilitation skills and approaches were found to support other professionals to cross boundaries, retain new ways of working, reassert their values, and refocus so that older persons become leaders in influencing and developing integrated services going forward.

Delirium is highly prevalent, inadequately screened for, underdiagnosed, and associated with significant mortality in a large urban hospital

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Background: Delirium is a prevalent and under-recognised condition, most commonly affecting older adults. Delirium is associated with increased length of stay, falls, institutionalisation, dementia, high costs, and increased mortality. In hospitals, the point prevalence of delirium is 25-35% (National Institute for Health and Care Excellence, 2010).

Methods: Data were collected for all non-elective admissions, aged ≥65, to all specialties, within a 48-hour period prior to World Delirium Day. Exclusion criteria included intensive care admissions, those not yet seen by an admissions team, undue distress, and patients at the end of life.

Primary outcome was the point prevalence of delirium. Secondary outcomes included proportion screened for delirium on admission, record of delirium diagnosis in medical notes and discharge documentation, length of stay, and mortality.

Results: 157 patients were identified. 33 were included for analysis after exclusions. Mean age was 80.3 years (range 65–96). 54.5% were male. 21% had existing dementia. 36% had delirium screening carried out. Mean length of stay was 8.6 days. 11 patients (33%) were found to have delirium. Mean age was 84.4 years (range 71–96). 36% had existing dementia. 45% had a documented diagnosis of delirium in their medical notes. 30% of patients died as inpatients. 27% had delirium on their discharge letter. Mean length of stay was 13 days.

Conclusion: We report a 33% point prevalence in emergency admissions ≥65 years. Our findings show that delirium is under-recognised, underdiagnosed and poorly documented. Delirium was associated with increasing age, higher clinical frailty score, and pre-existing dementia. Notably, patients with delirium had a significantly higher mortality rate (36% vs 10%). They also had longer length of stay.

This point prevalence study can be used to justify better resource allocation for patients with delirium going forward. With its known impact, it is imperative that we improve clinician understanding of screening, diagnosis and management of delirium.

Thriving Not Just Surviving: An Occupational Therapy lifestyle programme for older adults living in long-term care

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Background: There is a need to develop and evaluate interventions for older adults with diverse abilities and resources, including those residing in long-term care (LTC) facilities. This exploratory study evaluates the impact of an occupational therapy lifestyle intervention for older adults living in long-term care, where residents frequently experience loss of meaningful occupations and roles, and loss of autonomy in decision-making and time-use.

An occupation-based wellness programme, based on that found to be effective for community-dwelling older adults, was introduced and focused on enabling participants to undertake new/rejected activities, make lifestyle choices and undertake personal goal-orientation.

This study aimed to assess the feasibility and impact of participation in a 12-week occupational therapy (OT) wellness programme for LTC residents.

Methods: A small-scale randomised, wait-list control design was used. A 12-week OT programme was delivered to the treatment group (n = 23). Outcome measures included perceptions of occupational performance and satisfaction, self-efficacy, mental well-being and overall life satisfaction. Assessments were conducted at baseline, immediately post-programme and 12 weeks post-programme.

Qualitative focus groups (n = 13) explored the experiences of participants following programme completion.

Results: Significant differences were found 24-weeks post-intervention in the treatment group’s occupational performance (p = 0.02) and satisfaction (p = 0.002); self-efficacy (p = 0.011); life satisfaction (p = 0.025) and depression (p = 0.031). There were no significant changes across any outcomes for the control group (n = 10) at 24-week follow-up.

Focus group data supported the programme’s impact on occupational performance and self-efficacy. Participants identified many benefits of the programme such as improved confidence, peer support and goal-orientation.

Conclusion: As an exploratory study, findings confirm the tangible benefits that older people living in LTC can obtain from a health-promoting, occupation-based intervention.

In an effort to move beyond basic care, programmes such as this should be offered to residents in LTC care settings to promote wellbeing and life satisfaction.

Improving Initial Screening, Investigation and Monitoring of Delirium in Medical Inpatients over Age 65

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Background: We identified neglect of the delirium screening process in medical inpatients over age 65. We aimed to improve early screening for delirium, promoting targeted investigation and intervention to improve patient outcomes and reduce length of inpatient stay.

Methods: A total of 72 medical inpatients were audited across six medical wards in an acute hospital in October 2017. We reviewed patient notes to determine if delirium screening in the form of an Abbreviated Mental Test (AMT) had taken place within 24 hours of admission. A spreadsheet was designed in accordance with British Geriatric Society and National Institute for Health and Care Excellence guidelines to record investigations performed. This included routine bloods, serum electrolytes, serum glucose, liver and thyroid function testing as well as blood, spu tum and urine cultures and a baseline chest X-ray. We further reviewed patient notes to determine whether a repeat AMT had been completed.

We hypothesised that a combination of clinician education, visual prompts on all medical wards and the addition of a specific delirium screening blood investigation panel on our trust investigation request system would improve our practice.

A total of 96 medical inpatients were audited in January 2018 following these interventions.

Results: We noted improved use of initial AMT (29%–46%), requests of appropriate cultures (71%–79%), performing of baseline chest x-ray (90%–98%) and repeat AMT (8%–14%). Request of routine blood tests remained unchanged (100%). A decline was noted in the testing of serum electrolytes (92%–81%) and specific delirium screen bloods (63%–38%).

Conclusion: Increased use of a structured delirium screening and investigative process, supported by targeted education, improves identification of delirium. This allows early intervention and prevents patient co-morbidity or prolonged inpatient stay.

For further improvement, we would suggest education for other members of our multi-disciplinary team for and for each new cohort of doctors.

Improving Initial Screening, Investigation and Monitoring of Delirium in Medical Inpatients over Age 65

An Analysis of the Provision of Home Care Packages with a Specialist Community and Hospital Based Age Related Care Unit

Niamh Davy, Marie Doyle, Alice O’Donoghue, Maggie Roijer, Barbara Murphy, Marie O’Gorman, Suzanne Roche, Niamh Phelan, Stephanie Ryan, Jacinta Brennan, Mariad O’Shea, Ruda Msambo, Stephen Whelan, Niamh O’Dwyer, Padric McCarthy, Padraig Bambirk, Robbieourke, Wail Balisharabah, Sinead Stoneman, George Pope, Fiona McIvor, John Cooke
University Hospital Waterford, Waterford, Ireland

Background: Our Age Related Care Unit houses a comprehensive patient database of those patients referred to the specialist medicine for the older person service. The aim of this study was to examine the provision of Home Care Packages (HCPs) and how this relates to patient dependency. This analysis cannot be done using conventional HSE KPIs for social care which tend to focus on resource consumption.

Methods: This is a retrospective analysis of all patients’ (1,887) first time visits to our service from July 2017 to April 2018 with emphasis of those in receipt of a HCP.

Results: Friable: Patients with a HCP had a median score of 6 (moderately frail) on the Rockwood Clinical Frailty Scale in contrast to a median score of 4 (vulnerable) in those without a HCP (p < 0.001).

Loneliness: 6.7% of patients (10) with a HCP identified themselves as feeling lonely whereas 4.2% of patients (n = 19) without HCP self-identified as lonely.

Improving Initial Screening, Investigation and Monitoring of Delirium in Medical Inpatients over Age 65

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Assessment tools: Barthel Score was 15 in those with HCP and 20 in those without (p < 0.001). MOCA was 16/30 in those with a HCP and 19/30 in those without (p < 0.001). MMSE were similar in both groups (p = 0.273).

Population characteristics: BMI was 26 kg/m² in those with a HCP and 27 kg/m² in those without. The mean age of those with and without HCP was 82 years old and 78 years old respectively (p = 0.001).

Conclusion: Our data indicate that, in an era of financial constraint, HCPs are being targeted towards those with established frailty. All persons referred required specialist inter-

Dementia friendly hospitals from a universal design approach: research and guidelines to support people with dementia, accompanying persons and visitors

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2Centre for Ageing, Neuroscience and the Humanities, Tallaght Hospital, Dublin, Ireland
3O’Connell Mahon Architects, Dublin, Ireland
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5Centre for Excellence in Universal Design at the National Disability Authority, Dublin, Ireland
6National Dementia Office, Tullamore, Ireland

Background: For many patients, the hospital is challenging due to the busy, unfamiliar, and stressful nature of the environment. For a person with dementia this experience can be exacerbated by cognitive impairment and behavioural or psychological symptoms, and can prove to be a distressing and disorientating place. In this context, research was con-
ducted into how the built environment in acute hospitals could be more supportive for patients with dementia and their families. Considering the diversity of hospitals users, and the heterogeneity of people living with dementia, the research was underpinned by Universal Design to ensure that the resulting guidelines supported the wide spectrum of ages, abilities and disabilities represented in the typical hospital. The paper presents the key research findings and outlines the resulting guidelines.

Methods: The project involved a literature review, stakeholder engagement, international desk-based case studies, and detailed onsite analysis in three hospital settings. Finally, a transdisciplinary steering committee oversaw the project and approved the resulting guidelines.

Results: The research findings were organised into themes and grouped into three areas: underlying issues, design issues across spatial scales; and, barriers and facilitators. These results were used to underpin, structure, and provide content for the new guidelines.

Conclusion: This research confirms the negative impact of the hospital setting on many patients with dementia. It identified the wide variety of needs and preferences within hos-
pitals, while also stressing the important supporting role played by an accompanying per-
son, not only for patients, but also for staff. The research highlighted the need to consider the hospital across the full spatial spectrum, from approaching and entering the carpark, internal circulation, and down to more detailed aspects such as building compo-
nents and technology.

New Proforma for DNAR and treatment escalation plan (TEP) improves quality of documentation in a large teaching hospital

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Background: Where a decision has been made that a person is not for resuscitation in the event of a cardiopulmonary arrest, accurate documentation of the decision and good communication between clinical staff is essential for appropriate patient care. A proforma for documentation of Do Not Attempt Resuscitation (DNAR) decisions and Treatment Escalation Plans (TEP), was previously developed and successfully trialled on a single ward. The aim of this current project was to roll out and audit usage of this proforma hospital-wide in this large teaching hospital.

Methods: A data set against which to audit DNAR documentation was agreed based on the National Consent Policy Part 4. This dataset included clarity of the decision, decision date, reason for not attempting CPR, person documenting and whether a TEP was completed. A baseline chart review of people with a DNAR decision was completed prior to launch of the proforma and again weekly for 4 weeks following introduction of the proforma.

Results: Prior to proforma launch, 47 patients were identified as being NFR on the day of the audit. 82% of charts had clear documentation of DNAR. 57% documented a treat-

investigating the role of age-friendly environments in combating social loneliness among older adults in Ireland: findings from a national survey

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Background: For many patients, the hospital is challenging due to the busy, unfamiliar, and stressful nature of the environment. For a person with dementia this experience can be exacerbated by cognitive impairment and behavioural or psychological symptoms, and can prove to be a distressing and disorientating place. In this context, research was con-
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nents and technology.
Background: Loneliness is now a public health concern in many countries, and this is motivated by growing international evidence showing the link between both chronic and short-term loneliness, and physical and mental health outcomes. Although loneliness is not the preserve of old age, most empirical research and public discourse focus on loneliness at older ages and contemporaneous and life course risk factors. Substantially less attention is afforded to the role of place or local environment. The purpose of this study was to investigate the relationship between the age-friendliness of local environments and self-reported loneliness for a representative sample of community-dwelling adults aged 55+ in Ireland.

Methods: Data was from the Healthy and Positive Ageing Initiative: Age-Friendly Cites and Countries Survey (n = 10,549, 2016). Several age-friendly indicators, as proposed by the World Health Organisation were included in this study: outdoor spaces and buildings; access to social services; social participation; respect and social inclusion; and, transport. Loneliness was measured using the 5-point UCLA Loneliness Scale. Informed by an ecological approach to ageing multilevel negative binomial regression models were used to investigate the association between each age-friendly indicator and social loneliness. Models were adjusted for known demographic, socio-economic, and health correlates of loneliness.

Results: Lower ratings and poorer outcomes for several interrelated age-friendly features of the local environment were significantly associated with higher loneliness scores: difficulty with transport, difficulty accessing social services, barriers to community activities, lower social engagement, and experiences and perceptions of ageing.

Conclusion: This study identified several enabling age-friendly features of local environments that are associated with loneliness in this older population. Results of this study can inform co-ordinated local and national efforts to enhance the age-friendliness of local environments and reduce the risk and experience of social loneliness among the ageing population in Ireland.

PREVALENT AND DISABILITY IN IRELAND NORTH AND SOUTH: PRELIMINARY EVIDENCE FROM TILDA AND NICOLA

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Background: Frailty, a prevalent age-related condition, is a target for disability prevention and intervention in older adults. Previous research indicated higher rates of disability and frailty in Northern Ireland (NI) compared with the Republic (ROI) but may have been vulnerable to data harmonization issues and measurement error. Our objective was to contemporaneously measure the prevalence of frailty and disability using harmonized data from older adults in ROI and NI.

Methods: Secondary analyses were performed on population representative data from adults aged ≥ 55 years from the third wave of The Irish Longitudinal Study on Ageing (TILDA; n = 6,249; 55% female) and the baseline wave of the Northern Ireland Cohort for the Longitudinal Study of Ageing (NICOLA; n = 6,944; 54% female). TILDA and NICOLA data were collected between February 2014/March 2016. A Frailty Index (FI) was constructed from thirty harmonized self-report items (frailty: FI ≥ 0.25). Disability was assessed by endorsing ≥ 1 item from the Instrumental Activities and Activities of Daily Living scales in both cohorts. Prevalence estimates (%; 95% CI) were weighed and compared between regions.

Results: The estimated prevalence of frailty was 1.6-fold higher in NICOLA (31.3%; 36.3–32.4) compared with TILDA (19.6%; 18.5–20.7). The higher prevalence of frailty in NICOLA was characterized by higher levels of physical limitations, multimorbidity and poorer emotional health. In NICOLA, the prevalence of any I/ADL disability was 2.2-fold higher (25.2% versus 11.4%). Disability was strongly associated with frailty and was highly prevalent among the older group than among participants aged ≥ 75 years in both regions.

Conclusion: This study highlights marked differences in the prevalence of frailty and disability among adults ≥ 55 years living in the community in NI and ROI. Our findings are the most definitive to date given the large representative cohorts under study and are in keeping with previous research.

PREVALENT AND DISABILITY IN IRELAND NORTH AND SOUTH: PRELIMINARY EVIDENCE FROM TILDA AND NICOLA

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2NCOIL, Centre for Public Health, Queen’s University, Belfast, United Kingdom

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LIFESTYLE BEHAVIORS EXPLAIN THE ASSOCIATION BETWEEN DIABETES AND DEPRESSION IN OLDER ADULTS


Prevalent and disability rates in Ireland North and South are in keeping with previous research. This study highlights marked differences in the prevalence of frailty and disability in Northern Ireland (NI) compared with the Republic (ROI) but may have been vulnerable to data harmonization issues and measurement error. Our objective was to contemporaneously measure the prevalence of frailty and disability using harmonized data from older adults in ROI and NI. Multilevel negative binomial regression models were used to investigate the association between each age-friendly indicator and social loneliness. Models were adjusted for known demographic, socio-economic and health correlates of loneliness.

Results: Lower ratings and poorer outcomes for several interrelated age-friendly features of the local environment were significantly associated with higher loneliness scores: difficulty with transport, difficulty accessing social services, barriers to community activities, lower social engagement, and experiences and perceptions of ageing.

Conclusion: This study identified several enabling age-friendly features of local environments that are associated with loneliness in this older population. Results of this study can inform coordinated local and national efforts to enhance the age-friendliness of local environments and reduce the risk and experience of social loneliness among the ageing population in Ireland.

PREVALENT AND DISABILITY IN IRELAND NORTH AND SOUTH: PRELIMINARY EVIDENCE FROM TILDA AND NICOLA

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Background: Frailty, a prevalent age-related condition, is a target for disability prevention and intervention in older adults. Previous research indicated higher rates of disability and frailty in Northern Ireland (NI) compared with the Republic (ROI) but may have been vulnerable to data harmonization issues and measurement error. Our objective was to contemporaneously measure the prevalence of frailty and disability using harmonized data from older adults in ROI and NI.

Methods: Secondary analyses were performed on population representative data from adults aged ≥ 55 years from the third wave of The Irish Longitudinal Study on Ageing (TILDA; n = 6,249; 55% female) and the baseline wave of the Northern Ireland Cohort for the Longitudinal Study of Ageing (NICOLA; n = 6,944; 54% female). TILDA and NICOLA data were collected between February 2014/March 2016. A Frailty Index (FI) was constructed from thirty harmonized self-report items (frailty: FI ≥ 0.25). Disability was assessed by endorsing ≥ 1 item from the Instrumental Activities and Activities of Daily Living scales in both cohorts. Prevalence estimates (%; 95% CI) were weighed and compared between regions.

Results: The estimated prevalence of frailty was 1.6-fold higher in NICOLA (31.3%; 36.3–32.4) compared with TILDA (19.6%; 18.5–20.7). The higher prevalence of frailty in NICOLA was characterized by higher levels of physical limitations, multimorbidity and poorer emotional health. In NICOLA, the prevalence of any I/ADL disability was 2.2-fold higher (25.2% versus 11.4%). Disability was strongly associated with frailty and was highly prevalent among the older group than among participants aged ≥ 75 years in both regions.

Conclusion: This study highlights marked differences in the prevalence of frailty and disability among adults ≥ 55 years living in the community in NI and ROI. Our findings are the most definitive to date given the large representative cohorts under study and are in keeping with previous research.

LIFESTYLE BEHAVIORS EXPLAIN THE ASSOCIATION BETWEEN DIABETES AND DEPRESSION IN OLDER ADULTS


Prevalent and disability rates in Ireland North and South are in keeping with previous research. This study highlights marked differences in the prevalence of frailty and disability in Northern Ireland (NI) compared with the Republic (ROI) but may have been vulnerable to data harmonization issues and measurement error. Our objective was to contemporaneously measure the prevalence of frailty and disability using harmonized data from older adults in ROI and NI. Multilevel negative binomial regression models were used to investigate the association between each age-friendly indicator and social loneliness. Models were adjusted for known demographic, socio-economic and health correlates of loneliness.

Results: Lower ratings and poorer outcomes for several interrelated age-friendly features of the local environment were significantly associated with higher loneliness scores: difficulty with transport, difficulty accessing social services, barriers to community activities, lower social engagement, and experiences and perceptions of ageing.

Conclusion: This study identified several enabling age-friendly features of local environments that are associated with loneliness in this older population. Results of this study can inform coordinated local and national efforts to enhance the age-friendliness of local environments and reduce the risk and experience of social loneliness among the ageing population in Ireland.
Conclusion: We observed an association between baseline diabetes and incident MDD over a four-year period; however, this was largely explained by the profile of poor lifestyle behaviors associated with diabetes.

217 HOW ‘OLDER-PERSON-FRIENDLY’ IS OUR GENERAL MEDICAL WARD? A CROSS SECTIONAL STUDY AND PRE-INTERVENTION ANALYSIS

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Background: Care of the acutely ill older patient utilizing Comprehensive Geriatric Assessment (CGA) is advocated by The National Clinical Programme for Older People which also recommends the provision of their care on the Specialist Geriatric Ward (SGW). We present our review of how appropriate a general medical ward is for the care of older adults as part of a pre-intervention analysis.

Methods: A cross sectional study of older admissions on a general medical ward over a 9 day study period was carried out. Demographic details including age, living arrangements and reason for admission were collected. Patients were asked about their experience of the ward and asked to rate out of seven, with higher scores indicating greater satisfaction. A daily 4AT was carried out to assess delirium along with a daily nursing report to assess sleeping habits, new incontinence, falls, delirium, and use of sedation. Noise levels were recorded daily using the ‘Decibel X’ mobile app.

Results: 21 patients were included. Mean age 78.2 years, 57% female. There was a high prevalence of baseline visual impairment (81%) and hearing impairment (33.5%). Mean Charlson Co-morbidity Index score was 5 and 47% had a pre-existing diagnosis of cognitive impairment. Sleep disturbance occurred in 62% of patients, 29% experienced an episode of delirium, 29% experienced new incontinence. Mean satisfaction level score was 6.7. Noise levels were higher on larger wards, 13 bed ward (mean 65.4 dB), 8 bed (mean 64.4 dB), and 4 bed (61.3 dB).

Conclusion: Our data indicates that the ward environment for our older patients is sub-optimal. There was a high rate of delirium, incontinence and sleep disturbance, all associated with a bad prognosis. Previous literature suggests that appropriate ward environments are associated with reduction in such events and improved outcomes for patients. A multimodal intervention is planned on the basis of these data.

218 EFFECT OF B-VITAMIN SUPPLEMENTATION ON COGNITIVE PERFORMANCE AND BRAIN FUNCTION IN THE BRAINHOP TRIAL

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Background: Globally populations are ageing and neuropsychiatric disorders are reported as a leading cause of poor health in older people. Folate and the metabolically related B-vitamins may have roles in delaying cognitive dysfunction in ageing, but the evidence is inconsistent. The aim of this study was to investigate the effect of supplementation with relevant B-vitamins, on cognitive health and brain function in older adults.

Methods: The B-vitamins and Brain Health in Older People (BrainHOP) randomised controlled trial was conducted in adults aged 70 years and older. Participants were randomised to receive a supplement containing folic acid (400 μg), vitamin B12 (3 μg), vitamin B6 (10 μg) and riboflavin (10 μg) or placebo daily. Cognitive function was assessed before and after the 2-year intervention using the Repeatable Battery of the Assessment of Neuropsychological Status and brain function was assessed at the end of intervention using Magnetoencephalography (MEG) in a subset of participants (n = 25).

Results: Of the 328 participants initially recruited, 249 (74%) participants completed the trial. Results showed that B-vitamin intervention had no significant effect on global cognitive function. However, when specific domains within global cognition were examined separately, B-vitamin intervention was found to protect against visuospatial cognitive decline (P = 0.001). Preliminary results from the MEG analysis suggested improved neural functioning as a result of intervention with B-vitamins, as shown by lower power in the Delta [1–4 Hz] (P = 0.021) and Theta [4–8 Hz] (P = 0.011) bands compared to the placebo group, following intervention within the working memory task.

Conclusion: The results suggest that optimising B-vitamin status in older people may be beneficial for brain health and identify the potential use of MEG as a novel technology in nutrition and ageing research.

References:

219 THE IMPLEMENTATION AND OUTCOMES OF A SWALLOW SCREENING PATHWAY FOR STROKE PATIENTS IN THE ACUTE SETTING

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Background: In 2015 the second National Audit of Acute Stroke Services in Hospitals throughout Ireland highlighted a lack of access to formal swallow screening for acute stroke patients citing a 6% screening rate.

Our study measured the outcomes of a swallow screening pathway for stroke on reduction of aspiration pneumonia and average length of stay (LOS) and the safe implementation of the swallow screening pathway.

Methods: The implementation process included an evidence based tool, the Massachusetts General Hospital Swallow Screening Tool (MGH-SST), a training programme for key staff and a formal pathway. An audit measured compliance over a 12 month period. A statistical analysis of the impact and outcomes of swallow screening on length of stay (LOS) and aspiration pneumonia was conducted with 294 patients using data from HIPE, over a 24 month period pre and post swallow screening.

Results: Within the first 12 months of the pathway 50% of all stroke patients received a swallow screen within 4 hours of admission and 50% within 24 hours of admission. There was 100% compliance with (a) the pathway and tool completion, (b) onward referral to SLT for full swallow evaluation and (c) SLT full evaluation within 24 hours of referral receipt for patients who failed the initial swallow screen. There was a statistically significant reduction (p < 0.05) in the average LOS for stroke patients with pneumonia, 50% reduction in rates of aspiration pneumonia post implementation.

Conclusion: The development and implementation of a validated swallow screening tool and pathway for all acute stroke patients significantly improves patient outcomes. There is 100% compliance highlighting that the pathway is robust, safe and effective. Swallow screening reduces rates of aspiration pneumonia, which is a leading cause of morbidity in stroke and reduces length of stay (LOS) in patients with acute stroke.

220 PROFILE OF REFERRALS FOR A FALLS RISK ASSESSMENT CLINIC

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Background: The National Strategy for the Prevention of Falls and Fractures (2008) called for effective, sustainable and equitable fall prevention programmes. In 2015, community-based falls risk assessment clinics (FRAC) were established in Cork to ensure people at risk of falling had access to timely standardised assessment in both community and specialist falls settings. There are practical challenges to implementing such complex interventions thus we examined the adoption and feasibility of this new service.

Methods: Cross-sectional data (November 2015–June 2017) were used to examine initial implementation including the source and volume of referrals, attendance and demographic profile of patients, and referrals for further intervention. Data were obtained from a central administrative database of referrals, assessments and clinic reviews. Data are being collected to examine subsequent use of acute services among those who did and did not attend the initial assessment in primary care.

Results: Overall, 1,237 referrals were received, 32.3% were male and the average age of patients was 89 years (sd = 7.6). 28.9% referrals were triaged to a FRAC clinic (n = 357). The main sources of referrals were Public Health Nurses (42.7%, n = 553), Emergency Departments (15.6%, n = 56), Physiotherapists (14.5%, n = 52) and GPs (12.6%, n = 45). 12.3% of patients did not attend their appointment. Among those who attended, 38.5% had 7+ risk factors identified (n = 100). Most patients required onward referral for intervention (98%, n = 257), 69.1% were referred to their GP (n = 179) and 59.4% were referred for community physiotherapy following assessment (n = 154).

Conclusion: Utilising existing staff to deliver fall prevention programmes in the community is feasible; almost one third of referrals were triaged to fall risk assessment clinics. However, those referred to clinics were older with a substantial risk factor burden requiring further intervention. The results highlight the need for greater intervention capacity to ensure the sustainability and ultimate effectiveness of fall prevention services.

221 READMISSION RATES IN PATIENTS DISCHARGED TO CONVALESCENCE TYPE TRANSITIONAL CARE BEDS AFTER ACUTE HOSPITAL CARE

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Background: Reducing unnecessary readmissions is a marker of good quality care and should be a strategic priority for healthcare institutions. Thirty day readmission rates for patients discharged to post-acute facilities instead of directly home of up to 18% are...
reported. Previous research at our institution identified that overall 30-day medical readmission rates were 6.7%. This study aimed to delineate trends in readmission rates for patients discharged directly to transitional ‘convalescence’ care beds after an acute inpatient stay in a tertiary hospital.

Methods: Readmission rates were reviewed for all patients who received public funding for a post-acute transitional care stay in 2017. We reviewed 36-day and 90-day readmission rates and 30-day readmission rate after discharging from convalescence. Baseline demographics, discharge and readmission rates via specialty and length of stay (LOS) were reviewed. Day cases did not count as readmissions.

Results: In total, 542 patients were discharged to convalescence, median age 79 +/-14 years. Median days in ‘convalescence’ was 14+/−7. The <30-day readmission rate was 14.8% with a 31% <90-day readmission rate. Older patients (>75) spent similar time in convalescence, (p = 0.5) and had similar <30-day (14% vs 14.5%, p = 0.83) and <90 days readmission rates (29% vs 35%, p = 0.16) compared to younger patients. Medical patients had significantly higher 30-day readmission rates compared to surgical patients (18.4% vs 10%, p = 0.02) and nearly double their 90-day readmission rates (30% vs 21%, X2=20, p = 0.001). Medical patients were also more likely to be readmitted over one-year follow-up, (77 vs 99 days, p = 0.045).

Conclusion: We found high readmission rates for patients discharged to ‘convalescence’, irrespective of age, particularly among medical inpatients suggesting that patients must be carefully selected for these beds. Further research is needed to assess if discharge to convalescence-type beds results in adverse healthcare events and ultimately longer LOS.

Incorporating a Pathological Scheme for Diagnosing Alzheimer’s Disease (AD) and Neurodegeneration in a Tertiary Memory Clinic Setting

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Background: The 2018 NIA-AA research framework for the Alzheimer’s disease (AD) continuum in living persons outlined new international diagnostic guidelines whereby consultants are accepted as central to formulating a diagnosis of AD and of general neurodegenerative conditions in the context of the presenting cognitive syndrome be it normal cognition, mild cognitive impairment (MCI) or dementia. The A/T/N scheme incorporates CSF biomarkers into an unbiased descriptive classification scheme for AD and neurodegeneration aiding confidence in describing the presence and severity the pathophysiological AD status of individuals.

Methods: A review of the clinical diagnosis and subsequent CSF biomarker results using A/T/N criteria for 30 patients in a tertiary referral memory service. The selected biomarkers were CSF Amyloid A42 (A), CSF Phosphorylated Tau (T) and neuronal loss quantified by total CSF tau (N), plus radiological investigations. We retrospectively compared the A/T/N to the original clinical description diagnostic descriptor for these patients made prior to the availability of their biomarker results.

Results: 17/30 (56.7%) patients had CSF biomarker profiles consistent with Alzheimer’s Disease (AD) pathophysiology (A+T+/-N+). A further 4/30 (13%) showed high likelihood of AD pathophysiology. Of these 21 patients, CSF biomarkers facilitated a diagnosis of MCI to AD pathophysiology in 10 patients. AD was confirmed in CSF biomarkers of 7 where AD was correctly originally documented in clinic letters. Biomarkers permitted diagnostic certainty of AD pathophysiology in 4 others with initial diagnoses including ecreptaltics and a possible paranoclastic process.

Conclusion: This study demonstrates the incorporation of biomarkers into the routine clinical diagnosis pathway of a tertiary memory referral center and that AD CSF biomarkers are central to clinical diagnosis and facilitating the correct diagnosis.

Improving Care for Patients with Intracerebral Haemorrhage

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Background: Intracerebral haemorrhage (ICH) is associated with a high level of morbidity and mortality although it represents 10-15% of all strokes. Royal College of Physicians (RCP) 2016 stroke guidelines in the management of primary ICH involves immediate blood pressure (BP) management, reversal of anticoagulants, deferring resuscitation status to 24 hours of hospitalisation, and neurological opinion1. In this service development audit, ICH management in a busy University Hospital was tested against the RCP 2016 stroke guidelines.

Methods: Data were collected retrospectively from 14 consecutive patients admitted with primary ICH within a 5 months period.

Results:

- 30% BP on admission and up to 6 hours was not achieved in 64% of the patients.
- 21% and 42% of the patients were taking Direct Oral Anticoagulants and aspirin respectively.

- Patients received proper reversal of antiocoagulants.
- Shortest door to Computed Tomography time was 30mins and the longest was 48-hours.
- 42% had deterioration in Glasgow Coma Scale within 24 hours.
- All the patients were referred to neurological opinion except 2 patients.
- 12 patients were documented for full resuscitation.
- 92% had premedial modified Rankin score (mRS) 0 on admission. 14% of them had mRS score of 0 on discharge.
- The mortality rate was 50%.

Conclusion: This limited small study highlighted the degree of non-compliance with ICH management guidelines despite best international evidence. Implementation of an ICH care bundle has been shown to improve patient outcomes2. Therefore, we have developed and implemented a local ICH care bundle and we plan to re-audit compliance and assess impact on patient outcomes.

References:
General or Memory clinics. Clinical Frailty Scale (CFS) scores were found to be a predictor of the number of attendances (p = 0.004). There was a significant trend seen in increasing CFS score and an increase in patient age (p < 0.001) and decreasing MOCA scores (p = 0.004). Barthel Score (p = 0.001) and Weight (p < 0.001). There was a non-significant trend towards greater PHN and Home Care Package input for patients with greater CFS scores.

Conclusion: The first nine months of activity in our Integrated Care Hub has demonstrated substantial demand for our services. All members of the MDT are involved in direct patient contact. The CFS score is predictive of the frequency of patient attendance and also correlates with a number of dependency variables as described above. We would propose therefore that the CFS be incorporated into the minimum data set for Integrated Care Hubs nationally.

THE IMPACT OF AREA BASED SOCIOECONOMIC DEPRIVATION ON OSTEOPOROSIS

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Background: Osteoporosis poses major health, economic and social consequences which adversely impact on the lives of older people and society. To date, there is a lack of literature examining the relationship between area level socioeconomic deprivation and bone health, and existing evidence has been inconsistent. This aims to investigate the association between area-based socioeconomic deprivation and osteoporosis in older people living across Ireland.

Methods: This was a retrospective observational study in 3,338 participants recruited from Northern Ireland (n = 1,994) and the Republic of Ireland (n = 1,344) to the Trinity, Ulster and Department of Agriculture (TUDA) study. Bone mineral density (BMD) was assessed using dual-energy X-ray absorptiometry (DXA). Using geo-reference addressed based information, participants were mapped and linked to official socioeconomic indicators of deprivation for Northern Ireland and the Republic of Ireland. Each participant was assigned a deprivation score relating to the smallest administrative area in which their lived and scores were categorised into quintiles from least to most deprived.

Results: Some 26% of the total cohort resided within the most deprived areas of Ireland (quintile 5). Compared to other quintiles, these individuals had the greatest incidence of osteoporosis at the hip. Within Northern Ireland, participants living in an area of greatest deprivation (quintile 5) had a two-fold greater risk of osteoporosis (OR 2.17; CI 1.241, 3.799; p = 0.007) after adjustment for relevant covariates. However, no significant association was observed in the Republic of Ireland cohort.

Conclusion: The results of this study show that area-based socioeconomic deprivation is a risk factor for osteoporosis in older adults. These findings warrant further investigation into the contributing factors involved in the development of osteoporosis so that appropriate strategies can be developed to alleviate this risk in individuals living in the areas with the greatest levels of deprivation.

Burdens of metabolic complications of chronic kidney diseases in the Irish health system

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Background: The prevalence of Chronic Kidney Disease (CKD) exceeds 15% in the Irish health system and is associated with adverse clinical outcomes. There is little data on the prevalence of CKD associated metabolic complications which may contribute substantially to poor outcomes. The goal of this study was to describe the burden of common metabolic complications in CKD and assess the impact of deteriorating kidney function.

Methods: Utilising data from the National Kidney Disease Surveillance System, we conducted a cross sectional study of adult patients, age > 18 years, from the Midwest Region in 2014 with data on serum creatinine measurements and metabolic indicators. The following definitions were used: anaemia haemoglobin <13 g/dL & <12 g/dL in men and women; hyperkalaemia K+ > 5.5 mmol/L; hypocalcaemia; serum albumin <35 g/L; metabolic acidosis: bicarbonate <22 mmol/L and hyperphosphatemia: phosphate >1.5 mmol/L. Separate multivariable logistic regression models explored associations of estimated glomerular filtration rate (eGFR) with each metabolic complication expressed as adjusted odds ratio (OR).

Results: There were 133,558 adults with average age 54.3 (±17.7) years and eGFR 87.9 (±21.1) mL/min/1.73 m2. The prevalence of metabolic complications were as follows: metabolic acidosis (28.9%), anaemia (32.6%), hyperkalaemia (13.1%), hypocalcaemia (9.9%), and hyperphosphatemia (2.3%). In multivariate models adjusting for age and sex only, each 5 mL/min/1.73 m2 fall in eGFR was associated with higher odds of anaemia, [OR 1.08 (95% CI; 1.07–1.09)]; hyperkalaemia [OR 1.09 (95% CI; 1.08–1.10)], hyperphosphatemia, [OR 1.02 (1.01–1.03)], metabolic acidosis [OR 1.03 (95% CI; 1.02-1.04)]; and hypocalcaemia [OR 1.23 (95% CI; 1.21–1.26)].

Conclusion: The burden of CKD-related metabolic complications is high within the Irish health care system. Patients with declining eGFR are at increased risk for several serious but treatable metabolic complications. Early identification and treatment of these disorders may lead to improve patient outcomes.

USER-CENTERED DESIGN OF A MINDFULNESS APPLICATION TO SUPPORT OLDER INFORMAL CARERS

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Background: Mindfulness-based interventions (MBIs) have grown in popularity in recent years and have been shown to reduce stress and increase quality of life among older informal carers. A digital application delivering MBIs has been iteratively designed based on user-centered designed principles and aims to support older informal carers to manage stress and we. We describe a qualitative study with older informal carers and the resulting digital application.

Methods: A qualitative study with 20 older adults took place over a 2-year period. Requirements gathering consisted of focus groups, interviews, and usability testing with older adults and informal carers. A high-fidelity mock-up of an application was designed and user-testing sessions held with five participants to gauge usability and effectiveness.

Results: Focus group participants felt stress reduction is a significant issue which affects overall wellbeing, with a consensus that stress can have an adverse effect on sleep. An overarching theme throughout the informal carer interviews was carer burden and the sense of being overwhelmed. The sense of constant worry was a theme that also emerged, which could be addressed by the present moment focus of mindfulness (Helmis & Ward 2015 https://doi.org/10.1098/rstb.2015.01111862, Visser et al. 2015 https://doi.org/10.1007/s12671-014-0311-5). Usability testing sessions revealed previously overlooked user experience and interface issues, including icons and data visualizations. Analyses of these user interactions and qualitative feedback allowed for further iterations in the design cycle, meeting guidelines for best practice in a user-centred design approach.

Conclusion: Insights from the requirements gathering and testing sessions provided an understanding of parameters of health important to older adults, feelings towards self-monitoring, preferences for data visualizations, and attitudes to MBIs. The resulting application has been designed for older informal carers to manage stress through MBIs as well as monitor activity and sleep through tracking, data visualizations and educational advice.

BREAKING NEW GROUND: EARLY RESULTS FROM A NEW ORTHOPAEDIC SERVICE AT A MAJOR TEACHING HOSPITAL

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Background: There is robust evidence that older patients with acute hip fractures benefit from geriatric expertise and integrated orthogeriatric models have become standard for major trauma units. Quality of care provided by these services is still largely measured by the six Blue-Book standards specified in the seminal 2007 document “The Care of Patients with Fragility Fracture”. Their importance is emphasised by the imminent introduction of best-practice tariffs based on adherence to these. In July 2017, a new orthogeriatric service, consisting of a geriatric medicine consultant and geriatric registrar, working closely with a trauma coordinator, began in our major teaching hospital and regional trauma service.

Methods: We decided to study the effect of this new service by assessing the impact on the six Blue-Book standards and length-of-stay (LOS). Data was extracted from the Irish Hip Fracture Database, with the period from July to Dec 2017 compared to the same interval in 2016.

Results: Improvements were seen in four of the six Blue-Book standards. There was an increase from 21.5% to 81.3% in the proportion of patients assessed by a geriatrician during admission. The proportion of patients who received bone health assessment and specialist falls assessment rose from 25.3% to 79.5% and from 17.9% to 63.3% respectively, while the proportion of patients who developed a pressure ulcer fell from 8.2% to 0.6%. However, the proportion who were admitted to an orthopaedic ward within 4
A MIXED METHOD INVESTIGATION OF OLDER PEOPLE’S PERCEPTION OF THEIR NEIGHBOURHOOD, ITS USER-FRIENDLINESS AND ITS ASSOCIATION WITH STRESS AND COGNITION

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Background: Age- and dementia-friendly initiatives have promoted the creation of supportive environments for older people’s physical and mental health. The neighbourhood can play an important role in promoting cognitive health and well-being in ageing: we conducted two studies to explore older people’s perceptions of environmental enablers/senses across different age groups.

Methods: In Study 1, walking interviews and focus groups were conducted with 25 individuals aged 60+ to determine what types of outdoor spaces they prefer to use and the perceived impact on cognitive health.

In Study 2, 162 participants aged 18–80 years old completed a survey investigating associations between neighbourhood characteristics and measures of perception/cognition across different age groups.

Thematic analysis was used for qualitative data, while factor analysis, correlations, and comparisons by age and level of urbanisation of the place of residence were used for the survey.

Results: Heterogeneity in older people’s choice and use of outdoor spaces emerged in Study 1 based on purpose, familiarity and affect. Easy access to both urban and natural spaces was preferred, as it offered an alternation of mental stimulation and relief from stress. Social ties and lifestyle were important mediators. In Study 2, higher rates of environmental stressors were found in urban than natural places, and were linked to more attentional failures.

Conclusion: Our findings suggest that older people choose to use different places based on the need for stimulating environments or relaxation. When the environment is very stressful, an alternation of mental stimulation and relief from stress is important for cognitive health.

HOW AN INTEGRATED CARE PROJECT FOR OLDER PEOPLE REDUCES CRISIS PRESENTATIONS TO THE EMERGENCY DEPARTMENT AND MEDICAL ADMISSION

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Background: As part of the Health Service Executive’s Integrated Care Programme for Older People, our Integrated Care for Older People Project [ICOP] launched in 2017 to integrate specialist geriatric community and hospital services in our area. For patients in crisis there is a rapid access pathway to our ICOP multidisciplinary team.

Methods: We reviewed 351 patient contacts with our ICOP’s clinical nurse specialist between July 2017 and April 2018. We identified 26 individual cases where ICOP’s crisis intervention likely prevented hospitalisation. An expert panel reviewed these cases and individually scored (using a Likert scale) how likely it was that the patient would have been admitted had they presented to the Emergency Department. When the median score on the Likert scale was ≥4 the case was classified as one where hospitalisation would have occurred. To get a representative length of stay, we looked at outcomes for 100 inpatient consultations to the geriatric service between July 2017 and April 2018.

Results: According to the criteria described, the outcome from expert panel was that hospitalisation would have occurred for all 26 patients had they presented to the Emergency Department. None of the 26 patients were admitted to hospital on the day of contact with ICOP but were admitted to hospital within 30 days. The median length of stay for the 26 patients aged ≥65 requiring long-term care or rehabilitation assessment was 41 days (interquartile range 27 – 63.5 days).

Conclusion: We estimate the crisis clinic run through our ICOP prevented 26 medical admissions with a total of 1082 bed days based on median length of stay from a similar cohort of complex patients. These frail patients were not exposed to the hazards of hospitalisation unnecessarily. We are exploring what cost savings there were to our hospital resulting from this pathway.

ARE POST STROKE/TRANSIENT ISCHAEMIC ATTACK CAROTID INVESTIGATION BEST PRACTICE GUIDELINES BEING FOLLOWED IN MAYO UNIVERSITY HOSPITAL?

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Background: Following onset of cerebral ischaemia (Stroke/TIA) extracranial imaging is recommended to assess for presence of stenosis of the carotid arteries. Interaction between future cerebral ischaemia caused by carotid stenosis and treatment with carotid endarterectomy was investigated in the European Carotid Surgery Trial and North American Symptomatic Carotid Endarterectomy Trial. This study aims to determine best practice guidelines of the Royal College of Physicians - UK were followed in Mayo University Hospital regarding investigation of Carotid Stenosis following Cerebral Ischaemia.

Methods: Consecutive cases identified as having had a carotid doppler were selected between January - June 2017. Following obtaining ethical approval, patient imaging and symptomology from imaging and computerised discharge systems were queried. 82 patients met inclusion criteria with data collected and follow up determined from patient charts. Data was compared to a previous audit in 2007/2008 involving 103 patients.

Results: Of 82 patients (39 male, 43 female) presenting with Stroke/TIA symptoms or imaging confirming cerebral ischaemia, 38 (46.3%) had carotid investigation within the recommended guideline timeframe (1 day) with the average time between presentation and investigation being 5.15 days (range 0 – 77 days). Of the 10 patients (12.1%) found to have haemodynamically significant stenosis on carotid imaging, 6 patients (7%) went on to have dual modality carotid imaging as per guidelines. 57 patients (69.3%) were managed by a stroke physician while an inpatient. Compared to previous audit results 34% had carotid dopplers within 2 weeks of presentation.

Conclusion: Compared to previous audit results improvement has been made in presentation to carotid imaging time with 90% of imaging reported as normal within a system with no dedicated fast track service. A small number received dual imaging in accordance with guidelines showing evidence that a more streamlined stroke service could reduce strain on hospital resources.

GERIATRIC EMERGENCY SERVICES (GEMS): AN ACUTE FLOOR FRATILITY SERVICE MODEL

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Background: The National Clinical Programme for Older People (NCP) recommends early identification of frailty and early Comprehensive Geriatric Assessment (CGA).

Our aim is to improve the care, outcomes and patient experience of older people with frailty attending our hospital.

Methods: A database was prospectively compiled on all patients over 75 with frailty. At triage, the Vascular Indicative of Placement tool (VIP) was used to screen for frailty. This electronic screening is mandatory. Early CGA was performed by the interdisciplinary GEMS team.

We collected data on case mix, process and outcomes. Using the National Quality Assurance and Improvement System (NQAIS), we compared data from pre- and post-GEMS.

Results: 4,854 patients were triaged, 2,886 (43%) were screened as frail. 1,352 (65%) had a CGA. Mean time from arrival to VIP was 34 minutes and from VIP to CGA was 2.46 hours.

Mean and median age was 85, 86% came from home, 19% from long term care (LTC), 4% from other care facilities. 82% were admitted into hospital. ALOS for GEMS was 9.57 days (Median = 6).

On CGA, 11.6% were identified at risk of delirium (using the 4AT score). 9% were at risk of cognitive impairment (4AT), 78% were at risk of polypharmacy (>5 medications). 28% were at risk of malnutrition.

57% were discharged home, 7% were newly discharged to LTC. In-hospital mortality was 6%, 30-day re-admission rate was 15%.

From NQAIS, ALOS was 6.9 days and 30-day re-admission rate was 16.5% pre-GEMS. Post-GEMS, ALOS was 6.7 days and re-admission rate was 15.6%. This is a reduction in ALOS by 0.2 days (p = 0.0002) and a reduction in 30-day re-admission rate by 0.9%.

Conclusion: The implementation of GEMS has facilitated better identification and management of Geriatric Giants, with associated reductions in length of stay and re-admissions.

We recommend the GEMS Model for all acute hospital floors.
OUTCOMES OF OLDER SURGICAL PATIENTS WITH FRAILTY AFTER GERIATRIC EMERGENCY SERVICE (GEMS) ACUTE FLOOR INTERVENTION

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Background: In 2016, patients aged ≥75 accounted for 18.5% of admissions and 43.5% of bed days used.

This and the age demographic compelled the need for a Specialist Geriatric Service on the acute floor to improve the care, outcomes and patient experience for older people with frailty.

The GEMS team was formed in 2017.

Methods: All surgical emergency attendances from 21st February to 31st December 2017 aged ≥75 years were screened on triage using the VIP (Variable Indicative of Placement) tool. Screening is done electronically and is mandatory.

At-risk patients (VIP > 1) had an early Comprehensive Geriatric Assessment (CGA).

Problem list, plan and Rockwood Clinical Frailty Score (CFS) were generated. Data on casenotes, process and outcomes were collected prospectively.

Results: 516 patients were identified as risk. 18% (n = 93) were discharged home. 10 patients were newly discharged to NH. 11 (6%) died.

Conclusion: Early routine screening of older patients for frailty and early intervention with CGA to identify and reduce the risk of adverse outcomes.

Exploring Personhood in Formal Care Provision in Ireland: Perspectives from Family Carers of People with Dementia

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Background: Personhood in dementia is about treating people with dementia with dignity and respect and in a manner that supports their sense of self. It is a key element of person-centred care and a guiding principle in dementia care policy in Ireland. However, there is uncertainty around the concept of personhood and in particular how it is operationalised within formal care provision. This research examines the experiences and perceptions of family carers of people with dementia in relation to personhood and formal care provision.

Methods: The research is theoretically based on personhood as a relational concept. Using semi-structured interviews, family carers are asked about their perceptions of personhood in dementia within the context of formal care provision, supports and services. The interview questions centre on important elements of personhood such as communication, flexibility, choice, respect, dignity and self-identity. Thematic analysis is used to examine the participants’ views.

A total of 15 interviews were conducted with family carers, which included spouses, children and siblings of people with dementia living both in the community and in long-term care.

Results: Preliminary results indicate that family carers and people with dementia had little to no choice in the services and supports provided to them. They were accepting of the services they received but identified elements of services which were not supporting of personhood. Some family carers were disappointed by the limited to no support offered to them.

Conclusion: These findings are very relevant to dementia care in Ireland, both to the design of the system as a whole and also to the provision of care at an individual level. The results are significant for policy makers seeking to ensure that personhood is central in the implementation of current dementia policy and in the regulation of future formal care provision for people with dementia in Ireland.

FRAILTY AT POPULATION LEVEL IN EUROPE: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Frailty is common among community-dwelling older adults and it is expected to increase. Although multiple studies are published presenting prevalence data, the overall rate in European countries and how this varies by frailty measurement approach and between different countries is unclear. This systematic review conducted as part of the EU-funded Joint Action (JA) on Frailty Prevention (ADVANCED) examined the current data from population-based studies.

Methods: We searched the literature on frailty prevalence from 2002–2017 using PubMed, Embase, CINAHL, OpenGrey and the Cochrane Library. Studies were included if they referred to the prevalence of frailty in adults (aged ≥75) in any settings in one of 22 JA countries. The review followed the PRISMA reporting guidelines and was registered on Prospero (183186).

Results: In total, 62 papers (68 unique data sets) were available. Data were predominately from community-based observational, cross-sectional or cohort studies (n = 53). The most commonly reported frailty classification approach was the Fried Frailty Phenotype used in 39 studies (57%). Several included more than one measure, highlighting different prevalence rates according to the classification method. Most community-based samples (91%) reported prevalence rates of ≤50%, though these ranged from 2–60%. Overall, the median prevalence was 10.8%, interspersing range from 7.2–16.5%. The prevalence of frailty was higher in certain settings: >50% in hospital-based studies (n = 2) and >70% in nursing homes (n = 3). Only five studies reported the prevalence of frailty in primary care, which also varied by design and sampling.

Conclusion: This systematic review and meta-analysis found multiple papers reporting the prevalence of frailty in European JA countries. However, there was considerable heterogeneity between studies in design, sample and setting. Highest prevalence rates were found in acute hospitals and nursing units, lowest rates in primary care. Given the ageing of society, common methodological approaches are now needed to measure population-level prevalence data to better plan healthcare delivery.

Age and Ageing

THE ASSOCIATION OF DIABETES AND CEREBRAL BLOOD FLOW IN COMMUNITY DWELLING OLDER ADULTS

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Background: Diabetes is a significant risk factor for both depression and dementia in later life. The aim of this study was to assess whether diabetes is associated with lower cerebral perfusion, specifically frontal lobe perfusion, which has been implicated in late life depression and vascular dementia among a large cohort of community dwelling older people.

Methods: This study was embedded within TILDA (The Irish Longitudinal Study on Ageing). Over 2,500 participants aged ≥50 years were included and underwent underarm measurement of blood pressure (BP) by sphygmomanometry and frontal lobe perfusion by near-infrared spectroscopy (NIRS) both at baseline and during orthostasis. Real-time frontal lobe cerebral oxygenation was measured by the PortaLite System, detecting changes in frontal lobe perfusion and reporting % Tissue Saturation Index (TSI). Diagnosis of diabetes was based on self-report or Haemoglobin A1c levels consistent with a diagnosis of diabetes.

Results: Over 6% (169/2,626) of the study sample had diabetes. Mean TSI was significantly lower in those with diabetes at both baseline (70.0 ± /− 4.8%) vs. 71.0 ± /− 4.7%, p = 0.014; t = 2.45) and 30 seconds after standing (69.4 ± /− 4.8% vs. 70.6 ± /− 4.8%, p = 0.0018; t = 3.12). Linear regression models demonstrated that diabetes was strongly associated with lower TSI at baseline (beta-coefficient = −2.42; 95% CI: −3.58−0.07) and at 30 seconds post standing (beta-coefficient = −1.12; 95% CI: −1.88−0.36) after controlling for covariates such as systolic blood pressure, orthostatic hypotension, stroke and cognitive impairment.

Conclusion: Diabetes is associated with lower frontal lobe cerebral perfusion in a large cohort of community-dwelling older people, independent of cardiac and haemodynamic risk factors. This association may explain the significant link between diabetes and poor brain health outcomes in later life.

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**CHANGING THE LANDSCAPE OF HIP FRACTURE CARE - THE IRISH HIP FRACTURE DATABASE (IHFD)**

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**Background:** Hip fractures are the leading cause of surgery in hospitalised older adults and cause high levels of disability and mortality. The IHFD collects data in all trauma units in Ireland. Evidence shows that the combination of care standards (Blue Book Standards, BCA & BCG, 2007), clinical audit and feedback can significantly improve the outcomes of hip fracture patients.

**Methods:** Four national reports have been published by the IHFD including data on a total of 10,735 hip fracture patients. In 2016 the IHFD captured clinical audit data for 86% (3,159) of all hip fracture cases nationally. With an ageing population the IHFD is the catalyst towards addressing what is a significantly growing healthcare and societal challenge. Using this data at a local level each hospital can improve the quality of care they deliver by improving the integration between multiple specialties.

**Results:** The 2016 IHFD Report showed that 69% of hip fracture patients are female and average age is 80 years, 8% are admitted from home and 48% had high functional mobility pre-fracture, 60% have significant co-morbidities. 14% of patients are being admitted to a specialist orthopaedic ward within 4 hours and 6% of patients went directly from the ED to theatre, 79% patients are receiving surgery within 48 hours, 56% patients were to be a geriatrician, 77% being mobilised the day of or after surgery, 5% developed a pressure ulcer, and over half of patients are receiving secondary prevention for osteoporosis (57%) and falls (54%).

**Conclusion:** In 2016 national bypass for hip fractures was introduced and in 2018 a best practice tariff for hip fractures will commence.

**Recommendations:** All trauma services should provide an orthogeriatric service and seven day a week access to theatre, rehabilitation and medical support and have a local hip fracture committee.

**LOW LEVEL FALLS LEAD TO HIGH INCIDENCE OF MAJOR TRAUMA. DATA FROM THE MAJOR TRAUMA AUDIT (MTA) IN IRELAND**

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**Background:** Major trauma (MT) care is complex and challenging. The care of MT patients requires a multi-disciplinary, coordinated and integrated system of trauma care. The MTA provides high-quality data to facilitate local, regional and national quality improvement initiatives.

**Methods:** MTA collects data from all 26 trauma receiving hospitals in Ireland, including pre-hospital records, hospital clinical records, radiology, surgical operation reports, hospital administration information systems and the Hospital-In-Patient-Enquiry (HIPPE) information system and is entered onto the secure TARN portal for injury coding and analysis.

**Results:** MTA National Report 2016 showed that 47% of patients sustained their injuries in their own homes with the most common mechanism of injury being recorded as a fall (64%). Of those injured, 54% were aged less than two metres (51%). 40% of MT patients are from the older population (>65 years).

**Conclusion:** MT patients have high comorbidity and require a multidisciplinary approach. Older age bands and multiple regression were carried out to identify variables associated with weight change over the first 12 months following admission in the overweight/obese sub-cohort.

**Results:** 38% and 24% of residents screened were overweight and obese, respectively. Among the overweight/obese residents, BMI increased from admission to 24 months (p < 0.05). At 12 months after admission 77.7% of currently overweight/obese residents had experienced weight gain. Medical conditions, dietary intake in the first year and use of medication associated with weight gain did not correlate with weight change between admission and 12 months (p > 0.05).

**Conclusion:** Overweight and obesity are prevalent conditions in HSE RCS in CHO 8 (Midlands Area). The most significant weight increase in overweight/obese residents occurs in the first 12 months after admission. There is an urgent need to investigate if similar weight gain trends are present in other RCS locations in Ireland. This will have important implications for nutrition and hydration policies in this area.

**GAIT AND COGNITION IN THE CLINIC – A PILOT STUDY OF PATIENTS WITH TYPE 2 DIABETES MELLITUS**

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**Background:** The presence of vascular risk factors in mid-life is of increasing importance in the prevention of dementia. Diabetes (T2DM) is considered a modifiable risk factor, with potential for interventions in early to late mid-life. The contribution of T2DM to risk of Alzheimer’s disease has been estimated at levels similar to that of one APOE alleles genotype in an ageing cohort (Gottsmann et al., 2017). Slow gait speed has previously been identified as a predictor of both cognitive decline and dementia (Dominy et al., 2016). This relationship has been suggested as one with shared neural substrates. Examination of gait and cognition in T2DM has not been extensively detailed to date.

**Methods:** A pilot study was undertaken to demonstrate utility in exploring differences in gait and cognition between middle aged patients with T2DM without peripheral neuropathy and healthy controls. Patients were recruited from T2DM endocrinology clinics. Gait was examined under single-task and dual-task conditions. Cognition was assessed using a computerised programme (CogState) and interpreted as population standardised scores. Welch’s t-test was used to facilitate unevenly sized group comparisons (p < 0.05).

**Results:** 15 patients with T2DM were recruited and compared with 6 age-matched controls (age range: 50–70 years, female: 50%). Single-task gait speed differed between the groups (p = 2.236, p = 0.038). Dual-task speed did not differ significantly between groups however was reduced in patients with T2DM. T2DM patients demonstrated reduced psychomotor function (t = −1.969, p = 0.033) and working memory (t = −2.253, p = 0.020) compared to healthy controls.

**Conclusions:** Preliminary findings demonstrate decreased performance in gait performance and cognitive function in middle-aged patients with T2DM. The protocol employed in this study was well tolerated and feasible to implement in a clinical setting. Further studies should perform instrumented analysis of gait performance in this cohort, to identify potential differences in more subtle markers of gait performance linked to cognition.
pain assessment and management are important in preventing such outcomes. We conducted an audit in a University Teaching Hospital to examine our interdisciplinary pain assessment practices.

We examined 1) the documentation of pain assessment by medical staff, nursing staff and physiotherapists 2) the current medications prescribed for patient pain 3) whether a pain management plan had been documented by the pharmacists.

**Methods:** The population sampled were post-operative patients with hip fractures, over 65 years old and currently on an orthopaedic ward (n = 30). The tool used to interrogate our objectives was modified from the ‘Pain Audit Tools’ from City of Hope and Pain Palliative Resource Centre. The tool was first piloted outside of the orthopaedic wards and re-modified.

**Results:** One day post operatively: Medical Staff documented a pain assessment in 77% of cases with 28% of these using an objective rating. Nursing staff documented a pain assessment in 97% of cases with 82% of these using an objective rating. Physiotherapists documented a pain assessment in 35% of their first appointments with patients. 40% of these used objective ratings. Pain assessments decreased as patient’s length of stay increased. Medications Prescribed (n = 30): 83% paracetamol, 70% OxyNorm PRN; 36% OxyContin: 56% additional pain medication. 70% of patients had evidence of a pain management plan charted in their pharmaceutical notes.

**Conclusion:** Medical staff’s documentation of pain assessments decreases as length of stay increases. Nurses are the most likely to document a pain assessment. Physiotherapy are the least likely to document a pain assessment. Our recommendations 1) Pain Assessment should be documented more frequently. 2) Objective Ratings should be documented more frequently 3) Pain management plans should be documented as close to 100% as possible.

**DO AGE, GENDER AND STAGE OF DEMENTIA MATTER IN THE INTERVENTION STUDY OF COMMUNICATIVE ROBOTS? AN ASSESSMENT OF THEIR IMPACT**

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**Background:** The effectiveness of using socially assistive technologies such as communicative robots in care settings has not been sufficiently assessed, despite much discussion on the inevitability of their use. The purpose of this paper is to examine how age, gender and stage of dementia can affect the effectiveness of using communicative robots in nursing facilities for older people.

**Methods:** The participants were 51 older people cared for in three nursing homes (43 females and 8 males; aged 86.6+/−9.0 yrs). The control group consisted of 14 females (aged 86.5+/−6.3 yrs). Three types of communicative care robots (Paro, Cota and Sora) were assigned to the participants for eight successive weeks. The five most important goals for nursing care were selected for each participant from 155 items identified by the WHO’s International Classification of Function, Disability and Health (ICF) list prior to the allocation of a robot, and the changes were evaluated every day. We examined whether there are any correlations between age, gender and stage of dementia, and the degree of improvements. Statistical data were analysed using software package R and compared among the groups using Fisher’s exact test.

**Results:** Overall, the intervention group showed a greater improvement in its assigned goals than the control group (p < 0.001). There was no difference between the genders in goals of improvements. Statistical data were analysed using software package R and compared among the groups using Fisher’s exact test.

**Conclusion:** Medical staff’s documentation of pain assessments decreases as length of stay increases. Nurses are the most likely to document a pain assessment. Physiotherapists are the least likely to document a pain assessment. Our recommendations 1) Pain Assessment should be documented more frequently. 2) Objective Ratings should be documented more frequently 3) Pain management plans should be documented as close to 100% as possible.

**CRANIAL IRRADIATION LINKED TO CEREBRAL AMYLOID ANGIOPATHY**

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**Background:** Cranial radiation can cause endothelial damage, which can lead to subsequent disruption of the blood-brain barrier and other late vascular effects, such as telangiectasia, microvascular dilatation, and thickening and hyalization of the vessel wall. This results in ischaemic stroke or brain haemorrhage including microbleeds and these effects may occur months to years after brain radiation(1).

**Methods:** 67 year old male presented to GP in 2003 with tiredness, headache and persistent coldness in both arms and feet. CT brain showed numerous hypodense foci in both cerebral and cerebellar hemispheres. Subsequent PET CT did not show any primary neoplastic lesion. Neurosurgical team felt that biopsy could not be possible. He was treated empirically as metastatic disease with unknown primary. Palliative radiotherapy was given to the patient.

He was admitted to our hospital in May 2017 with worsening memory loss and unsteadiness of gait. Physical examination was normal apart from unsteady gait. Blood tests were normal and CT brain appearances in keeping with haemorrhagic metastasis or amyloid angiopathy. MRI confirmed the diagnosis of Cerebral Amyloid Angiopathy.

Patient continued to deteriorate in the ward with intermittent drowsiness and subsequent CT showed new haemorrhagic lesions. He was treated palliatively and died peacefully in the ward.

**Results:** Previous studies shown relationship between radiotherapy and development of micro bleeds(2). Study showed micro bleeds developing after few years of radiotherapy to treat CNS tumours(2).

In our case we felt that cranial radiation has worsened the patient’s pre-existing amyloid bleeds.

**Conclusion:** Brain radiation is a risk factor for worsening of amyloid angiopathy. Patients should be counselled for possibility of bleeding risk in future when offering cranial radiation.

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**WHAT ARE THE KEY CRITERIA FOR DECISION-MAKING CONCERNING THE USE OF HOME-CARE ROBOTS? FINDINGS FROM A QUESTIONNAIRE STUDY IN JAPAN**

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**Background:** Face with rapid population ageing, many stakeholders in Japan have stepped up their efforts to develop and test assistive technologies such as robots to support care for older people. Robotics-related tools have and will be added to the list of reimbursable items under the Long-Term Care Insurance scheme. However, it remains unclear how people make decisions when considering the use of innovative technologies such as home-care robots. This study aimed to explore and understand the criteria for such decisions, and sex if there are differences amongst older people, family caregivers and care professionals.

**Methods:** As the first step, a questionnaire method was adopted to understand perceptions of three types of participants (older people in receipt of home-care, family caregivers and home-care professionals). The self-administered questionnaire contained questions such as how a home-care robot is perceived, its usefulness, and the participants’ willingness to engage in research to develop such robots. It was sent to 4,445 people in one populous prefecture with both urban and rural characteristics in Japan. Factor analysis was conducted on 29 items.

**Results:** 777 respondents consisted of home-care professionals (n = 444, 76.5%), older people (n = 79, 13.7%) and family caregivers (n = 54, 9.8%). Four factors were extracted from the factor analysis. These are: (i) utility, (ii) trust and privacy protection, (iii) respect for one’s will and safety, and (iv) alleviation of loneliness.

**Conclusion:** To keep up with the fast speed at which assistive technologies for social care have been developed, more research is required to understand users’ perspectives including ethical aspects. The four factors we identified in this study would be the key information in order to provide decision-making assistance for not only older people themselves, but also family caregivers and practitioners.

**Note:** This work was supported by JSPS KAKENHI Grant Numbers: 25293460, 16K2236. (293 words/300)

**IMPLEMENTING GUIDANCE FOR PALLIATIVE CARE IN DEMENTIA USING CONSOLIDATED FRAMEWORK FOR IMPLEMENTATION RESEARCH (CIFR): RESULTS OF A MULTISITE SITUATIONAL ANALYSIS**

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**Background:** In Ireland persons with dementia are often cared for in Long Term Care (LTC) settings. Palliative care from diagnosis to end of life has been acknowledged as being very complex for people with dementia and there have been calls from health care staff for guidance in this area. As part of the Irish Hospice Foundation Changing Minds: Promoting Excellence in End-of-life Care for People with Dementia initiative, the authors partnered with the Irish Hospice Foundation to develop three evidence based guidance documents specifically related to pain, hydration and nutrition and medication management for persons with dementia.
Age and Ageing

This paper presents work from a follow on project funded by a Health Research Board applied partnership award and supported by the Irish Hospice Foundation and Health Service Executive, which is aimed at implementing the guidance into practice in three long term care facilities.

Methods: Underpinned by a hybrid framework based on the CFIR (Consolidated Framework for Implementation Research) and iPath (Promoting Action on Research Implementation), this is a multisite participatory action research project within the Long Term Care (LTC) facilities with one evidence based guidance area implemented per site.

Work Based Learning Groups (WBLG) are established at each site, with local champions, and research leads to facilitate implementation.

Pre intervention baseline situational (institutional and stakeholder) data were collected using staff surveys, interviews with all stakeholders and a site profile. This situational analysis was conducted to establish influencing factors on implementation.

Results: This paper provides results of the pre implementation situational analysis at each site. Staff demographic data, site profile results, individual staff readiness for change, Vocaicalr questionnaire (Laker, 2014), results from the ORCA (Organisational Readiness for Change Assessment) survey (Helfrich, 2009) and qualitative interviews with stakeholders at each site.

Conclusion: These results will be compared with staff uptake and change in clinical practice post implementation.

21 AN AUDIT OF CURRENT CLINICAL PRACTICE IN A LEVEL TWO HOSPITAL REGARDING DIAGNOSIS OF VERTEBRAL FRACTURES

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Background: We audited against ‘The Clinical Guidance for the Effective Identification of Vertebral Fractures’ as outlined by The National Osteoporosis Society as a standard. The purpose of this audit is to devise a systematic approach to the identification, workup and treatment of vertebral fractures.

Methods: We performed a retrospective study of 47 patients admitted to St. Columcille’s between 09/2015 and 07/2017 with a diagnosis of vertebral fractures using the hospital’s HIPE database.

Results: The median age of patients presenting with vertebral fractures was 82 (range 58–98), 38 females (81%) and 9 males (19%). The average length of stay was 38.2 days (range 2–240). 12/47 patients had abnormal calcium levels (P < 0.0001 95% CI 2.16 to 2.33, 17/23 patients had high PTH levels (P < 0.0001 CI 17.57 to 35.84). 10/34 patients had low vit D levels (P < 0.0001 CI 95% 54.89 to 77.74). 5/46 patients had abnormal P04 levels (P < 0.0001 CI 1.042 to 1.16). 14/47 patients had high ALP (P < 0.0001 95% CI 93.45 to 128.02). 40/41 patients had abnormal TSH levels (P < 0.0001 and 95% CI 1.54 to 3.74). 2/26 patients had high T4 levels (P < 0.0001 95% CI 15.21 to 17.84). 23 patients (10.5%) had positive monoclonal gammapathy. 36/47 patients had plain radiographs and 29/47 had CT imaging. DXA scanning was carried out on 22/47 with 1/22 being normal. 7/27 having osteoporosis and 18/27 having osteoporosis. 33/47 patients had been prescribed calcium and vitamin D supplements, 7/47 had vitamin D supplements, 2/47 had oral bisphosphonates 1/47 had IV Zoledronate, 12/47 had denosumab.

Conclusion: Abnormal lab parameters were observed in this patient cohort which are all known contributing factors to bone fragility. Treatment for secondary prevention is relatively poor. The audit recommends that there should be a proper diagnosis and management of vertebral fractures pathway.

 Implementation of Lean Management Principles in a University Hospital in Ireland

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Background: Ischaemic stroke results in approximately 2 million norons lost for each minute left untreated. LEAN manufacturing principles, originally pioneered by Toyota Production Systems, aim to eliminate inefficiencies within automohie production. In 2011, the concept of LEAN management was first applied to stroke medicine. We adapted this concept to improve stroke care in our hospital with the overall aim to increase the number of patients eligible to receive thrombolysis within the recommended Door-To-Needle (DTN) of <60 minutes.

Methods: We identified key areas of inefficiency in acute stroke care in our hospital. Over a 6-month period we implemented several “LEAN” principles including construction of a new integrated stroke care pathway, education sessions for registrars and nursing staff, mandatory NHISS certification, enhanced pre-arrival notification by ambulance, increasing awareness of in-hospital stroke and improved access to CT. Protocol changes were implemented from July 2017. Data collection 6-months post LEAN implementation was analysed and compared to the National Stroke Register Annual Report 2016

Results: During LEAN implementation, 8 strokes were thrombolysed with a mean DTN of 75 minutes versus 112 minutes in the pre-LEAN group. Sub-group analysis of in-hours versus out-of-hours DTN times revealed significant differences; In-hours average DTN of 64 minutes versus out-of-hours average DTN 87 minutes. We compared our data to the National Stroke Register Annual Report (2016): median DTN of 303 cases nationally of 71 mins. Additionally, in the pre-LEAN group the mean time of arrival to performance of CT was 79 minutes. Post-LEAN implementation Door-CT time was reduced to an average of 53 minutes.

Conclusion: LEAN management principles were successfully applied to stroke care in our hospital. More work is needed to improve out-of-hours stroke management. Improving access to rapid neuroimaging and efficiency of out-of-hours service will be part of an ongoing quality improvement initiative.

22 THE IMPACT OF ACUTE SPECIALISED GERIATRIC CARE IN A LARGE TEACHING HOSPITAL OVER THREE YEARS

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Background: Frail older patients are more likely to be alive and in their own home up to a year after an emergency hospital admission if they receive coordinated specialist services. This study aimed to evaluate the impact of a geriatric service on frail older patients post-acute hospitalisation.

Methods: The impact of the Moor Moore et al (2013) public health evaluation approach. The design involved a combination of data collection methods, incorporating descriptive questionnaires with qualitative investigation of stakeholder experiences of the CDHC pilot programme. A third aspect of the study design was an economic review of the CDHC, conducted by a health economist.

Results: Findings demonstrated the need for additional clarity in understandings of the CDHC. Care recipients and caregivers did report satisfaction with care, however, it was the accessibility of care rather than quality of care that was considered important. There were also issues related to capacity to manage the CDHC as well as capacity to give a choice of providers, particularly in rural areas. Although, broadly cost-neutral, processes and structures also require additional alignment to enhance both effectiveness and efficiency.

Conclusion: Empowering care recipients and enabling greater choice, flexibility and autonomy in care organisation and delivery was a central focus of the CDHC. However, additional consumer awareness and programme enhancement is needed to fully realise the potential of the CDHC. Study recommendations focus on areas of increased clarity about the CDHC, implementation enhancement, complementarity and incorporation of CDHC with existing home support service provision arrangements.

23 IN-HOSPITAL ADVERSE DRUG REACTIONS IN HOSPITALISED OLDER ADULTS - A SYSTEMATIC REVIEW

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Background: In an ageing society with a policy focus on community (Oireachtas 2017), providing choice and self-determination in home care provision for older people is fundamental. Consumer directed care has increased in popularity in many countries (Low, Yap & Broady, 2011). This prioritises dovelling decisions to care recipients and their families about the way home care is organised and provided, introducing personalisation to the way in which care is commissioned. In 2016, planning began in Community Healthcare Organisation 3 to pilot a CDHC pilot for community based older people. This study presents the findings from an evaluation of this pilot project.

Methods: The study used the Moore et al (2013) public health evaluation approach. The design involved a combination of data collection methods, incorporating descriptive questionnaires with qualitative investigation of stakeholder experiences of the CDHC pilot programme. A third aspect of the study design was an economic review of the CDHC, conducted by a health economist.

Results: Findings demonstrated the need for additional clarity in understandings of the CDHC. Care recipients and caregivers did report satisfaction with care, however, it was the accessibility of care rather than quality of care that was considered important. There were also issues related to capacity to manage the CDHC as well as capacity to give a choice of providers, particularly in rural areas. Although, broadly cost-neutral, processes and structures also require additional alignment to enhance both effectiveness and efficiency.

Conclusion: Empowering care recipients and enabling greater choice, flexibility and autonomy in care organisation and delivery was a central focus of the CDHC. However, additional consumer awareness and programme enhancement is needed to fully realise the potential of the CDHC. Study recommendations focus on areas of increased clarity about the CDHC, implementation enhancement, complementarity and incorporation of CDHC with existing home support service provision arrangements.

24 EVALUATING A CONSUMER DIRECTED HEALTH CARE (CDHC) PILOT FOR OLDER PEOPLE IN THE COMMUNITY

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Background: In an ageing society with a policy focus on community (Oireachtas 2017), providing choice and self-determination in home care provision for older people is fundamental. Consumer directed care has increased in popularity in many countries (Low, Yap & Broady, 2011). This prioritises dovelling decisions to care recipients and their families about the way home care is organised and provided, introducing personalisation to the way in which care is commissioned. In 2016, planning began in Community Healthcare Organisation 3 to pilot a CDHC pilot for community based older people. This study presents the findings from an evaluation of this pilot project.

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Conclusion: Empowering care recipients and enabling greater choice, flexibility and autonomy in care organisation and delivery was a central focus of the CDHC. However, additional consumer awareness and programme enhancement is needed to fully realise the potential of the CDHC. Study recommendations focus on areas of increased clarity about the CDHC, implementation enhancement, complementarity and incorporation of CDHC with existing home support service provision arrangements.
Background: Recent studies indicate that 1 in 4 older people experience an ADR in hospital. This systematic review (SR) aims to evaluate in-hospital ADRs in hospitalised older adults in terms of incidence and prevalence, most commonly involved drug classes, severity, and consequences.

Methods: Using PRISMA methodology [PROSPERO registration CRD42018079095], we systematically searched PubMed, Embase and Ebsco-CINAHL, Cochrane Library and trial registers for randomized controls and observational studies. Two researchers screened all papers for inclusion, risk of bias and data extraction. A hand search of bibliography lists from relevant editorials and systematic reviews was conducted. We included studies of all ages and all data types up to and including the date of the final search [15/01/2019]. We included all studies that reported ADRs either as a primary or secondary outcome in patients aged ≥ 65 years who were hospitalised at time of ADR occurrence. Two researchers screened all papers for inclusion, risk of bias and data extraction.

Results: Initial search yielded 1721 abstracts, 200 underwent full text screening. 60 papers were potentially suitable for inclusion; 48 papers contained pooled all-ages data, 12 papers reported directly on ADRs in our age cohort [2 papers reported the same data]. 11 studies were analysed, involving 4424 patients; 24% [1064] had experienced ADRs. 7 studies reported severity. 31% [220] of ADRs were described as severe. 5 papers reported on post-ADR outcomes i.e. hospital length of stay [LOS, n = 3], death [n = 1] and functional decline [n = 1]. Frequency of culprit drug-groups by system were described in 6 papers [672 ADRs]; 43% [291] cardiovascular system, 17% [114] central nervous system, 16% [112] clotting pathways, 13% [90] anti-microbials. Associated with ADRs are generally poorly described in the literature.

Results: Twenty men and 30 women with mean (sd) age 83.4 (7.0) year and median EMS 17.20. The mean (sd) WS in men and women was 44 (30) cm/s and 46 (23) cm/s respectively. Fifteen (75%) men and 15 (50%) women scored < P10 for GS and 19 (95%) men and all women < P10 for WS. Fifteen (80%) men and 15 women scored < P10 in both GS and WS. There was no difference in EMS (p = 0.30) and WS (p = 0.73) between men and women.

Conclusion: Our study showed that the majority of patients attending physiotherapy for mobility impairment had low WS and poor GS compared with population norm. With the addition of low physical activity, nearly two-thirds of men and half of the women would fail the frail criteria. These standardised objective measurements can be collected in community physiotherapy settings to trigger comprehensive frailty assessment which includes assessing cognition, continence and nutritional status.

A HOSPITAL WIDE POINT PREVALENCE OF ADULT URINARY INCONTINENCE AND AUDIT OF CONTINENCE CARE

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Background: Urinary incontinence is defined by the International Continence Society as “any involuntary leakage of urine”. It is under reported by patients, and its significant associations with loss of dignity, depression, disability and decreased quality of life often not prioritized by clinicians.

Despite being treatable, the hospital approach to incontinence is often one of containment rather than investigation and active management. There is scope for significant health gain through implementation of dedicated care pathways and making continence assessment a KPI of care.

Methods: A hospital wide audit was conducted in a single 24 hour period using a proforma on all patients over 16 years on medical and surgical wards throughout the hospital - with the exclusion of ICU.

Type of urinary incontinence and documentation of continence care plans was assessed from medical and nursing notes.

Results: 358 patients’ notes were reviewed; 112 had clinical evidence of urinary incontinence giving a point prevalence of 31% with equal numbers of males and females (n = 56 each)

Only 6 patients (1.6%) had a continence care plan in place.

Only 40% of those with urinary incontinence had a diagnostic type of incontinence in the medical notes, with evidence of relevant investigations being performed.

30 (26.7%) were on medication used to treat urinary incontinence and a further 86 (77%) were on medications that could exacerbate urinary incontinence.

Conclusion: This audit demonstrates a high point prevalence of urinary incontinence and scope for improvement in continence assessment and management in an Irish teaching hospital population.

Clinical nurse specialists in continence should be mandatory in all hospitals to coordinate education and ensure that care pathways to identify, investigate and manage incontinence are emphasised as a core KPI in all hospital patient assessments.

GRIP STRENGTH AND WALKING SPEED IN OLDER ADULTS ATTENDING DAILY HOSPITAL WITH MOBILITY IMPAIRMENT

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Background: Frail older adults have higher risk of falls, worsening mobility, functional impairment, hospitalisation and death. Grip strength (GS) and walking speed (WS) are two measures of frailty phenotype. Patients undergoing rehabilitation for mobility impairment are often frail. Our aim was to compare the GS and WS of these patients who attend the daily hospital physiotherapy department against the age-adjusted norms of the Irish Population.

Methods: Convenience samples of 30 patients with mobility impairment were assessed with Elderly Mobility Scale (EMS), GS (Jamar hand-held dynamometer) and WS (10-m walk). All men were assumed to be ≥173 cm and women ≥160 cm. Their GS and WS was compared with the population norm in TILDA. GS and WS less than 10th percentile of age-adjusted norm (<P10) were categorised as frail. Basic demographics were also recorded. Statistical tests included t-tests and significance was set p < 0.05.

Results: Twenty men and 30 women with mean (sd) age 83.4 (7.0) year and median EMS 17.20. The mean (sd) WS in men and women was 44 (30) cm/s and 46 (23) cm/s respectively. Fifteen (75%) men and 15 (50%) women scored < P10 for GS and 19 (95%) men and all women < P10 for WS. Fifteen (80%) men and 15 women scored < P10 in both GS and WS. There was no difference in EMS (p = 0.30) and WS (p = 0.73) between men and women.

Conclusion: Our study showed that the majority of patients attending physiotherapy for mobility impairment had low WS and poor GS compared with population norm. With the addition of low physical activity, nearly two-thirds of men and half of the women would fail the frail criteria. These standardised objective measurements can be collected in community physiotherapy settings to trigger comprehensive frailty assessment which includes assessing cognition, continence and nutritional status.

What Matters to You? Setting the Compass of Care in the Right Direction for Older People in Ireland

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Background: On admission and throughout the acute hospital stay, the main focus of the healthcare professional is the medical model of care, which revolves around the physical status of the patient. The emphasis appears to centre on “What’s the matter with you?”. While a focus on rapid treatment, high turnover and shorter lengths of hospital stay is not wrong, problems arise when these goals are prioritised at the expense of values such as compassion. When values are regarded as an optional extra, the primacy of care is lost. The system must find a way to allow both paradigms of care to flourish and co-exist.

Methods: WMTY is an initiative that supports person-centred care in hospital. It is a simple approach to capturing issues that are important to the individual in the hospital and when known by staff can improve patient experiences. The National Clinical Programme for Older People (NCPOP), in collaboration with the Quality Improvement Division (QID) and the Irish Hospice Foundation (IHF), partnered with two acute hospitals in Ireland, as part of a wider project to inform the national rollout of WMTY.

Results: Results of the pilot programme suggest it is an initiative that enhances both patient care and staff experience.

- Counter-balance the sense of invisibility felt by older people admitted to hospital
- Positively influence the experience of patients as they express the issues that are important to them.
- Enhance the potential to deliver compassionate care, which, in turn, enhances positive outcomes for patients.

Conclusion: The role of caring conversations is repeated throughout the literature, which suggests that to understand a human being one needs to understand his or her story and this requires a willingness to develop relationships, through engagement in real dialogue, based on honesty and courage. WMTY is an approach that supports caring conversations and compassionate relational care.

DEVELOPING A QUESTIONNAIRE ON USER NEEDS AND DECISION-MAKING REGARDING HOME-CARE ROBOTS FOR OLDER PEOPLE IN JAPAN, IRELAND AND FINLAND

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Background: In the time of global ageing, home-care robots for older persons have been developed and pros and cons of their use have been debated in many countries. The ethical considerations are an important aspect of research, policy and utilisation, particularly for those with a decreased mental capacity to make decisions due to dementia. The primary aim of the paper is to describe and report the process of developing a questionnaire designed to explore perceptions of potential users (older people, family caregivers, and care professionals) towards the use of home-care robots in Japan, Ireland, and Finland.

Methods: Taking into consideration current policies and supports for home care, we have used an iterative process of creating a questionnaire in four languages (i.e. Japanese, English, Finnish and Swedish). The questions are concerned with people’s attitudes...
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towards home-care robust, willingness to participate in research into such robust, and perceptions of privacy protection.

Results: All three countries have a national strategy for supporting those with dementia. However, policy contexts differ across the three countries. The ratios of people aged 65 years old and over are 27%, 14% and 21% in Japan, Ireland and Finland, respectively. As part of this national dementia strategy in Japan, the development of home-care robust is highlighted as a way of supporting caregivers for people with dementia. In Ireland, while community organisations play a large role, e-health is still at its infancy. As one of the highest ratios of single-person households among advanced economies, there has been a strong policy drive for ICT solutions for home care in Finland.

Conclusion: There are commonalities and differences (e.g. language, national policy and institutional context) amongst the three countries, and the questionnaire has to be developed reflecting both elements. Close coordination and teamwork across all three country teams are essential.

51 “ACOPIA” AND “INABILITY TO COPE”: AGEIST, UNHELPFUL AND PEJORATIVE LABELS FOR COMPLEXITY IN OLDER ADULTS PRESENTING TO THE ACUTE HOSPITAL

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Background: Unfortunately, ageist and pejorative terms such as “acoipa” and “inability to cope” are frequently used to describe older patients who are either experiencing functional difficulties, appear to have no acute medical issue or are considered “inappropriate admissions”. Such patients may present with complex (and multiple) geriatric syndromes and comorbid medical illnesses.

Methods: We manually screened routinely completed discharge summaries over a 2-year period of patients coded as having “other issues related to life management difficulty” (ICD-Z73.38) for those labelled with “acoipa” or “inability to cope”. Routine data was obtained from patient records and multidisciplinary team notes. Following presentation of results as part of intern (NCHD) teaching and hospital grand rounds, a re-audit using the same case-finding strategy was completed over a 4-month period.

Results: Of 97 patients (57% female) labelled with “acoipa” (n = 40) or “inability to cope” (n = 57) in “their reason for admission”, the vast-majority (87%) were aged > 65 years (mean = 76.8 ± 12.2). Nearly all (91%) had another primary medical diagnosis under their reason for admission. Three-quarter (74%) had documented dementia/cognitive impairment and one-third (34%) had another psychiatric diagnosis. Median score on Rockwood’s Clinical Frailty Scale was 6 (Range: 2–9). Median Charlston Comorbidity Index was 8 (Range: 2–14) and mean number of medications was 10.2 (SD = 5.2). The majority (86%) received social work input during their stay. On re-audit following local dissemination of results, no patient was labelled with “acoipa” and a single patient with “inability to cope”.

Conclusion: Nearly all older adults labelled with “acoipa” or “inability to cope” have a primary medical diagnosis on presentation to the acute hospital in addition to high levels of dementia/cognitive impairment, frailty and polypharmacy. Awareness of the pejorative and ageist nature of such terms can reduce their use in the acute hospital setting.

32 DIET AND EXERCISE BASED INTERVENTIONS FOR COGNITION IN TYPE II DIABETES: A SYSTEMATIC REVIEW

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Background: People with type II Diabetes Mellitus (T2DM) have a threefold increased risk of developing dementia. Evidence suggests certain lifestyle based interventions may reduce one’s risk for developing dementia. We conducted a systematic review to assess the efficacy of interventions consisting of diet or exercise based components (or both) for T2DM on cognition.

Methods: A search strategy was constructed and applied to four databases: EMBASE, Medline, CINAHL and Web of Science. Peer reviewed journal articles in English were considered which contained interventions consisting of exercise or diet-based components (or both) in patients with diagnosed T2DM and effects of these on cognition (either dementia diagnosis or score on validated cognitive test). Results were dual-screened, extracted by two independent reviewers and reported in line with PRISMA guidelines.

Results: Of 4818 results, 3782 remained after de-duplication. Forty full texts were screened and 4 citations referring to 2 studies were included. The first (Look-AHEAD Study) was a well-known, large randomised controlled trial assessing the impact of a 10-year Intensive Lifestyle Intervention (ILI) on T2DM related complications. The second (LIFE Study) was a post-hoc analysis of patients with T2DM from a trial of a 2-year physical activity intervention in older (non-demented) adults with functional limitations. Whilst the Look-AHEAD study found no impact on diagnosis of Mild Cognitive Impairment (MCI) or dementia, the LIFE study demonstrated beneficial effects on global cognitive function (p < 0.002) and delayed memory (p = 0.005) in older adults with T2DM (but not without T2DM). Hence, both, cognition was a secondary outcome and the MCI diagnosis a primary outcome.

Conclusion: There is insufficient evidence to fully assess the effect of diet/exercise-based interventions on cognition in T2DM. Well-constructed trials must be designed to specifically assess lifestyle based interventions for cognition in T2DM. In the future, all trials examining any intervention in diabetes should consider cognition as at least a secondary outcome.

33 ASSESSING COMPLEXITY IN INTERVENTIONS TO IMPROVE APPROPRIATE POLYPHARMACY IN OLDER PEOPLE USING THE INTERVENTION COMPLEXITY ASSESSMENT TOOL FOR SYSTEMATIC REVIEWS

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Background: A key challenge in prescribing for older multimorbid populations is ensuring appropriate polypharmacy. Most previously evaluated interventions targeting appropriate polypharmacy have involved multiple components and been described as complex interventions. The intervention Complexity Assessment Tool for Systematic Reviews (iCAT_SR) has been developed to facilitate detailed assessments of intervention complexity in systematic reviews. This study aimed to assess, using the iCAT_SR, the complexity of interventions aimed at improving appropriate polypharmacy in older people, as reported in studies (n = 20) included in the update of a Cochrane review.

Methods: Interventions were assessed independently by two authors using the six core iCAT_SR domains: (1) ‘Active intervention components’; (2) ‘Target behaviour/actions’; (3) ‘Target organisational levels/categories’; (4) ‘Degree of tailoring’; (5) ‘Level of skill required by intervention deliverers’; (6) ‘Level of skill required by intervention recipients’. All three are needed to determine if application of the iCAT_SR can help to determine whether varying levels of complexity impact on the effectiveness of interventions aimed at improving appropriate polypharmacy in older people.

Results: The findings demonstrate that interventions in this area often comprise multiple components and target behaviours. Intermediate to high level skills were typically required by those delivering and receiving the interventions. A lack of detailed reporting in study reports precluded consistent application of the iCAT_SR’s optional domains.

Conclusion: This study provides the first detailed assessment of intervention complexity for interventions aimed at improving appropriate polypharmacy in older people. Further work is needed to determine if application of the iCAT_SR can help to determine whether varying levels of complexity impact on the effectiveness of interventions aimed at improving appropriate polypharmacy in older people.

References

34 WHAT WORKS IN IMPLEMENTING A FRAIL OLDER PERSON’S PATHWAY? A RAPID REALIST REVIEW OF THE LITERATURE

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Background: Attention has been focused on prioritising the best pathways for treating frail older adults. The research points to the importance of dedicated staffing, ongoing data collection, clinical champions and organisation support. Very little evidence is available on implementing these strategies within the Irish context. We aimed to respond to this by undertaking a rapid realist review (RRR) of the literature.

Methods: A RRR is focused on iteratively building on the empirical and theoretical literature by accommodating and summarising a diversity of evidence types. Key to its success is the active engagement of an expert panel who are tasking with ensuring the review reflects current thinking. Our expert panel consisted of seven members who agreed the RRR question: “what factors enable the successful development and implementation of a frail older person’s pathway within the acute setting?” Two members of the team undertook a search of the literature using Cochrane, PubMed and CINAHL databases. This search was supplemented with key articles and other documents relevant from the grey literature.

Results: Our review consisted of 18 documents. The expert panel validated and prioritised the conceptual model. We identified five contexts, five mechanisms, nine linked resources and three outcomes that enable successful implementation. These included the need to identify frailty at the front door. However, there is a lack of evidence to guide the care of frail older people attending the ED. The review found that all staff need to be educated on frailty. Clinicians and their teams can act as key enablers to support inter-professional collaboration. A significant challenge related to organisational boundaries. There is a need to recognise that older people are experts by their experiences and they must be consulted.

Conclusion: RRRs produce accounts of what works based on a wide range of sources and enable innovative engagement with content specific experts.
A REVIEW OF OUT-OF-HOURS ACCESS TO CT-Brain/CT-Angiogram in "FAST" POSITIVE PATIENTS PRESENTING TO EMERGENCY DEPARTMENTS IN IRELAND

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Background: ASA guidelines recommend neuroimaging be performed within 20-minutes of arrival to the emergency department for FAST-positive patients eligible for alteplase +/- thrombectomy.

Methods: Over two consecutive days we contacted the Medical Registrar On Call (MROC) in Model 1 (n = 8), model-3 (n = 15) and model-2 (n = 9) hospitals out of-hours and administered an anonymous standardised questionnaire regarding arranging rapid diagnostics for “FAST” positive patients.

Results: In model-4 hospitals, 12.5% and 75% have 24/7 access to a stroke registrar and stroke consultant, respectively. 75% of hospitals receive pre-arrival ambulance notification. 87.5% have a “code stroke”/”stroke phone”. In 87.5% of Model-4 hospitals the MROC can contact Radiology Registrar (onsite) directly. 12.5% hospitals remains consultant-consultant only. Regarding CT-angiograms, 37.5% occur simultaneously. 62.5% require case-by-case consultant discussion. 75% described door-CT times for in-hours and out-of-hours stroke as similar. In model-3 hospitals (n = 15), 20% have 24/7 access to a stroke/specialist consultant. In 1 hospital the Emergency-Department manages thrombolyse acute strokes. 26% model-3 hospitals, the MROC contacts the radiologist directly while 73% require consultant-consultant discussion. In 20%, CT-angiograms are performed simultaneously. 53% deemed it “extremely difficult” to obtain CT-angiograms. In 93% of Model-3 sites, CT-radiographer is off-site with Door-to-CT ranging from 15 minutes–2 hours. Additionally, 66% must wait for radiologist to contact medical consultant with report. Model-2 hospitals have very restricted access to neuro-imaging and many centers re-direct FAST-positive patients.

Conclusion: Access to CT out-of-hours is variable. Off-site radiographers presents a barrier to timely imaging. Enhanced pre-arrival notification may allow for earlier contact with radiology. Prompt performance and interpretation of CT-brain/CT-angiogram for acute ischaemic stroke patients is a key aspect of the National Stroke Programme (NSP). More work is required nationally to achieve these standards of care. A repeat survey at a later date is mandatory to review consistency of results.

KNOWLEDGE OF ACUTE STROKE GUIDELINES AMONGST EMERGENCY AND GENERAL PHYSICIANS AND NURSING STAFF IN A UNIVERSITY HOSPITAL

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Background: Early detection and rapid management of acute stroke is key. Knowledge of acute stroke guidelines is necessary for all doctors/nurses involved in acute ischaemic stroke with the aim of highlighting areas that required further education.

Methods: An anonymous, standardised, multiple-choice questionnaire assessing knowledge of American Stroke Association/American Heart Association guidelines was distributed to all general medical doctors, emergency department (ED) physicians and nurses involved in acute stroke detection and management.

Results: 58 completed questionnaires were returned. General knowledge of guidelines for acute ischaemic stroke was poor. Both physician and patient education is needed in order to improve risk profile and long-term outcomes.

SOUTHERN TRUST OLDER PERSONS ASSESSMENT UNIT

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Background: The population is ageing and more people over the age of 65 are attending Emergency Departments. The Older Persons Assessment unit is adjacent to the Emergency Department and aims to identify frail, ageing people at the front door, removing them from the Emergency Department and providing a Comprehensive Geriatric Assessment. These people can then be referred to various pathways to avoid hospital admission.

Methods: Quantitative, a retrospective analysis of the outcomes of patients admitted to the unit over a 4 month period.

Results: 220 people have been referred, 84% were accepted. 30% were discharged back to the GP, 27% were referred to Acute Care at Home, 20% required admission to an acute ward - compared to 50% of over 65’s who attended ED during the same period getting admitted to an acute bed – 13% were admitted to a rehabilitation bed and 10% were enrolled in a rehabilitation at home service.

Conclusion: This unit not only relieves pressure on the Emergency Department and Acute Services but it provides a place where frail people can receive prompt Comprehensive Geriatric Assessment and treatment, often preventing hospital admission and improving outcomes for the patient.

TO SLEEP PERCHANCE TO DREAM: A NURSE-LED QUALITY IMPROVEMENT PROJECT TO PROMOTE NON PHARMACOLOGICAL MANAGEMENT OF OLDER PERSON INSOMNIA

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Background: In the residential care setting, nurses are the foremost of resident care and are thus essential to effective assessment and management of insomnia and avoidance of potentially inappropriate prescribing of Hypnotic Medication (HM). Many residential care facilities do not have a resident Medical Officer, which presents a challenge to ensuring consistency of practice.

Impaired sleep quality can result in harmful effects on mental and physical well-being. Insomnia (difficulty with initiating or maintaining sleep) is a highly prevalent condition: research varies for the older person but averages between 39 – 49%. However clinically significant insomnia occurs in just about 10% of the population. While there may be beneficial effects in the short term, the evidence shows that HM has adverse effects, particularly in the older person as it exacerbates Dementia-related symptoms and Frailty.

In our organisation 36.4% (45) of the residents were prescribed Hypnotic Medication (September 2016): There was no evidence of a formal diagnosis or treatment plan in relation to insomnia for these residents either on admission or when HM was first prescribed.

Methods: To give the nurses the skills required, an education programme was delivered by the (Nurse) Quality and Patient Safety Manager and Chief Pharmacist. Subject matter was recognition of insomnia, management of insomnia through Sleep Hygiene techniques, effects and side effects of HM, including implications of long-term use. The onus on the N.urse to use evidence based practice and ethical issues in relation to informed consent in relation to Dementia were highlighted.

Results: Residents Prescribed HM October 2016 43% = 36.4% October 2017 18% = 16.6% April 2017 11% = 10%
EXPERIENCES OF DIRECT ORAL ANTICOAGULANTS [DOAC] PRESCRIBING ON AN ACUTE GERIATRIC SERVICE AND REHABILITATION WARD

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Background: Direct oral anticoagulants [DOACs] prescriptions are frequently present in hospitalised older-adults for stroke prevention for non-valvular atrial fibrillation. Appropriate prescribing and dose adjustment ensures safe and effective practice. This study aims to determine DOAC prescribing practices in in-patient and rehabilitation setting.

Methods: We conducted a point of time prevalence study on two separate days, two weeks apart, in two sites [inpatients and rehabilitation unit] as part of a departmental audit cycle, using the HSE “Tips for prescribing NOACs” guideline. Each in-patient’s Kardex was reviewed for presence or absence of DOAC-prescription and subsequently reviewed for appropriateness. All ages, and indications for DOAC-prescription were included. When present on both review dates only day 1 [D1] was included, except where DOAC-prescription was changed, thus D1 and day 2 [D2] were included.

Results: n = 195; 46% acute in-patients, 54% in the rehabilitation unit, 52% female, 48% male. 27% [52] present D1 and D2. Mean age 81 years. 26% [50] had DOAC-prescriptions reviewed for appropriateness. In all cases the prescription had originated pre-admission. In all cases, the inappropriate prescriptions had originated pre-admission.

Conclusion: 1 in 4 of our population were prescribed a DOAC. Of these 1 in 3 had potentially inappropriate prescribing. In all cases the prescription had originated pre-admission, thus highlighting the need for vigilant prescription review and DOAC review.

GETTING THE RIGHT FLOW: QUALITY IMPROVEMENT PROJECT OF CAROTID DOPPLER ULTRASOUND SERVICE IN ACUTE STROKE PATIENTS AT UNIVERSITY HOSPITAL LIMERICK

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Background: Carotid artery disease accounts for 10–20% stroke. Latest guidelines recommend a new target of carotid artery surgery is one week from stroke symptoms in operable patients with > 50% stenosis. This quality improvement project aimed to identify potential delays in carotid endarterectomy in acute stroke patients in UHL.

Methods: 100 consecutive patients admitted to UHL with acute ischaemic stroke over 5 months were studied. Patient details and clinical indications were recorded. The following were measured: time from admission to CDUS referral, time from referral to CDUS, time to carotid revascularisation surgery.

Results: 80% patients had CDUS. Mean age 74 years. 91% referral included stroke in clinical indication. Mean time to CT brain was 8.5 hours from presentation. Mean time for inpatient referral was 2.1 days (range 0–8), 71% performed within 3 days.

Mean time to scan was 4.6 days (range 1–15), 45% performed within 3 days. 7% were outpatient investigations, with mean time of 74 days.

6% had a carotid endarterectomy for symptomatic carotid stenosis. All required further imaging. Mean time from CDUS to surgery was 10.6days (range 6–18). Mean time from symptoms to surgery was 13.7 (range 10–26).

Conclusion: There are a number of areas for improvement in the carotid doppler ultrasound service in patients with acute ischaemic stroke to reduce the time to initial imaging and time to intervention. Further research to refer, dedicated slots for stroke patients to be prioritised by the primary care nurse specialist with a target of 24 hours if medically stable, timely dedicated CTA/ MRA carotid imaging for operative candidates to confirm a high grade stenosis.

TRANSITION TO CARE AND NURSING HOMES FOR PEOPLE 1 WITH DEMENTIA: EXPLODING RATES AND ASSOCIATED FACTORS

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Background: Family care in the early stages of dementia has been shown to decrease the mortality rates of people with dementia (PwD; Aneshensel, Pearlin, & Schulz, 2000). The cognitive and behavioural problems present in PwD in the later stages of dementia, however, lead family caregivers to transition the care receiver to residential settings, including nursing and care homes (Banerjee et al., 2003; Verbeek et al., 2015). The mortality rates of PwD in residential settings are currently high (60%; Alzheimer’s Society & Marie Curie, 2015) compared to other countries (19%; Callahan et al., 2012).

Methods: This study explores whether the transition of PwD in such settings in Northern Ireland is related to the perceived social support and family caregiving for PwD the years since diagnosis, their medical treatment and hospitalisation rates.

Results: This is a retrospective analysis of data from national databases to show the most common causes of death and associated factors in PwD in care homes. Data from the Homestalker Service from approximately 13,000 PwD in NI will be analysed.

Conclusion: These results have the potential to improve services and practices in Northern Ireland and to increase awareness of social and health care professionals about the needs of PwD.
Methods: The participatory action design employed in this study was guided by principles of authentic collaboration with older people and representatives of frail older people. Ten participants were recruited from the membership of community-based patient and public advocacy organisations. Eight healthcare practitioners were involved on a rotating basis along with three academic researchers from UCD. Six co-design workshops were held over a two-year period running parallel to the implementation and evaluation of a frailty pathway within the study site.

Results: Participants identified patient-centred care outcomes including: access to hydration; clear communication of holistic care plans which include social and activity prescription; daily written plans; separate space for frail older people; accessibility and signage modifications. The group also identified the need for ongoing public education on frailty to be prioritised.

Conclusion: This co-design process is informing the continuing development and implementation of a care pathway in the acute hospital via iterative cycles of Plan-Do-Study-Act. The PDSA cycles are targeting improvement in these patient-centred outcomes. The benefits of this collaborative participatory approach is knowledge translation between those charged with delivering care and potential end-users.

Reference:

FALLS-ASSOCIATED EMERGENCY DEPARTMENT ATTENDANCE FROM NURSING HOME RESIDENTS FROM ONE CATCHMENT
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Background: Nursing Home (NH) residents are at high risk of falls (1.5 falls per bed per year – Rubenstein 1994) and it is the second most common reason for Emergency Department (ED) attendance (Fan, 2016). Only half of these attendances require admission. Our aim was to describe falls-associated ED attendances from NHs of one catchment over 12 months.

Methods: NH residents attending a large urban teaching hospital were identified through the electronic patient record. Basic characteristics and time of triage were recorded. An audit then was conducted of residents from one nursing home on Triage complaints, whether fall was witnessed or un-witnessed, injuries sustained, investigations performed and whether the resident had dementia diagnosed.

Results: There were 138 falls-associated ED attendances and 130 residents (83 women, 47 men), of which 58 (42%) required admission over 12 months. The majority of them attended once (n = 124, 90%), 5 residents twice and one resident attended 4 times. There were higher attendances in summer months; half of the residents came over 7 hours (11:00 to 18:00). An audit of one NH of 7 men and 17 women, mean age 83 years found that two-thirds of attendances classified as falls; the rest had limb problems or head injuries. Eighteen (79%) of the falls were un-witnessed. Twenty-two (92%) required imaging, all sustained injuries (14 soft tissue, 9 fractures, 5 head). Majority (23) had dementia.

Conclusion: Falls-associated ED attendances by NH residents showed seasonal variation and half of the attendances were during working hours. The majority of falls occurred un-witnessed and those who attended ED had injuries falls and required imaging. Dementia was prevalent amongst those who fell. Falls prevention programmes in NH will require comprehensive evaluation of intrinsic risk factors and environmental design to reduce un-witnessed falls.

STAFF MEMBERS’ PERCEPTIONS OF THE “END PJ PARALYSIS” INITIATIVE
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Background: Reduced physical activity is one causative factor in hospital-related deconditioning and functional decline(1,2). The “End PJ Paralysis” initiative is built on the premise of promoting functional independence and early mobility during a patient’s admission. Embedding this type of initiative in the acute setting can be challenging and requires support from frontline staff whose perceptions and attitudes are crucial when implementing a change in practice in their daily work. The aim of this research was to assess staff perceptions towards the “End PJ Paralysis” initiative both pre- and post-implementation using baseline results to inform a targeted peri-implementation education initiative.

Methods: A mixed methods study design was utilised using pre-/post-implementation surveys measuring staff members’ perceptions of the relevance of the initiative, their role in implementation and potential benefits or barriers to implementation. Research was conducted on a single general medicine ward in a large teaching hospital. 38 pre-implementation surveys were administered to permanent nursing staff, healthcare assistants, doctors and social care professionals. 36 post-implementation surveys were administered and key ward staff participated in post-implementation focus groups.

Results: Results indicate staff perceived time and resources as main barriers to effective implementation with provision of day clothes also highlighted. The perception of falls and medical issues as barriers reduced. Post-implementation positives included better patient motivation, mood and engagement with earlier discharge planning highlighted by doctors as a positive outcome.

Conclusion: While several challenges to implementation were noted, overall staff perceived the initiative positively. These results may facilitate staff engagement and implementation of the End PJ paralysis initiative in other units.

References:

AN INVESTIGATION INTO FRAILTY DETECTION IN THE COMMUNITY
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Background: Current guidance indicates that the core principle in frailty detection is to distinguish and detect the population who have frailty, from the fit and well population. A comprehensive assessment and provision of appropriate support systems in the home environment should then be implemented. However, research highlights a deficiency in the community-based response to frailty, which needs to be proactive, integrative and person-centred.

Methods: A review of primary care domiciliary referrals from January to June 2017 was undertaken. A total of 76 referrals were screened by the Senior Physiotherapist at Newtownmountkennedy Primary Care Centre for the presence of frailty syndrome(s). The PRISMA 7 Questionnaire was used to assess for frailty. An audit tool was designed, completed and results analysed.

Results: Frailty syndrome(s) were detected in 52 (68%) clients. There was no indication of screening for frailty in this group prior to the referral stage. The PRISMA 7 Questionnaire was used to screen for presence of frailty in 19 (25%) clients, of which 17 presented with frailty and 2 as pre-frail.

Conclusion: A high detection rate of frailty syndrome was identified from this community physiotherapy led audit. Concerning, no indication of screening for the presence of frailty existed at the original referral source.

The process for the identification of frailty in the community is poorly understood. Governance, structure and support in the community setting is needed to implement best practice guidelines to the population living with frailty.

An evaluation study of the practice culture to identify constraints to the delivery of person-centred management of frailty in the community is required.

References:

TYPE D PERSONALITY AND CARDIOVASCULAR REACTIVITY TO STRESSORS
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Background: Research has shown that individuals with Type D personality are more likely to exhibit abnormal cardiovascular reactivity to stressors when compared to other personality types. This may be through mechanisms of increased or blunted heart rate or blood pressure. The present study investigated individuals with Type D personality and their cardiovascular reactivity to stressors.

Methods: The sample consisted of 97 participants, aged between 18 and 55. Type D personality was assessed using the DS14. A moderate level of stress was induced using the stress task which included a maths and a speech component. Cardiovascular reactivity was measured using a Finapres Finometer Pro.

Results: Although no significant effect on cardiovascular reactivity was found between Type D and non-Type D personality, when split by gender it was found that Type D males showed a significantly reduced heart rate (HR) when exposed to the stressor, whereas Type D females showed a significantly increased HR when exposed to the same stressor. This effect was stronger in males.

Conclusion: It would appear that the specific cardiovascular mechanisms through which Type D and non-Type D individuals are affected, differ by gender. This highlights the significance of taking a person-centred approach when working with patients as a ‘one size fits all’ model does not account for differences in personality types and gender for example. This research highlights the different mechanisms through which stress can affect the body and the differing confounding components through which a stressor can be magnified or reduced. Further research with a larger sample size would be required to improve generalisability.

A REVIEW OF OUTDOOR MOBILITY IN A GERIATRIC REHABILITATION UNIT
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Background: Older adults are expected to spend more time in institutions due to increasing healthcare needs. This study aimed to review the mobility in a specific geriatric rehabilitation unit.

Methods: The study was a retrospective review of records of patients who were discharged from the geriatric rehabilitation unit between March 1st 2016 and February 28th 2017. Information was collected on patient characteristics, admission and discharge status, date of admission, length of stay and date of discharge. The data was entered into Microsoft Excel and descriptive statistics were calculated.

Results: A total of 144 patients were discharged from the geriatric rehabilitation unit during the study period. The average length of stay was 38.5 days. The majority of patients were discharged home (77.1%), followed by discharge to a care home (18.1%). The median age of the patients was 84 years old (IQR 74–91). The most common diagnosis was hip fracture (31.1%). The average score on the Fried’s frailty index was 2 (SD 2.20). The majority of patients (79.6%) were discharged alive.

Conclusion: This study highlights the importance of mobility and rehabilitation in geriatric rehabilitation units. The findings suggest that a comprehensive approach to mobility and rehabilitation is necessary to improve patient outcomes and reduce hospital stay. Further research is needed to determine the effectiveness of interventions targeting mobility and rehabilitation in geriatric rehabilitation units.
DETERMINANTS IN OLDER ADULTS WHO FREQUENTLY ATTEND THE EMERGENCY DEPARTMENT

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Background: Patients who repeatedly use the services of the Emergency Department (ED) over a long period, have previously been shown to account for approximately 7% of all ED patients, but account for up to 28% of all ED visits. Although older age is frequently cited as a contributing factor to frequent attendance to the ED, there are few quantitative studies which specifically consider this population making it difficult to draw conclusion about how attendances can be diverted or prevented.

The purpose of this study was to explore characteristics of older adults who present frequently to the ED, and to examine determinants of repeated attendance.

Methods: All presentations over a 12 month period by those aged 65 and over were identified (n = 8,028). Using postcodes, Dependant Indicators were assigned to the sample. Using patient identifiers, multiple admissions were identified and linked. Frequent attenders (i.e. admissions≥4) were matched one-to-one to non-frequent attenders using age and gender. Further demographic information as extracted from paper records on polypharmacy, comorbidity, residential status, dependency and use of care services were studied. Logistic regressions examined predictors of frequent attenders (within both full and matched samples) and Odd Ratios (OR) estimated change in the likelihood of attending frequently.

Results: A total of 378 (7.2%) individual older adults were identified as having 4 or more attendances. Deportion was the most significant predictor (p < 0.001) with most deprived groups having greatest likelihood of presenting frequently. OR(Deprived) = 2.435, p = 0.04). After controlling for deprivation level, dependency (ORDependency) = 2.23, p = 0.02), number of chronic conditions (OR = 1.14, p < 0.001) and poly-pharmacy (OR = 0.66, p = 0.02) were also associated with frequent attendance.

Conclusion: Social determinants (e.g. deprivation and dependency) and medical factors (comorbidity, polypharmacy) were predictive of frequent attendance in the ED.

FRAILTY AND ITS ASSOCIATION WITH PHYSICAL OUTCOMES IN ACUTE HOSPITALISED OLDER ADULTS

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Background: Frailty is associated with functional decline in hospitalised older adults. Frailty and its interaction with disability has been well established in the community. Its association with outcomes in hospitalised older adults is less understood. This study aims to gain a understanding of the association of frailty on physical outcomes during admission in the acute setting. A secondary aim is to examine the association between frailty, length of stay (LOS), discharge destination and 30 day readmission.

Methods: We conducted a cross sectional study of patients admitted under Geriatric Medicine and referred to the Physiotherapy Service in a large Irish University Hospital between June 2017-February 2018. Outcome measures included the Clinical Frailty Scale (CFS), grip strength, Elderly Mobility Scale (EMS), Timed-up-and-go (TUG) and six-metre walk test. Participants who were able to complete initial and discharge outcome measures were recruited within Physiotherapy caseload. All participants underwent routine inpatient physiotherapy.

Results: 50 patients were suitable, median age 83 years (range 57–97), median CFS on admission of 5.8 (mild-moderate), 50% were female. Statistically significant improvements were found in CFS (z = −3.532, p<0.000), EMS (z = −4.725, p<0.000), TUG (z = −2.83, p<0.005), grip and gait to gait strength (z = −2.651, p<0.008) from admission to discharge. Strong correlations were found between admission scores on the CFS and EMS (r = −0.623, p<0.000, n = 48), TUG (r = 0.725, p<0.000, n = 30), and grip and speed (r = 0.707, p<0.000, n = 56) and a moderate correlation with grip strength (r = −0.367, p = 0.011, n = 47). There was no correlation between CFS on admission, LOS, discharge destination or 30 day readmission rate.

Conclusion: Frailty on admission has a strong correlation with physical outcome measures on discharge in an acute hospital setting. Frailty alone does not provide the clinician with a definitive evaluation of an older person’s potential outcome but can guide the clinician in understanding the physical impact of frailty.

FALLS IN NURSING HOMES: WHERE, WHEN AND HOW MANY

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Background: Nursing home (NH) residents are at high risks of falls with international reports of full rates of 1.5 falls/bed/year (range 0.2 to 3.6). There is no published data on falls rate in the Irish NH. Our aim is to describe where, when and the number of falls in 4 NHs over 12 months to inform quality improvement in falls prevention strategy in NH.

Methods: Four NHs with total bed number 410 (bed numbers in each NH ranged from 72–131), participated in recording the place, time and incidence of falls, from March 2017 to February 2018. Falls were categorised to witnessed and un-witnessed falls. Time of fall was divided into Day (0000 to 1559), Evening (1600 to 2359), Night (0000 to 0759). Two of the four NH recorded the place where fall occurred.

OUTCOMES IN ACUTE HOSPITALISED OLDER ADULTS

Nursing home (NH) residents are at high risks of falls with international reports of full rates of 1.5 falls/bed/year (range 0.2 to 3.6). There is no published data on falls rate in the Irish NH. Our aim is to describe where, when and the number of falls in 4 NHs over 12 months to inform quality improvement in falls prevention strategy in NH.

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Results: There were 628 falls reported over 12 months, of which 487 (78%) were un-witnessed. Majority of falls occurred in the bedroom (71%). The rest occurred in sitting rooms (13%), corridor (6%), dining room (2%) kitchenette and outdoors (36%) of the falls occurred during the day, 40% in the evening and 25% at night. The median falls rate for each nursing home was 1.65 (range 0.46 to 2.61 falls/bed/year). The median fall incidences per month in the individual nursing homes were 5.0, 11.0, 12.5 and 22.3. The months with higher falls were February, June and December.

Conclusion: This study showed that three quarters of the falls occurred in rooms and many falls were un-witnessed. Falls occurred more often in the evening. Falls rate varied widely in the NHs as seen by Ruhoinen. Low fall rate may reflect the higher proportion of bed/chair bound residents. Falls prevention improvement in NH may need consideration of staffing schedules, single rooms and in depth analysis of the recurrent fallers.

REFERENCES

Background: Phantom Limb Pain (PLP) is a painful sensation that is perceived within a body part that no longer exists. PLP can be a distressing experience for people with amputations and estimated that up to 90% of amputees experience PLP.

Mirror therapy (MT) was first invented by Ramachandran in 1996 to help alleviate PLP. MT uses the reflection of voluntary movements in a mirror performed by the intact limb to create a visual illusion of non-painful movement in the phantom limb (Barbin et al. 2016). It is thought that MT decreases PLP by positively simulating the brain and engaging in cognitive activity, social interaction and healthy nutritional and exercise habits.

Methods: A literature review was completed investigating the use of MT for PLP in lower limb amputees. The level of evidence is insufficient with small sample sizes and no comparison across protocols.

Results: Pain was recorded using the numerical rating scale (NRS) ranging from 0 (no pain at all) to 10 (unbearable pain). Pain was either the same or improved at least 2 points on NRS post each session or pain reduced from 7/10 to 0/10 by the end of the eight sessions. There were 628 falls reported over 12 months, of which 487 (78%) were un-witnessed. Falls occurred more often in the evening. Falls rate varied widely in the NHs as seen by Ruhoinen. Low fall rate may reflect the higher proportion of bed/chair bound residents. Falls prevention improvement in NH may need consideration of staffing schedules, single rooms and in depth analysis of the recurrent fallers.

Conclusion: This case study supports the potential use of MT for PLP in people with lower limb amputations. It is a safe, economical and easy-to-use treatment method and it may decrease reliance on opioid medication. MT may be a useful tool in the assessment and treatment of PLP. Further research is required to assess the effects of MT and PLP.

References

BACKGROUND: MIRROR THERAPY AND LOWER LIMB PHANTOM LIMB PAIN - A CASE STUDY

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COACH-ASSISTANT VIA PROJECTED AND TANGIBLE INTERFACE (CAPTAIN): CO-PRODUCTION OF RADICALLY NEW HUMAN COMPUTER INTERFACE WITH OLDER ADULTS

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BACKGROUND: The quality of life of older adults is often impacted by a loss of autonomy and independence that can arise due to cognitive impairment, neurodegenerative disorders, functionality disability, and other frailty indicators. Ambient Assisting Living (AAL) environments that monitor behavioural, cognitive and emotional states can support an individual more effectively than traditional care alone. Yet, their use remains low, perhaps due to the failure to involve end users in their design. The Coach Assistant via Projected Tangible Interface (CAPTAIN) H2020-funded project aims to develop a radically new Human Computer Interface (HCI) that uses micro-projectors and projected augmented reality to provide assistance whenever and where ever it is needed.

METHODS: CAPTAIN technology utilises smart home appliances to turn a room into a tangible, interactive and user-friendly interface capable of capturing relevant physiological, behavioural and user interactions through unobtrusive means. CAPTAIN also provides cognitive and physical training through serious games to increase engagement levels and a motivational coach that provides personalised guidance designed to enhance an individual’s engagement in cognitive activity, social interaction and healthy nutritional and exercise habits.

CAPTAIN harnesses the power of Living Labs (LAs), a vibrant stakeholder community and a multi-disciplinary team with clinical, technology, business, economic, policy and people with lived experience to ensure a truly user-centred co-creation approach that will be sustained throughout the development lifecycle.

RESULTS: CAPTAIN will be designed, developed and tested in five LAs (THess-AHALI, INTRAl Living Lab, NIVELY, AMEN and AUSILIA), in long-term residential care (AMEN) and in the real homes of older adults including people living with cognitive impairment.

Conclusion: Developed from many years of research in the active and healthy ageing domain, CAPTAIN will design the future home where smart assistance enhances the usefulness and effectiveness of personalised supports and enables independence and aging in place.
OLDER MEN AND THEIR SOCIAL CONNECTIONS: FIRST FINDINGS FROM THE NICOLA COHORT FOR THE LONGITUDINAL STUDY OF AGEING (NICOLA)

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Background: Social relationships and connectedness with other people and activities are significant aspects of ageing well and of preventing loneliness. Thus, it is imperative that we understand the experiences, barriers and opportunities around making people feel socially connected in later life. However, older men are often missing from gerontological literature and research. This paper will address this gap to explore the pattern of relationships and social connectedness among older men in Northern Ireland.

Methods: NICOLA – the Northern Ireland Cohort for the Longitudinal Study of Ageing – is a longitudinal study of a representative sample of adults aged 50 years or over living in their own home in Northern Ireland. NICOLA was designed to maximise comparability with longitudinal studies such as TILDA and ELSA. Data collection comprised a Computer-Assisted Personal Interview (CAPI), a self-completion questionnaire, as well as a health assessment. The first wave of CAPI interviews was conducted between December 2013 and March 2016.

Results: CAPI interviews were completed with 8,904 people aged 50 years or over, of whom 45% were male. Men were more likely than women to live with a spouse or partner, and less likely to live alone. However, levels of social connectedness were lower among men than women. In particular, men had less frequent contact with their children or their relatives.

Conclusion: Gender relations provide a useful framework to explore how older people living in Northern Ireland negotiate relationships and connect with family and friends. In addition, gender biases the experience of ageing at specific points in time. For example, men’s shorter life expectancy means that they are likely to experience the death of any female partner. However, given their lower levels of social connectedness, and higher risk of social isolation, it is important that research and services address the needs of older men.

INITIAL PROGRAMME THEORIES OF MECHANISMS THAT SUPPORT THE IMPLEMENTATION OF ASSISTED DECISION-MAKING WITH OLDER PEOPLE IN THE ACUTE SETTING

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Background: In Ireland, codes of practice are in development to support healthcare professionals to practice in accordance with the Assisted Decision-Making (Capacity) Act 2015. This Rapid Evidence Review (RER) will deepen understanding of the mechanisms that support the implementation of assisted decision-making (ADM) with older people in the acute setting.

Methods: RERs involve a systematic iterative search of the literature to develop theoretically grounded explanations of what works, for whom and in what context. RER methods engage expert and reference panels in developing the project scope, refining research questions and streamlining the searching process. They provide local contextual insights and validate a programme theory consisting of context, mechanism and outcome configurations [1].

This RER involves a panel of 12 content experts from law, geriatrics/gerontology, healthcare policy and professional development providing best thinking about how ADM should work in different contexts. Local contextual knowledge is provided by five reference panels that represent multidisciplinary healthcare professionals, healthcare settings (X), family carers and those with a diagnosis of dementia.

Results: Initial programme theories (IPT) have been developed from the expert and reference panels. For example: Healthcare professionals with dementia training (resource-mechanism) treating a patient with a diagnosis of dementia during an acute admission (context) can interpret holistic care needs and modify their communication style accordingly (reasoning-mechanism) thereby maximising a patient’s decision-making capacity (outcome).

Conclusion: This review outlines a realist method of knowledge synthesis which will result in a programme theory, validated by content experts and contextually bound in local issues. This is a useful process for policy makers and professionals as it will provide context specific explanation of the mechanisms supporting the effective implementation of ADM into healthcare practice in Ireland.

References

A MIXED-METHOD INVESTIGATION OF THE FACTORS INFLUENCING LEISURELY ACTIVITY CHOICE IN OLDER ADULTS

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Abstract: Leisurely activities are mediators of outcomes such as cognitive function and a higher level of education but, reported a lower level of satisfaction with life. The interviews indicated that dancers’ motivation pertained enjoyment, while choristers expected cognitive benefits, however, they felt the social pressure to perform. Further longitudinal investigations should elucidate whether motivations (eg, cognitive fitness) and challenges (eg, social pressure) in partaking in activities are mediators of outcomes such as cognitive benefits and satisfaction with life.

References

ENHANCING OLDER PATIENTS’ CARE IN THE EMERGENCY DEPARTMENT: A SYSTEMATIC REVIEW OF INTERVENTIONS BY HEALTH AND SOCIAL CARE PROFESSIONAL TEAMS

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Background: Older adults are frequent users of emergency departments (EDs) and demonstrate high rates of adverse outcomes following emergency care. Evidence suggests that ED-based teams of health and social care professionals (HSCPs) can enhance quality of care, but no reviews exist that synthesise the totality of evidence on this model of care. This systematic review investigated the impact of HSCPs teams working in the ED.
THE IMPACT OF A COMPANION ROBOT IN COMBATTING LONGEVITY IN PEOPLE WITH DEMENTIA LIVING IN RESIDENTIAL CARE: THE MARIO PROJECT

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Background: MARIO, a European Horizon 2020 funded project, developed a companion robot for people with dementia to enhance their social connectedness and engagement and thereby reduce their loneliness and isolation. An iterative process was employed and people with dementia were involved at each phase of development of the robot and helped to guide the appearance of MARIO and the creation of a number of different apps including: My Music, My Games, My Memories. Participants with dementia could interact with MARIO to access apps via touchscreen and or voice commands. This paper presents the findings from the Irish pilot.

Methods: The development and testing took place between September 2016 and August 2017 after this a two month evaluation phase took place where no new functionalities were added. A descriptive qualitative approach based on the work of Thorne et al., (2004) was used to capture the impact of MARIO on loneliness. Semi-structured interviews were used to collect data from relatives (n = 6); carers (n = 8); managers (n = 5) and people with dementia (n = 10), using interview guides developed from the literature and expertise of the researchers. Directed qualitative content analysis based on the work of Hsieh and Shannon (2005), was used to analyse the data. Ethical approval was obtained from the University ethics committee.

Results: The data revealed five themes – perceptions/attitudes towards MARIO; challenges when using of social robots; impact of MARIO; utilisation of the MARIO applications; and making MARIO better. Most participants were accepting and had positive perceptions/attitudes toward MARIO and the deployment of social robots.

Conclusion: The findings from this study provide evidence related to the potential role of companion robots in combating loneliness in people with dementia living in residential care.

THE GEOGRAPHIES OF COGNITIVE AGING: NEIGHBOURHOOD DISTANCE FROM CITIES AND COGNITIVE VARIATIONS IN THE IRISH LONGITUDINAL STUDY ON AGING

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Background: With increasing urbanisation, there is growing interest in understanding how the lived environment affects healthy ageing. Epidemiological studies consistently indicate better cognitive health in urban than rural older populations, possibly due to better accessibility to environmental sources of mental stimulation and support (1). Based on the evidence that accessibility to services/activities can influence geographical variations in health (2), we investigated associations between neighbourhood distance from urban places and cognitive functioning in older adults.

Methods: We harmonised data from The Irish Longitudinal Study on Ageing (TILDA) and the All Island Research Observatory (AIRO) to explore variations in multiple measures of cognitive functioning for 4,416 Irish older individuals (mean age = 62.5) based on travel time from their neighbourhoods of residence to urban settlements with a wide range of services and opportunities for participation. Statistical analyses controlled for health, social and lifestyle covariates, including driving status.

Results: Despite the overall cognitively healthy sample, living 2.29 minutes from cities was associated with 1.20 times the risk of poorer global cognition, and a distance of 2.43 minutes was linked to poorer executive functions. No moderating effects of driving status emerged.

Conclusion: Living far from cities can limit accessibility to mentally stimulating activities that support cognitive health. Further investigations are needed to understand how local communities in rural areas can be optimised to reduce isolation and sustain healthy cognitive ageing.

REFERENCES
AN AUGMENTED PRESCRIBED EXERCISE PROGRAMME (APEP) FOR FRAIL MEDICAL INPATIENTS: A RANDOMISED CONTROLLED TRIAL

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Background: To measure the effects of an augmented prescribed exercise programme on physical performance, quality of life and healthcare utilisation for frail medical inpatients in the acute setting.

Methods: Within two days of admission, older medical inpatients with an anticipated length of stay ≥3 days, needing assistance/aid to walk, were blindly randomly allocated to the intervention or control group. Until discharge, both groups received twice daily, Monday-to-Friday, half-hour assisted exercises, assisted by a staff physiotherapist. The intervention group completed tailored strengthening and balance exercises; the control group, stretching and relaxation exercises. Length of stay and readmission rates were recorded and physical performance (Short Physical Performance Battery), and quality of life (EuroQOL-5D) were measured at discharge and at three months. Time-to-event analysis was used to measure differences in length of stay and unadjusted and adjusted linear regression models were used to measure differences in physical performance and quality of life.

Results: Data from 190 patients (aged 80 ± 7.5 years) were analysed. Groups were comparable at baseline. Crude analysis showed that the intervention reduced length of stay slightly but did not reach statistical significance (HR 1.09 (CI 0.77–1.56) p = 0.56). When patients transferred to subacute care were excluded and data adjusted for confounders, the effect was greater, but remained insignificant (n = 125, HR, 1.3 (CI 0.9–1.87) p = 0.16). Adjusted and unadjusted physical performance was significantly and meaningfully better in the intervention group at discharge (β = 0.088 (CI, 0.157–0.001), but lost at follow-up (β = 0.45 (CI, –0.43–1.33)) p = 0.63). A small but significant improvement in quality of life was detected at follow-up in the intervention group. (β = 0.28 (CI, 0.9–0.47) p = 0.037).

Conclusion: The significant improvements in physical performance and quality of life suggest that this intervention is of value to frail medical inpatients. Its effect on length of stay remains unclear.

INFORMAL CAREDIVING FOR DEMENTIA PATIENTS: THE CONTRIBUTION OF PATIENT AGE, COGNITIVE AND FUNCTIONAL IMPAIRMENT AND CHALLENGING BEHAVIOURS TO CAREGIVER BURDEN

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Background: The chronic stress often associated with informal caregiving for patients with dementia is associated with negative effects on health, both physiologically and in terms of caregiver cognition (e.g. Allen et al., 2017). These adverse health consequences may correlate with dementia caregiver burden but there is wide variation in the level of burden experienced by dementia caregivers. It is thus important to understand the factors that influence the level of caregiver burden to facilitate the appropriate timing of targeted interventions that limit their health impact.

Methods: Caregivers (N = 173) attending a memory clinic completed measures of carer burden, behavioural and safety issues, and level of help required with activities of daily living (ADL). Patient age was also collected, and trained nurses completed the Quick check for Mild Cognitive Impairment with patients to assess cognitive performance. Hierarchical regression was used to assess the impact of these factors on caregiver burden.

Results: Patient age, cognition and ADLs were predictive of burden (adjusted R² = 0.269). Adding safety to the model increased its predictive value (adjusted R² = 0.396%) and adding behavioural issues increased it further (adjusted R² = 0.538%).

Conclusion: Safety concerns and behaviours that can challenge caregivers are predictive of caregiver burden, independent of patient age, functional or cognitive impairment. Considering these factors together produces a predictive model of burden that is consistent with previous research (Bédard et al., 2017).

USE OF A MODIFIED STOPP/FAIL ASSESSMENT TO AID DE-PRESCRIBING IN A DISTRICT GENERAL HOSPITAL

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Background: There is increasing recognition in current literature that a poor evidence base exists for many commonly prescribed drugs in the frail population aged > 65 years (Höcher & Grujicic, 2017). This in turn has led to an upsurge of interest in de-prescribing and as to how inappropriate prescriptions are to be identified and safely discontinued. The 2013 British Geriatrics Society publication Fit for Frailty, Part 1 recommends that frail patients with unselected care admissions should have a personalised medication review undertaken and inappropriate drugs stopped (Turner & Clegg, 2014).

Methods: A modified STOPP/FAIL tool was used to identify potentially inappropriate drug prescriptions in patients admitted to the medical unit of district general hospital over a 4 week period. All acute medical admissions aged ≥ 65 years old with a Clinical Frailty Score (CFS) of ≥7 were prospectively entered into a structured de-prescribing protocol based on the STOPP/FAIL assessment. 255 patients were admitted during this period, of whom 49 (19.21%) were eligible for entry into the protocol.

Results: Patients aged ≥ 65 with a CFS of ≥7 were found to be more likely to have multiple co-morbidities, be discharged to a care facility or die during admission compared to those with CFS < 7. In total, 68 potentially inappropriate prescriptions were identified and stopped. The most common inappropriate prescribed drugs were statins, proton pump inhibitors, biophosphonates and supplements. Qualitative feedback was obtained indicating both simplicity of implementation amongst medical professionals and acceptability to patients and carers.

Conclusion: Utilisation of a modified STOPP/FAIL tool is a practical and effective method of reducing potentially inappropriate drug prescriptions in frail persons aged ≥ 65 years admitted for unscheduled care.

WHAT DO PHYSIOTHERAPISTS NEED TO KNOW ABOUT DEMENTIA CARE? A FOCUS GROUP STUDY

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Background: In addition to cognitive decline, poor nutrition and impaired balance lead to a greater risk of falls and fractures for people with dementia. It is estimated that up to 40% of people who fracture their hip have dementia. Furthermore, for people with dementia the recovery following hip fracture is complicated by the negative synergy of physical, psychological and social factors. Physiotherapists play a central role in dementia care. However, there is a paucity of research from the perspective of physiotherapists that explores their role in dementia care or that identifies their dementia-specific educational needs.

Methods: A qualitative study was undertaken involving semi-structured focus group interviews with physiotherapists in order to gain a deeper understanding of their clinical experiences and educational needs around dementia care. Six focus groups were undertaken with thirty-six physiotherapists. Physiotherapists were recruited in County Cork, purposively sampled from both hospital and primary care settings.

Results: Physiotherapist participants described a large dementia-related workforce. The majority had not received any undergraduate or postgraduate dementia education and described working without appropriate clinical guidelines. Participants found dementia care to be particularly complex because of limited time, perceived lack of knowledge, scarcity of resources and unclear care pathways. Many expressed a wish to receive further dementia training and clear evidence-based guidelines. They identified areas of educational needs including falls prevention, fracture rehabilitation, cognitive screening tools, communication techniques and the roles of other allied healthcare professionals.

Conclusion: Our findings indicate that physiotherapists remain challenged by aspects of dementia care. As dementia prevalence rises in line with ageing populations, the role of physiotherapists will become increasingly central in collaborative, multi-disciplinary dementia care. In order to meet the unique educational needs of physiotherapists, tailored dementia education should be developed and implemented, augmented by interprofessional education with other relevant healthcare professionals.

ANTIPSYCHOTICS IN DEMENTIA CARE: THE DEVELOPMENT OF A REPEAT PRESCRIBING TOOL USING A DELPHI CONSENSUS METHOD

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Background: With Ireland’s aging population, dementia prevalence is rising. Many patients with dementia have behavioural and psychological symptoms (BPSD) and are prescribed antipsychotics, which have serious potential adverse effects. General Practitioners (GPs) initiate the majority of these medications. International guidelines advocate regular medication review for patients maintained on antipsychotics. However, no standardised monitoring template for BPSD GPs exists. The aim of this study was to create a standardised repeat prescribing monitoring template (RPMT) for antipsychotic prescribing in patients with dementia, using an expert consensus group technique.

Methods: International antipsychotic monitoring templates were first reviewed and evaluated. Utilising these, round 1 Delphi questionnaire was finalised following expert review. In a 2-round Delphi study conducted via email, 14 experts in dementia care (Psychiatrists n = 4, Gerontologists n = 2, GPs n = 8) responded to statements using a 5-point Likert scale. The consensus target for each round was decided. In round 2, the group mean was finalised and designed.

Results: From 23 items included in total, over the 2 rounds of the Delphi process, 18 items were accepted and 5 were rejected. Of note, patient demographic details were added.
investigations, indication for prescription, ECG, drug side-effects, regular medication review and reasons for drug continuation/discontinuation were deemed essential items whereas patient/nurs essay content, analysis and BIM were deemed non-essential items.

Conclusion: This RPTM for antipsychotic prescribing in dementia care is relevant and feasible for use by Irish GPs. Further research involving auditing of GPs’ prescribing practices will be undertaken, following implementation of the RPTM.

II. SHARED PERSPECTIVES ON SEDATIVE PRESCRIPTIONS IN ACUTE HOSPITALS

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Background: Sleep disturbance is common for patients in the acute hospital setting. This is more common among older people and can result in negative consequences such as delirium, psychological distress and reduced ability to participate in rehabilitation. Sedative medications are often initiated, however independently they can increase the risk of delirium, deconditioning and falls.

Methods: We aimed to explore contributing factors for prescribing and dispensing sedative medications. Using a structured questionnaire nursing staff and non consultant hospital doctors (NCHDs) were surveyed.

Results: 180 staff members were surveyed, 141 NCHDs and 39 nurses. The most common reason for the prescription of night sedation was cited as being due to patients being on them long-term. Of those surveyed, 52% (N = 80) of NCHDs stated they prescribed these medications following direct requests from patients and 71% (N = 28) of nurses stated they dispensed them for the same reason.

Conclusion: Pressure from patients was a common factor among both doctors and nurses for the prescription of sedative agents with short working and work load identified as confounders. While non-pharmacological methods were suggested, it was noted by staff that resource and time constraints were barriers to implementation.

II. SECONDARY PREVENTION POST-hip FRACTURE – IS TREATMENT OPTIMISED?

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Background: Bone protection medication, including adequate calcium and vitamin D, is important in the prevention of secondary fractures. Studies have shown low levels of uptake of bone protection post-hip fracture. The aim of the study was to assess uptake of bone protection treatment, and calcium and vitamin D supplementation in patients >50 years of age, who had suffered a first hip fracture.

Methods: Retrospective clinical audit, computing uptake of bone protection medication prescribed on admission and 6 months post-hip fracture; study conducted in a large Irish teaching hospital.

Results: 41 patients (10 male, 31 female), mean age range 81–90 years (n = 18), were admitted to hospital with a hip fracture during the study period. n = 30 were not prescribed any bone protection medication e.g. bisphosphonate, and n = 26 were not taking calcium or vitamin D supplementation. Post-hip fracture 80.5% (n = 33) patients were prescribed bone protection. 78% (n = 32) were prescribed a combination of calcium and vitamin D and 14.6% (n = 6) were prescribed vitamin D alone, with a recommendation to increase dietary calcium intake. Response to treatment was evaluated at the pre-assessment clinic 6 months post-fracture, by measurement of calcium, vitamin D and parathyroid hormone (PTH) levels and T-scores.

Conclusion: Bone protection medication prescribing levels in the hospital exceeded national figures from 2016, which noted only 43% patients were prescribed bone protection post-hip fracture 1. Zoledronate IV was used as first-line therapy in the hospital, in contrast to the National Osteoporosis Guideline Group (2017) clinical guideline 2, which recommends oral bisphosphate treatment. IV therapy may improve patient medication adherence, due to the requirement for one yearly infusion only; however it costs almost twice the price of the oral equivalent.

References

II. DOES THE SHOE REALLY FIT? CHARACTERISING ILL-FITTING FOOTWEAR AMONG COMMUNITY DWELLING OLDER ADULTS

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Background: Over 7000 older people are admitted to Irish hospitals with a fall annually. The causes of falls in older people are multifactorial and may be caused by environmental hazards and unsafe footwear. The primary aim of this study was to examine the proportion of older patients attending a geriatric day hospital who were wearing incorrectly sized shoes.

Methods: Participants in this cross-sectional study were older adults presenting at a Dublin-based day hospital for physiotherapy between June – July 2017. Demographic data recorded included age, mobility level, use of glasses, social support, footwear worn at home and a brief falls history. Shoe size was measured using an internal-shoe-gauge and participants’ foot length using a SATRA shoe-size-stick. Participant’s footwear was assessed using the Footwear Assessment Form. Timed Up and Go test score was recorded from physiotherapy records. Functional performance was assessed using the Nottingham Extended Activities of Daily Living Scale. The correct shoe size definition was taken from the work by Chantelau and Gole (2002).

Results: 133 patients were screened, 2 declined and 111 were assessed. Average age was 81.6 years, range 65–99, SD + 7.5, 40% (N = 44) were male. 6% (n = 7) had shoes incorrectly fitting on both feet. 72% (n = 80) were defined as having incorrectly fitting shoes. 11% (n = 74) reported wearing slippers at home.

Conclusion: A large cohort of older people wore ill-fitting footwear and previous research indicates that this could put them at risk of falling. Further investigation of the relationship between footwear and falls is warranted to help guide future falls prevention services in a larger sample. The large number of participants who reported wearing slippers at home is an important finding as slippers may be a risk for falls in an older population.

Reference

II. EXPLORING THE USE OF TALKING MATS™ TO ENHANCE COMMUNICATION IN PERSONS WITH DEMENTIA TO BECOME MORE ACTIVE PARTICIPANTS IN DECISION MAKING

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Background: Talking Mats Limited is a social enterprise whose vision is to improve the lives of people with communication difficulties and those close to them, by increasing their capacity to communicate effectively about things that matter to them. TM is an innovative, award winning communication symbols tool, based on extensive research and designed by speech and language therapists. It uses a mat, topic cards and a top scale to ensure effective communication. TM also lead to more meaningful conversations and allowed the PWD to take more control of their experiences.

Methods: This is a cross site project to explore the use of TM with Person’s with dementia (PWed) and was the winner of the Dementia Elevator Award 2016. Seven speech and language therapists across acute, rehabilitation, long term care and community settings in Ireland are participating in the project. In training, the SLTs explored the use of TM with PWed as an aid to getting to know someone, in care planning, in providing information. TM also lead to more meaningful conversations and allowed the PWD to take more control of their experiences and in improving choices and decision making. Each TM was video recorded and the conversations were analysed by the group.

Results: To date, the analysed videos showed that the use of the TM improved the PWed’s ability to understand by providing a visual cue and allowed them more time to process information. TM also led to more meaningful conversations and allowed the PWed to take more control of the conversation and make choices about things that mattered to them. Conclusion: This exploratory project adds to the evidence base of the benefit of using TM to allow PWed to communicate decisions about their preferences. There is scope to expand the study to use TM in helping people to make decisions in relation to advanced care planning and planning for future care needs.

II. MANAGING FRAIL PATIENTS IN THE ACUTE SETTING: RAPID ASSESSMENT FRAGILITY TEAM (RAFT)

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Background: Frailty is a clinical syndrome defined by the accumulation of deficits and the inability to perform tasks that are age-appropriate. Persons living with frailty are at high risk of complications from acute illness, which use emergency departments. The rapid assessment frailty team has been introduced to improve care for frail patients admitted to the hospital.

Methods: The RAFT using online frailty assessment tools was used to identify frailty in the acute hospital setting. Frailty was defined as frailty identified on RAFT frailty assessment tools.

Results: RAFT frailty assessment tools were used to identify frailty in the acute hospital setting. Frailty was defined as frailty identified on RAFT frailty assessment tools.

Conclusion: RAFT frailty assessment tools were used to identify frailty in the acute hospital setting. Frailty was defined as frailty identified on RAFT frailty assessment tools.

Reference

Age and Ageing

Background: Older people are the most common cohort that present to the ED.RAFT attempts to identify frail patients at assessment in ED. Early identification of frailty at the point of admission in ED has implications for management and discharge planning. Efforts to avoid admission should be employed when possible as functional decline is directly proportional to bed rest in frail patients.

Methods: The FRAIL questionnaire was applied to all patients assessed in the ED at triage. Any patient scoring > 1 was referred to physio or OT. Those frail patients scoring 4–6 on the Clinical Frailty scale were referred to the Frailty ANP, and ward OT and Physio at the point of admission. Analysis of LOS or discharge destination were used to access effectiveness of this intervention.

Results: In the 17 weekday period, (February 2018), 113 patients identified as FRAIL were seen by RAFT. Only 52 of 113 were over 75 yrs of age, 25/113 frail patients were under 65 yrs of age. 25/113 (22%) patients assessed by RAFT were discharged and the remaining admitted. The average LOS of those > 65 yrs admitted seen by RAFT was 6.2 days. When compared to 2017 the LOS was 9.4 days for those > 65 yrs olds admitted in same period.

Conclusion: From above we can see that there is a significant benefit in having an acute frailty team in ED both for the patient and financially for the hospital. Early identification of patients who can be safely discharged following assessment and intervention can prevent unnecessary admission, sarcopenia and functional decline. Further studies into the identification of patients who can be safely discharged following assessment and intervention can prevent unnecessary admission, sarcopenia and functional decline. Further studies into the detecting frailty in Emergency Departments is needed.

Mortality Rates of Dementia and Associated Factors in Northern Ireland

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Background: Dementia is a term used to describe a broad group of conditions that affect the brain and cause a progressive cognitive decline in the ability to think, learn and remember. Understanding mortality rates (incidence of death) in dementia is essential for resource planning, public and economic policy and could provide valuable information to the individual with dementia, their carers and their medical team. Numerous factors such as male gender, living alone and in residential care and an increased number of medications have been shown to significantly increase mortality rates. However, we know very little about the mortality rates associated with dementia in Northern Ireland.

Methods: Using data from the Honest Broker Service, which holds information on approximately 13,000 people with dementia in Northern Ireland we aim to assess whether demographic characteristics such as gender, living alone, in residential care and the number of medications influence mortality rates.

Results: By conducting a retrospective analysis on national data we aim to identify several demographic characteristics which influence mortality rates in dementia.

Conclusion: Future studies must have the potential to improve dementia services and provide valuable information to clinicians and the carers of people with dementia.

New Technologies Supporting Patient Realeament: A Wellness Monitoring and Staff Professionalism

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Background: The purpose of this study is to identify and validate the requirements for new technology to support patient realeament, wellness monitoring and staff professionalism. This study is being undertaken at a Dublin based post-acute care service for older adults. Technology will be developed for patients and nursing/care staff.

Methods: This research adopts a stakeholder evaluation approach to requirements elicitation and design. The first phase of research has involved documentation analysis, staff observations (ten half days, clipping over 5 weeks) and interviews with nursing/care staff (N = 20) and patients (N = 11).

The second phase of research is underway. Early stage prototypes of several new technologies have been advanced. Co-design/evaluation activities (involving individual sessions and group workshops) are being undertaken with patients and staff.

This study has ethics approval from (1) the Institution Review Board, Mater Hospital and (2) the Ethics Committee, School of Psychology, Trinity College Dublin (TCD).

Results: Wellness management should consider a patient’s biological, psychological and social needs.

The technology should enable nursing/care staff to: (1) support and monitor patient wellness and realeament (in line with their care plan), (2) act, monitor/evaluate and report on care responses pertaining to patient wellness and realeament, (3) obtain a real-time picture of the patient’s care status, ability and risk, (4) communicate with other care team members, patients and families and (5) manage workload.

Several candidate technology concepts have been proposed for patients and nursing/care staff. This includes a patient experience application, nurse and carer rounding applications, a wall mounted display, and an interactive whiteboard.

Conclusion: For model 49 patients were included. 51% of those surveyed were nurses (n = 25) and 49% were doctors (n = 24). Overall, 41% (n = 20) of staff were aware of how to contact the stroke team. There was a difference in knowledge rates between doctors and nurses. 23% (n = 6) of doctors surveyed knew who to call in the event of an acute stroke, while 56% (n = 14) of nurses displayed knowledge in this area. There was also a difference in knowledge rates based on the clinical area in which staff worked. 62% of staff working in the ED knew how to contact the stroke team compared with 33% of staff working on medical or surgical wards.

Conclusion: This survey revealed substantial rates of knowledge of the contact details for the acute stroke team amongst doctors and nurses in our centre. We have implemented several measures to improve this. We have designed a dedicated, searchable link on the staff directory with clear contact details for the team. The contact details are now visible in all clinical areas and we are educating staff on a regular basis with a follow up survey planned.

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Post-stroke cognitive impairment (PSCI) can be divided into post-stroke cognitive impairment no dementia (PSCIND) and post-stroke dementia (PSD) according to the degree of the cognitive decline. Several cognitive screening instruments are available but there is no evidence to support which to use in clinical practice. Further, PSCI is often not detected. Given this, it is necessary to screen for PSCI. The most commonly used instruments to assess for PSCI are the Montreal Cognitive Assessment (MoCA-CN) and the Mini-Mental State Examination (MMSE-CN). The Quick Mild Cognitive Impairment screen (Qmci-CN) is a short cognitive screen that has yet to be validated in stroke.

Methods: We recruited post-stroke patients from a rehabilitation unit in a large university hospital; 11 with PSD, 15 with PSCIND, 10 with normal cognition (NC). The Qmci-CN, MoCA-CN and MMSE-CN were administered by the trained rater, blinded to the diagnosis.

Results: In total, 36 patients were available; 61% (22/36) were female. The median age of patients was 63 (interquartile 47.6–75) years and the median years in education was 12 (11–13). The median Qmci-CN screen score was 49/100 (+/−4), the median MMSE-CN score was 25/30 (+/−4), and the median MoCA-CN score was 29/30 (+/−4). In this sample the Qmci-CN was less accurate compared to the MMSE-CN and MoCA-CN in discriminating PSCIND from NC, area under the curve (AUC), 0.511 compared to 0.767 and 0.881, respectively. It has similar accuracy in discriminating PSD from NC, (AUC = 0.924 vs 0.977 and 1.0), and in discriminating PSCIND from PSD, (AUC of 0.849 vs 0.928 and 0.999, respectively).

Conclusion: This study suggested that the Qmci-CN has comparable accuracy to the MMSE-CN and MoCA-CN in discriminating PSD but was less accurate in separating NC from PSCIND compared to the MoCA-CN. Further study with a larger sample is needed to confirm these findings.

Frailty Team Models in Ireland: Core Principles and Active Ingredients

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Background: Efforts to avoid admission should be employed when possible as functional decline is directly proportional to bed rest in frail patients. This study is being undertaken at a Dublin based post-acute care service for older adults. Technology will be developed for patients and nursing/care staff.

Methods: This research adopts a stakeholder evaluation approach to requirements elicitation and design. The first phase of research has involved documentation analysis, staff observations (ten half days, clipping over 5 weeks) and interviews with nursing/care staff (N = 20) and patients (N = 11).

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Conclusion: This survey revealed substantial rates of knowledge of the contact details for the acute stroke team amongst doctors and nurses in our centre. We have implemented several measures to improve this. We have designed a dedicated, searchable link on the staff directory with clear contact details for the team. The contact details are now visible in all clinical areas and we are educating staff on a regular basis with a follow up survey planned.
Background: There is a knowledge gap about the specific needs of, and utilisation of healthcare services by, people with Young-Onset Dementia (YOD), i.e. those diagnosed < 65 years. People with YOD and their families face unique challenges compared to those with late-onset dementia (LOD), and these can be addressed with a palliative care approach. Palliative care for dementia has received increasing attention, however those with YOD have remained overlooked. The study aim was: To explore healthcare utilisation, including at end-of-life, of people with YOD, using hospital electronic records for case finding.

Methods: We obtained Hospital In-Patient Enquiry data identifying all people with YOD admitted to three large urban hospitals between 2009–2016, and conducted a retrospective chart review. Information collected included demographics, medical and psychosocial history, functional capacity, last hospital admission, mortality and Advance Care Plan (ACP) details.

Results: Of the 121 patients, 90% were male. The commonest dementia types were: Dementia secondary to Down's Syndrome (36%), Vascular (14%), Frontotemporal (13%) and Alzheimer's Disease (13%). 88% had ≥1 comorbid disease, including neurological (55%), cardiovascular (36%), and mental health illnesses (29%). Although 70% of People with YOD had an indication for an ACP (i.e. one or more markers of limited life expectancy), only 11% had any ACP recorded. 37% of patients had died, most commonly due to a complication of advanced dementia (64.4% of deaths) rather than comorbid illness.

Conclusion: There were notable differences between this sample of people with YOD and LOD populations, regarding their diagnosis, comorbidities, diagnosis physician, etc., which has implications for multidisciplinary team input and post-diagnostic support. People with YOD most commonly die from complications of dementia, as opposed to people with LOD who often die with dementia. Advanced care planning appears to be suboptimal in people with YOD. More research is essential to inform future policies and services for this neglected population.
Age and Ageing

Conclusion: This study indicates that adherence to generic prescribing falls far short of the national recommendations. This potentially exposes patients to poor prescribing standards and places an unnecessary financial burden on the health service. Since this study was performed a working group has been established and a new kardex developed placing greater emphasis on generic prescribing. We have developed an e-prescribing system which compels prescribers to not only prescribe generically but to comply with the hospital preferred list. We believe that full adherence to generic prescribing will necessitate the deployment of e-prescribing systems.

Reference

Rehabilitation Dashboard: Integration and streamlining of services and pathways for older people

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Background: Identified need and issues with progress and ingress to the rehabilitation ward.

The rehabilitation dashboard was designed to capture a number of variables, of which, would assist to streamline services for the Older Person from data collection and data availability across tertiary, secondary and primary sectors to produce and enhance the efficiency and flow through the rehabilitation units.

Methods: Data collected, Monday to Friday, submitted prior to 09.30, entered into dashboard.

Data sources consisted of:
- A collection template formulated, reviewed and disseminated to two rehabilitation units in secondary hospitals within the catchment area. Information captured on this template consisted of the following bed occupancy (active and non-active rehabilitation), bed vacancy (male/female), Clinical Frailty Scores (CFS) and next Estimated Discharge Date (EDD) (male/female).
- The Geriatric Liaison Nurse submits the patients listed for rehabilitation in the acute sector once received.
- A recently established referral pathway from community to in-patient rehabilitation facilitates ease of access to the community waiting list for in-patient rehabilitation.
- Discharge summary information submitted by the multidisciplinary team (Clinical Nurse Managers, Occupational Therapists and Physiotherapists), on patient discharge from the rehabilitation units, provides the information and data for the calculation of Average Length Of Stay (AVLOS) for each unit.

Results: Since the launch of the Rehabilitation Dashboard on the 19th February 2018:
- 96% submission rate of the data variables and information from the rehabilitation units for the rehabilitation dashboard achieved.
- 13 patients registered on and referred to the community waiting list for in-patient rehabilitation have been cleared.
- Waiting times reduced to an average median of 8 weeks.

Conclusion: The Rehabilitation Dashboard assists to enable transparency of data and availability across sectors to produce and enhance the efficiency and flow through the rehabilitation units.

Medication errors: a weighty issue?

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Background: Weight determined prescribing is coming in the acute hospital setting. Medication errors within this category have been frequently described among the paediatric population, particularly with anti-inflammatory agents and analgesia but less so among adults. Assessment of weight is an essential component of all hospitalised patient assessments, with the NICE guidelines recommending assessment of Body Mass Index for all patients on admission. Research has shown that health care providers are not accurate in estimating patients’ weights from the bedside which can lead to errors in prescriptions of essential medications.

Methods: On a single day, drug kardexes for all inpatients in a University Hospital excluding those within the emergency department were evaluated. For each patient the drug kardex was examined for documented weight and was also analysed to establish whether patients were on weight based medications or not, with specific focus on anti-microbial agents and low molecular weight heparin (LMWH).

Results: 290 kardexes in total were reviewed. 39.6% (115) had a documented weight. 13.4% (19) were on a weight based anti-microbial or therapeutic LMWH. Of those patients 35.8% (14) had no documented weight on their kardex.

Conclusion: This study concluded that the majority of acute inpatients did not have a weight documented, and over one third of those on weight based medications did not have a clear weight displayed. This may put patients at risk of under treatment of serious infections, or harm relating to over treatment such as acute kidney injury or bleeding. Patients at most need of being weighed however are often too frail or unwell to stand and acute wards and emergency departments are limited by space and manpower to perform host weights. Since this study was performed a working group has been established in conjunction with pharmacy and nursing staff to establish a quality improvement initiative around these barriers.

COGNITIVE IMPAIRMENT IN STROKE PATIENTS FIVE YEARS POST-STROKE IS ASSOCIATED WITH ANXIOUS AND DEPRESSIVE SYMPTOMS IN FAMILY MEMBERS

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Background: Caregivers of patients with stroke often experience elevated levels of anxiety and depression, which can adversely affect stroke patient recovery. Family members frequently assume the primary responsibility for providing long-term care and support to patients with stroke which can lead to emotional, financial, and social strains. Cognitive decline, which is common post-stroke can significantly impact levels of caregiver depression and anxiety. Many longer-term caregivers of stroke patients continue to face untenable needs years after the initial stroke, highlighting the need for routine and repeated assessments of caregiver wellbeing. The aim of this study was to explore the association between cognitive impairment in stroke patients and anxious or depressive symptoms in family members five years post-stroke.

Methods: As part of a five-year follow-up of the Action on Rehabilitation and Secondary Prevention Interventions in Stroke (ASPIRE-) cohort of stroke patients, family members completed a self-report questionnaire. Symptoms of anxiety and depression were assessed using the Hospital Anxiety and Depression Scale, and the Center for Epidemiologic Studies Depression scale respectively. Cognitive impairment in stroke survivors was assessed using the Informant Questionnaire on Cognitive Decline in the Elderly.

Results: 77 family members participated, of whom 71 completed the HADS-A, and 51 the CES-D. The majority was female (80.9%). Depressive symptoms were evident in 25.8% of family members, with 19.7% reporting symptoms of anxiety. Twenty-two stroke patients (29.0%) were identified as having evidence of cognitive impairment. Family members of stroke patients with cognitive impairment were significantly more likely to report symptoms of depression [age-adjusted OR (95% CI): 6.80 (1.65, 26.04)] or anxiety [age-adjusted OR (95% CI): 5.99 (1.62, 22.15)] than family members of patients without evidence of cognitive impairment.

Conclusion: Cognitive impairment in stroke patients is associated with depressive and anxious symptoms in family members in the longer term. Identifying and enhancing their psychological wellbeing is essential.

Mass and the dangers of syncope

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Background: Syncope is defined as a transient, self-limited loss of consciousness with an inability to maintain postural tone that is followed by spontaneous recovery. We have previously described a categorisation of orthostatic hypotension based on pathophysiology, the AVM classification (1).

Methods: We interrogated our electronic syncope database for key terms associated with situational syncope including “cough” “laugh” “Micturition” “Bathroom” “Church” and “Mass”. From the most commonly encountered situation, we interrogated the results of tilt testing performed to identify evidence of orthostatic hypotension. The suddenly change in position can precipitate an episode of orthostatic hypotension and this was confirmed in almost one third of our cohort. Consideration should be given to whether it is safer for older mass goers to be subjected to such significant orthostatic stress.

Reference
THE IMPACT OF A DIAGNOSIS OF DEMENTIA ON LENGTH OF STAY IN ACUTE HOSPITALS IN IRELAND

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Background: The impact of a diagnosis of dementia on length of stay and costs is an important question for clinicians, hospital managers, and health care administrators. Previous research in Ireland on the impact of a diagnosis of dementia on length of stay found mixed results. Our analysis is based on length of stay for five Diagnostic Related Groups (DRGs) in two acute hospitals.

Methods: We obtained discharge data from two hospitals in Ireland for two cohorts of patients who had been assigned to specific Diagnostic Related Groups (DRGs). One cohort consisted of patients who had a secondary diagnosis of dementia while the other cohort did not. The DRGs included Respiratory Infections, Urinary Tract Infections, and Syncope and Collapse. Data was analysed for 5 DRGs in one hospital and 3 in the other. Data for 2014 and 2016 were analysed separately so there were 16 comparisons in total. The two-sample Wilcoxon rank-sum test with a 5% significance level was used to compare differences in length of stay between the two cohorts for each of the DRGs.

Results: The number of observations varied from 13 in one of the DRGs for patients with dementia to 229 for one of the DRGs for people without dementia. Mean length of stay was greater in 15 of the 16 comparisons but the difference in length of stay was statistically significant in only 6 of the 15 cases. Statistically significant longer lengths of stay were more likely in DRGs for Urinary Tract Infections and in the larger of the two hospitals for which we had data.

Conclusion: While a secondary diagnosis of dementia almost always leads to a longer length of stay for a particular DRG, the difference is statistically significant in less than half of the comparisons made. This has implications for health care resource allocation decisions.

ATRIAL FIBRILLATION AND COGNITION AT FOUR YEAR FOLLOW UP – DATA FROM THE IRISH LONGITUDINAL STUDY ON AGEING (TILDA)

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Background: Atrial fibrillation (AF) is the most common sustained arrhythmia, and is associated with an increased risk of stroke, heart failure and increased mortality. Emerging evidence suggests AF may be associated with an increased risk of cognitive impairment, however results are conflicting. The aim of this study is to assess whether AF is associated with a decline in global cognition at four year follow-up.

Methods: Data from waves 1 and 3 of the Irish Longitudinal Study on Ageing were used. At wave 1, participants who attended the health centre underwent ECG which were screened for AF by clinicians. Global cognition was assessed at the health centre, using the Montreal Cognitive Assessment (MOCA), and this was repeated at wave 3 (4 year follow-up period). Information on covariates was obtained via a computer aided personal interview and during the health assessment. Mixed effects poisson regression found an increased rate of errors on MOCA in participants with AF at follow-up (IRR 1.16; 95% CI 1.01, 1.35; p-value 0.047).

Conclusion: AF was associated with an increase in rate of errors on MOCA at 4 year follow-up, adjusting for confounders, in a community dwelling population over the age of 50 in Ireland.

RESISTANT SIADH SECONDARY TO ATOMIC BLADDER IN AN OLD WOMAN

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Background: Syndrome of inappropriate antidiuretic hormone secretion (SIADH) is increasingly common in later life and the commonest cause of hyponatraemia in hospital admissions. A search for the cause is an important aspect of management. We describe an under-recognised cause of resistant SIADH in an older woman.

Methods: We reviewed a case from our practice which demonstrated this unusual cause of SIADH.

Results: An 83 year old lady who was admitted due to an accidental fall. Serum sodium on admission was 115 mmol/L. Urinary osmolality was 257 mOsm/kg. Urinary sodium was 79 mmol/L and urinary osmolality was 365 mOsm/kg. CT of brain showed chronic changes, but no acute abnormality. X-ray of chest showed bilateral lower lobe in infiltrates, no solid lesion. The patient was refractory to treatment with fluid restriction and sodium replacement. She was passing urine and no bladder was noted on clinical examination. An MR for a known benign prostatic lesion noted marked urinary retention, and a post-void bladder scan showed a residual volume of 900 ml. A urinary catheter was inserted and retention alleviated. CT abdomen and pelvis showed symmetrical bladder wall thickening secondary to chronic urinary retention and atomic bladder. Serum sodium returned to normal within 9 days of catheter insertion.

Conclusion: This case is unusual as, to our knowledge, SIADH secondary to atomic bladder has previously only been described in one case series of six older people (1) and a handful of case reports, and is omitted in many review articles as a cause. As abdominal examination often raises a full bladder and overflow incontinence may conceal the issue, a bladder scan in both men and women with SIADH, particularly if resistant to treatment and/or no other cause found, in later life.

AGEISM IN STUDIES OF INPATIENT DELIRIUM

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Background: Delirium among hospital inpatients is highly prevalent, particularly with increasing age. Age bias has been identified in a number of studies of conditions related to geriatric medicine – whether it is present in trials examining delirium is currently unknown. This study aims to systematically review the literature and identify the extent to which ageism is present in delirium studies.

Methods: All randomised control trials (RCTs) with ‘delirium’ in the title in the Cochrane database which recorded mean age were included. Patient gender and exclusion criteria were also recorded. These were compared to prevalence studies of delirium and assessed for discrepancies.

Results: 45 RCTs were identified, 38 of which were eligible for inclusion, comprising 16,276 participants. The mean age of all patients was 71.7 years, 7–8 years younger than those seen in Ireland in daily practice. In addition to this, 14 trials (31.8%) excluded patients based on pre-existing cognitive impairment and 3 trials excluded patients based on advanced age.

Conclusion: This study identifies a clear difference between patients included in delirium studies and patients experiencing delirium in clinical practice. This is particularly troubling as the difference lies in patient age and cognitive impairment – the two strongest predictors for developing delirium in hospital. To ensure evidence based practice, future trials must include a larger sample of our older population, and include patients with cognitive impairment.

LOST DAYS: A RETROSPECTIVE ANALYSIS OF FACTORS LEADING TO DELAYED DISCHARGES IN A REHABILITATION SETTING

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Background: Delayed discharges account for a vast amount of hospital bed days lost in the acute and rehabilitation hospital setting. We investigated the reasons for delay in patients who had completed their rehabilitation programme and were medically fit.

Methods: A database of patients with delayed discharges was documented over a ten month period (July 2017 to April 2018).

Results: 45 patients were identified. 38 had been eligible for inclusion, comprising 453 patients. 106 patients were delayed. Mean delay from estimated to actual discharge day was 152 days (range 68–456). Four remain as current inpatients.

Conclusion: Loss of hospital bed days is a topical issue nationally. With the Emergency Departments forever getting busier and the trolley crisis, action needs to be taken to discharge patients who are medically fit.

Our institution is a rehabilitation centre for people to achieve their physical and mental potential post stroke in a non-acute hospital setting. They receive intensive daily multidisciplinary input.

When patients reach their ceiling of potential and they no longer benefit from further rehabilitation and are medically well, they are deemed fit for discharge.
Age and Ageing

If our patients’ expected discharge date is delayed, we are unable to allow patient flow from the acute hospitals. This in turn contributes to the number of patients on trolleys in Emergency Departments, delay in admissions to acute stroke units and patients accessing dedicated stroke rehabilitation.

ACUTE SPONTANEOUS SUBDURAL HAEMATOMA – CONSIDERATION OF ITS PRESENTATION AND AETIOLOGY - A LITERATURE REVIEW

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Background: A 66 year old self-employed Entrepreneur presented to our ED with a 10 days history of progressively worsening right sided headache and one day of variable weakness of his left and drowsiness. PME: ischemic heart disease with stem 2011 on ASPIRIN.

Methods: A literature review was conducted on this presentation.

Results: CT appreciated an acute subdural haematoma (SDH) extending over convexity of the right cerebral hemisphere. The haematoma was 23 mm maximal depth with 20 mm midline shift. CT angiography noted no aneurysms. Careful history appreciated no trauma at all. He proceeded to burr-hole craniostomy without complication. Fluctuant dysarthria and dysphasia were associated with slow to resolve mass effect.

Independently mobile and well six weeks postoperatively, keen to get back to work. Postoperative Karnofsky was 90/100.

Conclusion: This is an unusual presentation in an otherwise well 66 year old. His work relies on regular flights across the UK. He had flown four times while suffering from the initial headaches. He takes aspirin daily. No alcohol.

Trauma is responsible for the majority of acute SDH but spontaneous acute SDH makes up 2-5% of cases approximately. There has been postulation on the pathogenesis of spontaneous SDH. In trauma it is atraumatic traction then rupture of the fragile subdural portion of bridging veins, which is accentuated by cerebral atrophy. Sudden increased intracranial pressure, drug induced vascular remodelling, intracranial hypotension, coagulopathy and impaired platelet aggregation are potential causes, also neoplasia and alcoholism.

In a case series 7 of 8 patients were taking antplatelets. As being on aspirin is likely our patient’s only risk factor we propose that there may be a role for platelet aggregation testing in this group of patients. Mortality suggested as 36-79% with favourable rates of recovery noted at 14-40%.

Postoperative prognostication is similar in spontaneous vs traumatic acute SDH. This is dependent on preoperative GCS and postoperative intracranial pressure.

QUALITY INITIATIVE TO IMPROVE THE EATING, DRINKING AND SWALLOWING EXPERIENCE FOR PERSONS WITH DEMENTIA BY CREATING A NEW INFORMATION LEAFLET

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Background: I work as a senior speech and language therapist as part of the medicine for older person’s team in St. Vincent’s University Hospital. We provide integrated care to clients living at home or in nursing homes by providing follow up care in the community post discharge from the acute hospital. I have a large caseload of patients with dementia (PWD) across multiple sites. PWD can have multifaceted difficulties that can affect their mealtime experience such as swallowing, attentional, environment and communication difficulties.

There was an ongoing need for a quick and easy to read information resource to help in education and training of families, carers and staff and prompt referral to our specialist team.

Methods: I used the Plan, Do Study, Act (PDSA) model to design, test and change the information leaflet based on feedback. This model is widely used in healthcare.

Step 1: Plan. I conducted a literature review and drafted the leaflets in consultation with the multidisciplinary dementia and delirium steering group in the hospital.

Step 2: Do. I piloted the leaflet with nursing staff and family members using questionnaires to gauge qualitative and quantitative feedback.

Step 3: Study. I analysed the results of the questionnaires and made changes to the leaflet based on feedback.

Step 4: Act. I rolled out the leaflet with hospital, outpatient and community clients.

Results: Results of the staff and family member questionnaires show that 100% of respondents reported that the leaflets improved their awareness of mealtime difficulties the PWD might experience and that the leaflets improved their awareness of mealtime difficulties the PWD might experience and that the leaflets provided them with new information on how best to assist the PWD at mealtimes.

Conclusion: The potential contribution of the information leaflet include improving knowledge and awareness among staff and families on mealtime difficulties experienced by PWD contributing to better quality care and improving the mealtime experience for PWD.

AN AUDIT OF ADHERENCE TO BENZODIAZEPINE RECEPTOR ANTAGONIST (BZRA) PRESCRIPTION GUIDELINES: DEFEATING DEPENDENCE IN GENERAL PRACTICE

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Background: Benzodiazepines and Z-drugs, collectively called benzodiazepine receptor agonists (BZRA), are two structurally-different but functionally similar groups of psychoactive drugs. BZRA dependence is a growing problem and is associated with significant morbidity and mortality.

The Report of the Benzodiazepine Committee (ROBC) 2002 Good Practice Guidelines recommends a number of measures surrounding prescribing which may curtail dependence.

This audit measures adherence to 5 key guidelines from this report at a single practice.

Methods: This quantitative clinical audit was carried out in a rural GP practice which cares for 7000 patients.

Database search was carried out on Healthline for all patients who had received a BZRA prescription in last 12 months. A random sample of 100 patients was chosen.

Each patient file in was hand searched in its entirety for relevant data, i.e. demographics & evidence of guideline adherence. Analysis: SPSS Graphs: SPSS and Microsoft Excel.

Results: The age, sex, indication for prescription and GMS status of this sample of patients were elucidated and depicted on graphs. 68% were female. 6% of patients did not have a documented indication for their prescription. Adherence to recommendations occurred in a majority of cases. Of 441 opportunities to follow an individual guideline across 100 patients, 36.5% of these opportunities were taken and documented. Of the 41 patients receiving repeat prescriptions, only 1 patient (2.4%) was offered a detoxification programme.

Conclusion: The chosen recommendations were not followed or documented in the majority of cases. The only guideline which was adhered to in the majority of cases was one which had a compulsory element to its documentation, i.e. prescription < 4 weeks.

Adherence to guidelines and documentation could be improved by using templates for BZRA prescribing and review. This measure would ensure that BZRA consultations are thorough and consistent.

RAPID REALIST REVIEW OF ADULT SAFEGUARDING LEGISLATION AND POLICY INTERNATIONALLY - LESSONS FOR IRELAND

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Nao Kodate2
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Background: Adult safeguarding is increasingly attracting policy and practice interest internationally. The investigation of the alleged abuse of vulnerable adults, including older people, has become an important feature of professional practice in Ireland. This implies important organisational challenges in ensuring that adult safeguarding responsibilities are delivered in ways that ensure positive outcomes for all stakeholders. In 2017, the Health Service Executive (HSE) commissioned a Rapid Realist Literature Review (RRL) in order to inform and underpin their research of Safeguarding Vulnerable Persons at Risk of Abuse : National Policy and Procedures (2014) [1].

Methods: A RRR approach was employed to review the national and international literature relating to Adult Safeguarding Legislation, Policy and Practice in five jurisdictions; England, Scotland, Northern Ireland, Australia and Canada. This desk-based evaluation set out to address the question ‘what works, for whom and in what circumstances?’ [2].

Results: In all jurisdictions reviewed, key to striking a balance between protection and rights is the participation of the ‘adult at risk’ in the safeguarding process including access to independent advocacy to help promote autonomy. Central to all safeguarding policies is the need to make inter-agency working obligatory and to ensure policies and processes are in place to do so. Sustainable resources at the preventative and protection stage are imperative in addition to adequately resourced adult safeguarding teams. The introduction of legislation can offer jurisdictions the opportunity to consider the introduction of measurable outcomes and if appropriate, responsive service provision across the preventative-protection continuum.

Conclusion: Adult safeguarding policy and legislation must ensure that interventionist and compulsory measures to protect do not excessively restrict the rights of the individual.

References

EXPLORING PATIENT, FAMILY MEMBER AND PROFESSIONAL PERSPECTIVES OF REHABILITATION HOSPITAL FAMILY MEETINGS USING A PARTICIPATORY ACTION RESEARCH APPROACH

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Background: Family meetings are an integral part of clinical work and an important part of each patient’s journey through their inpatient rehabilitation, providing an opportunity to ask, where to from here? [1]. Family meetings can require a significant amount of
A COHORT STUDY CHARACTERISING ADMISSIONS AND ASSESSING THE REDUCED BARORECEPTOR SENSITIVITY IN PATIENTS WITH DELIRIUM

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Background: Delirium is a cognitive dysfunction that affects approximately 25-50% of older hospitalised patients and 10% of the community. It is recognised as a major public health problem and frequently associated with medication use, cognitive impairment, and reduced mobility. This study aims to assess the prevalence of delirium and its impact on various outcomes in older patients admitted to a rehabilitation unit.

Methods: A retrospective cohort study of all patients admitted to a rehabilitation unit over a six-month period was conducted. Demographic, admission, and discharge outcome data were reviewed. Prevalence of delirium was assessed using the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) and the Delirium Rating Scale Revised 1998 (DRS-R98). Pre-existing cognitive impairment (CI) was established based on a previous diagnosis of dementia or a Mini-Mental State Examination score of less than 24. Beat-to-beat blood pressure (BP) and RR-intervals were recorded in both the supine and sitting positions. The Baroreceptor Reflex Sensitivity (BRS) was measured using the Baroreflex Effective Index (BEI).

Results: Of the 59 patients included in the study, 37 (62%) had cognitive impairment, 25 (42%) were on polypharmacy, and 18 (30%) had a history of falls. The mean age was 81 (9) years with 58% female (N = 35). 62% (N = 37) had cognitive impairment, and 27% (N = 16) were on polypharmacy. The mean duration of stay was 17 (8) days with 98% (N = 59) discharged home; 52% (N = 31) living alone.

Conclusion: Delirium was found in 46% (N = 18) of the patients, with 25% having a moderate/high risk of falls. The presence of CI was associated with a higher prevalence of delirium. The BRS was significantly lower in patients with CI compared to those without. These findings highlight the importance of assessing CI in predicting delirium risk.

A REDUCED BARORECEPTOR SENSITIVITY IN PATIENTS WITH RECENT DELIRIUM

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Background: Delirium is a common acute confusional state that affects older hospitalised patients. It is associated with an increased risk of adverse outcomes. A reduced baroreceptor sensitivity (BRS) has been proposed as a potential risk factor for delirium. This study aimed to explore the association between BRS and delirium in older patients.

Methods: A retrospective chart review of all patients admitted to a rehabilitation unit over a six-month period was conducted. Prevalence of CI was established based on a previous diagnosis of dementia or a Mini-Mental State Examination score of less than 24. Beat-to-beat blood pressure (BP) and RR-intervals were recorded in both the supine and sitting positions. The Baroreceptor Reflex Sensitivity (BRS) was measured using the Baroreflex Effective Index (BEI).

Results: Of the 59 patients included in the study, 37 (62%) had cognitive impairment, 25 (42%) were on polypharmacy, and 18 (30%) had a history of falls. The mean age was 81 (9) years with 58% female (N = 35). 62% (N = 37) had cognitive impairment, and 27% (N = 16) were on polypharmacy. The mean duration of stay was 17 (8) days with 98% (N = 59) discharged home; 52% (N = 31) living alone.

Conclusion: Delirium was found in 46% (N = 18) of the patients, with 25% having a moderate/high risk of falls. The presence of CI was associated with a higher prevalence of delirium. The BRS was significantly lower in patients with CI compared to those without. These findings highlight the importance of assessing CI in predicting delirium risk.
Background: Nursing home residents are a complex, vulnerable and historically neglected cohort. The EuGMS is committed to improving care for these individuals: it established formal standards of medical care for nursing home residents in 2015, and is currently developing a curriculum of core competencies. Integrated to these efforts is identifying the physicians, for whom, education in these competencies needs to be directed.

Methods: A survey was distributed to EuGMS members representing national geriatrician societies across Europe. We asked members their perceptions of what proportion of nursing home care was delivered by various physician specialties, and what were the main functions carried out in nursing homes in their countries.

Results: We received 19 replies from 33 countries. The vast majority of medical care in nursing homes is delivered by general practitioners, over 75% in 15 of 19 countries, rather than by geriatricians or physicians specifically qualified in nursing home medicine. The primary function of nursing homes is residential care. However, in most countries, nursing homes play an important role in rehabilitation, respite and palliative care - almost a quarter of nursing home activity.

Conclusion: The majority of medical care in nursing homes is delivered by general practitioners. While the primary function of nursing homes is residential care, rehabilitation, respite and palliative care are important components of nursing home activities. Education and training structures to achieve the highest standards of medical care must be designed for general practitioners without specialist training in geriatric medicine.

Background: Among older inpatients high proportion frailty. Overall there was no real difference identification of frailty across the three methods but SET Clinical Frailty Screening Tool may overestimate in oldest old. Our results suggest clinical judgement is as good a method identification frailty as screening tool. However geriatricians experts in managing the frail and highly skilled in identification of frailty. An area future study could focus identification of frailty by non-geriatricians in comparison validated screening tool to see if results replicated.

References
23.3% (n = 29). Vitamin D levels were between 30 and 90nmol/L, in 20.2% (n = 25).
Sufficient Vitamin D levels (>50nmol/L) were seen in 56.5% (n = 70). Mean CFS score was 5.8.
Those with a CFS score of 5 and above were statistically more likely to be deficient in Vitamin D (30.3% vs 9.1%, p < 0.0003) than those with a CFS score of 4 and below.
Conclusion: This study highlights that there was a higher proportion of Vitamin D deficiency in those with a higher degree of frailty. Vitamin D deficiency is common in a frail population so screening for Vitamin D deficiency should be considered as part of a pre-hospital geriatric assessment.

Reference:

126 IMPACT ON CARE PRACTICES OF IMPLEMENTING A MULTIDISCIPLINARY DEMENIA/DелиERIE CARE BUNDLE ON AN ACUTE MEDICINE FOR OLDER PERSONS WARD
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Background: Approximately one in four admissions to acute hospitals are people living with dementia. The National Audit of Dementia Care in Ireland found that people with dementia have significantly poorer care outcomes than older people without dementia in acute care. Similar findings have been highlighted for older people experiencing delirium. Evidence based care bundles have been shown to improve care outcomes in a number of healthcare areas. This project involved the implementation of a care bundle to enhance important care for people with dementia/delirium.

Methods: Care practices were audited against four evidence based principles, knowing the person, individualised communication, nutrition and hydration and safe, orientating environments.

Data collection consisted of a baseline audit (n = 10) and 50% (n = 35) of patients who had the Dementia/Delirium Care Bundle (DDCB) initiated during implementation.

The audits took place at intervals between July 2017 and February 2018, incorporating document check, interview and observation.

Results: The use of personal profiles rose from 5% to 61%, with subsequent increases in staff ability to relate key information about the person (40% to 74%). Consistency in monitoring nutrition and hydration remained static at 100%, knowledge of nutrition and hydration preferences increased 40% to 50%. Personalised environments increased from 30% to 81%, with improvements in clutter-free environments and knowledge about mobilisation needs noted. Knowing/documenting preferred means of communication rose from 30% to 45%, with similar improvements in assessment of pain.

Conclusion: Using a DDCB impacts positively on care practices, particularly in knowing the person and safe, orientating environment. High compliance was noted with task oriented elements of the DDCB, with more modest improvements in areas such as individualised communication and knowledge of preferences. Action areas highlighted such as education to drive person-centred culture change are being addressed at local and organisational level. Further targeted research and continued audit is needed.

127 FRAILTY AS A PREDICTOR OF NEW ONSET URINARY INCONtinence AMong HOSPITALIZED ADULTS
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Background: Incontinence is a common geriatric syndrome. Reflecting its relationship with physical and cognitive impairment, urinary incontinence (UI) is associated with increased risk of adverse healthcare outcomes including falls, mortality and costs. However, little is known about how frailty and UI are associated among hospitalized adults. The objectives of this study were to evaluate the point prevalence of UI and examine the relationship between UI and frailty in patients admitted to hospital for acute care.

Methods: Consecutive inpatients (≥18) in a large university hospital were assessed on admission and at 24 hours in August 2017. Patients were assessed for their pre-admission and hospital-phase of care using the Circumstance Function Assessment (CFA), frailty indices using the Clinical Frailty Scale (CFS), demographic data, Charlson comorbidity index (CCI), and discharge outcomes. Data was collected from January 2016–December 2017. Demographic data, admission date, diagnosis, length of stay (LOS) and discharge destination for all NH patients admitted to the acute hospital were routinely collected. Data of patients discharged to an alternative response site were reviewed to examine LOS in NH pre-hospital admission, diagnosis, inpatient LOS and reasons for transfer.

Results: There were 1,147 episodes of care for NH residents in 2016–2017, average LOS of 10.4days. 18 patients (20%) could not be discharged to their original NH. Average LOS in their original NH was 366.2days, but less than one year in 14(70%), 19(95%) had discharge planned to another NH, two of whom died. One was discharged home. 11(55%) were admitted for “behavioural symptoms”, 10 of whom had a diagnosis of dementia or mild cognitive impairment. Transfer was requested by patient and NH in two of these cases, NH alone in seven, by family and in one and family in one case. This group accounted for 1,163 bed days, average LOS was 105.4days (95%) required NH transfer for new care requirements secondary to their medical needs, with an average LOS of 81.4days.

Conclusion: Though they represent a small proportion of admissions, NH residents requiring an alternative discharge destination for behavioural symptoms or complex medical needs are a challenging group. Close collaboration between GP, psychiatry of later life and medicine for the older person may reduce the need for using the acute hospital as a gateway for finding appropriate care for some of these NH residents.

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GUIDELINES: SYMPTOM CONTROL FOR PATIENTS RECEIVING END OF LIFE CARE IN A HOSPITAL
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Background: With our increasing ageing population, many patients are dying in hospitals under the care of clinical teams and may or may not require specialist palliative care input. Current Medical Council recommendations advise that doctors should treat patients who are dying with a palliative care approach to maintain their patient’s dignity and optimise comfort. These guidelines were developed as part of an audit of symptom control of patients at the end of life in a hospital. Our aim was to create a guideline to facilitate symptom management and care planning for patients, with malignant and non-malignant diagnosis, who are imminently dying and to empower non-palliative care medical practitioners in their clinical decision making.

Methods: A collaborative, interdisciplinary, interdepartmental and qualitative process was involved in developing the guidelines.

Results: The guidelines were developed based on current evidence, palliative care practice, and feedback from the consultative process. They were presented to the doctors at hospital induction. Hard copies were printed and made available on the wards.

The guidelines include medication management, clinical practice and communication issues. They consist of prompts to aid individualized, patient-centered, clinical decision making including addressing reversible causes for deterioration if appropriate and consideration of the ceiling of care. Options for anticipatory symptom control medications and the patient’s environmental setting were incorporated. Recommendations for patients who are opioid naive or with renal impairment is included. Specialist palliative care advice and involvement can be sought at any stage of management.

Conclusion: The guidelines were developed to aid timely, effective, patient focused care for patients who are imminently dying and to support non-palliative medical practitioners in end of life care. It aims to improve hospital experience for both the patient and their families.

129 COLLABORATIVE AND INTEGRATED CARE AND ITS ROLE IN REDUCING ACUTE HOSPITAL ADMISSION FOR NURSING HOME RESIDENTS WITH COMPLEX CARE NEEDS
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Background: There were 22,762 nursing home (NH) residents aged ≥65 in Ireland in 2016. Due to complex care needs, an alternative place of residence is sometimes required for these residents. We aimed to review patients admitted to hospital from a NH and discharged to an alternative destination.

Methods: Data was collected from January 2016–December 2017. Demographic data, admission date, diagnosis, length of stay (LOS) and discharge destination for all NH patients admitted to acute hospital were routinely collected. Data of patients discharged to an alternative site were reviewed to examine LOS in NH pre-hospital admission, diagnosis, inpatient LOS and reasons for transfers.

Results: There were 1,417 episodes of care for NH residents in 2016–2017, average LOS of 10.4days. 18 patients (20%) could not be discharged to their original NH. Average LOS in their original NH was 366.2days, but less than one year in 14(70%), 19(95%) had discharge planned to another NH, two of whom died. One was discharged home. 11(55%) were admitted for “behavioural symptoms”, 10 of whom had a diagnosis of dementia or mild cognitive impairment. Transfer was requested by patient and NH in two of these cases, NH alone in seven, family and in one and family in one case. This group accounted for 1,163 bed days, average LOS was 105.4days (95%) required NH transfer for new care requirements secondary to their medical needs, with an average LOS of 81.4days.

Conclusion: Though they represent a small proportion of admissions, NH residents requiring an alternative discharge destination for behavioural symptoms or complex medical needs are a challenging group. Close collaboration between GP, psychiatry of later life and medicine for the older person may reduce the need for using the acute hospital as a gateway for finding appropriate care for some of these NH residents.

130 CHARACTERISTICS OF SINGLE AND RECURRENT FALLERS IN AN INPATIENT COHORT AND COMPARISON OF DIFFERENCES IN ASSESSMENT
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Background: Inpatient falls are a significant burden on patient wellbeing and cost. Post fall review is necessary to establish cause, with ECG abnormality associated with
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increased mortality and cardiac syncpe. We evaluated the characteristics of single and recurrent fallers in a cohort of patients residing in rehabilitation, stepdown or palliative care beds. All patients were assigned the standard of inpatient falls assessment.

Methods: Using data from the Risk Department, all falls that occurred in the hospital over three months in January–March 2016 and 2017 were identified. Descriptive chart review allowed collation of data on these fallers, including demographics, background history, admission falls risk assessment, individual fall characteristics and post fall review. Data was analysed using the statistical program SPSS. Characteristics of single and recurrent fallers were compared.

Results: Of 39 patients, 56 (n = 22) were a single and 44% (N = 17) recurrent faller. Of 68 falls overall, 68% were due to recurrent fallers. 53% of recurrent fallers were in a stepdown bed with discharge destination being long-term care (64%); 82% of recurrent fallers were on high falls risk medication versus 68% of single falls. An admission ECG was not done in 18% (total sample). Of single fallers who had admission ECG, 6% (n = 1) had abnormal conduction versus 53% (n = 8) in recurrent fallers, P = 0.003. There was no statistically significant difference in post fall review between single and recurrent fallers albeit post fall assessment was considered poor with only 12% of recurrent fallers having an ECG post fall and only 18% commenced on bone protection.

Conclusion: The main finding of this study suggests recurrent fallers may be at higher risk of a cardiac arrhythmia. Post fall review standards need to be improved. The introduction of a post fall medical review proforma is proposed together with further education and a repeated audit cycle.

TNP INHIBITORS FOR THE PREVENTION OF ALZHEIMER’S DISEASE

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Background: Alzheimer’s disease (AD) is the most common cause of dementia, affecting over 26 million people worldwide. A raised level of the proinflammatory cytokine, tumour necrosis factor-alpha (TNF-alpha) has been observed in the AD brain, highlighting the importance of neuroinflammation in the progression of AD and prompting the study of different anti-inflammatory treatments. TNF inhibitors (TNFi) are an established treatment for Rheumatoid Arthritis (RA); recently it was published that RA patients on TNFi have a lower incidence of dementia compared to those on traditional disease modifying anti-rheumatic drugs (DMARDs).

Methods: This is a longitudinal observational study which will compare cognitive decline in RA patients with mild cognitive impairment (MCI) who are on TNFi to those on DMARDs. Participants > 55 years of age will be recruited from rheumatology clinics. Consentting participants will be screened using the Montreal Cognitive Assessment (MoCA). Those scoring ≤ 27/30 will be eligible to continue in the study as this cut off score is indicative of MCI.

Cognitive assessments will be carried out at baseline using the Free and Cued Selective Reminding Test (FCSRT) and will be followed up at 6, 12 and 18 months. After the 18-month period, statistical analysis will be conducted to calculate the difference in mean FCSRT score between the TNFis and DMARD groups.

Results: The hypothesis for this study is that TNFi reduce the rate of cognitive decline in RA patients with MCI compared to DMARDs. Results of this study will be published in due course and shared with both AD and RA research communities at international conferences like the American Rheumatism Association and the British society of Rheumatology.

Conclusion: Without appropriate intervention the incidence of AD is estimated to rise dramatically in the coming years. If this study yields successful results, it would suggest the potential utility of TNFis as a preventative treatment for AD.

RECOGNITION AND TREATMENT OF OSTEOPOROSIS IN AN OUTPATIENT GERIATRIC POPULATION

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Background: Osteoporosis is a common condition in the older population. Unfortunately this is also an underestimated condition. Missed opportunities for initiation of treatment are often identified in patients presenting with fragility fractures. We examined the rates of recognition and of treatment of osteoporosis in our Geriatric Outpatient Department.

Methods: Medical notes for all patients > 65 years of age attending a Geriatric Medicine Outpatient Clinic in December 2017 were reviewed. Laboratory investigations were also undertaken for Vitamin D measurement. Bone health was addressed in 27% (n = 34) of all patients reviewed in our outpatient clinic, and in 49% (n = 22) of patients identified as being at increased risk of falls. Demclusion was the most frequently prescribed osteoporosis treatment, 58% (n = 14) of treated patients. Calcitriol D3 Fore entered the frequently prescribed Vitamin D replacement, 33% of treated patients.

Conclusion: Despite review occurring in a dedicated Geriatric Medicine Outpatient Clinic, osteoporosis was not consistently documented in patient records. Treatment was not prescribed for all patients with known osteoporosis. Where treatments were not prescribed, contraindications were not identifiable. Bone health was not consistently addressed in all patients at increased risk of falls and fractures. Further education is needed to ensure a consistent approach to diagnosis and treatment of osteoporosis in our patient population.

WHERE DO YOU WANT TO LEARN GERIATRIC MEDICINE? A SURVEY OF MEDICAL STUDENTS

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Background: All final year UCD medical students complete a community medicine module run by the disciplines of geriatric medicine and general practice. As part of their learning, students rotate through off-site geriatric rehabilitation hospitals. Students’ opinions on teaching were recorded to identify advantages and disadvantages of their geriatric placements.

Methods: A questionnaire survey was distributed to students following a 2-week geriatric placement. Students were asked to rate the usefulness of different aspects of their placements and to identify differences between rotations through rehabilitation and acute hospital settings.

Results: 69 students responded (97% response rate). 52 (75%) students rated rotating through a rehabilitation hospital as useful or very useful. 57 (82%) students found having a clinical tutor on-site very useful and 54 (78%) students found small group tutorials on “geriatric giants” very useful. 32 (46%) and 40 (58%) students respectively rated tutorials by MDT members and attendance at MDT meetings as border or not useful. 40 (58%) found attendance at day hospital useful or very useful. In terms of access to patients, 22 (32%) students found it easier in an acute hospital, 22 (32%) in rehabilitation and 24 (35%) found access the same. 34 (49%) students found it easier to access medical staff in rehabilitation hospitals compared to 16 (23%) in an acute hospital. 59 (85%) students found small group teaching with a tutor the most valuable part of their placement.

Conclusion: The majority of students benefited from rotating through a rehabilitation hospital with similar access to patients compared to acute hospitals. The presence of a specialist geriatric clinical tutor on-site contributed most to students’ learning. Exposure to the role of the MDT was ranked as least useful highlighting the need to further educate students on the crucial role of the MDT in the care of the older patient.

THE NOVEL INTRODUCTION OF DOG THERAPY TO A REHABILITATION HOSPITAL

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Background: Established evidence shows that engagement with animals improves patient mood and activity. Animal therapy is now a recommended treatment for dementia by NICE. Dog therapy in particular has proven safety with no infection recorded by Irish or US authorities since monitoring began in the 1930s. We introduced a twelve-month trial of weekly dog therapy from May 2017 for hospital patients undergoing medical rehabilitation.

Methods: Approval was sought in advance from patient’s hospital management, physiotherapists, occupational therapists, nurses, doctors and infection control managers by one-to-one engagement and presentation of risks and benefits. Trained dogs and their owners were selected and managed by Peata, an Irish therapy dog organisation. Dogs visited weekly for two hours and engaged with up to sixty patients at their bedside. We undertook qualitative interviews with patients and above-mentioned stakeholders following dog visits. We monitored infection risks and outcomes.

Results: It took six weeks to win approval from all stakeholders for the introduction of dog therapy. Critical areas of discussion were infection control and patient safety. On a weekly basis, a significant majority of patients (>90%) agreed to engage with dogs. Qualitative outcomes include patients describing a lift in their overall mood and sustained increased communication among patients; physiotherapists describing carry-over from dog visits that improved subsequent physiotherapy participation; nurses observing patients who had previously not smiled due to pain management, smiling for the first time with dogs. There was no negative feedback given. There were no infections or adverse safety incidents recorded throughout the year from therapy dog visits. There was no cost to the hospital.

Conclusion: We introduced novel dog therapy to a rehabilitation hospital through careful, diverse stakeholder engagement. Dog therapy complemented other forms of therapy and appeared to achieve qualitative benefits to patient mood and overall experience in hospital.

PATIENTS OVER 85 YEARS OF AGE ATTENDING A HEMATOLOGY DAY WARD - UNMET CHALLENGES

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Background: Benign and malignant diseases have been diagnosed with increasing frequency in the ageing population.
The management of haematological diseases is particularly challenging, as patients greater than 85 are often excluded from cancer clinical trials, so clear data is not available regarding best available treatment in this population. Patients therefore be exposed to increased toxicity from chemotherapy. Treatment is further challenged by comorbidities, poly-pharmacy and presence/absence of social supports.

Methods: Patient attendance and disease characteristics are recorded on an online oncology management system in the haematology day ward at a large teaching hospital. The number of patients greater than 85 (inclusive) who attended the day ward over a 6-month period was recorded. Information on diagnosis, treatment, distance travelled, social supports and co-morbidities and concurrent medications at the time of diagnosis were documented.

Results: The total number of visits in 6 months was 3,480. 240 patients were aged > 85. Total number of patients > 85 was 35. 20 patients attended at least monthly. 4 patients had no clear diagnosis documented and attended only once. The highest number of visits by a single patient was a 24-year-old.

Myelodysplastic syndrome (MDS) (n = 9) was the commonest diagnosis, followed by multiple myeloma (n = 7). Other diagnoses included dermatomyositis (n = 1), bortezomib/dexamethasone (n = 1), lenalidomide/dexamethasone (n = 3), bisphosphonates (n = 3). MDS patients received regular transfusion support (n = 3) or less regular/no transfusions (n = 6).

Nearly half of patients had their treatment changed or stopped. 1 patient suffered devastating side-effects of their disease, resulting in immobility. 18% patients had no comorbidities, 20% had no concurrent medications at the time of diagnosis.

Conclusion: Over 85 year-olds account for a significant proportion of patients undergoing active treatment for haematological diseases, highlighting the need for an evidence-based, tailored approach to treatment in this population.

THE MULTIPLEITY OF FRAILTY SCREENING TOOLS IN PRIMARY-CARE: A REVIEW AND NEW ALTERNATIVE

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Background: Frailty is a state of physiological vulnerability, which increases the risks of illness, disability, institutionalisation and death. Recommendations increasingly encourage physicians to screen patients for frailty. In 2017, the NHS in England made routine frailty screening a contractual requirement for GPs. However, there is no standard approach to screening. We investigated the multiplicity of frailty screening tools used in primary-care.

Methods: We searched PubMed, CINAHL, Cochrane Controlled Trials and PEDro to June 2017 for English language studies on primary-care frailty screening and interventions and analysed screening tools employed.

Results: 919 studies met our search criteria and 53 were analysed in detail. We identified 26 different frailty screening tools. 16 tools were employed in 43 RCTs or cohort studies on frailty intervention. 10 further tools were identified in reviews or novel studies. Many screening tools were derivations of two seminal models, Fried and colleagues’ ‘frailty criteria’ and Travers’ ‘clinical model.’

Several challenges to applying current tools in practice were identified. Phenotype based tools lack defined reference population values that may not be available and have overlapping criteria, while many index tools have long lists of 50 to 70 indicators. The electronic phenotype index (Eegg et al) facilitates screening but reliable electronic databases are not widespread.

Conclusion: We found a wide diversity of frailty screening tools with no standardised approach. This may be due to challenges in using existing tools. We propose an alternative tool that builds on the best aspects of existing models, while avoiding shortcomings. The following frailty indicators (Travers) are easier to gather, do not overlap and cover all aspects of key definitions: Capacity measured by energy (grip strength), power (walking speed) and robustness (bone and muscle health), and incapacity measured by sensory loss, function deficit (activities of daily living) and organ deficit (systemic conditions).

PREVALENCE OF SEDATIVE MEDICATION USE AMONG OLDER PATIENTS DURING HOSPITAL STAY

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Background: Sedatives (e.g. benzodiazepines and x drugs) are safe and effective for short-term treatment of anxiety and insomnia but can be associated with adverse effects such as falls and confusion, especially among older adults when used long-term. A study done in 2016 by the lead author in a rehabilitation unit in the West of Ireland showed that 1 in 2 patients were prescribed sedatives. This practice was significantly reduced after targeted education of healthcare staff. Our audit aims to determine the prevalence of sedative prescription among older adults admitted to a Model 2 hospital in Dublin.

Methods: A review of charts and prescriptions of patients 65 years admitted acutely for rehabilitation was conducted over one week in April 2018.

Results: Of 72 eligible inpatients, mean age was 81 years (SD ± 7.9), 55% (n = 40) were women. Sedatives were prescribed to 21% (n = 15). Two (3%) were on benzodiazepine, 4 (5%) on zopiclone or zolpidem and 3 (4%) on both benzodiazepine and either zopiclone or zolpidem. Indications for use were insomnia (90%, n = 12) and anxiety (20%, n = 3). For those on sedatives, 40% (n = 6) had history of recurrent falls, 53% (n = 8) had polypharmacy and 20% (n = 3) had delirium with history of dementia. Almost half (47%, n = 7) of patients on sedatives were started during admission. Only 2 (13%) had review/stop date.

Conclusion: In this cohort, 1 in 5 patients were prescribed sedatives however the majority had contraindications to their use. To further reduce sedative prescription for older patients and minimise their risk of falls and delirium, we plan to provide targeted healthcare care staff education regarding non-pharmacologic methods for improving sleep hygiene. This was previously successful in the rehabilitation unit in the West of Ireland. A re-audit will follow to assess the impact of the education sessions.

TO INVESTIGATE THE EFFECT OF EARLY DIETETIC INTERVENTION ON DIETARY INTAKES OF HIP FRACTURE PATIENTS IN AN ACUTE TEACHING HOSPITAL

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Background: Malnutrition is an issue post hip fracture due to increased nutritional requirements. A dietetic audit in 2017 observed that dietary intakes were inadequate and oral nutritional supplement (ONS) use improved dietary intakes in hip fracture patients however these patients were waiting up to 7 days (median, range: 2–17) for Dietitian referral. The aim of this audit was to investigate if early dietetic referral and intervention improved energy and protein intakes of hip fracture patients.

Methods: A prospective audit of hip fracture patients aged over 64 years who were referred to the Dietitian was conducted over a five week period in 2018. The Dietitian identified patients at weekly multidisciplinary team meetings. Brief intervention including ONS prescription was completed by the Dietitian within 1 working day of the patient referral. Dietetic assessment was conducted within 3 working days. Energy and protein intakes were quantified from nurse administered food charts by the Dietitian. The percentage energy and protein requirements achieved on initial dietetic assessment was compared to the audit in 2017 conducted in the same hospital, following the same protocol.

Results: Of the ten patients referred to the Dietitian, referrals were made at day 2 (median, range: 0–10) of admission in 2018 versus day 7 (median, range: 2–17) in 2017. On average the initial dietetic intervention was on day 2 of referral. An increase in energy requirements achieved was observed from 2017 – 2018, from 52% (median, range: 17–88) to 74% (median, range: 34–100). Similarly, protein requirements achieved increased from 65% (median, range: 21–95) to 80% (median, range: 27–100).

PROFILING COMMUNICATION ABILITY IN DEMENTIA (P-CAD): VALIDATION OF A FUNCTIONAL COGNITIVE-COMMUNICATION ASSESSMENT

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Background: Cognitive communication difficulties are characteristic of dementia with negative impact. Yet, clinicians have few options for standardized assessment of cognitive communication skills in people with dementia. The newly devised P-CAD facilitates evaluation of functional communication abilities of individuals with dementia and a specific focus on conversational skills. It guides intervention, providing measurement of change over time. The aim was to validate the P-CAD with the objective of providing clinicians with a much needed psychologically sound assessment for individuals with dementia.

Methods: 100 people with dementia and their communication partners were recruited over 12 months. The P-CAD was validated against MMSE-2, Global Deterioration Scale (GDS) and Functional Linguistic Communication Inventory (FLCI). Inter-rater reliability and sensitivity to change over time (3 months) were also tested on a sub group of individuals. Participants with dementia were at different stages of dementia and presented with a range of dementia subtypes.

Results: Statistically significant correlations were found between P-CAD scores, MMSE-2 scores (r = 0.830, p < 0.001) and FLCI scores (r = 0.863, p < 0.002). There were no significant changes over time in any of the 3 scales for the participants (N = 11) who completed follow-up measures. Inter-rater reliability for the P-CAD (N = 20) was strong between the two raters for all measures; GDS (ICC = 0.996, p < 0.001); MMSE-2 (ICC = 0.997, p < 0.001); FLCI (ICC = 0.999, p < 0.001). There were significant correlations between the level of communication support on the P-CAD and GDS (rho = 0.580, p < 0.001) and MMSE-2 (rho = 0.633, p < 0.001) scores.

Conclusion: The P-CAD is a valid reliable cognitive communication assessment, appropriate for use with people across all subtypes and stages of dementia. It is now ready for use in clinical practice, informing interventions aimed at improving conversations between people with dementia and their communication partners.

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**Conclusion:** Early dietetic intervention increases energy and protein intakes in hip fracture patients earlier in their hospital stay thus improving their nutritional status in the days following surgery and which may have the potential to decrease malnutrition risk in this patient group.

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**Anticoagulant associated intracerebral haemorrhage – a protocol to reduce time to treatment**

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**Background:** Intracerebral haemorrhage (ICH) associated with anticoagulation presents a particular challenge in emergency departments and timely management is key. Prothrombin complex concentrate (PCC) is used as part of management of vitamin K antagonist (VKA) and direct oral anticoagulant drug (DOAC) associated ICH. We sought to reduce the time from diagnosis to treatment with PCC in patients on anticoagulation presenting with ICH.

**Methods:** From April 2016 to January 2018 we prospectively analysed patients presenting to the Emergency Department with ICH on anticoagulation – VKA or DOAC. Following a literature review and based upon the treatment pathway used in The Greater Manchester Comprehensive Stroke Centre a new protocol for treating anticoagulant associated ICH was devised and implemented. Key practice changes included: 1. Availability of PCC (Octaplex) in a new blood products fridge in the ED. 2. Use of Point of Care INR testing in ED and 3. Prescription of PCC, by strict pre-approved protocol and with our necessity for prior approval by the on-call Haemostasiologist. These new changes were implemented in April 2017.

**Results:** A total of 41 patients with anticoagulant associated ICH were admitted to the ED. 19 patients prior to and 22 patients post protocol implementation. Median age pre- and post-protocol implementation was 80 (IQR: 72–94) vs 79 years (IQR 69–87), respectively. Median scan to needle time pre protocol was 150 minutes (IQR 85–226 min) and post protocol was 50.5 min (IQR 31.15–95 min) p = 0.001. Median door to needle time pre protocol was 382 min (IQR 205–562 min) and post protocol implementation was 147.5 min (IQR 65–291 min) p = 0.008

**Conclusion:** A protocol to reduce door to needle time and scan to needle time in treatment of anticoagulant associated ICH was highly successful. Faster treatment using this protocol will, we hope, improve patient outcomes.

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**Longitudinal prevalence of potentially serious alcohol-medication interactions in community dwelling older adults: A prospective cohort study**

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**Background:** This study aims to estimate (i) the prevalence of potentially serious alcohol-medication interactions in a nationally representative sample of older adults using the POtentially Serious Alcohol-Medication INteractions in Older adults (POSAMINO) criteria, and (ii) whether POSAMINO prevalence changes over time.

**Methods:** A prospective cohort study of adults aged ≥ 65 years, using data from the first three waves of The Irish Longitudinal Study on Ageing (TILDA). All 38 POSAMINO criteria were applied at each wave using respondents’ information on regular medications and alcohol consumption. Multi-level logistic regression and negative binomial models were used to investigate whether the prevalence of POSAMINO varied over time.

**Results:** The overall prevalence of POSAMINO was 18% at baseline, with 8% at risk of one potentially serious drug alcohol interaction, and 10% at risk of two or more. The most common POSAMINO involved cardiovascular agents (15% baseline; 11% wave 2; 14% wave 3), followed by CNS agents (4% baseline; 4% wave 2; 5% wave 3). Prevalence of any POSAMINO (AOR 0.94, 95% CI 0.81, 1.08) or number of POSAMINO criteria (AIR 0.97, 95% CI 0.91, 1.04) did not change over time. Any POSAMINO and number of POSAMINO were associated with younger age, male sex and number of medications and chronic conditions.

**Conclusion:** Potentially serious alcohol-medication interactions are prevalent in older adults. Alcohol screening and brief interventions should be considered for high-risk groups at the point of prescribing, particularly among younger older adults, men and as patients receive more medications or develop additional illnesses.

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**Improving anticipatory prescribing practices for all older patients with an anticipated death in hospital**

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**Background:** The NICE guidelines advocate that adults in the last days of life who are likely to need symptom control are prescribed anticipatory medicines with individualized indications for use, dosage and route of administration (1). This study investigated the extent older patients within an acute teaching hospital had anticipatory medicines prescribed prior to death, as recommended by the Regional Palliative Medicine Group for Northern Ireland (2).

(1) Care of dying adults in the last days of life (2015) NICE guideline NG31, recommendation 1.6.1
(2) http://www.professionallighthub.com/guidelines/northern-ireland-palliative-care-tools-guidance

**Methods:** The study retrospectively reviewed the notes and kardexes of hospital inpatients who had an anticipated death in hospital, and using an audit tool, established if patients had been prescribed appropriate anticipatory medication for end of life care, as recommended by the Northern Ireland Regional Palliative Medicine Group. This included medicines for...
1. Pain.
2. Breathlessness.
3. Nausea and vomiting.
4. Anxiety, delirium and agitation.

Results: 55% of patients were prescribed all the medicines recommended to palliate anticipated symptoms encountered during end of life care. All the patients had access to opioids for palliation for pain and breathlessness. 95% of the patients had access to medication to alleviate anxiety, delirium and agitation. 75% had access to medicines for chest secretions and 90% had access to an anti-emetic.

Conclusion: From this baseline data, it is clear not all patients had access to the recommended anticipatory medicines. We are now progressing to compare the effect of gradually implemented interventions on improving anticipatory prescribing for patients at the end of life. Example of interventions include prompting senior medical staff to ensure medications have been prescribed, palliative care education for junior medical staff and implementing a symptom observation chart. Our goal is to improve our prescribing of anticipatory medicines and thus improve care for older adults in the last days of life.

SUPPORTING PEOPLE WITH DEMENTIA TO DIE AT HOME IN IRELAND

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Background: The Irish National Dementia Strategy (2014) highlights the need for early diagnosis and establishing a dementia friendly Ireland to enable people with dementia to live well in their communities. However, the needs of people with advanced dementia are not often discussed and little is known about what supports people with dementia need to enable them to live well and die well in their own homes.

This study explores the components of care which support a person with dementia who accessed a national right nursing service to die at home.

Methods: A mixed methods approach was used. Quantitative data from a national right nursing service (which supports people with dementia to die at home) was accessed. Supplementary information from specialist palliative care teams (SPCT) was gathered for 52 dementia referrals to the right nursing service between June and December 2015. Data retrieved was analysed. Findings were compared against the literature available on people with dementia who are enabled to die at home.

Results: Of the 4,200 people with dementia who die in Ireland every year 5% (210) die at home.

Conclusion: Along with more focus on advance care planning the biggest enabler to improve care for people with dementia who are enabled to die at home.

In a follow up staff survey, overall satisfaction was rated as “very good” or “excellent”.

Conclusion: Learning Points

Importance of identifying frail patients on admission
Necessity of early intervention
Benefit of Interdisciplinary assessment and treatment
Increased knowledge of each HSCP role
Enhanced—patient flow through ED
Importance of MDT communication
Valuable contribution to ED Team

FAIRLY-RELATED OUTCOMES AND HEALTH CARE USE (FOCUS): EVIDENCE FROM THE IRISH LONGITUDINAL STUDY ON AGEING

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Background: Frail older people have both “depth and breadth” in their healthcare needs and require an integrated approach to service delivery but often experience poor service coordination in practice. Reforming service delivery models is a priority for this group, but the process is hindered by a dearth of evidence, particularly of current service utilisation patterns. The aim of this study was to identify profiles of service users among frail older people, to examine how they change over time and to ascertain their effect on key outcomes.

Methods: Data were taken from The Irish Longitudinal Study on Ageing (TILDA), a prospective cohort study representing the Irish community-dwelling population aged ≥50 years. We sampled adults aged ≥50 years (n = 8,175) in wave one (2009/11) who were classified as frail, or pre-frail in wave one but frail in wave two (n = 1,853) using the Frailty Index. Latent class analysis determined service use profiles across hospital, primary and community services at waves one, two and three in TILDA. Two level multilevel logistic regression identified the factors predicting service use profiles (concurrent validity). Mixed effects models determined the impact of service use profiles on health outcomes and social indicators (predictive validity).

Results: Four heterogeneous service use profile identities were identified; Non-users, Hospital-users, Community-users and High-users (62%, 19%, 16% and 3% respectively) in wave one. Characteristically Non-users were the most stable, Hospital-Users were frail and medically unwell, Community-users were frail and disabled, and High-users were frail, medically unwell and disabled. The majority of Non-users remained as Non-users at follow-up. The incidence of falls and functional limitations increased indicating poor prevention of functional decline.

Conclusion: These results illustrate quite diverse management strategies for frailty which occurs in the Irish healthcare system. This variation ought to be incorporated into the design of integrated care in service delivery.

PILOT OF A FRAIL INTERVENTION THERAPY TEAM (FITT) IN EMERGENCY DEPARTMENT AT CAVAN GENERAL HOSPITAL

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Background: The National Clinical Programme for Older People (NCPOP) recommend the use of a Comprehensive Geriatric Assessment for all those identified as frail, at risk, older people to fully assess their individual needs and the range of services they require.

Methods: The FITT Team is a group of Health and Social Care Professionals (HSCP) dedicated to identifying the frail in ED from existing staffing levels, hospital and primary care services were utilised.

Results: Over the 9 day pilot period, 106 referrals were received by the FITT team.

Each patient received the appropriate intervention. Their needs were met in a timely manner with early referral to primary care teams.

Determining knowledge and degree of engagement of hospital estates management and technical services departments for provision of dementia friendly hospitals

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Background: Hospitals are complex and confusing environments for people living with dementia, adding to their distress and discomfort, and undermining family and staff support, and health outcomes. Considering the complexity of the hospital, and the central role of the Estates and Facilities Management (FM) and Technical Services Departments (TSD) in hospital operation and management, it is imperative they are engaged during the design process to ensure that dementia friendly design is applied in a practical and effective manner. However, there is scant research regarding the involvement of FM and TSD in this regard.

Methods: An online survey was circulated to 74 EM/TSD staff across Ireland. The survey aimed to: (1) assess extent to which FM and TSD are engaged in hospital works; (2) measure level of awareness around dementia friendly design; (3) identify facilitators and barriers to implementing dementia friendly design.

Results: 13 surveys were returned from a variety of urban, sub-urban and rural based hospitals. Feedback highlights that while FM and TSD are fully involved in minor refurbishments, involvement decreases when it comes to medium-sized (58%) and major (25%) refurbishments. With regards to major refurbishments, a further 25% are not involved at all. A thematic analysis was conducted, and the following themes emerged: (1) importance of person-centred care; (2) challenges around participatory design; and (3) role of Universal Design in the hospital environment.

Conclusion: FM and TSD are not involved to the extent they should be regarding refurbishments and new hospital builds. Lack of engagement may result in difficulties implementing and maintaining a dementia friendly approach in hospital environments. Further, findings highlight FM and TSD recognise their role in supporting a dementia friendly approach; not involving them in the design process means not fully tapping into...
DEVELOPING CURRICULAR PRIORITIES FOR A DEMENTIA MODULE FOR GENERAL PRACTITIONERS USING AN EDELPHI CONSENSUS

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Background: General Practitioners (GPs) play a pivotal role in the care of people with dementia. However, GPs find aspects of dementia care to be challenging and are keen to participate in educational initiatives in dementia. The aim of this study was to identify and prioritise key learning topics to inform the development of a 12-week blended-learning dementia module for GPs.

Methods: An initial list of potential learning topics was identified through a triangulated educational needs analysis with GPs, people with dementia and their caregivers. Clinical experts (n = 65) were invited to participate in an eDelphi survey and ranked these learning topics based on their importance and relevance to general practice. Qualitative comments and new topic suggestions were also collected. Percentage agreement on topic was determined when consensus of greater than 70% was reached.

Results: Response rate was 40% in the first round (26/65) and 92% in the second round (24/26). Respondents included GPs (n = 15), geriatricians (n = 6), neurologists (n = 2) and old age psychiatrists (n = 3). Round 1 involved 41 topics, where 28 learning topics reached consensus for inclusion and 6 topics reached consensus for exclusion. 7 topics did not reach consensus and respondents suggested 3 additional topics for consideration. A total of 12 topics were rated lower in round 2, where 9 learning topics reached consensus for inclusion while consensus was not achieved in 3. These 3 topics were discussed at an expert panel meeting and were subsequently excluded. In total, 37 topics were identified as essential for a dementia curriculum for GPs.

Conclusion: A prioritised summary of learning needs of the Irish GP population has been identified, which is being used to inform the development of a postgraduate blended learning module.

UNDERSTANDING REHABILITATION PATIENT PROFILES: A SNAPSHOT OF COGNITIVE IMPAIRMENT IN A REHABILITATION SETTING

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Background: Older adults account for 12% of the total Irish population (Central Statistics Office, 2013). The patient profile has changed in a 160 bedded sub-acute rehabilitation setting to include older rehabilitation patients alongside its traditional cohort of orthopaedic rehabilitation patients. Older patients are more likely to have cognitive impairments than their younger contemporaries.

This study captured a snapshot of the cognitive patient profile in the organisation on one day.

Methods: A real time snapshot audit was completed on 15th February 2018 to reflect current patient profiles. All patients in the organisation were reviewed and data regarding cognitive assessments and scores were gathered. 5 wards and 126 patients were included.

The cognitive assessments used were the MOCA and the ACE-R.

MOCA Breakdown: 18–26 = mild cognitive impairment, 10–17 = moderate cognitive impairment and less than 10 = severe cognitive impairment.


Results: 94 patients (74%) of the 126 patients in the organisation on that day had received a cognitive assessment. 81 patients scored as having an indicative ‘cognitive impairment’, which is 64% of the organisation on that day.

• 47 patients had a cognitive score that indicated a mild cognitive impairment
• 27 patients had a cognitive score that indicated a moderate cognitive impairment
• 7 patients had a cognitive score that indicated a severe cognitive impairment

Conclusion: More than half of the patients in the organisation had cognitive assessment scores that would indicate a degree of cognitive impairment. This is a significant finding and builds on a similar finding found in 2017.

This increased insight into cognitive status can provide therapists with better understanding of patient profiles and highlights the urgent need to adapt rehabilitation practice to cater for these patients.

Implications of this study should be considered in rehabilitation services nationwide.

PREVALENCE OF COGNITIVE IMPAIRMENT NO DEMENTIA (CIND) POST-STROKE: SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Meta-analysis of available studies indicates that 10% develop new-onset dementia after first stroke. However, many stroke patients experience cognitive impairment that does not meet the criteria for dementia (cognitive impairment no dementia, CIND). The aim was to systematically review and meta-analyse studies of the prevalence of CIND within a year post-stroke.

Methods: PubMed, EMBASE and PsycINFO were searched for papers published in English in 1999–2017. Included studies were population or hospital-based cohort studies for first-ever recurrent ischemic stroke, and assessed CIND using standardised criteria.

Results: A total of 496 studies were identified. Nine articles (n = 6 trials and 2 pre-post intervention studies) met the criteria for inclusion. Included trials comprised 954 participants and follow-up ranged from 3 weeks to 1 year. There was considerable variability in the format of educational interventions. One utilised written materials alone, while the majority delivered dietary counselling either face-to-face, via telephone or in groups. Dietary education provided was either generic or personalised and the intensity was variable.

Conclusion: A total of 496 studies were identified. Nine articles (n = 6 trials and 2 pre-post intervention studies) met the criteria for inclusion. Included trials comprised 954 participants and follow-up ranged from 3 weeks to 1 year. There was considerable variability in the format of educational interventions. One utilised written materials alone, while the majority delivered dietary counselling either face-to-face, via telephone or in groups. Dietary education provided was either generic or personalised and the intensity was variable.

Conclusion: The findings of our review suggest that some educational interventions have potential to improve outcomes, but the strength of evidence is poor. More robust larger studies are needed to ascertain the effectiveness of nutritional education interventions in this population.
at 1–12 months post-stroke. Excluded studies had a mixed stroke-type population with < 75% ischaemic stroke, or participants that were non-representative of a general stroke population (e.g., with a specific deficit). Abstracts were screened initially, followed by full text review of potentially relevant articles. Data was extracted using a standard form, and study quality was appraised using the Cochrane Critical Appraisal Tool. A pooled prevalence of CIND was estimated using random-effects meta-analysis.

**Results:** 7,000 abstracts were screened, followed by 967 full text articles. 22 articles were included in the meta-analysis. Preliminary meta-analysis indicated a pooled CIND prevalence of 36% [95% CI = 31%–41%] (I² = 96.8%, p < 0.01). Study quality emerged as an important source of heterogeneity, with lower quality studies characterized by high heterogeneity. Reasons for low quality scores included unclear definitions of CIND and dementia, and poor reporting and handling of non-participation and missing data. Across the 11 studies with quality scores above the median, the pooled prevalence was 38% (CI 35%–41%), with moderate heterogeneity (I² = 50.9%, p = 0.03).

**Conclusion:** Meta-analysis of the highest quality available studies indicates that in the first year post-stroke, four in ten patients display a level of cognitive impairment that does not meet the criteria for dementia. This prevalence estimate will help to inform policy and service planning for post-stroke cognitive impairment.

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**SUPPORTING OLDER PEOPLE WITH COMPLEX NEEDS THROUGH THE INTENSIVE HOME CARE PACKAGE INITIATIVE: FINDINGS FROM A PROSPECTIVE COHORT STUDY**

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**Background:** An Intensive Home Care Package (IHCP) Initiative commenced in 2014 in order to reduce pressures on acute hospitals. Forming part of a process of strategic realignment of the existing model of care towards home- and community-based care, it also aimed to provide individualised supports to older people and their families that were greater in range and level than existing services. The Initiative aligns with the Irish National Dementia Strategy and the Integrated Care Programme for Older People.

**Methods:** A prospective cohort study was conducted using an administrative dataset, collecting a suite of indicators informed by international literature and developed to monitor and evaluate IHCPs. Data on the content and cost of IHCPs, and sociodemographic characteristics of 505 IHCP recipients over the period December 2014 to December 2017 was analysed.

**Results:** Of the 487 IHCP recipients with complete data, 60% were women and 60% were people without dementia and 40% were people without dementia. The characteristics of recipients were: female 59%; mean age 78 years; married 51%; living alone 31%; high/maximum dependency (Barthel Index) 83%; referred from acute hospital 65%. Compared to IHCP recipients without dementia, those with dementia were on average, older, less dependent, and received more hours of informal care before the IHCP commenced. Dementia IHCPs had, on average, fewer formal support hours, and therefore lower mean costs per week.

**Conclusion:** This study provides evidence for the feasibility of discharging home from acute hospital, people with high needs, with and without dementia, and supporting them to remain at home. IHCPs offer an important addition to the currently limited menu of support options for older people with complex needs. IHCPs appear to effectively target those at highest risk of admission to long-stay residential care, and though not always less costly than residential care, they are significantly less costly than an acute care bed.

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**LOW FALL AND FRACTURE RISK IN VERY DEPENDENT PATIENTS IN RESIDENTIAL CARE**

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**Background:** Hip fracture rates in patients in residential care for excess rates in non-institutionalised patients (1) However non ambulatory, dependent patients may be at lower risk compared to more mobile patients. We examined our experience of total and hip fractures rates in patients in extended care (ENC) compared to more mobile patients undergoing rehabilitation.

**Methods:** Falls and fracture rates were computed from a prospectively maintained register in 60 ENC beds and 65 beds in an offshore rehabilitation and ENC facility over a 5.6 year period from 1.1.2012 to 31.7.2017. Mobility (M) and transfer (TF) competency was expressed numerically using the M and TF scores from the Barthel Index (0 = bed and chair bound to 6 = independent in M and TF). Fracture rates (FR) per 1000 person years (PY) were computed from bed occupancy data.

**Results:** Over the 5.6 year period in ENC, there were 6 fractures (2 hip) in 6 patients equivalent to a total FR of 18.5 (hip FR 6.2) per 1000py compared to 19 fractures in 18 patients (hip FR 4.3) per 1000py in the rehab patients. Whilst most of the fracture patients in ENC were relatively immobile scoring only 2 on M/TF score, most of the 60 patients in ENC were completely bed and chair bound (M/TF = 0) compared to rehab patients who were much more mobile scoring 4–6 on M/TF score. Annual falls rates were higher in rehab patients (median 3.7–6.5 per 1000bed days) compared to patients in ENC (median 0.3–1.8 per 1000bed days).

**Conclusion:** Non ambulatory dependent patients in ENC have a very low falls and fracture rate compared to more mobile patients in rehab. This has implications for bone protection measures in our ENC patients.

**References:**
1. Sugarman et al. JAGS 2002;50:6168–43

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**THE IMPACT OF HIP FRACTURES ON QUALITY OF LIFE IN PATIENTS ATTENDING A BONE HEALTH UNIT**

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**Background:** Hip fractures are a common complication of osteoporosis and are associated with reduced life expectancy and recovery which can have a negative impact on patient health related quality of life (HRQOL). Quality of life (QOL) is regarded as an indicator of successful ageing and is used to measure effectiveness of healthcare, social and welfare programmes.

**Methods:** A cross sectional study was carried out amongst patients attending a bone health service for osteoporosis assessment. All patients completed the Quality of Life Questionnaire of the European Foundation for Osteoporosis (QUALEFFO) on first attendance. Each patient received a Dual Emission x-ray absorptiometry (DEXA). The QUALEFFO is a disease specific HRQOL questionnaire targeting fracture assessment specific to patients with vertebral fractures. It comprises 41 questions in 5 domains: Pain; Physical Function; Social Function; General Health Perception and Mental Function.

**Results:** Ninety eight community dwelling patients, 46 and 52 in hip and no hip fracture group respectively. 12.1 female to male ratio. Mean age 68 years (Range 33–93). While 92% had previous fractures 12% were treatment naive, with 20% taking calcium only. 67% were on bone protection medication.

**Conclusion:** Patients with hip fractures tended to be older and reported significant reduction in ADLs (p = 0.02). They were more socially isolated (p = 0.01) and reported a significant reduction in perceived general health (p = 0.003) and perceived QOL (p = 0.007).

**References:**

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**FREE AND CUED SELECTIVE REMINING (FCSRT) AND DELAYED WORD RECALL (DWR) CONCORDANCE FOR HIPPOCAMPAL SIGNATURE AMNESTIC MILD COGNITIVE IMPAIRMENT (MCI)**

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**Background:** The FCSRT and DWR test have been recommended as sensitive to Alzheimer’s disease, a hallmark of which is hippocampal amnesia. They differ in nature and content, with DWR quicker to administer but requiring a delay following administration, so overall time taken for the tests is similar. The crucial aspect is their cue components; semantic cueing in FCSRT and recognition memory in DWR. This study evaluated concordance between FCSRT and DWR in a sample of attendees assessed in a tertiary memory clinic.

**Methods:** Both tests were administered as part of a review at a tertiary referral centre memory clinic. Detailed medical, biological radiological and neuropsychological assessments are performed as standard. A diagnosis was established by consultant-led multi-disciplinary consensus formulated with review of history, informant interview, blood tests, neuroimaging and neuropsychological findings. Concordance between FCSRT and DWR was evaluated using Cohen’s Kappa (k: range 0.41–0.60 indicates “moderate” concordance).

**Results:** Data were available for 38 cases (mean age 70.3 ± 6.9, 65% female, median education secondary) fulfilling criteria for mild cognitive impairment (MCI; not necessarily “amnestic”). Concordance was “moderate” (k = 0.55 for free recall and k = 0.50 for cued recall). For free recall 26/38 (88%) failed DWR and 31/38 (82%) failed FCSRT. For the cued components 17/38 (45%) passed both tests, and 11/38 (29%) passed FCSRT but failed DWR. CAMCOG composite memory scores were available for 32 cases. Those failing both cued DWR and FCSRT had lower CAMCOG composite memory scores (14.2 ± 3.4) than those passing both (18.7 ± 2.9) or passing DWR but failing FCSRT (17.1 ± 2.6).

**Conclusion:** FCSRT appears to be more sensitive to hippocampal-like memory impairment than the DWR test. Clinically both provide useful additional but different information beyond memory impairment.

**References:**
Age and Ageing

THE DEVELOPMENT OF THE STROKE SERVICE IN CONNOLLY HOSPITAL BLANCHARDSTOWN WITHIN A 6 MONTH PERIOD

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Background: The National Stroke Audit (2015) was carried out to ascertain the current level of Stroke Services in Ireland. Connolly Hospital scored low in a number of areas: No Stroke Clinical CNS No Stroke Unit No Nurses trained in Stroke, in particular Swallow Screening Swallow Screening exceeded the recommended time frame of <4 hours Stroke patients not always admitted to the Stroke Ward No data was being recorded locally or nationally No Stroke Proformas or updated policies

Methods: Audit was selected as the method of data collection. The initiative was carried out utilising the HSE Model of Change (2008) - Initiation, Planning, Implementation and Mainstreaming.

Results: Introduction of Stroke CNS acts as a consistent member of the Stroke team who co-ordinates care of Stroke patients with the team. The CNS continuously reassesses the service and implements initiatives to improve the service. Data is recorded nationally and locally.

83 new Acute Strokes confirmed in 6 months from October 2017 to March 2018 - (50 new Stroke in 3 Months January - March 2018). There were 5 Thrombectomy cases and 4 patients (Thrombolysed within the 6 months). Door to needle improved from >74 minutes to <37 minutes. Swallow Screen within 4 hours improved from 7% to 91%.

An 8 bedded dedicated Acute Stroke Unit set up where specialised MDT provides early assessment and rehabilitation for optimum recovery, reducing the length of stay. Weekly MDT meetings are organised where goal setting and discharge planning is discussed.

5 Stroke Study days organised over 4 months and 100% of nursing staff on the Stroke Ward/Unit were trained and assessed. HSE land has recorded this Stroke Programme which will be available online in the next few weeks which is the first nationally.

Conclusion: KPIs have improved significantly following implementation of initiatives. Provision of a Stroke CNS is key to improve patient care.

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AGE-FRIENDLY ENVIRONMENTS, ACTIVE LIVES: A STUDY OF PHYSICAL ACTIVITY AMONG OLDER ADULTS IN IRELAND

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Background: Despite the benefits of regular physical activity for healthy ageing, one-in-three older adults in Ireland have low activity levels. The objective of this study is to examine the effect of the local social and built environment on the physical activity of adults aged 55+ in Ireland.

Methods: Data was from the Healthy and Positive Ageing Initiative Age-Friendly City Counties Survey, a population-representative cross-sectional survey of community-dwelling adults aged 55+ (n = 10,540). The survey captured the 8 domains of the International Physical Activity Questionnaire and reported in minutes per week. Age-friendly indicators included safety, transport quality, social connectedness, built environment quality, and access to services and green spaces. Due to over-dispersion of activity data and the survey sampling design a mixed-effects negative binomial regression were used. Models were adjusted for health and socio-demographic characteristics. Results are reported as Beta (β) Coefficients, with Standard Errors (SE).

Results: After adjustment for other factors, poor health (β = −0.74, SE: 0.22, p < 0.001), loneliness (β = −0.11, SE: 0.02, p < 0.001), community participation (β = 0.34, SE: 0.19, p < 0.03) and difficulty accessing green spaces (β = −0.19, SE: 0.16, p < 0.05) partially explained physical activity differences.

Conclusion: Combined with individual-level behaviour change interventions, improvements to the local environment and promoting social connectedness may be useful in promoting physical activity among the over 55s.

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RISK FACTOR ANALYSIS OF BOWEL COLONISATION WITH CLINICALLY SIGNIFICANT BACTERIA AMONG RESIDENTS IN A LONG TERM CARE FACILITY

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Background: Extensive use of antibiotics in nursing homes, can lead to multidrug resistant bacteria levels, and colonisation. The aim of this study was to analyse the risk factors, including the use of antibiotics, on bowel colonisation with clinically significant bacteria among residents of 140 bedded Long Term Care Facility.

Methods: Faeces specimens from 77 consenting residents were cultured and tested for Clostridium difficile (C. diff.), Vancomycin Resistant Enterococci (VRE) and Extended Spectrum Beta-Lactamases (ESBL) producing Enterobacteriaceae using standard laboratory processes.

Residents’ characteristics such as age, gender, history of antibiotic and probiotic use, history of hospitalisation within last twelve months, origin of admission, dependency level, accommodation status, Proton Pump Inhibitor use, underlying bowel problems, diet, use of indwelling devices, were gathered and analysed both in the colonised and non-colonised group.

Results: Residents admitted from acute hospitals were statistically at a higher risk of being colonised with clinically significant bacteria compared to admissions from the community setting (p-value = 0.012). Residents that presented with bowel colonisations were prescribed intravenous (i.v) antibiotics statistically more frequently (p = 0.003) than those residents that were not colonised.

Residents receiving a modified diet were found statistically to be at a higher risk of being colonised (p-value = 0.0002). No other statistically significant risk factors were identified in this study.

Conclusion: These results correspond with previous studies, that hospitalisations and i.v. antibiotic use are risk factors for colonisation with multidrug resistant bacteria. We demonstrated that the use of modified diets should be considered as a risk factor of bowel colonisation in long term care residents.

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INCREASING NUMBER OF ADMISSIONS IN OLDER PEOPLE DUE TO ORTHOSTATIC HYPOTENSION

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Background: With ageing demographics and lower consecutive targets for blood pressure control over the past decades, we hypothesise that the prevalence of orthostatic hypotension (OH) is rising. This has implications for new SPRINT guidelines which recommend lower BP targets; yet the TILDA study has shown that older participants who meet criteria for SPRINT have a high prevalence of OH, falls and fear of falling [1]. This study aims to determine whether admissions for OH and its consequences, such as falls, have changed over the past 10 years in NHS England.

Methods: Data was obtained from NHS England Hospital Episode Statistics database for 2008–2017. The number of finished consultant episodes (FCE) for primary diagnosis of OH (ICD-10 code I95.1) was obtained. The number of FCEs was split into age groups ≥ 60, 60–74, 75+.

Results: The number of FCEs for OH rose from 14,658 to 30,759 (110%). The greatest increase was in the over 75-age group 10,639 to 22,776 (114%). The number of falls related FCEs in this age group rose from 61,841 to 89,622 (45%). Admissions for epilepsy in the same period in those ≥ 60 rose from 8,820 to 7,310 (7%). Overall admissions (≥ 75y) rose from 3,134,849 to 4,912,794 (48%).

Conclusion: The number of admissions for OH has risen dramatically over the past 10 years, as has admissions for falls and related disorders. We postulate that this relates to tighter BP targets, however more precise diagnosis, greater awareness of the issue, and increasing number of admissions of older persons could explain change. This suggests caution for application of recent BP targets to older, frailter adults.


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OBSERVATION OF BONE TURNOVER MARKER TRENDS AND ASSOCIATION WITH BONE PROTECTION MEDICATIONS AND CLINICAL FRAILTY SCALE AMONG FRAIL OLDER ADULTS

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Background: Bone markers (C-terminal crosslinking telopeptide of type 1 collagen (CTX-I), and procollagen type 1 N propeptide (PINP)) are biochemical surrogates of osteoporosis which can be used to monitor response to bone protection therapies. Our aim was to determine if bone turnover markers (BTM) were different between on versus...
adverse change in sleep duration is associated with a decline in cognition at two-year follow up

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Background: Sleep difficulties become increasingly common as we age. This study assessed the relationship between changes in sleep duration and cognitive decline at two-year follow up in a sample of older adults in Ireland.

Methods: Data are from Wave 2 and Wave 3 (2 year interval) of The Irish Longitudinal Study on Ageing (TILDA), a nationally representative longitudinal study of adults ≥50 years of age. Wave 3 age was assessed using the Mini Mental State Examination (MMSE). Sleep duration was self-reported. 5,994 participants aged 52 and over were included in the analysis sample. Sleep duration was categorised as short sleep (≤5.5 hours), optimal sleep (6–8 hours) and long sleep (>8 hours). A mixed effects negative binomial model was used to assess longitudinal changes in MMSE error rate. The model controlled for potential confounders.

Results: 54% of the sample were female. Mean age at Wave 2 was 64.5 years (SD: 8.8, range: 52–93). At baseline, 12.0% reported short sleep and 8.5% reported long sleep. At follow-up, 8.2% of the sample reported a change from optimal to short sleep and 6.8% reported a change from optimal to long sleep. No significant differences in MMSE errors were found in those who did not transition between sleep duration categories, or those who transitioned to short sleep. Change from optimal to long sleep was associated with a greater increase in MMSE errors compared to those maintaining optimal duration (IRR [95% CI] = 1.17 [1.04–1.32], p < 0.001). Adjustment for covariates slightly reduced this effect (IRR [95% CI] = 1.17 [1.04–1.32], p < 0.001).

Conclusion: Increasing from optimal to long sleep duration over two years is associated with faster concurrent decline in cognitive function in older adults. No other pattern of sleep duration showed a significant association with cognitive decline at two-year follow up. This suggests that those reporting an increase in sleep duration may be experiencing accelerated cognitive decline.

A PILOT STUDY PROFILING FRAILTY AND AGEING IN A POPULATION OF OLDER ADULTS LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS (HIV)

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Background: To date in healthcare people living with Human Immunodeficiency Virus (PLWH) are for the first time reaching older age. Research shows that PLWH suffer from premature ageing syndromes including frailty younger than the general population (Bhita et al., 2012). The aim of this pilot study was to profile frailty in a population of older PLWH in a single centre caring for HIV+ patients. Secondary objectives were to investigate levels of social connectedness, quality of life and perceptions about ageing.

Methods: A cross-sectional study design was employed. Seventeen participants aged 50 years or older attending the Infectious Diseases Services at St. James’s Hospital were assessed for frailty using the Fried frailty phenotype. Males accounted for 65% of participants (n = 11). The median age was 55 years (IQR = 11) and median number of years since HIV diagnosis was 9 years (IQR = 15). Social connectedness was assessed using the Lubben Social Network Scale-6 (LSNS-6), quality of life (Control, Autonomy, Social & Pleasure Scale-19 (CASP-19)) and perceptions about ageing (Ageing Perceptions Questionnaire (APQ)).

Results: Prevalence of frailty was 6% (n = 1). Pre-frailty was highly prevalent at 71% (n = 12). Levels of social connectedness indicated moderate social connection with a median score of 16 (IQR = 10) on the LSNS-6. Low levels of physical activity were observed in over half of participants (n = 9). The CASP-19 showed moderate quality of life with a median score of 39 (IQR = 11). Perceptions about ageing were largely positive with a median APQ score of 22.7 (IQR = 3.4).

Conclusion: In this pilot study, older PLWH presented with high levels of pre-frailty, moderate levels of social connectedness, low levels of physical activity, moderate quality of life & largely positive perceptions about ageing. Further investigation of the HIV+ cohort >50 years of age (n = 461) is planned.

PAIN ASSESSMENT – A FUNDAMENTAL PART OF COMPREHENSIVE GERIATRIC ASSESSMENT IN THE FRAIL OLDER ADULT

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Background: The prevalence of pain ranges from 50–75% in those with advancing age, however it remains underdiagnosed and undertreated. Poorly controlled pain impacts on mood, cognition and function. Overall, there is increased symptom burden and reduced quality of life. Pain should not be a barrier to rehabilitation for the frail population.

Methods: We collected data through Comprehensive Geriatric Assessment (CGA) in a large university hospital. We assessed a random sample of 20 patients under the Frailty service during a 6 month period (Group 1). We looked at the prevalence of pain and the quality of our pain assessment. We correlated this with their Clinical Frailty Scale (CFS) and other comorbidities. We designed and implemented a new pain assessment pathway. We combined validated tools, including the verbal and numerical rating scales and the body map. We subsequently re-assessed to see if our pain assessment was more comprehensive (Group 2).

Results: The mean baseline CFS for both groups was 5. The mean CFS at the time of the CGA was 6. Both groups had a similar prevalence of acute, chronic and mixed pain. The prevalence of pain was 68% in Group 1 versus 50% in Group 2. This increased to 80% in Group 2 with the application of the new questioning strategy. The location of pain was identified in only 25% of Group 1 compared to 100% of Group 2. There was a 50% increase in the use of pain descriptors in Group 2, which enabled more accurate diagnoses. This led to improved pain management and subsequent improved function.

Conclusion: Pain is very prevalent in the frail older person. The new pain pathway has improved our clinical assessment and subsequent interdisciplinary approach to care. Our findings suggest that an appropriate pain assessment template should be a fundamental part of the CGA.

IMPACT OF A DEDICATED ON SITE ORTHOGERIATIC REGISTRAR AT A UNIVERSITY TEACHING HOSPITAL

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Background: In 2012, a consultant-led orthogeriatric service was established at a University Teaching Hospital which led to improved morbidity, mortality and reduced length of stay for older hip fracture patients (1). As part of further service development in 2016, funding was obtained for a dedicated orthogeriatric registrar. To assess the impact of this additional resource, we compared the proportion of patients meeting “Blue Book” standards of care pre and post introduction of the registrar post.

Methods: Retrospective review of 30 consecutive hip fracture admissions at a University Teaching Hospital from Feb/March 2018 compared with a similar cohort from Feb/March 2016.

Results: Mean age of patients in both groups was 80 years. More patients were admitted to the orthopaedic ward within 4 hours of presentation (40% in 2018 v 26.7% in 2016) and more patients had surgery within 48 hours (80% in 2018 v 63.3% in 2016). Improvements were also seen in orthogeriatric review (59% v 40% prior to the introduction of the consultant registrar). Rates of pain were reduced (67% v 90% pre-bone protection treatment groups and explore if BTM trends correlated with Rockwood Clinical Frailty Score (CFS).

Methods: Older adults admitted via the emergency department and screened positive for frailty (using PRISMA-7) were eligible for inclusion. We evaluated each patient with comprehensive geriatric assessment and measured serum CTX-1 and PINP. Results: Changes approved.

Results: Frail pre-frail score was 6% (n = 1). Pre-frailty was highly prevalent at 71% (n = 12). Levels of social connectedness indicated moderate social connection with a median score of 16 (IQR = 10) on the LSNS-6. Low levels of physical activity were observed in over half of participants (n = 9). The CASP-19 showed moderate quality of life with a median score of 39 (IQR = 11). Perceptions about ageing were largely positive with a median APQ score of 22.7 (IQR = 3.4).

Conclusion: In this pilot study, older PLWH presented with high levels of pre-frailty, moderate levels of social connectedness, low levels of physical activity, moderate quality of life & largely positive perceptions about ageing. Further investigation of the HIV+ cohort >50 years of age (n = 461) is planned.

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Conclusion: In this pilot study, older PLWH presented with high levels of pre-frailty, moderate levels of social connectedness, low levels of physical activity, moderate quality of life & largely positive perceptions about ageing. Further investigation of the HIV+ cohort >50 years of age (n = 461) is planned.
Background: Frailty has a known association with increased length of stay in hospital. Prolonged hospital admission is fraught with challenges for frail adults such as delirium, falls, institutionalisation and nosocomial infections. Specific predictors of length of stay have not been measured within a frail older population. Our goal is to determine predictors of length of stay, in addition to LOS, was collected prospectively on all consecutive acute medical admissions to a specialist frailty service in an Irish University Teaching Hospital. Over a 6-month period (July-December 2010), we retrospectively analysed 486 stroke patients (January 2015 to April 2017) using The National Stroke Register Database for Mayo University Hospital. The data was analysed using a prepared statistical package, Statistical Package for the Social Sciences (SPSS) version 23. The stroke risk factors analysed were smoking, hypertension (HTN), previous stroke, diabetes, family history of stroke, ischaemic heart disease (IHD), excess alcohol intake, atrial fibrillation and high cholesterol.

Results: A total of 258 (53%) were male and 228 (47%) were female. The mean age of participants was 75 years ± 12.0 (mean ± SD). Hypertension was present in 301 (62%). The mean age for those with hypertension was 76.72 ± 13.67 years vs 72.29 ± 10.49 years (non-hypertensive) (p-value 0.0001). Smoking was present in 217 (45%) with a mean age of 72.45 ± 12.74 years vs 77.12 ± 10.92 (non-smokers) (p-value 0.0001). Atrial fibrillation was present in 169 (36%) with an average age 79.90 ± 8.88 years vs 72.24 ± 12.66 years (non A 46th) (p-value 0.0001). High cholesterol was present in 151 (31%), previous stroke in 116 (24%), IHD was evident in 119 (22.5%), diabetes was reported in 99 (20%) and family history of stroke was prevalent in 73 (15%). Excess consumption of alcohol was reported in 39 (8%) who were younger with a mean age of 66.15 ± 11.14 years vs 75.81 ± 11.75 years (p-value 0.0001).

Conclusion: We have shown a high prevalence of hypertension, smoking and atrial fibrillation in this older, rural population. Coordinated secondary prevention should target these risk factors in particular hypertension.
IMPLEMENTATION OF AN ELECTRONIC MEDICATION ADMINISTRATION RECORD (eMAR) IN A LONG TERM CARE FACILITY

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Background: Medication errors occur frequently and place a significant burden on the health care system causing direct and indirect patient harm through waste and inefficiency. eMAR has been promoted as an intervention to reduce medication errors, improve patient safety and reduce paperwork and administrative costs. The aim of the study was to successfully implement eMAR in a long term care facility to reduce medication errors and increase the safety of patients and improving the quality of care in the organisation.

Methods: The Model for Improvement was adopted for use from the Institute of Healthcare Improvement. Plan-Do-Study-Act (PDSA) cycles were used to implement the change process from written documentation of medication management to an electronic medication management system. The implementation programme was a staged process which commenced with one resident and using the PDSA cycles facilitated the change-over from the traditional medication kardex to the eMAR system for 118 residents.

The process was evaluated through observation, team discussions and recorded medication errors and audits.

Results: eMAR was successfully implemented in 3 out of the 4 wards over a six month period.

- Education and training for existing staff and eMAR training as part of nurse orientation was required to safely implement eMAR. Daily on-site mentoring from pharmacists was required to support staff during phase one on each ward. The odd time and notice only medications lead to an increased amount of documentation errors in the testing phase as these were new concepts. As with previous studies, the lessons learnt can be utilised for the safe introduction of eMAR.

Conclusion: Implementing an eMAR system requires structured supports for nurses. Strong leadership with on-site pharmacy mentoring is required to drive the project and troubleshoot the transition period. Early audits demonstrate a reduction in documentation errors following implementation of eMAR, however further research is required.

MEASURING FUNCTIONAL HOMEOSTASIS IN AN ACUTELY UNWELL FRAIL OLDER POPULATION

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Background: Functional homeostasis has been defined as the ability of an individual to withstand illness without loss of function. We set out to observe impaired functional homeostasis in a frail inpatient cohort, in addition to studying its impact on inpatient mobility status programmes.

Methods: Over a 6-month period (July–December 17) data was collected prospectively on all consecutive acute medical admissions to a specialist frailty service in an Irish University Hospital. Variables included age, sex, length of stay (LOS), 30-day and 90-day readmission, and Rockwood Clinical Frailty Scale (CFS). Barthel Index (BI) were recorded at baseline and admission. Impaired functional homeostasis was defined as any reduction of BI on admission. Univariate and multivariate linear or logistic regression was carried out to model the impact of age, frailty and impairment in functional homeostasis on LOS and 30-day readmission respectively.

Results: We analysed 116 consecutive admissions, 64% were female, median age was 84 (IQR: 78–90). The majority of patients (93%) were admitted from home. All patients underwent the Acute Frailty Assessment within 24-hours of admission. The median CFS was 5 (IQR: 4–6). The median difference in BI (baseline-admission) was 5 (IQR: 2–7). The median LOS was 7 days (IQR: 2–14). 76% of patients were discharged directly home. 16% and 27% of patients were readmitted within 30 and 90 days respectively. There was no significant relationship found between age, CFS at baseline, or impaired functional homeostasis and LOS or likelihood of readmission.

Conclusion: High rates of impaired functional homeostasis were found in this frail cohort as a result of intercurrent medical illness. Access to CGA is essential in these patients. Frailty status, impaired functional homeostasis and age were not significant predictors of LOS or likelihood of 30-day readmission. This may be due to models of care within the frailty service.

PREVALENCE OF VITAMIN D DEFICIENCY IN PATIENTS ADMITTED WITH ACUTE STROKE IN A TERTIARY UNIVERSITY TEACHING HOSPITAL IN DUBLIN

John Bejer1, Linda Brewer, Karl Boyle, David Williams, Barry Moynihan
Beaumont Hospital, Dublin, Ireland

Background: Several studies suggest that vitamin D deficiency after a Stroke could increase not only the risk of fracture, but also cardiovascular disease and sarcopenia.1 Patients with a low level of serum vitamin D at the onset of the Stroke have more severe disability.2 Stroke patients with enough vitamins D have more favorable outcomes, including improved muscle strength and bone density.3 The aim of the study was to assess the prevalence of Vitamin D deficiency among patients over the age of 50 years admitted with acute Stroke in a Tertiary University Teaching Hospital in Dublin.

Methods: This was a prospective study carried out between February and April 2018 where serum Vitamin D levels were checked in patients over the age of 50 years admitted with acute Ischaemic or Haemorrhagic Stroke. Vitamin D deficiency was considered a serum biochemical test below 50nmol/L.

Results: There were 50 patients who were admitted with an acute Stroke from February 2018 until April 2018. The mean age of the cohort was 74.3 years. Fifty-two per cent (26/50) of the cohort were female and 20% (10/50) of the cohort were admitted with an acute Haemorrhagic Stroke. Eighteen per cent (9/50) and 6% (3/50) were on Vitamin D replacement medication and bone protection medication, respectively. Of note, 44% (22/50) of the cohort were Vitamin D deficient, with a Vitamin D value of less than 50nmol/L.

Conclusion: This study showed that the prevalence of Vitamin D deficiency is very common among patients over the age of 50 years admitted with acute Stroke. Vitamin D checks should be part of the routine work up in all acutely admitted stroke patients.

GETTING UP, GETTING DRESSED, GETTING ACTIVE – BRINGING THE #ENDPJPARALYSIS INITIATIVE TO A COMPLEX DISCHARGE UNIT

Gráinne Kerr1, Niamh Murphy1, Gráinne Kelly1, Niamh Connolly1, Georgianna Taylor2
St James’s Hospital, Dublin, Ireland
Tynny Galway, Dublin, Ireland

Background: In January 2018 a Complex Discharge Unit (CDU) was developed with the overall aim to reduce the length of stay (LOS) of frail, acute patients, by providing optimal discharge planning, through multi-disciplinary team input. The #EndPJParalysis initiative has demonstrated a 1.5 day reduction in LOS in acute settings (NHS, 2018), by having patients to be up and dressed by 12pm. This #EndPJParalysis initiative was introduced in a CDU in March 2018. The overall aim of this study was to investigate the feasibility of this new initiative.

Methods: Baseline satisfaction, current physical activity levels, current number of patients being up, dressed and active before 12 pm daily and any suggestions promoting physical activity were documented from all service users. Ward based exercise programmes, including classes and mobility status signs were prescribed by the physiotherapist. Staff, service user, family information sessions and information leaflets were given.

Ward signage incorporating #EndPJParalysis were displayed. Ward based data was collected and analysed utilising Microsoft Excel and inputted via the #EndPJParalysis app. Over 2,500 participants aged ≥50 years were included and underwent measurement of orthostatic blood pressure (BP) by tonometry and frontal lobe perfusion by near-infrared spectroscopy (NIRS). Depression was assessed by the 8-item Centre for Epidemiological Studies Depression Scale (CES-D).

DEPRESSION IN LATER LIFE IS ASSOCIATED WITH BLOOD PRESSURE DEPENDENT FRONTAL LOBE HYPERPERFUSION

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The Irish Longitudinal Study on Ageing, Trinity College Dublin, Dublin, Ireland

Background: Frontal lobe white matter disease has been implicated in late life depression. Frontal lobe hyperperfusion has been suggested as a potential mechanism for this, however studies to date have generally involved small numbers, used neuroimaging rather than bedside testing and have not controlled for important covariates.

The aim of this study is to examine the association between depression and frontal lobe hyperperfusion during orthostasis in a large cohort of community-dwelling older people.

Methods: Over 2,500 participants aged ≥50 years were included and underwent measurement of orthostatic blood pressure (BP) by tonometry and frontal lobe perfusion by near-infrared spectroscopy (NIRS). Depression was assessed by the 8-item Centre for Epidemiological Studies Depression Scale (CES-D).
**Age and Ageing**

Real-time frontal lobe cerebral oxygenation was measured by the Portable System, detecting changes in frontal lobe perfusion and reporting a % Tissue Saturation Index (TSI).

**Results:** Almost 8% (209/2,616) of the study sample met criteria for depression.

Multilevel models demonstrated a significantly lower TSI in participants with depressive symptoms compared to the non-depressed group at both 60 and 90 seconds post-standing with coefficients of -0.43 (95% CI: -0.63 to -0.23) and -0.37 (95% CI: -0.57 to -0.16) respectively. Controlling for relevant covariates, such as cardiovascular disease, stroke, antidepressant and antihypertensive use, did not significantly attenuate these associations.

After addition of systolic BP this association was no longer significant however, suggesting lower BP may modify this relationship.

**Conclusion:** This study demonstrates that depression is associated with lower frontal lobe perfusion after standing in a cohort of community-dwelling older people and that this association is BP dependent.

This finding is important because, given the established longitudinal association between hypotension and incident depression in later life, cerebral hypoperfusion may represent an underlying mechanism for a causative relationship and therefore a potential therapeutic target.

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**Bone Health Compliance in Patients Presenting with Fracture**

**Joanne Larkin, Avril McKeag, Marie O’Connor, Eamon Dolan**

Cappagh National Orthopaedic Hospital, Dublin, Ireland

**Background:** The risk of falling increases as people get older with the HSE guidelines reporting that 1 in 3 people over the age of 65 fall each year. We know from looking after these patients that the consequences of a fall lead to further fall and fear of falling, reduced activity, decreased muscle strength and balance, increased dependency and too often social isolation.

**Methods:** A retrospective study was conducted to determine the compliance of bone protection following discharge. Patients admitted to the rehabilitation unit had a range of different diagnoses. By far the greater proportion of the patients were orthopaedic or fall related. Given this, specialist assessment and secondary prevention of fall and fracture guided by best-practice standards is an important concept to improve patient outcomes and this was an area we identified for improvement. Our aim was to assess the compliance of bone protection following discharge. To establish compliance post discharge if first dose was administered in a timely fashion and if there was a plan put in place to ensure regular dosing regime for ongoing secondary prevention which combined bone protection and falls assessment.

**Results:** 157 patients were admitted in the selected period. A comprehensive falls assessment was completed on all patients with careful consideration for bone protection. A total of 77% (n = 121) were prescribed medication for bone protection, 36% (n = 57) on injection form and 41% (n = 64) oral medication. Of all fall related injury and fragility fracture 94% (85/90) were commenced on treatment. Only one-third of those prescribed injection form had received first dose within six months despite current practice of patient education and GP communication.

**Conclusion:** We identified a gap in patients receiving recommended therapy and therefore created a strategy to overcome this and to build upon standards to compare and develop new initiatives to improve services delivered.

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**Bone Health Compliance in Patients Presenting with Fracture**

**2019**

**BONE HEALTH COMPLIANCE IN PATIENTS PRESENTING WITH FRAGILITY FRACTURE**

Joanne Larkin, Avril McKeag, Marie O’Connor, Eamon Dolan

Cappagh National Orthopaedic Hospital, Dublin, Ireland

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**Conclusion:** We identified a gap in patients receiving recommended therapy and therefore created a strategy to overcome this and to build upon standards to compare and develop new initiatives to improve services delivered.

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**2020**

**DELIRIUM SCREENING USING THE 4AT TOOL: A REVIEW OF THE EXISTING PAPER-BASED SCREENING PROCESS TO INFORM ELECTRONIC CLINICAL DECISION SUPPORT**

Lucy Chapman, Mel Cortese, Brian Lawlor

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5Consultant Psychiatrist, St. James’s Hospital, Dublin, Ireland

**Background:** NICE guidelines suggest delirium screening in hospitalised inpatients aged 65 years and over. Delirium is associated with increased length of stay, institutionalisation, and mortality. We audited the paper-based process for delirium screening using the 4AT in an acute hospital. The 4AT is used as part of a cognitive impairment/delirium pathway. This audit was conducted prior to the expansion of the electronic patient record (EPR) to include an integrated electronic clinical decision support (CDS) tool for cognitive screening.

**Methods:** A chart review was conducted on consecutively admitted patients 65 years and over from April 24th to April 26th 2018. Chart review was performed at a time point greater than 24 hours since admission. All paper documentation was analysed for evidence of delirium screening and clinical terms indicative of delirium. It was supported by review of the patient’s EPR.

**Results:** Chart review was possible on 80% (n = 78) of admissions. 21% (n = 16) were screened for delirium using the 4AT. In all cases screening occurred in the emergency department. 56% (n = 9) of screened patients had a 4AT score of zero whilst 19% (n = 3) scored 4 or more. Repeat 4AT screening was not observed. Only 9% (n = 7) had clinical terms documented suggestive of delirium. Recording of delirium in the structured electronic problem list did not occur.

**Conclusion:** Delirium screening was not consistently performed with almost 80% of patients not screened. Nineteen percent of those screened had a 4AT score suggestive of possible delirium (4AT score of 4 or greater). Clinical documentation of delirium by a doctor likely underrepresents true delirium prevalence in an acute hospital. Structured fields in an electronic medical record are underutilised. Electronic CDS may offer a future path for improving delirium screening and facilitate patient-focused interventions.

**Reference**


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**2021**

**THE USE OF NEAR-INFRARED SPECTROSCOPY IN THE DIAGNOSIS OF COUGH SYNCPE**

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St. James’s Hospital, Dublin, Ireland

**Background:** We outline, to our knowledge, the first report of cerebral oxygenation levels obtained by near-infrared spectroscopy (NIRS) in a 63 year old male with a diagnosis of Cough Syncope. Cough Syncope results in transient loss of consciousness during episodes of coughing. Anticoagulation remains unclear and diagnosis often difficult - possible mechanisms include marked intrathoracic pressure elevations and altered haemorrhage sensitivity resulting in diminished cardiac output, with possible cerebral hypoperfusion secondary to decreased systemic blood pressure.

**Methods:** A 63 year old overweight male smoker with Chronic Obstructive Pulmonary Disease presented with recurrent episodes of unexplained collapse over a two year period. Syncope was precipitated by forceful coughing episodes during a respiratory tract infection or while eating a meal. He underwent electromyogram and Active Stand and was further evaluated with Tilt Table Testing. The patient was asked to cough following Tilt Table Testing. Beat-to-beat blood pressure was obtained via femometer (NOVA®) and cerebral oxygenation was simultaneously obtained using NIRS (PortaLite®).

**Results:** Electrocadiogram showed first degree anteroseptal block with normal axis, rhythm and rate. Active Stand was normal. Syncope or familiar prodromal symptoms were not reproduced on tilt table testing. However, when the patient coughed, there was a marked decrease in blood pressure – from 139/102 to 125/85 and a corresponding drop in tissue saturation index (TSI) – from 62% to 58.7%. The patient reported familiar prodromal symptoms of his typical syncope at this time.

**Conclusion:** This case highlights the potential usefulness of using NIRS to measure cerebral oxygenation in patients with suspected Cough Syncope. Despite negative Tilt Table Testing, we observed a transient decrease in peripheral haemodynamic measurements with a corresponding decrease in cerebral perfusion while coughing which may aid in improving diagnostic accuracy in the future.

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**2022**

**A COLLABORATIVE HEALTH AND SOCIAL CARE (HSCP) SHARED ASSESSMENT AND SCREENING PROCESS IMPROVES PATIENT OUTCOMES IN ACUTE UNSCHEDULED CARE**

Caroline Colgan, Grainne Flanagan, Sinead Gallagher, Miriam Dolan, Paula Shendan, Cathal Pilkson, Lorraine Daly

Regional Hospital Mullingar, Mullingar, Ireland

**Background:** We investigate whether a team-based universal referral and assessment process improved the access to and quality of HSCP service delivery in an acute medical setting. The scope of the project included all unscheduled care admissions. We established a team-based approach to HSCP referral and assessment and our objectives were to eliminate duplication and inappropriate referrals, reduce discharged prior to assessment and improve referral and response time by HSCPs including speech and language therapy, dietetics, occupational therapy, and physiotherapy.

**Methods:** This study involved an initial analysis of all HSCP staff interactions to (1) all patient journeys from admission to discharge in the treatment and referral pipeline over 30-days and (2) a further retrospective quantitative analysis to determine the cost-benefit of our interventions in the subsequent 90-days. We collected baseline data by tracking patient journeys and auditing all HSCP referrals over 90-days. From the analysis of the first 30 days we developed a Single Universal Referral & Common Screening Tool which was deployed hospital-wide and evaluated over 90-days. Results: In the 90-day period, we reduced inappropriate referrals from 20% to 3% with a monthly cost reduction from €4,457.28 to €405.44. We reduced duplicate referrals from 18% to 9%, reduced discharge before seen from 18% to 8% and reduced waiting times for initial assessment from 27.4 hours to 5 hours for urgent referrals. This new collaborative working model integrates workload, provides better health outcomes, patient experience and delivers value for money by delivering care where it is needed most.

**Conclusion:** Through collaboration HSCP staff have adapted & influenced service delivery which has improved outcomes for patients through our universal referral and common screening tools. By expanding the referral criteria scope, creating a single inter-disciplinary prioritisation protocol, and streamlining referrals to a single point of contact patients now receive person-centered care.
AUDIT OF ANTICHOLINERGIC MEDICATION BURDEN IN NURSING HOME RESIDENTS AND ASSOCIATED FALLS RISK
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1St. James’s Hospital, Dublin, Ireland
2Innovare Primary Care Centre, Dublin, Ireland
Background: Anticholinergic medications are widely prescribed amongst older patients. The cumulative effect of taking multiple medications with anticholinergic effects described as anticholinergic burden has been associated with increased risk of falls. The anticholinergic burden score (ACB) ranks the anticholinergic effects of medications from no anticholinergic activity (0) to high anticholinergic activity (7). The aim of this audit was to evaluate the anticholinergic burden and association with falls in a population of nursing home residents.
Methods: A medication chart review was carried out on 45 nursing home residents to identify medications with anticholinergic activity. Each medication was ranked as per the ACB scale and a total score was given for each resident. Documented falls were recorded over the last 6 months.
Results: 57% of residents were prescribed at least one medication with anticholinergic activity. Falls were documented in 26% of patients in the preceding 6 months, 10% of patients not taking anticholinergic medications had sustained falls, while 34% of patients taking medications with anticholinergic medications had a documented fall. The majority of residents were taking medications with ACB scores of 1-2. A higher ACB score was associated with a higher incidence of falls.
Conclusion: Over half of nursing home residents were prescribed a medication with anticholinergic activity and this was associated with a higher rate of falls, additional risk was associated with higher ACB scores. Given safety concerns there is a need to optimise anticholinergic prescribing in older patients, and as part of this audit we plan to provide education to prescribers regarding the risks of anticholinergic medications and possible alternative medications, with a re-audit of prescribing practices following this.

VITAMIN D STATUS IN AN ACUTE STROKE POPULATION
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Background: The role of vitamin D in calcium homeostasis and bone health is widely understood, but more recently, evidence is accumulating to suggest that low serum concentration of vitamin D is also associated with many non-skeletal conditions. We aimed to assess the prevalence of vitamin D deficiency/insufficiency in patients with acute stroke, compared with a nationally representative sample of adults from The Irish Longitudinal Study on Ageing (TILDA).
Methods: We measured the 25-hydroxyvitamin D (25(OH)D) concentration in 165 consecutive stroke patients on admission and compared the prevalence of vitamin D deficiency or insufficiency to a representative sample of older Irish adults, taken from TILDA. We used the chi square test to compare categorical variables.
Results: The prevalence of vitamin D deficiency in stroke patients (25(OH)D < 30nmol/L) was 49.1%, compared to 13.1% in the TILDA group (p < 0.0001). The prevalence of insufficiency (25(OH)D 30-50nmol/L) was 32.7% in the stroke population, compared to 29.4% in the TILDA group (p < 0.0001). Only 18.2% of stroke patients had adequate vitamin D concentrations, compared with 57.5% in TILDA. The average age of the stroke patients was 62.9 years, with 45% of the TILDA cohort being 70.2 years. There was no significant difference between male and female subsamples.
Conclusion: Vitamin D deficiency is more prevalent in stroke patients than those in the TILDA group. More data are required to determine factors predicting vitamin D status in this population, and what implications this may have for the management of Vitamin D status in acute stroke patients.

LIFE EXPECTANCY AND PLACE OF DEATH OF PATIENTS DISCHARGED FROM HOSPITAL TO LONG TERM CARE
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Background: Ireland has an ageing population, with over 80% expected to increase from 129,000 in 2011 to 484,000 in 2046. Currently there are ~22,000 long-term care (LTC) beds in Ireland. There is no recent mortality data on this cohort of patients since the introduction of the Common Summary Assessment form (CSAR) and the advent of the Fair Deal in 2006. Data from Wave 1 of TILDA, a nationally representative cohort of community-dwelling adults aged ≥50 (n = 8,175) were used. Blood samples were analysed for plasma B12 and folate and were classified into four profiles on the basis of B12 (<258 pmol/L) and folate concentrations (≤45.3 nmol/L). Global cognition was examined using the Mini-Mental State Examination (MMSE) and Montreal Cognitive Assessment (MoCA). Those without both MMSE and MoCA measurements and B12 and folate were excluded (final sample n = 3,872). Multiple regression analyses examined relationships of each B12/folate profile with MMSE and MoCA, controlling for known covariates.
Results: The mean (SD) age was 61.8 years (8.8), 51.0% were female. The estimated prevalence of Profile 1 ‘normal B12/normal folate’ (B12≥258pmol/L, folate≥45.3nmol/L) was 62.0% [90,02,640]; Profile 2 ‘normal B12/high folate’ (B12≥258pmol/L, folate > 45.3 nmol/L) was 7.6% [6,68,8]; Profile 3 ‘low B12/high folate’ (B12 < 258 pmol/L, folate > 45.3 nmol/L) was 1.5% [1,12,0] and Profile 4 ‘low B12/normal folate’ (B12 < 258 pmol/L, folate≤45.3nmol/L) was 28.9% [27,33,1]. Relative to Profile 1, Profile 3 was not associated with a significant increase in error rates for either MMSE (0.88 [0.64,1.21] IRR [99% CI]; P = 0.429) or MoCA (0.90 [0.79,1.02]; P = 0.089).
Conclusion: Low B12 and high folate status was not associated with cognitive impairment in older adults. This finding may have important implications for policy recommendations in Ireland, where a voluntary folate acid fortification programme is in place.
The effect of pre-admission vitamin D supplementation on the clinical status of frail older adults

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Background: Vitamin D supplementation (VDS) is associated with reduced falls risk, improved physical performance and stronger bones reducing the risk of osteoporosis. The aim of this study was to determine the effect of pre-admission VDS on the clinical status of frail older adults.

Methods: Older adults were admitted to a university hospital who screened positive for frailty (PRISMA7) underwent comprehensive geriatric assessment. Baseline demographics, clinical history, Rockwood clinical frailty score (CSF) and laboratory results including vitamin D, parathyroid hormone (PTH), C-terminal crosslinking telopeptide of type 1 collagen (CTX) and procollagen type 1 N-terminal propeptide (PINP) were recorded. Clinical research ethics was approved.

Results: Of the 127 frail older adults recruited, 61 were taking VDS pre-admission and 66 were not. There was no difference in CES between the groups (5.7 ± 1.2 v 6.0 ± 1.0, p = 0.075). Vitamin D (92.0 ± 35.2 v 44.1 ± 25.9nmol/L, p < 0.001) was higher while CTX (0.438 ± 0.260 v 0.565 ± 0.344ng/L, p = 0.023) and PINP (51.4 ± 32.8 v 49.5 ± 49.4ng/L, p = 0.018) were lower in those taking VDS compared to those not. There was no significant difference in PINP (48.3 ± 33.3 v 65.4 ± 67.7ng/L, p = 0.079).

A greater proportion of those on VDS (29.5%) were taking antiresorptive therapy compared to those not (9.5%) (p = 0.006). Self-reported dietary calcium intake was adequate in 80.3% of those taking and 83.3% of those not taking VDS (p = 0.818). There was no difference in the proportion of participants with ≥1 risk factor for fracture between the groups (88.5% v 84.8%, p = 0.36).

Conclusion: Participants on pre-admission VDS had higher vitamin D and lower CTX and PTH suggesting that these participants may have increased bone density and lower long-term fracture risk. The greater proportion of participants on VDS taking antiresorptive therapy could explain the difference in CTX between the groups. There was no difference in CES between those taking and those not taking pre-admission VDS.

1 Yr Mortality of Patients Receiving Inpatient Comprehensive Geriatric Assessment and Rehabilitation Post Hip Fracture

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Background: Hip fractures are associated with significant mortality in older adults. The 1 year mortality for patients older than 65 years has been reported as 27.5% [1]. The aim of this study was to evaluate the 1 year mortality rate post completion of an inpatient hip fracture rehabilitation programme incorporating Comprehensive Geriatric Assessment (CGA).

Methods: Records of 100 consecutive patients aged greater than 65 years who were admitted to our rehabilitation facility with hip fracture between March 2016 and April 2017 and completed a rehabilitation programme were collected. 1 year mortality was assessed by telephone call to the patient or primary care provider.

Results: Average age of the patients was 81 years (range: 66–97), 78% were female. Overall 1 year mortality post completion of a rehabilitation programme incorporating CGA following hip fracture was 2%. Average length of stay (LOS) in the acute hospital was 138 days. Median LOS in rehab facility was 42 days. Average BI of patients on admission to RHD was 12. Discharge BI demonstrated an average improvement of 5 points (range: −1 to 10), 95% of patients were discharged home while 4 patients were discharged to a long-term care facility and 1 patient returned to their long-term care facility.

Conclusion: Completion of a rehabilitation program incorporating CGA was associated with a very low 1 year mortality rate. This was despite an average age of 81 years. The benefit of completion of a CGA led inpatient rehabilitation program for patients post hip fracture is evident from this study.

Reference

The Relationship Between Hyperostosis Frontalis Interna and Vitamin D Level

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Background: Hyperostosis frontalis interna (HFI) is a condition in which there is overgrowth of the bone in the frontal area of the skull. It is usually an incidental finding on neuroimaging and considered benign, occurring in 5–12% of the general population, particularly post-menopausal women [1]. It has previously been associated with renal impairment and noted to be frequently present in stroke patients [2]. Our hypothesis was that HFI could also be associated with Vitamin D deficiency.

Methods: 105 patients admitted over a 5 year period were selected at random from the stroke register of a teaching hospital. Bone windows of admission CT scans were retrospectively reviewed for HFI. The reviewer was blinded to the patients’ vitamin D results. This result was compared with admission medications and vitamin D levels.

Results: 49 female and 56 male patients were included, with an average age of 68.7 years. 27% of all CT scans demonstrated HFI, representing 22.5% of female patients and 3.6% of male patients. 27% of patients were taking vitamin D supplementation. Of those patients not taking supplementation, the average vitamin D level in those with HFI was not significantly different from those without (38.4 vs 35.7nmol/L, P = 0.43). 46% of patients with HFI were on vitamin D supplementation, compared to 23.9% of those without (Chi-squared, P = 0.089).

Conclusion: Hyperostosis frontalis interna is a common incidental finding on the CT scans of stroke patients. However, vitamin D deficiency or supplementation does not have a major effect on developing it.

References
Assessment (MoCA) and Quick Mild Cognitive Impairment (Qmci) screen were scored independently.

Results: In total, 344 patients were available. Their median age was 76 years (Interquartile range ±11) and 35% were female; One-third (34%) had CBS scores ≥15. Caregivers were significantly younger, (p < 0.001). The CBS weakly correlated with diagnostic category (r = 0.16, p < 0.001) and participant age (r = 0.22, p < 0.001) but had moderate correlation with MoCA (r = 0.34, p < 0.001) and Qmci screen scores (r = −0.60, p < 0.001). There were no statistically significant differences in the age, gender, education and time commitment (spent caring) profiles of carers reporting and those not reporting caregiver burden. Median CBS scores were significantly lower in those with subjective cognitive disorders and mild cognitive impair- ment than dementia, (X² = 63, p < 0.001). Caregiver burden (CBS ≥15) was significantly associated with older patient age, impaired function (Barthel index), established dementia and lower MoCA and Qmci screen scores but not with geriatric depression scale scores. Stepwise logistic regression confirmed age, function and cog- nitive screen scores as independent predictors.

Conclusion: While caregiver burden, measured by the CBS, correlated poorly with the stage of cognitive impairment, it correlated moderately with cognitive screen scores. Caregiver burden can be suspected from patient age, function and cognitive scores, which should prompt further assessment.

LIGHTNING AND AUTONOMIC FAILURE: A SHOCKING CASE

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Background: Lightning injuries are, unfortunately, an uncommon phenomenon with little published research surrounding the topic and its potential long-term sequelae. However, despite this, several autonomic disorders have been noted to be caused by these electrical traumas, including postural hypotension and they are thought to be secondary to thermal damage. Some research has even been able to show a quantitative disturbance in the autonomic nervous system, post electrical injury, by measuring the sympathetic skin response. We present a case of an 83-year-old gentleman who presented to the Emergency Department after suffering a fall with a head injury and associated dizziness. Of significance, he was struck by lightning 1 year previously. Prior to this event he was active at home and mobilised independently. However, subsequent to being struck by lightning he developed falls, dizziness and a notable decline in cognition. On presentation he was found to be stable with no neurological deficits found.

Methods: He had an extensive falls work up including head up tilts which showed a pro- found drop in systolic blood pressure of 40 mmHg. Cardiac investigations were unre- markable and he had no evidence of Parkinsonism on examination. His symptoms and investigations were consistent with an autonomic failure picture.

Results: He was initially commenced on midodrine treatment and was up-titrated. Despite this he continued to present with pre synopal symptoms and falls. While on maximal midodrine treatment and with the addition of fludrocortisone, head up tilt was repeated and he continued to demonstrate significant orthostatic hypotension. He was carefully titrated onto droxydopa as per a strict protocol and with the addition of an antidepressant he improved and discharged home with supports carefully titrated onto droxydopa as per a strict protocol and with the addition of an

Conclusion: We present the hypothesis that this gentleman has autonomic failure sec- ondary to lightning strike.

AN AUDIT OF DISCHARGE PRESCRIPTION RECONCILIATION

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Background: Medication reconciliation means creating the most accurate list of medica- tions a person is taking. Medication reconciliation should occur at each care transition in health care. Medication discrepancies at discharge can lead to medication errors, omis- sions, adverse events and readmissions. We audited medication errors on discharge pre- scriptions, with the aim of improving prescribing accuracy in our department. Our current practice is that doctors write discharge prescriptions. We do not have pharmacist delivered medication reconciliation at discharge.

Methods: Sinéad Lydon reviewed consecutive discharge prescriptions over one week, comparing discharge prescription to kardex noting inaccuracies, transcription errors, omissions and communication of changes made. Based on our results, we implemented an educational intervention. Then we repeated the audit to assess interval improvement in discharge prescription accuracy.

Results: The first audit revealed 82% of discharge prescriptions were different to the kardex. There was an average of two errors per prescription. The most common error was omission of a medication. Less than half of prescriptions included the changes made to medications during admission. We implemented an educational intervention and advised structured prescribing. Then, we re-audited discharge prescriptions. The discrepancy rate had reduced to 64% and the error rate per prescription to 0.8. The rate of documentation of medication changes increased to 75%.

Conclusion: Our audit demonstrates that errors in discharge prescriptions are wide- spread. Prescription practices can be improved by simple interventions: education and structured prescribing. Challenges to implementation include frequent NCHD rotation, time constraints and low staff levels. Education of staff alone however, is unlikely to eradicate prescription errors. Our aim is to secure a pharmacist for our multidisciplinary team to perform discharge medication reconciliation. It was outside the scope of our study to quantify the impact of the prescription inaccuracies on patient care.

THE WORRYING TRENDS OF ACOPIA AS A DISEASE ENTITY IN OLDER PATIENTS ADMITTED TO HOSPITAL: AN OBSERVATIONAL STUDY

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Background: In recent months Geriatricians at an acute Dublin hospital became alarmed at the increasing prevalence of “acopia” as a diagnostic entity in admitted patients. The use of this pejorative term is not only inappropriate but potentially danger- ous as it invariably associated with the absence of diagnostic rigor applied to younger patients. The aim of our study was to assess the frequency of documentation of acopia and what were the characteristics of the patient population.

Methods: Patient discharge letters were retrospectively reviewed to obtain information regarding discharge diagnosis, destination and co-morbid conditions.

Results: Data was obtained on 293 patients. Patients had a mean age of 58±11.9 years. Of these, 18% had dementia and 12% delirium. In contrast, in those without cognitive impairment need careful alcohol documentation.

Conclusion: This study demonstrates that errors in discharge prescriptions are wide- spread. Prescription practices can be improved by simple interventions: education and structured prescribing. Challenges to implementation include frequent NCHD rotation, time constraints and low staff levels. Education of staff alone however, is unlikely to eradicate prescription errors. Our aim is to secure a pharmacist for our multidisciplinary team to perform discharge medication reconciliation. It was outside the scope of our study to quantify the impact of the prescription inaccuracies on patient care.

ALCOHOL RELATED COGNITIVE IMPAIRMENT IN ADULT HOSPITAL INPATIENTS: A POINT PREVALENCE STUDY

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Background: Most long-term heavy alcohol users will experience impaired cognition to some degree. Apart from direct alcohol related neurotoxicity, excessive alcohol intake can be associated with head injuries, seizure-related anosia, vitamin deficiencies, and poorly modified lifestyle factors for vascular dementia. This study aimed to determine the prev- alence of alcohol-related cognitive impairment in unsolicited acute hospital adult patients.

Methods: All adult in-patients on general wards in the Mercy University Hospital on 14th April 2018 were eligible for inclusion. Their medical charts were reviewed to record any documented alcoholism, alcohol abuse, or harmful drinking patterns, as well as docu- mented cognitive impairment. All patients were separately approached for a bedside assessment, i.e. completing the brief, well validated “AUDIT” (Alcohol Use Disorders Identification Test) tool for potentially harmful alcohol intake, and completing a brief cognitive screen (the 4AT test), followed by the Montreal Cognitive Assessment (MoCA) if ≥21. These latter patients also gave permission for ≥32.2 MB of collateral informa-

Conclusion: At the time of writing, 153 patients were included, of median age 67; 46% were female. Between chart review and audit scores, 19% had harmful drinking currently or in the past. Of these, 16% had dementia and 12% delirium. In contrast, in those without harmful drinking, 16% had dementia and 9% delirium. Concerningly, 41% of patients with abnormal cognition had no chart documentation of alcohol intake.

Conclusion: There is a strong link between alcohol excess and cognitive impairment/delirium/dementia in hospitalised patients. Every patient with alcohol excess should be considered to have potential delirium and/or cognitive impairment, and all in-patients with cognitive impairment need careful alcohol documentation.
Background: Direct oral anticoagulation (DOAC) treatment is estimated to reduce the risk of non-valvular Atrial Fibrillation (Afib) related stroke by up to 70%.

Methods: To estimate the prevalence of ischaemic stroke in non valvular Afib patients treated with DOAC. As part of a stroke register we prospectively recorded 244 stroke and TIA patients discharged over a 12 months period in MUH (2017). Of these 198 (81%) had ischaemic stroke. We recorded the DOAC dosage in the population. We used Fishers and Student t test for our statistical analysis.

Results: A total of 28/244 (11%) patients had developed a stroke on DOAC therapy. In patients with known Afib fibrillation (71), 28 (39.4%) were prescribed a DOAC prior to admission, 21 females (75%) versus 7 males (25%) p = 0.005. Twenty four (87.5%) were aged 75 years and older. Stroke occurrence increased from (35%) among adults younger 75 years to (64.2%) in persons aged 75 and older and there was a 10% mortality rate. Ischaemic stroke was identified in 17 out of 28 pre-existing Afib on DOAC (60%). This was attributed to DOAC failure in 23 (82.5%), inappropriate dosage in 1 (3.5%) and poor compliance in 4 (14%). One had an intracranial haemorrhagic stroke and 3 had TIA’s. The remainder diagnosis was unclear. The aetiology of the ischaemic stroke suggested more commonly carotid stenosis and smell vessel disease as a potential cause for treatment failure.

Conclusion: In an elderly population we found a failure rate for DOAC therapy in 10% of cases admitted to a stroke unit. They were more likely to be female have good compliance and TIA patients discharged over a 12 months period in MUH (2017). Of these 198 (81%) had ischaemic stroke. We recorded the DOAC dosage in the population. We used Fishers and Student t test for our statistical analysis.

An Audit of 4 Years of Data from a Private Nursing Home Group
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Background: To meet increasing demand, a significant number of private nursing homes have recently been developed, many as part of larger groups of homes run under the same corporate governance structure. One such group, operates 7 facilities across Ireland. As part of their quality protocol, patient data are collected monthly and presented to a quality and safety committee.

Methods: We reviewed 4 years of monthly data (January 2014 to December 2017) covering 600 beds across 7 sites, including measurements on patient’s age, length of stay, dependency level, dementia diagnosis, fall rate, and mortality rate. We compared our data over time and between urban and rural situated facilities.

Results: Mean patient age on admission over the 4 years of the study was 80.2 years. Over the 4 years of the study, the mean admission age remained essentially unchanged. Mean length of stay (AvLOS) of 33.2 months over the 4 years, but decreased from 34.7 years in 2014 to 31.3 years in 2017. Dementia was reported in 78.5% of patients in the urban nursing homes versus 33.2% in rural located facilities (p < 0.05). This compares to a national statistic of 30%. Over the 4 years of the study, high/mortality dependency rates increased across all sites but was significantly higher in the urban versus the rural located homes (82% vs 44%, p < 0.003). Falls rate dropped over the study period to less than 0.01 per occupied bed per night.

Conclusion: This study provides a novel insight into the changing profile of patients admitted to a large nursing home group over the last number of years. The observed falling in falls rate is possibly due to improved homecare services delaying the requirement for residential care. Similarly, the significantly lower dementia rates noted in rural facilities may represent a lack of home care options in those settings.

Home First - Outcomes of a Frailty Intervention and Response Team in the Emergency Department of a Large Acute Teaching Hospital
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Background: Emergency Department (ED) attendance, for an older person is often associated with unmet needs of their care needs due to a reduction in physiological reserves. A holistic model of care, delivered by interdisciplinary teams embedding geriatric competencies into their service has been recommended (Connery & Turpin, 2016). Home FIRST (Frailty Intervention & Response Team), comprising a candidate Advanced Nurse Practitioner, Clinical Specialist Occupational Therapist, Clinical Specialist Physiotherapist and Medical Social Worker was introduced to the ED of large acute hospital in May 2017. Objectives include avoidance of unnecessary admissions among older patients (≥75years, Manchester triage category 3–5).

Methods: Quality Improvement methodology underpinned the development of care pathways. Terms of change were performed using Plan-Do-Study-Act cycles. The team developed a common assessment form using shared interdisciplinary competencies.

Results: Patient demographics and outcomes are collected for the purposes of prospective auditing. Microsoft excel is used for data collection and analysis.

Results: In the first nine months of service delivery, 1980 ED attendances were recorded. 802 were male (41%) and 1,178 female (59%) with a mean age of 80 years (range 63–104), 60% (n = 1,203) were discharged home from the ED, 21% (n = 257) had onward referral to Medicine for Older Persons ambulatory care services. Compared to the same nine month period the previous year there were approximately 230 fewer admissions among similar patients corresponding to a bed day saving of 4,500 days. In relation to ED re-attendances, 10% of those discharged had an unscheduled admission within the same month (hospital re-admission rate for similar patients was 13% over the same period).

Conclusion: Home FIRST enabled comprehensive geriatric assessment to begin in the ED and prevented approximately 1 attendance a day without raising re-admissions. The bed day saving equates to about €4.5 million, which highlights the efficacy and cost effectiveness of this service.

A Quality Improvement Initiative in Documentation of DNACPR and Treatment Escalation Plans in a University Hospital
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Background: Healthcare professionals reported suboptimal documentation and communication of do not attempt cardio pulmonary resuscitation (DNACPR) and treatment escalation plans (TEP) with reported cases of inappropriate attempted resuscitation. A quality improvement project was undertaken to address this patient safety issue. The aims of this project are to audit DNACPR documentation and develop a cost neutral quality improvement initiative in the quality of documentation for real patient benefits.

Methods: A minimum dataset required for documentation of DNACPR was decided based on the National Consent Policy Part 4 and a consultation process. A baseline chart review of people with a DNACPR decision assessed the visibility and quality of DNACPR decision and TEP documentation. A DNACPR and TEP document was developed through a consensus panel approach and retested through successive quality improvement cycles.

Results: The baseline audit examined 27 of 198 medical patients with a documented DNACPR decision across six medical wards.

- 11/27 had a clearly documented reason for not attempting CPR. 30/37 documented a discussion with either the patient or an appropriate other person (when the patient couldn’t or wouldn’t discuss). 13/27 documented a TEP. 3/27 documented communicating the DNACPR decision to nursing staff.

The newly developed document was trialed on two geriatric medicine wards over a two week period and was completed for all 6 patients who were deemed DNACPR, 6/6 cases clearly documented resuscitation status and reasoning, 6/6 documented discussion with the appropriate individual, 6/6 had documented TEP, 6/6 documented communication of decision to nursing staff.

Conclusion: The introduction of the DNACPR and TEP document resulted in an improvement in the quality of documentation of resuscitation decisions in a preliminary trial. The next phase is to seek executive management board approval to have this document phased in hospital wide by June 2018.

Patient Perception of an Augmented Prescribed Exercise Programme During Medical Inpatient Stay
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Background: This project aims to explore the attitudes towards, and perception of, exercise in frail older inpatients taking part in an Augmented Prescribed Exercise Programme (APEP). Older people often experience functional decline in hospital due to factors including immobilisation and deconditioning. A randomised controlled clinical trial was performed to assess the effect of an APEP on the outcomes of frail older medical inpatients in a large urban hospital. However, there is little research into participants’ experience of, and attitude towards, such programmes.

Methods: This was a qualitative study; semi-structured interviews were conducted, transcribed and analysed using thematic analysis by the lead author.

In total, 13 participants were interviewed. These were participants of the intervention arm (n = 9) of the APEP, and participants in the sham arm (n = 4) of the APEP.

Results: The themes of ‘Participation’, ‘Barriers’, and ‘Exercise Perception’ were present throughout the data set. Maintenance of independence and mobility, as well as facilitator related factors, were identified as factors that motivated participation. Barriers to full engagement with the APEP were participants’ self-perceived level of frailty, level of mobility, and fear (e.g. of getting hurt during exercise).

Participants’ perception of what active exercise was largely based on their previous background of activity and walking was described as an essential part of the APEP. Participants (n = 9) correctly identified what arm of the trial they were on; 7/9 in the Intervention arm and 2/4 in the Sham arm.

Conclusion: While participants were generally positive towards the APEP, a lack of intrinsic motivation and a combination of other barriers may prevent full participation in APEP.
such programmes. Perception of exercise varies depending on a participant’s previous levels of mobility and exercise.

233 MEMORY CLINICS IN IRELAND: RESULTS OF A 2017 REVIEW
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Background: In 2017 a review of memory clinics across Ireland was undertaken building on previous research by Callah, Pierce and Mose (2013).

The review examined the location and staff composition of memory clinics and the extent and type of service provided.

Methods: All known memory clinics from across the country were identified and invited to complete an electronic questionnaire. Of a total of 25 clinics identified, 25 took part in the review.

Results: Findings show that a third of all memory clinics were based in the Dublin area while there were none in the Northwest of the country. All, bar one, offered an assessment and diagnostic service and the majority were based in a hospital setting.

The majority of memory clinics received referrals for people aged under 65 years (N=21), however there was a small number who had a restricted service to those aged 65 years and over. The type and extent of health and social care professional input was not standardised across the sample; although most reported operating with a multi-disciplinary team.

Clinics also varied considerably in how they ran, ranging from once every two months to five days a week. Findings also showed considerable differences in the type of post-diagnostic support offered to those who received a diagnosis of dementia.

Conclusion: The review provides valuable data to support improved planning and delivery of dementia diagnostic services. As findings show there is geographical inequality of access to memory clinic services. Results also present useful insights into the type and extent of dementia post-diagnostic supports available through memory clinics across the country.

234 MONITORING AND MANAGEMENT OF FEVER IN THE FIRST 72 HOURS FOLLOWING ADMISSION TO THE ACUTE STROKE UNIT
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Background: Hyperthermia (temperature ≥37.5°C) in acute stroke is associated with higher mortality and morbidity, independent of aetiology.1 The Australian USCQ trial (Quality in Acute Stroke Care) demonstrated that implementation of the FeSS (Fever, Sugar and Swallow) protocol for managing fever, hyperglycaemia and swallow dysfunction in the first three days following acute stroke led to significantly improved rates of death and dependence at 90 days, with similar guidelines quoted by the European Stroke Organisation. We audited the implementation of current recommendations for managing fever in the first 72 hours following admission to the Acute Stroke Unit.

Methods: We undertook a retrospective audit of medical records of 15 patients admitted to the Stroke Unit with ischemic or hemorrhagic stroke, in particular reviewing Early Warning Score (EWS) charts, drug kardexes and clinical notes. We assessed adherence to the Stroke Unit that outlines the targets for measuring, recording and responding to fever, particularly in the first 72 hours following stroke. Pyrexia should be a catalyst for investigation underlying infection and appropriately administering antipyretic therapy.

Development of the guideline should be accompanied by an education session with doctors and nursing staff.


235 A NOVEL SCREENING APPROACH FOR OSTEOPOROSIS IN DENTAL PRACTICE USING QUANTITATIVE ULTRASOUND OF THE MANDIBLE
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Background: Screening for osteoporosis is paramount in the prevention of fragility fractures in older adults, with Quantitative Ultrasound (QUS) offering a portable, easy to use,”relatively low cost, non-ionising alternative to Dual Energy X-ray Absorptiometry (DEXA) scans. QUS offers the potential for screening in non-traditional health care settings e.g. Dental practice. However there is limited literature on the effect of osteoporosis on the facial skeleton and its use as a screening site for osteoporosis. Here we aimed to investigate the suitability of QUS of the mandible as tool for screening for osteoporosis.

Methods: Female Caucasian participants (mean 127±age range 22 – 88 years) were assessed for osteoporotic status using DEXA and the FRAX®. Osteoporosis assessment tool. Axial Transmission QUS (Omnisense) was employed to assess speed of sound (SOS) of the mandible. Measurement reliability was initially determined in n=10 healthy pre-menopausal women. ANOVA was used to compare SOS between 3 groups (healthy pre-menopausal women, healthy post-menopausal women, women with osteoporosis). Logistic regression models were used to assess the predictive power of SOS in detecting osteoporosis.

Results: The parasympathetic of the mandible SOS measurements demonstrated the lowest cut off means squared coefficient of variation of 0.74%. Both healthy groups had significantly higher mean SOS measurements than the osteoporotic subjects, with means of 368.3 m/s (210), 354 m/s (221), and 331.2 m/s (264) respectively (p<0.001). Increased mandible SOS was associated with a decreased odds (OR=0.37; p<0.05) of having osteoporosis after correction for other covariates. There was only a moderate correlation found between total hip BMD and mandible SOS (r=0.33;p<0.05).

Conclusion: This is the first study to employ axial transmission QUS to assess mandible bone strength, with mandible QUS a demonstrated screening approach for osteoporosis detection. Involvement of the dental profession in osteoporosis screening could enable detection of otherwise silent osteoporosis in the community.

236 DIET AND LIFESTYLE CHANGES IN OVERWEIGHT & OBSESE RESIDENTS IN HSE RESIDENTIAL CARE SITES FOR OLDER PERSONS, CHO 8 (MIDLANDS AREA)
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Background: Anecdotal evidence from HSE Residential Care Sites for Older Persons (RCS) in CHO 8 (Midlands Area) has raised concerns that overweight and obesity prevalence is rising amongst residents. This study aimed to qualitatively investigate the change in residents’ diet and lifestyle patterns from pre to post admission to this setting.

Methods: Semi-structured interviews were carried out in 8 RCS with staff and overweight/obese residents. Staff and residents were asked about the residents’ current eating, lifestyle and physical activity practices and residents were also asked how these compared to prior to admission. Interviews were audio recorded and transcript were developed permitting theme generation.

Results: Thirteen residents and 7 staff, chosen at random across the 8 RCS, were included in this study. Five significant themes related to the residents’ eating and lifestyle patterns pre admission and currently were identified from the interviews with the residents’ historical influences on diet and lifestyle choices, the importance of daily routine, psychological factors, health related factors and social engagement. The physical and social environment played an important role in current dietary choice and active behavior. The increased availability of food emerged as a substantial change to the residents’ dietary pattern. Food participation in leisure time physical activity prior to admission and the residents’ desire to continue previous habits emerged as barriers to active behavior. Four additional themes emerged from discussion with RCS staff: the fear of weight loss, the effects of visitors bringing in food, accessibility of food via meal structures and staff training.

Conclusion: There are changes in diet and lifestyle patterns in overweight/obese residents from pre to post admission to RCS in CHO 8 (Midlands Area). These changes should be considered when reviewing current nutrition and hydration policies in this care setting.

237 CAN’T ACOPIA, WON’T ACOPIA
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Background: “Acopia” or “not coping” are vague terms often used on medical hand-over to describe acute decline in the function of a patient of unknown cause. Most
Age and Ageing
commonly it refers to an older patient with a complex medical and social history with confusing or atypical symptoms. The term is inherently dismissive, with the implication that they are suddenly unable to cope in the community is a component of normal ageing and doctors need not concern themselves with rigorous investigation of such patients.

Methods: We performed a retrospective audit of the medical post-call ward round handover document from May 2016 to April 2017 and examined the discharge documentation of patients labelled with the term “acopia” or “not coping”.

Results: There were fifty patients (52.5% of all admissions) labelled with “acopia” or “not coping”. These had an age range of 60–93 years old. Patients had, on average, 3 discharge diagnoses. The most common discharge diagnoses were infection (34%), medication side effects (24%), increased community support needed (20%), anxiety/depression (16%), poor nutrition (14%), fragility fracture (12%), alcohol/medications dependency (12%), cardiac disease (12%) malignancy (10%), constipation (8%), urinary retention (5%), and delirium (5%). Only 48% of patients were discharged home, 24% of patients required further rehabilitation off-site, 18% went to long-term care and 6% died during admission.

Conclusion: Fifty patients were admitted with a label of “acopia” or “not coping” at handover. Commonly the underlying diagnosis was treatable, reversible or preventable with basic, low cost interventions. For patients presenting with an acute decline in function, underlying reversible medical pathology is the rule, not the exception. In addition, only 48% of patients went directly home, indicating the underlying frailty of these patients. This also reveals an implicit agenda as the term “acopia” was not attributed to any patient under 60 years old.

237 STROKE CONSULTATION SERVICE IN AN IRISH TEACHING HOSPITAL – STROKE VERSUS NON STROKE DIAGNOSES. A DESCRIPTIVE ANALYSIS
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Background: Given the time sensitive nature of acute stroke care and sometimes similar symptoms among other neurologic conditions often the stroke team is often admitted under an acute stroke service adding to the clinical workload. There is also the need for appropriate and timely pathways for these patients. We evaluated our stroke consultation service in an Irish teaching hospital.

Methods: We analysed our database for all stroke consultations seen by the stroke team in our hospital between the start of July 2017 and the 16th of March 2018. A descriptive data analysis was performed using Statistical Package for Social Sciences (SPSS) version 22.

Results: There were 255 stroke consultations received of which 52.2% (133) were males. The median range (age) was 69 (23 to 97) years. Of those, 62.7% (160/255) were over 65 years of age. There were 42.0% (107/255) with a diagnosis of stroke, 7.5% (19/255) of Transient Ischaemic Attack (TIA) and 50.6% (129/255) with non-stroke diagnoses. The median(range) age was 69 (23 to 97) years. Of those, 62.7% (160/255) were over 65 years of age. There were 42.0% (107/255) with a diagnosis of stroke, 7.5% (19/255) of Transient Ischaemic Attack (TIA) and 50.6% (129/255) with non-stroke diagnoses.

Conclusion: Our results further indicate that nature of specialist service and access to private services have a significant impact on access to specialist Parkinson disease services in Ireland, suggesting the possibility of identifying those most at risk using demographic factors.

240 ACCESS TO PARKINSON’S DISEASE SERVICES IN IRELAND: AN EPIDEMIOLOGICAL ANALYSIS
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Background: Parkinson’s Disease (PD) is a neurodegenerative disorder characterised by progressive motor symptoms. Symptomatic treatment can greatly reduce disease burden, but requires monitoring and regular review by specialists. It remains unclear whether management of PD in Ireland is in line with international guidelines, and what factors influence access to appropriate care.

Methods: We performed an audit of Parkinson’s Disease management in Ireland using electronic records of a sample of General Practitioners (n = 18). Patients were identified by finding those coded for PD, and those prescribed an antiparkinsonian drug. Patients’ records were reviewed to confirm diagnosis.

Results: We identified 152 patients with PD (86 male, 66 female; mean age 76 ± 10.5). Of these, 38% were managed by a neurologist, 33% by a geriatrician and 7% by a GP. 77% were managed through the public system.

PD patients were seen by a specialist within six weeks of suspected diagnosis in 44% of cases, were reviewed every six to twelve months over the last three years in 50%, and had been seen within the last twelve months in 63% of cases. Type of specialist seen and access to private healthcare were identified as significant factors in determining access to services (p < 0.001).

Conclusion: Our results indicate that a large proportion of patients with PD in Ireland lack sufficient contact with specialist services according to NICE guidelines. Increased availability of resources may reduce the burden of disease in this patient group.

We further results indicate that nature of specialist service and access to private services have a significant impact on access to specialist Parkinson’s Disease services in Ireland, suggesting the possibility of identifying those most at risk using demographic factors.

242 COGNITIVE ASSESSMENT OF OLDER INPATIENTS: A CLINICAL AUDIT
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Background: Thorough geriatric evaluation including cognitive assessment results in improved outcomes and quality of life by promoting access to more appropriate care. The National Audit of Dementia Care in the UK showed that older patients were being under-assessed with regard to cognition, and therefore failing to receive suitable levels of care.

Methods: This was a retrospective clinical audit carried out in a peripheral general hospital. Patients aged over 65 years who were admitted to this hospital over a selected period of ten days (30/03/18 to 09/04/18) were deemed eligible for inclusion. This totalled at 31 subjects. A descriptive analysis of the results was performed.

Results: Despite recommendations that cognitive assessment should be performed on admission, this was not completed in any of the medical notes. 4 of the patients included in the audit had come from nursing homes. 64.5% still however have documented mental status such as ‘confused’ or ‘orientated’ on admission. 22.6% of selected patients had a previously documented history of cognitive impairment.

Conclusion: Cognitive assessment rates need to be further improved to promote better outcomes for patients with cognitive impairment. A more detailed study following subjects throughout inpatient stay would be beneficial to assess whether cognitive evaluation was carried out prior to discharge. The possibility of an interventional tool such an Abbreviated Mental Test Score could be considered in the future. These findings support the need for increased education with regard to the importance and benefits of assessment as well as how to complete and document assessment correctly.

241 STROKE CONSULTATION SERVICE IN AN IRISH TEACHING HOSPITAL – STROKE VERSUS NON STROKE DIAGNOSES. A DESCRIPTIVE ANALYSIS
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James Connolly Memorial Hospital University, Blanchardstown, Dublin, Ireland

Background: The median(range) age was 69 (23 to 97) years. Of those, 62.7% (160/255) were over 65 years of age. There were 42.0% (107/255) with a diagnosis of stroke, 7.5% (19/255) of Transient Ischaemic Attack (TIA) and 50.6% (129/255) with non-stroke diagnoses.

Conclusion: Our results further indicate that nature of specialist service and access to private services have a significant impact on access to specialist Parkinson disease services in Ireland, suggesting the possibility of identifying those most at risk using demographic factors.
Background: Impaired recovery of orthostatic blood pressure is an independent risk factor for falls. Definitions of orthostatic hypotension (OH) combine drops in systolic (SBP) and diastolic BP (DBP), however the relative contribution of SBP or DBP to this falls risk is unclear. Where we examine the individual contribution of SBP and DBP to all cause falls and injurious falls risks associated with OH variants.

Methods: Continuous BP recordings during active stands were measured in community dwelling patients (age > 50) recruited to a longitudinal cohort study in 2009–2011 (wave 1) with follow-up falls and injurious falls information collected in 2012–2013 (wave 2). Delayed recovery (OH40) (SBP/DBP drops > 20/10 mmHg at 40 seconds) and classical OH (COH) (sustained drop of 20/10 mmHg for 2 minutes) after standing was defined. These definitions were deconstructed to consider individual SBP (OH40; sOH40) and DBP (OH40; dOH40) and combined (sOH40; dOH40) drops. Prevalences of each OH variant were reported. Relationships with outcomes at wave 2 were assessed using negative binomial and modified Poison regression.

Results: n = 4127 participants, mean age 61.5(8.2) years, 54.2% female were studied. 4.1% had sOH40, 3.5% had dOH40 and 6.2% had sOH40, while 1.5% had sCOH, 1.7% had dCOH and 2.4% had sOH40. 22.0% had at least 1 fall as follow up with 9.64% an injurious fall. dCOH was associated with an increased risk of all cause falls (B = 1.89 95% CI:0.4-3.11; p = 0.035) while sOH40 (B = 1.64 95% CI:0.6-2.52; p = 0.025) and sCOH (B = 2.04 95% CI:3.4-3.10; p = 0.008) were associated with an increased risk of injurious falls.

Conclusion: Evidence provided here suggests that when assessing patient falls risk drops in SBP and DBP is important.

WHAT DO SURGEONS WANT? AN OVERVIEW OF 6 MONTHS EXPERIENCE OF HEALTH AND SOCIAL CARE PROFESSIONALS ATTENDING THE NATIONAL FRAILTY EDUCATION PROGRAMME

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Background: The National Clinical Programme for Older People (NCPOP), in combination with TILDA, introduced the National Frailty Education Programme “Fundamentals of Frailty” in 2017. It is an interdisciplinary educational strategy to promote excellence, encourage innovation and creativity in the management of the older person living with frailty.

Methods: 123 health and social care professionals attended the programme and provided feedback. Themes in the feedback forms were assessed to describe what course material was felt to be most and least beneficial as well as main learning points taken by attendees. Results: 123 feedback forms were received. 53 from nurses, 9 occupational therapists, 10 physiotherapists, 10 medical students, 13 health care assistants, 4 pharmacists, 1 doctor, 1 nursing student, 1 speech and language therapist. 21 selected other or did not indicate current role. When asked to provide an overall rating from 1 to 5, the mean rating provided was 4.7 indicating a strong agreement with the statement that the programme enhanced the attendees understanding of frailty. Attendees were most likely to have liked more time being spent on delirium, polypharmacy, continence and the comprehensive geriatric assessment. Most participants agreed the course was very relevant to their area of practice, and several commented that they would use new skills to promote independence, continence and be more observant to recognise frailty and delirium. Several attendees commented on the need for improved communication between hospital and community services to look after frail patients.

Conclusion: Interdisciplinary education has an important role to play in improving care of frail older people. Continued role out of the National Frailty Education Programme, and programmes, like it, in collaboration with the clinical programmes, is an integral part of delivering the culture change needed to improve care for older people.

BREAKING BOUNDARIES; WHERE INTELLECTUAL DISABILITY (ID) & OLDER PERSON SERVICES COLLABORATE

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Background: The Intel Scan Programme for people with ID, an initiative born as a direct result of the national movement, the National Clinical Programme for Older People’s (NCPOP), National Frailty Education Programme (NFEP) is a collaboration between two NFEP facilitators. With both facilitators coming from two separate nursing disciplines but having a passion for older people and older people with ID, and health screening this was a perfect collaboration to achieve improved health outcomes for older people with ID.

Methods: The Intel scan has been identified as being the best choice of obtaining the bone health status of people with ID where dual-energy X-ray absorptiometry (DEXA) is not an option. This is particularly important given the well documented poor health outcomes for people with ID. One area quite often neglected or omitted on physical health checks is bone health with preventative services also under-utilised (Lewis et al. 2005; Michael et al. 2008; Skeikh et al. 2011).

Clinical nurse managers and nurses were asked to inform family/ guardians of service users and the service users themselves using documentation, research literature, PowerPoint presentation on bone health which was provided by the facilitators and invite them to attend a pilot heel scan clinic.

Results: 32 service users were invited, 29 service users had a heel scan. Staff escorting service users also invited to have a heel scan (n = 17). The majority of the T-Score results were in two areas, Osteopenia and Osteoporosis. The facilitators have secured an additional clinic for staff in the pilot area.

Conclusion: Our vision; the role out of the heel scan clinics across Donegal ID services and the CHO1 area to obtain baseline health status for older people with ID who are unfit for DEXA. This initiative gives baseline assessments for service users and promotes health screening, and it feeds directly into the People Strategy 2015–2018.

WHO DO SURGEONS WANT? AN OVERVIEW OF 6 MONTHS EXPERIENCE OF HEALTH AND SOCIAL CARE PROFESSIONALS ATTENDING THE NATIONAL FRAILTY EDUCATION PROGRAMME

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Background: The NCPOP report ‘An Age Old Problem’ (2010), highlighted significant deficiencies in the care of older surgical patients. In recent years there has been increasing focus on the medical management of surgical patients, leading to the development of orthogeriatric services and Proactive Care of Older People Undergoing Surgery (POPS) services. We examined consults sent to our Geriatric Medicine service from surgical teams over a 6 month period.

Methods: All consults sent to the Geriatric Medicine Department from any surgical specialty, excluding orthopaedic surgery, in our hospital were analysed. We then collected baseline patient characteristics from our online patient system.

Results: Surgical teams sent 80 official Geriatric Medicine consults over the 6 month period. The mean age of these patients was 80 years. Many consulted requested assistance for multiple issues. The most common reason for consult was management of complex medical issues (n = 22). Consults were sent for both confusion (n = 15), and delirium (n = 15). 11 consults were sent for discharge planning. Other recurring themes included Dementia/Cognitive Decline (n = 9), falls (n = 6), request for take over care (TOC) (n = 5) and assessment for long term care (n = 4). Despite 31 consults clearly describing delirium, only 15 consults actually used the word ‘delirium’. 15 patients were taken over by Geriatric Medicine. There was no overlap between patients for whom TOC was requested and those who were ultimately taken over.

Conclusion: Management of delirium and complex medical issues represented the majority of Geriatric Medicine consults. Despite this, the word ‘delirium’ was used in less than half of consults describing delirium. 18% of consulted patients were ultimately taken over by Geriatric Medicine. There needs to be further education of surgical trainees in terms of the recognition and management of delirium. This patient cohort would likely benefit from regular medical input to ensure best patient outcomes.

AUTONOMIC FAILURE IS A COMMON AGE ASSOCIATED PROBLEM. BEWARE OF BOWEL PRESENTATIONS

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Background: Most of the primary autonomic disorders are chronic in nature, with symptoms often initiating in an insidious fashion. However, in acute autonomic neuropathies, the onset can be dramatic with presentation as a generalized dysautonomia. We present a case where the initial presentation in retrospect was small bowel atony. A 75 year old patient presented initially to the surgical service with an acute abdomen. A plain abdominal film showed small bowel dilatation consistent with small bowel obstruction. There were no obvious pathologic basis for this. The patient proceeded to surgery, ultimately needed a laparotomy with resection of short bowel segment and eventually required defunctioning ileostomy. Postoperatively, the patient was noted to have persistent severe diarrhea and was unable to get out of bed because of same.

Methods: The geriatric medicine service was asked to see the patient. A vascular autonomic evaluation equipment to the bedside which confirmed profound orthostatic hypotension with a blood pressure drop to 30/17 mmHg. Other investigations rule out cardiac pathology and he had no features of Parkinsonism on examination.

Results: The patient was treated initially with midodrine and fludrocortisone without any success. He was then switched to drotrecogin with doses gradually up-titrated, accompanied by a gradual improvement in his clinical status. He was discharged home after dedicated rehabilitation.

Conclusion: This case highlights what is a rare but recognised phenomenon of pandysautonomia presenting with atomic bowel with hemodynamic changes occurring shortly afterwards. It is often combined with pathological condition. The acute phase can hardly be differentiated by mechanical obstructions and hence accurate examinations are necessary to rule out secondary causes. A greater awareness of the clinical features of intestinal pseudo-obstruction would help to limit surgical procedures to a minimum.
AN AGE BASED ASSESSMENT OF TIME TO STROKE WARD ADMISSION IN ACUTE STROKE PATIENTS IN CORK UNIVERSITY HOSPITAL

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Background: The 2012 HSE Model of Stroke Care programme suggests that admissions to stroke units are very beneficial to outcomes in stroke management, in terms of reduced death and dependency, length of stay and overall cost savings. The aim of the model for Ireland included admission of 50% of stroke patients to a stroke unit during at least 50% of their stay.

Methods: We analysed 158 stroke patients admitted to Cork University Hospital, from January 2018 to March 2018, to determine the length of time it took for patients with acute strokes to be admitted to a stroke ward, from presentation to the Emergency Department. We divided the two groups by age - patients older than 65 and younger than 65 years old.

Results: We found that 93/118 (79%) > 65yo patients were admitted to a stroke ward during their admission vs 30/37 (81%) 65yo patients. Of those who were admitted to a stroke bed, 77% were admitted within the first 24 hours in >65 group compared with 80% in <65 and 95% were admitted within a stroke ward by 48 hours in the >65 group compared with 93% in <65 group. 100% were admitted by Day 5 in >65 compared with 100% by day 8 in <65s.

Conclusion: There were similar numbers of patients admitted to a stroke ward during their stay in both of the groups - 79% vs 81%, 95% (>65) vs 93% (<65) of acute stroke patients were admitted to a stroke ward within 48 hours of presentation, the vast majority of these being within the first 24 hours. These figures compare favourably with the aims of the 2012 model of stroke care plan.

MEDICATION ERRORS: AN UNIDENTIFIED SILENT KILLER - JACK THE RIPPER OF OUR AGE

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Background: Health Information and Quality Authority’s (HIQA) “Guidance for health and social care providers - Principles of good practice in Medication reconciliation” reports that in Ireland the medication incidents most commonly reported to the Clinical Indemnity Scheme in 2012 were medication reconciliation incidents. More than 40% of medication errors occur due to inadequate reconciliation in handoffs during admission, transfer, and discharge of patients. 20% are believed to result in harm and would have been averted if effective medication reconciliation processes were in place.

An audit to assess the medication errors and degree of compliance with medication reconciliation within 24 hours of admission and transfer of patients in University Hospital Limerick (UHL) was carried out in 2015. As a result, medication errors were identified as occurring in 76% of admissions and only 44% of medication reconciliation was performed within 24 hours of admission. Recommendations were made and a change process implemented.

Methods: 62 patients were randomly selected and re-audited to assess the degree of compliance with the medication reconciliation recommendations and the change process.

Results: Medication reconciliation was performed only in 43 (69%) and not in 19. Reconciliation was performed within 24 hours in 24 patients (55%); within 48 hours in 8 patients; within 72 hours in 7 patients.

Further reconciliation errors were found within the final step of the medication reconciliation process – discharge prescribing errors. Most of the errors were highlighted by the community pharmacists and patients own General Practitioners. Unintentional prescription of stopped medications; error in the dose, frequency or formulation and omission of active medications were the most common error types.

Conclusion: There is a need to implement an electronic medication reconciliation tool as part of a planned e-prescribing initiative at UHL which also includes discharge medication reconciliation to support medication optimization post-hospitalization.

PREVALENCE AND APPROPRIATENESS OF PROTON PUMP INHIBITORS PRESCRIPTIONS AMONG GERIATRICS MEDICAL INPATIENT AT MIDWEST REGION OF IRELAND

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Background: Proton pump inhibitors (PPIs) are among the most prescribed medications worldwide by physicians. Despite being well tolerated by patients, recent studies show compelling concerns regarding their adverse reactions including negative effects on bone health.

Methods: The name, dose, duration and indication(s) for the PPIs prescribed were extracted initially from patients’ drug chart and further by medical record review and phone calls to patients’ corresponding general practitioner. The study participants were geriatric inpatients aged 65 years and above who were admitted to the medical inpatients bed at University Hospital Limerick. The appropriateness of its use was compared against the NICE guidelines 2014.

Results: Of the 22 medical inpatients assessed during this audit, one hundred percent (22 out of 22) of these patients were PPI users. For 59% (n = 13) of patients, there were no clear documents on indication for PPI being prescribed in medical chart or general practitioner record. We observed 72% (n = 16) patients were on PPI for more than 2 years and 18% (n = 4) was on PPI for approximately one year. Overall, 36% (n = 8) had undergone endoscopy investigation.

Conclusion: A thorough benefit versus risk assessment should be done prior to commencement, continuation or cessation of PPI in this group. This will prevent overutilization and undesirable adverse effects of PPI.

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VARIABILITY IN TIMING OF MEDICATION DISPENSING ROUNDS IN A UNIVERSITY HOSPITAL

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Background: The ethos of right drug, right patient, right time has permeated throughout all Irish hospital to reduce medication errors. There has been a drive to reduce errors by avoiding distraction (the do not disturb sign during the medication round), increased education for doctors regarding generic prescribing and legibility. We aim to determine if there is variability in the right time element of this mantra.

Methods: A survey was carried out on every ward in our hospital in relation to the timing and frequency of the medication rounds. Every ward provided their individual commencement times of every round for that day. It was noted if the ward was primarily medical or surgical.

Results: 13 wards were audited on a single day. The majority 11/13 (84%) had 4 separate drug rounds per day with 2/13 having 5 drug rounds. Only 3 wards had the same schedule of medication rounds (23%) with medications given at 6am, 12pm, 6pm and 10pm. The morning medication round varied from 5:30am to 7am depending on the ward. Apart from the 12 o’clock medication round, there were several hours’ difference between each ward.

Conclusion: The variability in medication rounds has many implications for patients. Medications which could be prescribed at 8am could be given anywhere between 5.30am and 12pm in some cases. The lack of uniformity between wards means that as a prescriber you cannot be sure that your patients are receiving their medication at the intended time. Similarly, if patients are transferred between wards, medications could be missed due to variability in rounds. The results of this audit were presented at the Drug and Therapeutics Meeting in our hospital. A working group has since been formed to coordinate the medication rounds throughout the hospital.

CEREBRAL AMYLOID ANGIOPATHY - RELATED INFLAMMATION: A CASE REPORT

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Background: Cerebral amyloid angiopathy related inflammation (CAA-i) can lead to a potentially rapidly progressive encephalopathy and usually occurs in older adults. A definitive diagnosis can only be made histologically although typical clinical symptoms along with characteristic MRI findings may aid in clinical diagnosis.

Methods: An 82-year-old man was found obtunded in his house having been unresponsive to messages from his son for a period of several days. At presentation he was alert but disoriented and restless. GCS was 13/15 with normal BP. Speech was slow and hesitant with neurological examination otherwise unremarkable. Haematological investigations revealed raised inflammatory markers with biochemical evidence of mild rhabdo-myolysis. Non contrast CT brain showed asymmetrical vasogenic oedema involving bilateral temporal, parietal and occipital lobes. Contrast enhanced MRI brain demonstrated multifocal areas of oedema affecting corresponding cortical and subcortical white matter regions without enhancement. Blood sensitive NRI sequences revealed bilateral multiple cortical punctuate hypointensities consistent with microdемahages sparing the basal ganglia bilaterally. Work up including CSF analysis was otherwise unrevealing.

Results: Initial treatment included empirical cover for viral encephalitis and antimicrobials as there was a clinical suspicion of unobserved seizure activity. His blood pressure normalized and disorientation and speech disturbance resolved. In view of his presentation and radiological features, a presumptive diagnosis ofCAA-i was made. He was commenced on a 6 week tapering course of oral prednisone 30 mg. Follow up MRI 6 weeks later revealed complete resolution of the white matter hypointensities. He was asymptomatic and remained independent. MMSE showed attention and recall deficits at 24/30.

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AN AUDIT OF FLUID BALANCE MONITORING IN PATIENTS ADMITTED DUE TO AN EXACERBATION OF CONGESTIVE HEART FAILURE

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Background: The admission of patients due to an acute exacerbation of congestive cardiac failure is a common presentation to the medical wards and close monitoring of response to treatment is essential to determine patient outcome.

According to the 2016 European Society of Cardiology (ESC) Guidelines for the diagnosis and treatment of acute and chronic heart failure, monitoring of clinical status (including patient vital signs, daily weights and various biochemical markers) of patients hospitalised due to acute heart failure is recommended to assess treatment response.

Methods: This audit chose 40 patients at random that were admitted to the medical department due to an exacerbation of known heart failure.

Diet charts were reviewed retrospectively to analyse the level of accurate monitoring following initiation of intravenous diuretic treatment.


Results: All 40 patients (100%) admitted with CCF had routine-thorough vital signs documented. Admission plans to keep strict fluid balance charts were documented in 27/40 (67.5%) however only 21/27 (77.7%) had a fully completed fluid balance chart.

A plan for fluid restrictions of various amounts was imposed on a total of 4/40 (10%) of patients admitted which was correctly monitored.

Following commencement of IV diuretic therapy, only 20/40 (50%) had reported daily fluid intake testing performed while Urinary catheter insertion was performed in 9/40 (22.5%).

Conclusion: Patients admitted with acute heart failure were not accurately monitored.

According to Class 1, level C evidence on the European Cardiology Society guidelines on the treatment of acute heart failure, our treatment algorithm should include close monitoring of clinical status (including patient vital signs, daily weights and various biochemical markers) of patients hospitalised due to acute heart failure is recommended to assess treatment response.

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Reference

DISCONTINUING DENOSUMAB: SAFETY & EXPERIENCE FROM A SPECIALIST BONE HEALTH AND OSTEOPOROSIS CLINIC

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Background: Recent studies highlight rapid loss in bone mineral density (BMD), rebound increases in bone turnover and early vertebral fractures after denosumab discontinuation. There is enough concern presently to advise that denosumab is not stopped without considering alternative treatment. Therefore, we aimed to identify patients in whom denosumab was discontinued without commencement of other therapy and examine outcomes in this subgroup.

Methods: We performed a retrospective review of all patients first prescribed denosumab in our service from October 2010 to March 2013. We excluded those who either remain on or were discharged on denosumab, were followed up with other treatments or died. Data regarding patient demographics, bone health, treatment history and outcome measures (BMD, bone turnover markers and incident fractures) were collected.

Results: 261 patient records were initially examined. 99 were discharged on and 39 remain on denosumab. 17 died. 106 continued to attend our clinic at the time of denosumab discontinuation. 75.9% were treated with an alternative agent after stopping denosumab. Thus, after applying exclusion criteria, we identified 26 patients in whom denosumab was discontinued without starting other therapy and examined outcomes in this subgroup.

Conclusion: Results are consistent with recent studies showing a loss of BMD and apparent incident vertebral fracture risk after stopping denosumab. BMD loss in this study is less than expected compared to other studies and may have been altered by prior antiosteoporotic therapy. It is imperative that follow up treatment is considered in all patients where denosumab is discontinued though the optimal duration of this therapy is unclear.

VITAMIN BIOMARKER STATUS - PREDICTORS OF COGNITIVE FUNCTION AND DECLINE IN OLDER ADULTS OVER A 5-YEAR FOLLOW-UP: THE TUDA STUDY

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Background: Dementia is a major public health priority affecting over 60,000 older people on the island of Ireland.1 Emerging evidence suggests that one-carbon metabolism and the related B-vitamins (folate, vitamin B12, vitamins B6 and riboflavin) may be important for cognitive health in ageing, but few studies have investigated the role of all relevant B-vitamins.2 The hypothesis investigated in this study is that low B-vitamin biomarker status will be associated with poorer cognitive performance and predicts a greater rate of cognitive decline over a 5-year follow-up period.

REFERENCES
PREVALENCE OF IRON DEFICIENCY IN HEART FAILURE

Abstracts

have more comorbidities, highlighting the importance of treating ID to optimise sample size, may be signiﬁcant. ID is prevalent in Geriatric assessment cohorts and, with a large enough form of randomised controlled trials in order to determine whether a causative relation–

Conclusion:

Conclusion: Given the frequent occurrence of ID in the HF population, the diagnosis and treatment of ID is essential to improve the health and well-being of individuals with HF.

References


PREVALENCE OF IRON DEFICIENCY IN HEART FAILURE AMONGST PATIENTS UNDERGOING GERIATRIC ASSESSMENT

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Background: Heart failure (HF) is a leading cause of morbidity and mortality in patients of Geriatric Medicine services. In HF, iron deﬁciency (ID) is associated with more severe symptoms, poorer outcome and poorer prognosis, and is a therapeutic target. HF often occurs in the context of multiple comorbidities.

Methods: We analysed clinic letters and laboratory results for patients undergoing Geriatric Assessment in a Dublin clinic over one year. SAS statistical software was used to perform data analysis of groups. Cumulative Illness Rating Scale - Geriatric (CIRS-G), a widely used index of comorbidity burden and indicator of mortality, was calculated for patients.

Results: Of the 147 patients assessed in 2017, 112 had sufﬁcient data available to analyse: 49 (43.75%) were male and 63 (56.25%) female. 16 were diagnosed with HF (mean age 79.3 years, range 63–93; 10 M:F) while 96 were not (mean age 79.2 years, range 58–98; 49 M:47 F). There was no signiﬁcant difference in haemoglobin between HF (12.98 g/dL, range 9.5–13.4) and non-HF patients (13.03 g/dL, range 8–18.7). There was a trend towards lower ferritin in HF (128.21 mg/mL, range 63–193) than in the group without HF (157.46 mg/mL, range 125–189), which did not reach statistical signiﬁcance. A similar statistically nonsigniﬁcant trend was seen towards lower mean transferrin saturation in HF (22%, range 8–41) than non-HF group (24.9%, range 4–80). Mean CIRS-G score was signiﬁcantly higher in HF (8.66, range 3–13) compared with non-HF patients (6.12, range 0–14) (p = 0.022). The HF patients also had signiﬁcantly more comorbidities compared to non-HF patients 6.75 vs 5.23 (p = 0.0362).

Conclusion: ID is prevalent in Geriatric assessment cohorts and, with a large enough sample size, may be signiﬁcantly more prevalent in HF patients with HF are frail and have more comorbidities, highlighting the importance of treating ID to optimise morbidity burden, thus maximising beneﬁt from the Geriatric Screen performed at assessment.

PREVALENCE AND TREATMENT OF GOUT AMONGST PATIENTS WITH CHRONIC KIDNEY DISEASE IN THE IRISH HEALTH SYSTEM: A NATIONAL STUDY

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3Health Research Institute, University of Limerick, Limerick, Ireland

Background: Gout is a common inﬂammatory arthropathy associated with adverse clinical outcomes. Under treatment is common in the general population. The aim of this study was to determine the prevalence of gout and its treatment among patients with chronic kidney disease (CKD) in the Irish health system.

Methods: We conducted a multi-centre cross-sectional study of patients (n = 515) who attended specialist nephrology clinics in Ireland. A standardized data collection tool was used to record clinical characteristics and medication use at clinic visits. The prevalence of gout and the corresponding use of urate-lowering therapy (ULT) were determined across stages of CKD. Logistic regression explored correlates of gout expressed as Odds Ratios (OR) adjusting for demographic and clinical characteristics.

Results: Overall prevalence of gout was 16.6% and increased signiﬁcantly from 7.5% in Stage 1–2 CKD to 22.8% in stage 4–5 CKD, P < 0.005. Prevalence increased with advancing age (P < 0.005) and was higher in men than women (31.1% versus 10.3% P < 0.000). Overall, 67.9% of gout patients with CKD were treated with ULT, and the percentage increased with advancing stage of CKD from 55.6% in Stage 1–2 to 77.4% in Stage 4–5, P < 0.005. Multivariable modelling identiﬁed men (vs women), OR 1.95 (95% CI 1.09–3.54), low serum albumin, OR 1.09 (1.02–1.16) per 1 g/L lower, poorer kidney function, OR 1.11 (1.01–1.22) per 5 mL/min/1.73 m3 lower, and rising parathyroid hormone (PTH) concentrations, OR 1.38 (1.08–1.77) per 50 pg/mL higher as important disease correlates.

Conclusion: Gout is highly prevalent among CKD patients in the Irish health system and increases with worsening kidney function. Over two thirds of patients with gout were receiving ULT, increasing to 77% of patients with advanced CKD. Greater awareness of gout in CKD, its treatment and the effectiveness of treatment strategies should be vigorously monitored in order to improve patient outcomes.

EARLY FEATURES OF COGNITIVE DECLINE - WHAT PRECIPITATES REFERRAL FOR MEMORY ASSESSMENT?

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Background: Presentation for memory assessment is multi-factorial and complex. Informant history is a key component of formulating a diagnosis of cognitive impairment and also gives information on precipitant memory and behavior issues which triggered referral.

Methods: Twenty six informants completed a questionnaire as part of the informant history process. Subjective reports of memory impairment were captured using clinical dementia rating scale (CDR). The questionnaire studied experience from time of first recognition of symptoms to time of clinic presentation.

Results: 11 men, 15 women, mean age 73.8 (range 63–87). Diagnosis of the cohort was 7/26 (27%) MCI, 4/26 (15%) Subjective memory complaint; 12/26 (46%) Dementia; 5/26 (12%) Mood Related. Twenty-one patients reported subjective memory problems. Mean time from recognition of first symptoms was 26.4 months. Approximately 79% of informants lived with the person in and 5/26 (19%) of cases the assessment was prompted by the person themselves with most families adopting a dual approach in conjunction with their GP.

Memory lapses were the most frequent first sign. When presented with four signs of dementia the recognition was as follows: problems remembering things 25/26 (96%), problems with language/finding words 7/26 (26.9%), personality change 9/26(34.6%), and difﬁculty doing everyday tasks 10/26 (38.4%).

Barriers to presentation were further broken down: 5/26 (19%) Did not know how to get memory checked; 7/26 (26.9%) attributed symptoms to old age; 10/26 (38.4%) Did not wish to upset the patient; 1/26 (3.8%) Figured that not much could he done; 10/26 (38.4%) Had diﬃculty persuading them to attend. Some informants cited multiple barriers.

Conclusion: Informant history can enhance understanding and knowledge of precipitants and barriers surrounding memory assessment. Persons with dementia and families require education and support throughout all stages of their journey. Comprehensive holistic care should involve clear care pathways and educational support from diagnosis through to palliative stages.
Background: Physical activity (PA) maintains patients’ mobility and independence, enab-
ling them to have a shorter length of stay (LOS), discharge home directly, experience bet-
ter quality of life and have reduced care costs. Despite these positive outcomes, patients
remain extremely inactive; a preliminary audit on an acute stroke and older persons’ unit
found that patients’ mean daily step count was 446. Outlined in a (QI) developed by the
same authors to address this, focusing on two specific barriers highlighted from the audit;
patient motivation and education.

Methods: Patients who consented were provided with a pedometer and log book to track
step count. Achieving 900 steps per day positively influenced PA. Results indicated that
pedometers and education may be a simple and cost-effective tool. This screening is done electronically and is mandatory. Once identified is a (QI) developed by the
same authors to address this, focusing on two specific barriers highlighted from the audit;
patient motivation and education.

Results: 15% of the QI group accumulated > 900 steps per day compared to 16% of the audit
group, in addition their mean daily step count was 201 steps more. Some reported that although they were motivated to do more PA, that a step target was useful. Some reported that although they were motivated to do more
PA, their need for assistance curtailed this. Thus, pedometers alone were not sufficient to
increase PA. Some also reported that the pedometer fell off or they forgot to wear it.

Conclusion: Pedometers are a useful tool for increasing PA in community dwelling older
adults, however this is the first initiative to trial pedometers with hospitalised older adults.
Although data is limited by small numbers and potential inaccuracies due to patient com-
pliance, results indicate that pedometers and education may be a simple and cost
effective measure to increase PA levels. Considering the positive effects of PA on patient outcomes, a larger trial with more robust data examining specific outcomes is indicated.

Background: Transitional care funding (TCF) is frequently used to provide convales-
cence in nursing home to patients, particularly older adults, to facilitate discharge from
acute hospitals. There is little evidence to support the utility of this approach and some
that it may increase adverse events. No economic costing of this is readily available. This
study evaluated the outcomes for patients availing of this funding and examined the direct
costs.

Methods: All patients receiving TCF to support step-down to convalescence beds in
nursing homes after hospital discharge, from a large university hospital, over a three-
month period in 2016, were included in the analysis. Data on one-year mortality, length
of stay (LOS) and duration of TCF were available.

Results: Data were available for 282 patients with a median age of 79 years, IQR
+/-17; 55% were female. In all, 43 (17%) patients were readmitted ≤30 days of dis-
charge. The discharge destination from step-down for the majority, 176 patients (70%)
was home, suggesting there was no medical indication for TCF (i.e. it was not used as
a bridge to rehabilitation etc.). Of these, a similar proportion were readmitted ≤30 days
n = 30 (17%). Based on a costing of €800/week, the cost of TCF for the three months was
€409,150; the cost for those with an indication was €141,950, meaning that €347,200
was wasted on TCF for those without a clear indication.

Conclusion: In an attempt to reduce hospital LOS and Emergency Department waiting
times, TCF can promote discharge from acute hospitals. However, this may be a false
economy with few patients having clear indications and almost one-fifth being readmitted ≤30 days. Significant cost savings could be achieved by rationalizing allocation of TCF to those with an appropriate indication, money which could be better spent optimizing qual-
ity of care, particularly in patients’ own homes.

Outcomes in Older People With Frailty


Background: In our hospital in 2016, patients aged over 75 accounted for 10.5% of emer-
gency attendances, 18.5% of admissions and 43.3% of bed days. A Value Stream Analysis in October 2016 of patients with a length of stay > 14 days recommended a Specialist Geriatric Service on the acute floor.

GEMS (Geriatric Emergency Service) aim is to improve the care, outcomes and patient experience of all older people with frailty attending our hospital.

Methods: All emergency attendances aged > 75 years are screened on triage using the
VIP tool. This screening is done electronically and is mandatory. Once identified on tri-
age (VIP > 1) as at risk of adverse outcomes the patients are assessed early by any
member of the interdisciplinary GEMS Team. A problem list, plan and Clinical Frailty Score are completed at the end of the CGA.

Outward referrals are generated on completion of CGA and standardized work prac-
tices have been agreed by the GEMS and wider multidisciplinary teams.

Data on case mix, service process and outcomes are prospectively collected on an
Excel spreadsheet and we present analysis from 21/02/2017 to 20/02/2018 (365 days).

Results: Each patient is scored using Rockwood’s Clinical Frailty Scale (CFS) from range 1 to 9 (CFS, 1=very fit, 9-terminally ill). 32% were screened as Severely Frail, 28% Moderately frail,16% Mildly Frail. Only 7% of screened patients had new transfers to LTC and there were 6% in hospital mortality.

We then correlated our outcome results to CFS scores.

Conclusion: Older people have tendency to be more frail. Patients with higher CFS scores have longer lengths of stay, are more likely to be discharged to Long Term Care and have higher re-admission rates. We suggest that early CGA intervention on acute floor is critical in order to prevent adverse outcomes in older patients with frailty.

A Value Stream Analysis in October 2016 of patients with a length of stay > 14 days
was home, suggesting there was no medical indication for TCF (i.e. it was not used as
a bridge to rehabilitation etc.). Of these, a similar proportion were readmitted ≤30 days
n = 30 (17%). Based on a costing of €800/week, the cost of TCF for the three months was
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times, TCF can promote discharge from acute hospitals. However, this may be a false
economy with few patients having clear indications and almost one-fifth being readmitted ≤30 days. Significant cost savings could be achieved by rationalizing allocation of TCF to those with an appropriate indication, money which could be better spent optimizing qual-
ity of care, particularly in patients’ own homes.

DOOR-TO-CT TIME REDUCED BY HALF AN HOUR FOR THROMBOLYSIS CANDIDATES

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Background: Door-to-needle time is a fundamental component of effectively delivered
thrombolysis and thrombectomy care. We aimed to reduce our door-to-needle time by
process mapping and then modifying the patient journey through Tallaght University
Hospital Emergency Department.

Methods: Pre-intervention 40 FAST-positive patients were retrospectively process
mapped to identify time delays. From May 2017 the acquired data gave rise to a new
in-hospital pathway derived through collaboration between stroke services, ED nursing and medical staff and the radiology department. For FAST positive cases triage nurse (rather than medical staff) activated a multi-page bleep carried by stroke consultant, registrar and nurse. Radiology registrar approval were omitted. Forty patients were prospectively pro-
cess mapped post intervention.

Results: There was a median of 6 mins (SD 8) delay between triage nurse activation of
multi-page bleep and stroke team (consultant, registrar and nurse) arrival in ED. Pre-
intervention the median time between patient registration in ED and Triage completion
was 18 mins (SD 14), which reduced by 7 mins post-intervention to 11 mins (SD 14), p = 0.003. Median time between ED registration and ordering a CT brain reduced from
54 mins (SD 35) pre-intervention to 21 mins (SD 28) post-intervention (33 mins difference), p = 0.091. Median time between ED registration and arrival in the CT

THE ASSOCIATION BETWEEN ORTHOSTATIC HYPOTENSION AND GAIT ABNORMALITIES IN A LARGE COHORT OF COMMUNITY-DWELLING OLDER PEOPLE

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Background: Both orthostatic hypotension (OH) and gait problems are prevalent in
later life and while it is common to see both co-exist in frail, older people, little work to
date has examined an association between these conditions.

The aim of this study is to clarify the association between OH and gait problems in a
large population-representative sample of community-dwelling older people.

Methods: Gait was measured using the Timed Up and Go Test (TUG) and the Gaitrite
system, which provided temporal spatial gait analysis.

Orthostatic blood pressure (BP) was measured continuously during active stand using a
monitor. Symptomatic OH (sOH) was defined as a drop in systolic BP by ≥20 mmHg or diastolic BP by ≥10 mmHg at 30 seconds post standing in conjunction with orthostatic symptoms such as dizziness.

Results: The prevalence of sOH was 8% (n=311/3,870).

Linear regression models demonstrated that sOH was associated with increased TUG
with a beta-coefficient of 0.17 (95% CI: 0.00 – 0.34; p = 0.045) after controlling for cov-
ariates including cardiovascular disease, stroke, depression and cognitive impairment.

Participants with TUG ≥ 12 seconds had significantly larger BP drop at 30 seconds post
standing compared to those with normal gait (7.6 ± 2.32 vs 1.3 ± 1.59 mm Hg
T = -4.88, p < 0.001).

SOH was further associated with slower gait speed (coefficient = -2.53; 95% CI:
-4.44 – -0.63), reduced step width (coefficient = -0.17; 95% CI: -0.33 – -0.01) and
step length during dual task conditions (coefficient = -0.05; 95% CI: -0.18 – -0.02).

Conclusion: This study confirms an association between sOH and gait abnormalities, measured by TUG.

SOH was also associated with an abnormal gait pattern characterised by reduced gait speed, step length and step width.

These findings highlight the need to screen for OH in older people with mobility
restriction and vice versa, as both conditions cumulatively increase the risk of falls in later life.
**Age and Ageing**

scanner reduced from 72 mins (SD 77) to 43 mins (SD 60), p = 0.006 (reduction in 29 mins). Door to needle time for thrombolysed patients also reduced post-intervention by a median 42 mins compared with 2016 times. In 2017 Tallaght University Hospital thrombolysed their highest number of patients to date.

**Conclusion:** A lean process approach with engagement from multiple departments has reduced our door to CT time by 29 minutes (40%) and culminated in a 42-minute reduction in door-to-needle time compared with last year. The same collaborative approach must now be applied to the out-of-hours stroke pathway.

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**QUALITY OF SLEEP IN PATIENTS ATTENDING A GERIATRIC OUTPATIENT SERVICE**

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**Background:** Poor quality of sleep is a common complaint amongst attendees of Geriatric outpatient clinics. We set out to see if there is an association between self-reported ‘Very Poor’ quality of sleep and performance on various scores assessed in patients attending an Integrated Geriatric Care Service.

**Methods:** Data were extracted from a database of patients attending the Geriatric outpatient service. Sleep Quality was assessed by asking patients to rate their quality of sleep on a 5-point Likert scale ranging from 1 (very good) to 5 (very poor). Data were also collected on MMSE, Barthel Index and Clinical Frailty Scale. We looked at the group who reported ‘Very Poor’ sleep and compared this to the other four groups as a whole.

**The Modified Short Test:** We used for comparison of non-parametric scale variables between the two groups.

**Results:** Patients that reported their quality of sleep was ‘Very Poor’ had an increased number of attendances to the outpatients service when compared with the other group (P = 0.011). Patients that reported their quality of sleep was ‘Very Poor’ had a lower median (IQR) MMSE score of 14 (12-23) and lower median (IQR) Barthel Score of 17 (13-19). Thus, there was a significant trend towards ‘Very Poor’ quality of sleep and lower MMSE scores (P = 0.026) and lower Barthel Scores (P = 0.029) when compared with the other group. There was a non-significant trend towards higher Clinical Frailty Scale scores in the ‘Very Poor’ quality of sleep group also.

**Conclusion:** The results show that there are trends between self-reported ‘Very Poor’ Quality of Sleep and worse scores on MMSE, Barthel Score and Clinical Frailty Scale. Given the above trends it would be reasonable to suggest that patients with worse quality of sleep are frailter and more dependent. This should be considered when assessing such patients in the outpatient setting.

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**THE DETECTION OF ORTHOSTATIC HYPOTENSION IN HOSPITAL INPATIENTS**

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**Background:** Orthostatic Hypotension (OH) is an important risk factor for falls and syncope. It is also associated with depression and cognitive impairment. Orthostatic blood pressure (BP) measurements are used to diagnose OH using traditional oscillometric (Ward) or plethysmographic methods. Our aim was to compare these two methods in inpatients attending a Falls and Syncope Unit (FASU) in a Dublin hospital.

**Methods:** A six-month retrospective review of inpatients referred to FASU was performed.

Inpatients referred for phasic BP measurement during active stand were compared with ward orthostatic measures taken within 24 hrs of each other.

Ward (oscillometric) OH was determined as a drop of SBP/DBP ≥ 20/10 mmHg from baseline. The AS results were classified as classical OH (sustained drop of ≥20/10 mmHg for 180 seconds) and OH30 (failure to stabilize BP to within 20/10 mmHg of baseline by 30 seconds).

Sensitivity, specificity, Positive Predictive Value (PPV) and Negative Predictive Value (NPV) were calculated.

**Results:** 69 inpatients were referred to FASU between October 2017 and March 2018. 27 patients based BLS BP measurements within 24 hours of referral and suitable Finometer measurements. 29% of patients had ward OH using the oscillometric approach. 40% had positive AS for either OH30 or Classical OH. For detecting Classical OH, Oscillography had a sensitivity of 50.0%, specificity of 97.3%, PPV 84.5%, and NPV 94.7%.

**Conclusion:** Phasic BP measurements are more likely to detect abnormal orthostatic responses at risk inpatients. Operator technique, measurement technology, patient rehydration, medication adjustment and diurnal physiological variability may have contributed to these differences.

**References**

FACTORS AFFECTING DISCHARGE DESTINATION OF OLDER PATIENTS AFTER A PERIOD OF REHABILITATION FOLLOWING ACUTE INPATIENT HOSPITAL ADMISSION

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Background: Older patients often require a period of rehabilitation post-acute hospital admission due to functional decline in order to be safely discharged home. However, returning home is not always possible for patients after rehabilitation. The aim of this audit was to identify the factors affecting patients’ discharge destination post rehabilitation as this allows for more realistic rehabilitation goals and better discharge preparation for patient and caregiver.

Methods: A retrospective audit was carried out on 52 patients discharged from a rehabilitation hospital over a 3 month period from June 2016 to August 2016 looking at the following factors: discharge destination, patient’s age, mobility [Elderly Mobility Scale], cognition [MMSE], falls risk [FRASE], length of stay in acute and rehabilitation hospital.

Results: A total of 52 patients were discharged during this period; 12 patients were discharged to long term care (Group A) and 40 patients were discharged home (Group B). There was no difference in the mean age between Group A and B; 80.78 versus 81.78 years (SD ± 7.5), respectively. Each group had a mean EMS of 12. In Group A and B 41.6% versus 10% had severe cognitive impairments, 25% vs 40% had moderate, 16.6% versus 25% had mild and 16.6% versus 25% had no cognitive impairment, respectively. Mean FRASE score was 13 versus 12.76. LOS in rehabilitation was 53 days versus 52.3 days; median 38 days in both groups. LOS in acute hospital was 19.93 versus 20 days. Reason for hospital admission in groups A and B included bone fracture [41.6% vs 42.5%], acute medical illness [50% vs 47.5%], surgical admission requiring surgical intervention [8.5% vs 10%] respectively.

Conclusion: Patients with severe cognitive impairment were more likely to be discharged to LTC versus home following rehabilitation. There was no other comparable difference between patients who were discharged home versus patients discharged to LTC.

BONE HEALTH IN ORTHOREHAB - ROOM TO IMPROVE OR A BONE OF CONTENTION?

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Background: Falls from a standing height (fragility fractures) account for 90% of all osteoporotic hip fractures (1) and are the most common cause of major trauma in the older person (2). Mortality is approximately 10% during admission rising to 30% at 3 months (3,4), while only half of survivors return to pre-fracture functional level (5,6) & 25% require residential care (7). Our fracture liaison service has focused on initiating bone protection therapy following discharge home from the acute orthopaedic ward. In patients requiring a longer rehabilitation course there may be an opportunity to commence bone protection therapy following discharge from the acute orthopaedic ward. In patients requiring a longer rehabilitation course there may be an opportunity to commence bone protection therapy.

Methods: Relevant clinical notes, lab, discharge letters and prescriptions were reviewed in fracture patients transferred from an acute orthopaedic ward in a university hospital to an offsite geriatrician-led rehabilitation unit.

Results: There were 17 fracture patients (n = 17; mean age 80, 64.8% female) transferred for a longer rehabilitation course between January-April 2018. Median LOS in the acute hospital was 18 days (range 4-67) & 38 days (19-96) in the rehabilitation facility. 64.7% (11/17) of patients had partial bone therapy (Calcium&Vitamin D) on admission to rehabilitation. However, only 24% (4/17) had adequate bone protection therapy (Ca/Vit D & Bisphosphonate) on transfer to the rehabilitation unit. Neck of femur fracture was the most common type of fracture occurring in 70.5% (12/17) of patients. Four patients had a history of previous fragility fracture but only one was on adequate bone therapy. Vitamin D was checked in 47% (8/17) in the acute hospital. Adequate bone protection therapy was commenced in 94% (16/17) of patients in the rehabilitation unit prior to discharge, a similar rate to those on discharge from the acute hospital.

Conclusion: OrthoRehabilitation is an opportune time to review bone health. While an ongoing risk of falls and fractures during rehabilitation exists, treatment has cost implications for the rehabilitation facility.

RETROSPECTIVE AUDIT OF CLINICAL DIAGNOSIS AND MANAGEMENT OF PATIENTS WITH POSTERIOR CIRCULATION STROKE

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Background: Posterior circulation strokes (PCS) represent approximately 20% of all ischemic strokes. Presentations of PCS tend to be nonspecific and these strokes are difficult to diagnose on CT imaging.

Methods: A total of 102 patients were coded for stroke between the October of 2016 and October of 2017. Both radiological images and Radiology Report were reviewed to determine which patients met the criteria for posterior circulation stroke. These patients’ charts were then read and the following data was taken and coded in a numerical, categorical (0 or 1), or descriptive manner: presenting symptoms, patient risk factors, time to diagnostic scan, imaging modality and treatment carried out.

Results: 15 of all 102 ischemic strokes were found to be posterior circulation. The most common presenting symptom was visual symptoms (10/15), followed by headache (6/15), and confusion (5/15). The most common risk factor was hypertension (5/15). The average time to diagnostic scan was 3:33 days. Eight of the 15 patients had changes on CT scan, the remaining seven were confirmed with MRI. All patients presented outside of the window for thrombolysis or thrombectomy.

Conclusion: Posterior circulation pattern has a higher rate of disability and mortality at three months compared to anterior circulation stroke populations making early diagnosis crucial. The most common presentations in our population, visual changes and headache, are rather nonspecific. However, each patient had a number of risk factors for stroke. Seven patients were missed on initial CT scan and later CT angiogram or MRI showed evidence of infarction. Therefore, patients with risk factors for cerebrovascular disease who present with the symptoms of posterior stroke (dizziness, nausea, vomiting, visual changes etc.) should be held to a lower threshold for advanced rapid imaging.

We also recommend training acute nursing and medical staff to perform two bedside tests: HINT-CTS and STANDNGs to better diagnose posterior circulation strokes.

AN OBSERVATIONAL STUDY OF RELATIONSHIP BETWEEN BODY MASS INDEX AND BONE MASS DENSITY OVER 15 YEAR PERIOD

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Background: Low body mass index has long been highlighted as a risk factor for osteoporosis. The association between obesity and osteoporosis has been studied with conflicting results with some indicating a positive correlation due to increased mechanical load leading to increased bone mass. However there has been conflicting studies indicating a negative correlation. We performed an observational study of all patients who had a DXA performed from June 2015 to March 2018.

Methods: We conducted a retrospective observational study of 18,691 patients referred for DXA scan in the Mid-Western Region from June 2004 to March 2018 collecting data on body mass index (BMI), history and type of fractures as well as bone mineral density (BMD).

Data was collected from the regional database for DXA scans in University Hospital Limerick and St. Camillus Hospital Limerick.

Results: 49% of patients referred for DXA had osteoporosis with 89% of patients female. 22% of patients who had osteoporosis were obese on formal BMI testing with 7.6% overweight. 13.1% of patients had a fracture with forearm fractures being the most common at 60% followed by femur (20%), vertebrae (9.6%), humerus (9.9%) and pelvis (2.4%). A similar trend was noted in patients with osteopenia, constituting 38.6% of the sample, with 15.9% being obese compared with 8.9% who were underweight. 6.6% of osteopenic patients had a history of fracture.

Conclusion: Our observational study showed a positive correlation between osteoporosis and obesity.

Both obesity and osteoporosis have overlap in the genetic and environmental factors influencing these diseases. Adipocytes and osteoblasts derive from a common progenitor - the mesendymal stem cell.

The purpose of this study is to highlight this relationship and review our current understanding of this new area for research.

BASELINE ASSESSMENT OF PATIENT SATISFACTION LEVELS PRIOR TO IMPLEMENTATION OF AN INTEGRATED CARE APPROACH

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Background: Following designation of our hospital as one of the pioneer sites for the national Integrated Care Programme for Older People (ICPOP), a comprehensive recognition of services was commenced in 2017. Given that one of the main goals of the ICPOP is to improve the experience of older adults during their healthcare journey, patient reported outcome measures (PROMs) will be a major indicator of its success.

Methods: We conducted a survey using a self-reported questionnaire to give a baseline measure of patient satisfaction prior to the implementation of an integrated care approach. This questionnaire was distributed by mail to the 100 most frequent attendees to the geriatric medicine outpatients. It included 12 questions to assess patients’ satisfaction with various aspects of their experience, with a focus on those issues related to integrated care. Responses were on a four-point Likert scale, with patients recording the frequency of positive experiences as “Never”, “Rarely”, “Sometimes” or “Always”. We also included a validated frailty assessment tool, the PRISMA 7 questionnaire.

Results: Of 100 questionnaires distributed, 55 were returned completed. Respondents were 31% male; 49% female; with 28% older than 85 years. 41 out of 55 patients scored as frail on the PRISMA 7. When responses to the 16 questions were dichotomised into 2023-2024
CEREBRAL VENOUS SINUS THROMBOSIS: A CASE REPORT

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Background: Cerebral venous sinus thrombosis (CVST) is less common compared to other types of strokes, but its prevalence is increasing. It is potentially life threatening, as diagnosis and treatment is often challenging and delayed.

Methods: This is a case report of a 38 year old lady who presented with a subacute onset of left upper and lower limbs weakness, non-resolving headache and neck pain, dizziness and unsteady gait. She is postpartum, with no previous first trimester miscarriages.

Results: The initial CT Brain was normal. Subsequent neuroimaging revealed thrombus in the left sigmoid sinus and internal jugular vein. The patient was commenced on low molecular weight heparin (LMWH). Her symptoms gradually improved over the next few days. She has been tested for thrombophilia state and screened for underlying malignancy, all of the results to date are negative.

Conclusion: It is important for physicians to have a high index of suspicion of CVST, especially in patients with predisposing risks. The onset and clinical presentation is highly variable, but common features include headache, signs and symptoms of intracranial hypertension, seizures, focal defects, and encephalopathy. CT Brain can be normal or atypical for neuroimaging features of stroke. If CVST is highly suspected, urgent CT/MR venography should be done. Initial treatment for CVST is anticoagulation with LMWH. Warfarin is the standard anticoagulation used for stroke. If CVST is highly suspected, urgent CT/MR venography should be done. Initial treatment for CVST is anticoagulation with LMWH. Warfarin is the standard anticoagulation used for stroke. If CVST is highly suspected, urgent CT/MR venography should be done. Initial treatment for CVST is anticoagulation with LMWH. Warfarin is the standard anticoagulation used for stroke.

APPROPRIATE ANTICOAGULANT PRESCRIBING: AN OBSERVATIONAL STUDY

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Background: Direct Oral Anticoagulants (DOACs) provide clinicians with alternatives to Warfarin for the prevention of stroke secondary to atrial fibrillation. With the increasing use of DOACs, there is a need for increasing awareness regarding dose selection based on pharmaco kinetic and pharmacodynamic properties of the individual medications.

The aim of this study was to assess if there was a difference in appropriateness of dose selection for DOACs based on current recommendations, depending on patient location on a Specialist Geriatric Ward (SGW) compared with an acute General Medical Ward (GMW).

Methods: A medication chart review was conducted for inpatients located on two acute medical inpatient wards, one is a dedicated SGW with access to a clinical pharmacist and specialist Geriatric Medicine the other is a GMW.

Results: A total of 45 patients were included in the analysis, 27 (60%) on the SGW and 18 (40%) on the GMW. 51.1% were female with a mean age of 76.7 and weight of 66.5kg. A total of 35 patients were on anticoagulation, 44.4% for Atrial fibrillation (AF), 4.4% for Venous thromboembolism (VTE) treatment and 28.9% on VTE prophylaxis.

In those with AF (n = 20), Apixaban was the most frequently prescribed in 55%, followed by Rivaroxaban. Pharmacy reviewed 70.6% of patient prescriptions. 80% of these patients were on an appropriate DOAC dose, based on GFR at the time of review.

Conclusion: This study illustrates safe and appropriate prescribing of DOACs in the majority of cases but vigilance is required to facilitate and ensure maximal benefit from therapy while trying to minimize risk.

WHAT HAPPENS IN THE FIRST 34 MINUTES! GERIATRIC EMERGENCY SERVICES (GEMS) TEAM: AN ACUTE FLOOR FR AILTY MODEL

St Luke’s General Hospital, Kilkenny, Ireland

Background: In our hospital in 2016, patients aged over 75 accounted for 10.5% of emergency attendances, 18.3% of admissions and 43.3% of bed days.

GEMS aim is to improve the care, outcomes and patient experience of all older people with frailty attending our hospital. All emergency patients who are aged > 75 years are screened on triage using the GEMS tool. This screening is done electronically and is mandatory. Once identified on triage (VIP > 1) as at risk of adverse outcomes the patients are assessed early by the interdisciplinary GEMS Team. The assessment is Comprehensive Geriatric Assessment based.

Methods: A GEMS database was prospectively compiled on all patients over 75 years, screened as frail on emergency presentation.

We collected data on casemix, process and outcomes. Using the iPiMS, the hospital integrated patient information management system, we collected patient information on triage.

Results: 4,854 patients aged over 75 years were triaged. 43% (n = 2,086) of these patients were screened as frail. 79% (n = 1,658) of frail older people were subsequently admitted.

Conclusion: Most older patients with frailty are identified on triage as requiring immediate or urgent care thus refuting the public and media assumptions older people with frailty should not use or are misusing our acute care services. Over a third are triaged as Unwell Adult reflecting the complexity and diagnostic challenges older patients with frailty pose.

GERIATRIC GIANTS ON THE ACUTE FLOOR GERIATRIC EMERGENCY SERVICES (GEMS) TEAM: AN ACUTE FLOOR FR AILTY MODEL

Kristina Jumana, Emer Ahern, Aoife McFetridge, Roisin Corcoran, Sidafe Arif, Olga O’Dwyer, Rachel Kearns, Louise Ward, Shauna O’Brien, Jane Nolan, Danielle Reddy, Meghan Hayes Brennan, Helen Fitzgerald, Maureen O’Callaghan, Melinda Nugent, Eleanor Marks, Kate Jackson
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A HAPPY ENDING TO A SAD CASE - AN EXAMPLE OF TEAM WORKING WELL TOGETHER

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2Psychiatry of Old Age, Northern Ireland, United Kingdom

Background: Case report of a patient with significant deterioration from his baseline due to challenging psychiatric and medical issues, who was managed by geriatric and psychiatric teams and discharged home with a dramatically improved quality of life.

Methods: A 72 year old gentleman was admitted to hospital with a urinary tract infection, poor oral intake and mobility decline. Months previously, he had retired as a painter. He now had a firmly fixed perception of retrosternal sticking, early satiety and a fear of choking, resulting in significant weight loss and lethargy. He appeared vague, withdrawn and disinterested. His refusal to swallow anything substantial made it impossible to perform invasive swallow assessment and prompted commencement of nasogastric feeding.

During his stay, he developed an unstable upper gastrointestinal bleed. This was unexpectedly advantageous, as oesophago-gastroduodenoscopy excluded structural causes of dysphagia.

Age and Ageing
Various problems during his lengthy admission required input from cardiology, neurology, ear nose and throat, urology, and surgery, however the most valuable input came from Psychiatry of Old Age (POA).

**Results:** After in-depth assessment and intervention from various specialties, the final diagnoses were severe depression with psychotic symptoms, and delirium. Treatment with mirtazapine, olanzapine and pregabalin led to significant amelioration. The patient’s cognition improved, his oral intake increased leading to weight gain, and his mobility recovered dramatically.

**Conclusion:** This patient’s significant physical co-morbidities meant that management was challenging for the geriatric and psychiatric team. The involvement of POA was hugely valuable in this gentleman’s hospital admission and community follow-up. This case highlights the importance of liaison between geriatrics and psychiatry, as well as the need for better provision of POA services in a general hospital. This case also prompted discussion about electroconvulsive therapy delivery to a severely unwell patient - both physically and mentally, in a general hospital and the barriers to its use.
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