

PLATFORM PRESENTATION WEDNESDAY, 16 NOVEMBER: QI CLINIC

1226. CQ - Clinical Quality - CQ - Improved Access to Service

A multi-disciplinary approach to transforming eye care services for care home residents

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Introduction: Care home residents can have variable access to eye care services & treatments. We developed a collaborative approach between optometrists, care homes, and primary & secondary care to enable personalised patient-centred care.

Objective: To develop and evaluate an integrated model of eye care for care home residents.

Methods: Small scale plan-do-study-act (PDSA) service tests were completed in three care-homes in Southwark (2 residential, 1 nursing) between November 2021 to May 2022. Processes were compared to historical feedback & hospital-based ophthalmology clinic attendances (Mar 2019-2020). Hospital-like assessments were piloted at two care homes for feasibility & acceptability. Further piloting utilised usual domiciliary optometry-led assessment with multidisciplinary meeting access (including optometrist, GP, geriatrician, ophthalmologist and care home nurse) to reduce duplication of assessments and to evaluate MDM processes and referral rates.

Results: Examination was 100% successful at home (visual acuity & pressure measurement) compared to hospital outpatients (71.7% success visual acuity, 54.5% pressures). Examination was faster than in hospital settings (16 minutes vs 45 minutes-1 hour). Residents were away from usual activities for 32 minutes vs 6 hours for hospital visits including transport. Residents were less distressed with home-based assessments. Did-Not-Attend (DNA) rates reduced (26.7% to 0%), secondary care discharge rates improved (8.4% to 32%). Hospital eye service referral were indicated in 19% -23%, half of which were for consideration of cataract surgery. Alternative conservative plans were agreed at MDM for nursing home residents who were clinically too frail or would not have been able to comply with treatments avoiding 33% unnecessary referrals.

Conclusions: Home-based eye care assessments appear better tolerated and are more efficient for residents, health & care staff. Utilising an MDM for optometrists to discuss residents with ophthalmologists and wider MDT members enabled personalised patient-centred decision-making. Future work to test this borough wide is in progress.



PLATFORM PRESENTATION WEDNESDAY, 16 NOVEMBER: QI CLINIC

1257. CQ - Clinical Quality - CQ - Patient Safety

Improving hydration in elderly patients on outlier wards at Newham University Hospital (NUH)

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Introduction: Dehydration is a major contributing factor to morbidity and mortality in elderly patients, as they are at greater risk and more vulnerable to the consequences of inadequate fluid intake. Care of the Elderly (COE) wards are set up to meet the specific care needs of elderly patients, however, these care needs are not consistently met on medical outlier wards at NUH. This project aimed to improve hydration-related patient care on outlier wards using a sustainable intervention by increasing average daily fluid intake (ADFI) by 50% and patients with drinks within an arm's reach by 50%.

Methods: Cycle 1: Hydration parameters (ADFI, glasses within reach, drinks offered, glasses filled) were audited for patients on two COE wards (n=25) and four outlier wards (n=19).

Cycle 2: Reminder to offer patients a drink added to outlier patients' ward round entries and nurses verbally informed over 1 week (n=14).

Cycle 3: 'Think Drink' poster placed at outlier patients' bedsides as a visual reminder and nurses verbally informed over 1 week (n=15).

Results: Cycle 1: ADFI was 774mls greater on COE than outlier wards, 299% more glasses within reach, 62% more drinks offered, 78% more glasses filled.

Cycle 2: 52% increase in ADFI (258mls), 104% more drinks within reach, 11% more drinks offered; 15% less glasses filled.

Cycle 3: further 8% increase in ADFI (62mls), 87% more glasses within reach, 4% more drinks offered, and 124% more glasses filled. Overall: 65% increase in ADFI, 280% more glasses within reach, 15% more drinks offered, and 90% more filled glasses.

Conclusions: An important gap in care was identified between COE and outlier wards, leaving elderly outlier patients vulnerable to dehydration. 'Think Drink' poster acted as a successful visual reminder for staff and visitors demonstrated by an increase in all hydration parameters, improving hydration-related patient care.



1199. SP - Scientific Presentation - SP - Other (Other medical condition)

Prevention and Treatment of Critical Illness Acquired Weakness in the Elderly

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Introduction: Critical Illness Acquired weakness (ICU-Acquired Weakness (ICU-AW)) is an umbrella term used to describe Critical Illness Myopathy (CIM) and Critical Illness Polyneuropathy (CIP). The condition exerts high prevalence in the elderly admitted in the ICU and is associated with deteriorating patient outcomes, namely mortality and morbidity. The prevalence of the syndrome is highly variable in the current literature hindering our ability to objectively quantify the scale of the problem. Moreover, several preventative methods and treatment for ICU-AW as a result of sarcopenia have been proposed in literature with some of them providing favorable outcomes. Our

Objectives: 1. Evaluate the prevalence of ICU-AW in the elderly through a systematic review; and 2. Explore the treatment options currently available

Methods: We conducted a systematic review using the PubMed, Embase and Cochrane databases to explore the current studies available on the diagnosis of ICU-AW syndromes. Cochrane's Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement was our template.

Results: Overall, twenty-one studies (1544 patients) were included. The minimum reported prevalence is 20%, whereas the maximum is 76%. The overall median prevalence was 52% (Q1: 32% and Q3: 61%) with an interquartile range (IQR) of 29%. The highest IQR was found in studies using clinical examination (IQR=37%) whereas the lowest in studies using electrophysiological assessment (IQR= 21%). Moreover, several preventative measures for ICU-AW were identified and analyzed namely: nutritional alterations (high protein dies), glucose control, early mobilization, neuromuscular electrical stimulation and the ABCDEF bundle.

Conclusion: The variability in the diagnostic modalities used to measure the syndrome as well as the inconsistency in the diagnostic parameters within each modality prevent us from objectively quantifying the prevalence of ICU-AW. With regards to treatment early mobilization protocols offer promising evidence.

Reference: Vanhorebeek, Latronico, Van den Berghe G. ICU-acquired weakness. Intensive Care Med. 2020;46(4):637-53.



1200. SP - Scientific Presentation - SP - BMR (Bone, Muscle, Rheumatology)

Effect of Balance Training After Hip Fracture Surgery: A Systematic Review of Randomised Controlled Studies

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Introduction: Hip Fracture Surgery (HFS) can result in balance impairment which is associated with an increased risk of falls in the elderly as well as limitations in their mobility. Balanced Training (BT) is a rehabilitation method used aiming to minimize the balance impairments post HFS. BT options include stepping, balance task-specific exercise, standing on one leg, yoga. Our main outcome is to evaluate the effect of BT on the physical functioning of elderly patients post an HFS.

Methods: We conducted a systematic review using the PubMed-Medline, Cochrane Library and Embase databases to locate randomized controlled trials which compared BT with standard care post HFS. The Cochrane' Library Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement was used as our template for the review.

Results: Overall, nine randomised controlled trials were selected, comprising a total of 712 patients, all aged 65 years of age and older. With regards to the type of BT rehabilitation: four trials used stepups (n=500), three trials used balance task-specific exercise (n=170) and two studies used standing on one leg (n=42). The BT group demonstrated improvement in physical functioning post HFS compared to the control group (Standardised Mean Difference (SMD) = 0.410). Moreover, all functional parameters which include, lower limb strength, performance task and health related quality of life, were also improved in the BT group.

Conclusion: Evidently, the results demonstrate an improvement of physical functioning by BT post HFS. Furthermore, the positive effects on all functioning parameters were apparent. As a result, the implementation of BT in postoperative rehabilitation programs in elderly patients with hip fractures should be considered.

References: Monticone M, Ambrosini E, Brunati R, et al. How balance task-specific training contributes to improving physical function in older subjects undergoing rehabilitation following hip fracture: a randomized controlled trial. Clin Rehabil. 2018;32:340–351



1219 SP - Scientific Presentation - SP - PD (Parkinson's Disease)

Informal Caregivers of People with Parkinsonism in the PRIME-UK Cross-sectional Study

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Introduction: Many people with parkinsonism require care as the disease progresses with much provided unpaid by family and friends. Caring for someone can have a negative impact on physical and psychosocial wellbeing. Caregiver burden can impact ability to continue this role, which can precipitate hospitalisation or institutionalisation of the recipient.

Methods: In this single-site study, primary, informal caregivers, defined as those providing any care or support, were enrolled alongside the person with parkinsonism or individually. Self-reported questionnaires included the 22-item Zarit Burden Interview (ZBI), which can range from 0-88, with higher scores representing greater burden. Linear regression was used to explore the association between recipient characteristics/need and caregiver burden.

Results: Of 1,032 eligible patients approached, 813 participants indicated whether they had an informal caregiver (708) or not (105). 376 caregivers consented (53.1%), of whom 321 have returned questionnaires, with patient data available for 296. The median age of caregivers was 73.0 (range 27.0-91.1 years), 237 (73.8%) female. 274 (85.4%) were the spouse/partner of the patient. 215 (67.0%) were the sole caregiver. The median time per week spent caring was 21 hours (interquartile range 7, 41 hours). 18 (5.6%) of caregivers provided 24-hour care daily and 113 (35.2%) had provided support for over 5 years. Median ZBI score was 17, (interquartile range 7-29). The care recipient's duration of parkinsonism was associated with higher burden score (0.38 increase per year of parkinsonism; 95% CI 0.07, 0.69; p value 0.015), as was the time per week spent caring (0.16 increase for each additional hour; 95% CI 0.11, 0.20; p value <0.0001).

Conclusions: Many informal caregivers in this study were the sole caregiver and many were themselves older adults. Burden increased with increasing duration of parkinsonism and as time spent caring increased. This highlights the ongoing need to improve support for this group.



1223. SP - Scientific Presentation - SP - Big Data

Identifying Scotland's care home population living with dementia - Is data linkage useful?

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Background: People living with dementia are more likely to move into care homes. The true prevalence of dementia among care home residents in Scotland is not known. People living with dementia often interact with multiple social and healthcare services, thus routine data may offer a way to enhance understanding.

Aim: To compare national health and social care data sources recording dementia status for Scottish care home residents.

Methods: A retrospective cohort study of adult (≥ 18 years) care home residents in Scotland during financial years 2012/13 and 2013/14. An indexing process linked data from the Scottish Care Home Census (SCHC) to Community Health Index numbers to allow linkage to healthcare datasets. Anonymised individual data was accessed in a secure environment, within the National Safe Haven. A linked dataset with acute/general and psychiatric hospitalisations (SMR01, SMR04), prescriptions (Prescribing Information System), Scottish Patients at Risk of Admission and Readmission (SPARRA) data, and National Records of Scotland (NRS) mortality records was analysed. Dementia recording was studied across these datasets.

Results: In 2012/13 and 2013/14, 31,589 and 31,504 care home residents were included for analysis. In 2012/13, 17,548 (55.5%) had dementia according to SCHC. PIS and SMR01 confirm 4,701 (26.8%) and 4,254 (24.3%) SCHC dementia records, respectively. SMR04 and SPARRA confirm 1,830 (10.4%) and 964 (5.5%). Among 2012/13 residents, 19,593 (62.0%) have at least one dementia record across datasets. Of these, 10,445 (53.3%) have one record – 83.9% SCHC records, 7.3% SMR01 records, and 5.0% PIS records. Of 15,781 residents who die within 5 years from 2012/13, 6,984 (44.3%) have death records confirming dementia. Results for 2013/14 are similar.

Conclusion: Routine data enhances dementia ascertainment amongst care home residents, with most confirmation from general hospitalisations and prescriptions. Primary care data and analysis of more financial years would enable further exploration of dementia recording patterns.



1270. SP - Scientific Presentation - SP - Education / Training

Development of a competency framework for early career nurses undertaking post-registration education in care for older people

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Introduction: Despite recognition of the status of gerontological nursing as a speciality, there is no specific UK competency framework for early career nurses working with older people. As part of a feasibility intervention to improve recruitment and retention of nurses within the speciality (ECHO Early Careers in Healthcare of Older People and PEACH Programme for early careers for care home nurses), we developed a bespoke competency framework appropriate for nurse working within all sectors.

Method: The national and international literature on published competency frameworks was reviewed to identify core domains of knowledge and skill. We integrated these within a CGA model to develop a draft competency framework which we then tested for face and content validity. It was reviewed by expert practitioners and managers from NHS and care home providers, and a national reference group (British Geriatrics Society Nurse Special interest group). It was then implemented by students under taking the ECHO and PEACH programmes. A mixed-methods approach was used involving online surveys, one-to-one interviews and focus group interviews with students, mentors, ward managers and care home managers. Ethical approval was obtained from the university ethics committee.

Results: From an initial draft of 80 competency statements 69 were adopted across 10 domains. Thirty students across the ECHO and PEACH programmes used the framework and participated in evaluation. Our analysis found that students benefited from recognising unique gerontological knowledge, expanded insights into practice and affirmation through mentor feedback. Some students faced logistical challenges including access to mentors. The framework was found to be appropriate and acceptable across both hospital, community and care home settings.

Conclusion/s: The competency framework was valid in clinical gerontological settings across hospital, community and care homes, and supported knowledge and skills development and evidencing for early career nurses.



1272. SP - Scientific Presentation - SP - HSR (Health Service Research)

A Pilot Routine Electronic Health Record Functional Tracking Score for Older Patients in Hospital

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Introduction: Approximately one-third of older patients leave hospital with a new functional impairment. Tracking rehabilitation progress following acute illness could improve recognition and understanding of hospital-acquired disability. However, traditional mobility and functional scores include measures that are not part of routine rehabilitation therapy, adding a time burden for staff to report. Capturing data already recorded in routine electronic records could provide an efficient patient tracking measure of rehabilitation success.

Methods: A scoping literature review appraised existing scores of mobility and functional status. Analysis of 15 admissions through the Royal Infirmary of Edinburgh identified mobility and functional domains which were reliably recorded in free text electronic health records. A pilot score was drafted, comprising admission and discharge scores (0-30 points), medical progress (0-10), physiotherapy and occupational therapy tracking (0-30). Higher scores indicate greater functional independence. Expert feedback was obtained through focus group discussion with physiotherapists and occupational therapists. The approach was tested in a fresh set of six case studies. Two independent scorers applied the scoring schema and agreement was assessed using Cohen's weighted-kappa coefficient.

Results: The selected electronic health records contained 438 medical, 352 nursing and 183 therapist entries. Existing measures such as the Barthel Index were not recorded for any patient. Focus group discussion identified value in the overall approach and informed item-weighting. The pilot functional score allowed visualisation of rehabilitation trajectories over the course of each admission. Excellent inter-rater reliability was demonstrated for the medical (Cohen's Kappa 0.99, 95% confidence interval [CI] 0.96–1.00) and physiotherapy (Kappa 0.96, 95% CI 0.93–0.99) components.

Conclusions: A functional tracking score generated from routine health records proved feasible and reproducible in this pilot. Future development should assess validity, reliability and prognostic power in larger populations, exploring automation using natural language processing. Development of graphic visualisations may aid communication within multidisciplinary teams.



1311. SP - Scientific Presentation - SP - Epid (Epidemiology)

Frailty in randomised controlled trials for dementia or mild cognitive impairment

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Background: Frailty and dementia have a bidirectional relationship. However, frailty is rarely reported in clinical trials for dementia and mild cognitive impairment (MCI) which limits assessment of trial applicability. This study aims to use a frailty index (FI) to measure frailty using individual participant data (IPD) from clinical trials for MCI and dementia and to quality the prevalence of frailty and its association with serious adverse events (SAEs) and trial attrition.

Methods: We analysed IPD from three dementia (n=1) and MCI (n=2) trials. An FI comprising physical deficits was created for each trial using baseline IPD. Poisson and logistic regression was used to examine associations with SAEs and attrition, respectively. Estimates were pooled in random effects meta-analysis. Analyses were repeated using an FI incorporating cognitive as well as physical deficits, and results compared.

Results: The mean physical FI was 0.13 and 0.14 in the MCI trials and 0.25 in the dementia trial. Frailty prevalence (FI>0.24) was 5.1%, 5.4% in MCI trials and 55.6% in dementia. After including cognitive deficits, prevalence was similar in MCI (4.6% and 4.9%) but higher in dementia (80.7%). 99th percentile of FI (0.29 in MCI, 0.44 in dementia) was lower than in most general population studies. Frailty was associated with SAEs (physical FI IRR = 1.63 [1.43, 1.87]; physical/cognitive FI IRR = 1.67 [1.45, 1.93]). Frailty was not associated with trial attrition (physical FI OR = 1.18 [0.92, 1.53]; physical/cognitive FI OR = 1.17 [0.92, 1.49]).

Conclusion: Measuring frailty from IPD in dementia and MCI trials is feasible. Severe frailty may be under-represented. Frailty is associated with clinically significant outcomes. Including only physical deficits may underestimate frailty in dementia. Frailty can and should be measured in trials for dementia and MCI, and efforts should be made to facilitate inclusion of people living with frailty.



1321. SP - Scientific Presentation - SP - Epid (Epidemiology)

The association of painful and non-painful comorbidities with frailty

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Introduction: Chronic pain is associated with frailty. We hypothesised that painful comorbidities would be more strongly associated with frailty than non-painful comorbidities.

Method: Data were from Investigating Musculoskeletal Health and Wellbeing, a UK-based cohort of people with or at risk of musculoskeletal problems or frailty. Average pain over the previous month was assessed using an 11-point numerical rating scale (NRS). The original FRAIL questionnaire comprises five self-report items: Fatigue, Resistance, Ambulation, Illnesses and Loss of weight. In this study risk of frailty was operationalised using a modified FRAIL questionnaire, omitting the "illnesses" item which related to comorbidities. Comorbidities were classified as either 'painful' or 'non-painful' based on the International Association for the Study of Pain chronic pain classification criteria. Ordinal logistic regression models explored associations of comorbidity counts with frailty.

Results: Cross-sectional data were from 2473 participants, 57% female, median age 72 (range 40 to 96) years. 518 (21%) participants were classified as frail. Mean (SD) pain score was 5.5 (2.5). Median (IQR) painful comorbidities was 2 (1 to 3) and non-painful 1 (0 to 2). Highest comorbidity frequency: arthritis (66%) and hypertension (38%). Pain was associated with frailty (OR 1.58 (1.52 to 1.64)). Painful comorbidities (aOR 1.64 (1.54 to 1.75) and non-painful comorbidities (aOR 1.31 (1.21 to 1.41)) were both associated with frailty when included in the same multivariable model adjusted for age, sex and BMI.

Conclusions: Painful comorbidities were most strongly associated with frailty, although non-painful comorbidities also contributed. Pain and frailty are interconnected, and this might in part be due to comorbidities or their treatments. These findings provide justification for further research to identify the mechanisms through which pain is involved in frailty and to include pain management in interventions to ameliorate frailty.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1344. SP - Scientific Presentation - SP - Big Data

Understanding Pathways into Care homes using Data (The UnPiCD study)

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Introduction: Moving into a care home is a significant, life-changing experience which occurs to address care needs which cannot be supported elsewhere. UK health policy recommends against moving into a care home from the acute hospital. However, this occurs in practice. Better understanding pathways into care homes could improve support for individuals and families, service planning and policymaking. Our aim was to characterise individuals who move-in to a care home from hospital and those moving-in from the community, identifying factors associated with moving-in from hospital.

Method: A retrospective observational cohort study was conducted involving adults moving into care homes in Scotland between 1/3/13-31/3/16 using the Scottish Care Home Census (SCHC), a national individual-level social care dataset. SCHC data were linked to routine data sources including hospital admissions, community prescribing and mortality. The data were split into those moving-in from hospital and those moving-in from the community. Descriptive statistics characterising the two groups were generated and multivariate regression undertaken to identify factors associated with moving-in from hospital.

Results: A total of 23,892 individuals were included in the analysis, of whom 13,564 (56.8%) moved-in from hospital. A third came directly from an acute hospital, with 57.7% from rehabilitation or community hospitals and 7.1% from inpatient psychiatry. Being male, receiving nursing care, high frailty risk, increasing numbers of hospital admissions and diagnoses of any fracture or stroke in the six months before moving-into the care home were all significant predictors of moving-in from hospital.

Conclusions: The population moving-in to care homes from hospital are clinical distinct from those moving-in from the community. National cross-sectoral data linkage of health and social care data is feasible, but the available data are dominated by health characteristics. There is an urgent need to operationalise other meaningful variables which shape care pathways to enhance understanding and evidence.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1174. SP - Scientific Presentation - SP - Falls (Falls, fracture & trauma)

The role of hip fracture in trajectories of depressive symptoms among older adults: Analysis From the English Longitudinal Study

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Introduction: Older adults experience 'Late life depression'. Hip fractures may negatively influence trajectories of depressive symptoms in older adults. This study aimed to determine trajectories of depressive symptoms among older adults in England, overall and for those after hip fracture, and identify characteristics defining trajectory membership.

Methods: Analysis of adults aged 60 years or more (n=7,050), including a hip fracture subgroup (n = 384), from the English Longitudinal Study of Ageing. Latent class growth mixture modelling was completed. Depressive symptom prevalence was estimated at baseline. Chi-squared tests were completed to compare baseline characteristics across trajectories.

Results: Three trajectory groups were identified overall and for those with hip fracture: no-, mild-, and moderate-severe- symptoms. The moderate-severe group comprised 13.7% and 7% of participants for overall and hip fracture populations respectively. Overall, the proportion of participants with depressive symptoms were 0.4%, 12.4% and 65.4% for no-, mild-, and moderate-severe- symptom groups, respectively. For the hip fracture subgroup, these proportions were 0.7%, 28.8%, and 85.2%. Depressive symptoms were stable over time, with a weak trend towards increasing severity for the moderate-severe group. Individuals with moderate-severe trajectories were older, more likely to be female, live alone and had worse health outcomes (p < 0.001).

Conclusions: Older adults, and those after hip fracture, follow one of three trajectories of depressive symptoms which are broadly stable over time. The prevalence of depressive symptoms was lower for those with hip fracture however, when present, the symptoms were more severe than the overall population. Results suggest a role of factors including age, gender, and marital status in depressive symptoms trajectories.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1180. SP - Scientific Presentation - SP - Big Data

A retrospective analysis of vertebral fragility fracture hospitalisation of older adults in England over a 3-year period

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Introduction: Vertebral fragility fractures (VFF) are the most common osteoporotic fracture. VFF can result in significant pain requiring hospitalisation. However, there is little data on patient numbers, hospital bed days and costs, contributed to by these patients.

Method: We report a retrospective analysis of patients aged 55 years and over admitted to hospitals across England from 2017-2019. ICD-10 classifications for VFF and OPCS codes were used to identify admissions and patients who had undergone vertebral augmentation (VA).

Results: There were a total of 99,240 (61% Female) patients admitted during this period, with 64,370 (65%) patients aged 75 and over. On average, there was a 14.3% increase in admissions annually. The increasing trend was more notable in those aged 75 years and over. Patients aged over 75 years accounted for 1.5 million bed days, costing £465million (median length of stay (MLOS) 14.4 days). In comparison, those aged 55-74 years, accounted for 659,000 bed days, costing £239 million (MLOS 10.7 days). The majority of patients (84%) were admitted under a non-surgical speciality and were primarily older (median age 76.8 vs 67.6 years, MLOS 8.2 vs 6.0 days). 1755 patients underwent VA (1.8% of the total cohort). 775 (44.2%) of these were aged 75 years and over. The MLOS and cost per patient admission was lower in the VA group compared to those managed non-surgically (MLOS 2.4 vs 10.8 days, p=<0.01, cost £4737 vs £7250)

Conclusion: Patients aged 75 years and over hospitalised with VFF represented a significant number, cost, use of bed days and associated longer MLOS. Those undergoing VA had a significantly shorter length of stay. Further studies are necessary to identify older patients with VFF who may benefit from early VA.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1218. SP - Scientific Presentation - SP - N & N (Neurology & Neuroscience)

Grey matter volume and neurotransmitter receptors abnormalities in Parkinson's Disease Psychosis: A meta-analysis

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Introduction: Recent evidence suggests extensive grey matter abnormalities in Parkinson's Disease Psychosis (PDP), as well as dysfunction of dopaminergic and serotonergic receptors. However, findings remain unclear. This meta-analysis aimed to identify neuroanatomical correlates of PDP and to examine the relationship between grey matter and key candidate receptors.

Method: Peak coordinates were extracted from structural magnetic resonance imaging (MRI) studies (identified through systematic searches on PubMed, Web of Science, and Embase) for PDP patients and Parkinson's Disease patients without psychosis (PDnP) and were analysed using Seedbased d mapping with permutation of subject images (SDM-PSI). Gene expression data for dopaminergic (D1/D2) and serotonergic (5-HT2a/5-HT1a) receptors were extracted from the Allen Human Brain Atlas, probe-to-gene re-annotation data were downloaded from Arnatkevičiūtė et al. (Neuroimage, 2019;189:353-67) and parcellated on 78 regions of the Desikan-Killiany brain atlas. Effect-size estimates, extracted from the SDM-PSI analysis for these 78 regions as a measure of grey matter in PDP patients, were entered in multiple regression models.

Results: 10 studies were included in the meta-analysis (PDP, n= 211; mean age = 69.01 years, 52.1% males; PDnP, n = 298, mean age = 67.34 years, 41.9 % males). Reduction in grey matter was observed in parieto-temporo-occipital regions in PDP patients (uncorrected, p < 0.05). When controlling for PD medications, expressed in Levodopa equivalent daily dose (LEDD), results remained significant (uncorrected, p < 0.05). 5-HT2a and 5-HT1a gene receptor expressions were associated with estimates of grey matter volume (5-HT2a, b=-0.20, p=0.01, adjusted for LEDD, b=-0.18, p=0.03; 5-HT1a, b=0.11, p=0.02, adjusted for LEDD, b=0.12, p=0.01).

Conclusion: We observed lower cortical volume in parieto-temporo-occipital areas, which are involved in information processing, integration, and attention in PDP compared to PDnP patients. We also reported an association between regional brain expression of serotonergic receptors and grey matter volume suggesting a role of serotonin in PDP.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1266. SP - Scientific Presentation - SP - Psych (Psychiatry & Mental Health)

Association of multimorbidity patterns and incident depression among older adults in Taiwan: Role of Social Participation

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Background: Multimorbidity has negative impacts on the health outcomes of older adults. Previous research has discovered different patterns of multimorbidity. However, evidence is scarce for associations between multimorbidity patterns and depression, especially the role of social participation in it. This study aimed to explore the relationship between multimorbidity patterns and depression among older adults in Taiwan and the effect of social participation in different multimorbidity patterns.

Methods: This population-based cohort study used data from the Taiwan Longitudinal Study on Aging. It included 1,975 older adults (age >50 years) who were followed from 1996 to 2011. The participants' multimorbidity patterns in1996 were determined by latent class analysis; their incident depression was ascertained in 2011 by using the 10-item CES-D. Multivariate logistic regression was used to analyse the relationship between multimorbidity patterns and depression.

Results: In 1996, the participants' average age was 62.1 years. Four multimorbidity patterns were discovered through latent class analysis, as follows: (1) Cardiometabolic group (n = 93), (2) Arthritis—cataract group (n = 105), (3) Multimorbidity group (n = 128), and (4) Relatively healthy group (n = 1649). After multivariate analysis, participants in the Multimorbidity group had a greater risk of incident depression (Odds ratio: 1.62; 95% Confidence interval: 1.02–2.58), compared with the Relatively healthy group. Subgroup analysis showed that participants without social participation in the Arthritis-Cataract and Multimorbidity groups had greater risks of developing depression.

Conclusion: This 16-year, population-based cohort study showed that distinct multimorbidity patterns among older adults in Taiwan were associated with incident depression during later life, while social participation played a role as protective factor.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1310. SP - Scientific Presentation - SP - Epid (epidemiology)

Frailty, loneliness and social isolation in the UK Biobank cohort

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Background: Three challenges for ageing populations are frailty (a state of reduced physiological reserve), social isolation (objective lack of social connections), and loneliness (subjective experience of feeling alone). These are associated with adverse outcomes. This study aims to examine how frailty in combination with loneliness or social isolation is associated with all-cause mortality and hospitalisation rate using data from UK Biobank, a large population-based research cohort.

Methods: 502,456 UK Biobank participants were recruited 2006-2010. Baseline data assessed frailty (via two measures: Fried frailty phenotype, Rockwood frailty index), social isolation, and loneliness. Adjusted cox-proportional hazards models assessed association between frailty in combination with loneliness or social isolation and all-cause mortality. Negative binomial regression models assessed hospitalisation rate.

Findings: Frailty, social isolation, and loneliness are common in UK Biobank (frail as per frailty phenotype 3.38%, frail as per frailty index 4.68%, social isolation 9.04%, loneliness 4.75%). Social isolation/loneliness were more common in frailty/pre-frailty. Frailty is associated with increased mortality regardless of social isolation/loneliness. Hazard ratios for frailty (frailty phenotype) were 3.38 (3.11-3.67) with social isolation and 2.89 (2.75-3.05) without social isolation, 2.94 (2.64-3.27) with loneliness and 2.9 (2.76-3.04) without loneliness. Social isolation was associated with increased mortality at all levels of frailty; loneliness only in robust/pre-frail. Frailty was also associated with hospitalisation regardless of social isolation/loneliness. Incidence rate ratios for frailty (frailty phenotype) were 3.93 (3.66-4.23) with social isolation and 3.75 (3.6-3.9) without social isolation, 4.42 (4.04-4.83) with loneliness and 3.69 (3.55-3.83) without loneliness. At all levels frailty, social isolation/loneliness are associated with increased hospitalisation Results were similar using the frailty index definition.

Conclusion: Social isolation is relevant at all levels frailty. Risk of loneliness is more pronounced in those who are robust or pre-frail. Proactive identification of loneliness, regardless of physical health status may provide opportunities for intervention.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1319. SP - Scientific Presentation - SP - Epid (Epidemiology)

Interaction between distinct multimorbidity patterns and disability and its association with future mortality among older adults

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Background: Multimorbidity patterns is associated with future mortality among older adults. However, the addictive effect of disability for distinct multimorbidity patters is unclear. Our aim was to identify the multimorbidity patterns of Taiwanese people aged over 50 years and to explore their association between multimorbidity patterns with/without disability and future mortality.

Methods: This longitudinal cohort study used data from the Taiwan Longitudinal Study on Aging. The data were obtained from wave 3, and the multimorbidity patterns in 1996, 1999, 2003, 2007, and 2011 were analysed separately by latent class analysis (LCA). The association between each disease group with/without disability and mortality was examined using logistic regression.

Results: 5124 older adults with average age of 66.7 years old were included. Four disease patterns were identified in 1996, namely, the cardiometabolic (21.6%), arthritis-cataract (11.6%), relatively healthy (61.2%), and multimorbidity (5.6%) groups. After adjusting all the confounders, the cardiometabolic group with disability showed the highest risk for mortality (odds ratio: 2.83, 95% CI: 1.70-4.70), followed by Multimorbidity group with disability (odds ratio: 2.33, 95% CI: 1.17-4.64) and relatively health group with disability (odds ratio: 1.79, 95% CI: 1.22-2.62) and cardiometabolic group without disability (odds ratio: 1.21, 95% CI: 1.01-1.45).

Conclusion: This longitudinal study reveals disability plays an important role on mortality among older adults with distinct multimorbidity patterns. Older adults with a cardiometabolic multimorbidity pattern with disability had a dismal outcome. Thus, healthcare professionals should put more emphasis on the prevention and identification of cardiometabolic multimorbidity, with routine check-up of their functional limitation.



PRESIDENT'S ROUND, FRIDAY 18 NOVEMBER

1332. SP - Scientific Presentation - SP - Epid (Epidemiology)

Prevalence and outcomes of frailty in older people with unplanned hospital admissions: systematic review and meta-analysis

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Background: Guidelines recommend screening for frailty in all hospitalised older adults to inform care, based mainly on studies in outpatient and speciality-specific settings. However, most hospital bed-days in older people are for acute, non-elective admissions to general medicine, for which the prevalence and prognostic value of frailty might differ. Therefore, we undertook a systematic review of frailty prevalence and outcomes in older people with unplanned hospital admissions.

Methods: We searched MEDLINE, EMBASE and CINAHL up to 30/04/2021 for observational studies using validated frailty measures in unplanned adult hospital-wide or general medicine admissions. We related frailty prevalence to measurement tool, setting and risk of bias (RoB). Relative risks (RR) for mortality, length of stay (LOS), discharge destination and readmission were pooled using random-effects models where appropriate, and area-under-the-ROC-curves calculated. Heterogeneity was explored with meta-regression. Dose-response effects were assessed with the Cochran-Armitage test.

Results: Among 38 cohorts (median/SD age=80/5 years; n=37,733,147 admissions), the median prevalence of moderate-severe frailty was 40.5% (IQR=33.2-53.2; low-moderate RoB=23/38), with considerable heterogeneity (PQ<0.001) apparently unrelated to measure, setting or RoB. Nevertheless, frailty still predicted mortality (RR range=1.08-16.06), long LOS (range=1.35-3.04) and discharge destination (range=1.97-3.45) in all studies with more severe frailty associated with worse outcomes, although associations with 30-day readmission were conflicting (range=0.52-1.64). Studies reporting lower frailty prevalence showed stronger associations between frailty and mortality (beta=-0.009, P=0.03, R=49.6%), with the most consistent (PQ=0.11) associations found in studies using prospective measures (pooled RR=2.57, 95%CI=2.30-2.88) and little attenuation after adjustment for age, sex and comorbidity. Ordinal cut-points appeared to provide superior discrimination to dichotomous thresholds.

Conclusions: Frailty is common in older patients with acute, non-elective hospital admissions and remains an independent predictor of mortality, LOS and discharge home in the acute setting, justifying more widespread implementation of screening using prospective tools and consideration of the degree of frailty in guidance.



1334. SP - Scientific Presentation - SP - Big Data

The Oxford Cognitive Comorbidity and Ageing Research Database (ORCHARD): Description of a large acute care research database

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Background: Guidelines recommend that all older hospital patients are screened for cognitive comorbidity (i.e. dementia, delirium) and frailty to inform care and target multidisciplinary team resources based mainly on evidence from studies in outpatient or specialty-specific settings. Unselected hospital-wide data are needed to inform guidance and service design and delivery, so we set up the Oxford Cognitive Comorbidity and Ageing Research Database (ORCHARD) using routinely-acquired electronic patient record (EPR) data.

Methods: ORCHARD includes pseudonymised EPR data on all patients >65 years with unplanned admission to one of four general hospitals in Oxfordshire, serving a population of 660,000. Data collected include cognitive screening (mandatory for >70 years) comprising dementia history, delirium diagnosis (Confusion Assessment Method—CAM), and 10-point Abbreviated Mental Test; together with nursing risk assessments, frailty, diagnoses, comorbidities (Charlson index), observations, illness acuity, laboratory tests and brain imaging. Outcomes include length of stay, delayed transfers of care, discharge destination, readmissions, death and dementia through linkage to electronic mental health records.

Results: ORCHARD (2017-2019) includes data from 90,303 consecutive, unselected hospital admissions across all specialties (n=60,535 [67%] inpatient versus n=29,768 [33%] day case; n=73,385 [81%] medical versus n=16,918 [19%] surgical or other). Admissions data were linked to 46,533 unique individuals (n=23,724 [52%] female) with a mean/SD age of 78.3/9.6, Index of Multiple Deprivation Decile of 7.5/2.3 and Charlson Comorbidity of 8.1/9.4 at first admission. Frailty was prevalent, with 15,423 (33%) scoring moderate and 2,471 (5%) high on the Hospital Frailty Risk Score. Complete cognitive screening data are available for 34,416 (67%) unique individuals ≥70 years with inpatient admission.

Conclusion: ORCHARD is a large and rich data resource that will enable studies on the burden and impact of cognitive and physical frailty in-hospital, with relevance to the design and delivery of clinical services, and understanding of healthcare resource use hospital-wide and by specialty.



1146. SP - Scientific Presentation - SP - BMR (Bone, Muscle, Rheumatology)

Sleep deprivation induces ageing-like changes in antigravity muscles of young adult male wistar rats

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Introduction: Poor muscle health is associated with a series of chronic and metabolic conditions that are prevalent in individuals who chronically experience poor-quality sleep. But there is no study deciphering the role of sleep deprivation on muscle ageing. Therefore, in the present study we have measured the ultrastructure, histopathology, and oxidative stressors in soleus muscle of wistar rat after sleep deprivation and recovery sleep.

Material and Methods: The experiments were conducted in 18 rats of three groups. *Group I* rats had normal sleep wake cycle, *Group II* rats were subjected to 24 h sleep deprivation (SD) by gentle handling method¹ and *Group III* rats had recovery sleep after 24 h SD. At the end of the sleep, sleep deprivation and recovery period, soleus muscle tissue was collected for ultrastructural, histological and oxidative stress markers. Oxidative damage was assessed by lipid peroxidation, catalase activity, reduced glutathione and nuclear labelling of 8-OHdG. The study was conducted as per the guidelines of the Institutional Animal Ethics Committee (960/IAEC/16).

Results: The data demonstrated that SD leads to ultrastructural changes in soleus muscle which includes sarcolemmal and mitochondrial alterations. In case of histopathological and histomorphological changes there was signs of tissue degeneration, inflammatory infiltrate in type I fibres and muscle atrophy was observed in soleus muscles. There was significant increase in level of 8-OHdG (p=0.02) and malondialdehyde in 24h SD (p=0.02) than control and recovery sleep groups. Moreover, the catalase activity and reduced glutathione level was significantly decreased in 24h SD group (p≤0.02) than control and recovery sleep.

Conclusion: 24hr sleep deprivation leads to an ageing like state in the skeletal muscle, which was recovered after sleep rebound.



1208. SP - Scientific Presentation - SP - Cardio (Cardiovascular)

Feasibility of a Pharmacist-led InterVentiOn for aTriAl fibriLlation in Long-term care: The PIVOTALL study

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Introduction: Older people in care homes with atrial fibrillation (AF) have complex health needs and would benefit from taking part in research. This study assessed the feasibility of pharmacist implementation of the Atrial Fibrillation Better Care (ABC: Anticoagulation; Better symptoms; Cardiovascular comorbidity management) pathway, and collection of an AF-specific, resident-centred outcome.

Methods: Older residents (aged ≥65 years) with AF were recruited from care homes within Liverpool and Sefton and randomised to receive the pharmacist intervention, or continue their existing treatment. Resident quality of life was assessed using the Atrial Fibrillation Effect on Quality of Life Questionnaire (AFEQT).

Results: Twenty-two care homes were approached about the study, and seven signed up to take part between 28 September 2020 and 29 April 2021. Time taken to recruit care homes ranged from 0 to 122 days. There were 83 residents identified as potentially eligible to take part, but after screening only 28 residents (34%) were invited. Overall, 21 residents were recruited. Eleven residents received the pharmacist intervention and three had ABC recommendations made to their GPs. Two out of four recommendations were implemented. The pharmacist administered the AFEQT questionnaire to 17 residents with capacity and completion rates were 94% and 93% at baseline and six-months, respectively. Residents found the questionnaire difficult; most were unable to distinguish if symptoms were AF-related (n=3), or did not know they had AF (n=8), and questions related to physical activity were not applicable to any of the residents who were bed bound (n=5) or had severely limited mobility (n=12).

Conclusion: There were procedural (encountered before research starts), system (encountered during research) and resident-specific barriers that impacted this study. Barriers need addressing before wider implementation, and AF-specific quality of life measures need to be developed and validated for care home residents. A detailed commentary has been submitted for publication.



1242. SP - Scientific Presentation - SP - Cardio (Cardiovascular)

Co-morbidity, Frailty and Ejection Fraction in Older Heart Failure Inpatients

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Introduction: Co-morbidities and frailty are common in older heart failure patients. The aim of this study is to explore the relationship between co-morbidity, frailty and ejection fraction (EF) in older heart failure inpatients

Methods: A cross-sectional, observational, retrospective analysis of consecutive patients aged 60 years and over who were admitted with heart failure in a UK hospital. Patients with incomplete data were excluded. The Carlson's comorbidity index (CCI) was used to compute comorbidity and the Rockwood Clinical Frailty Scale (CFS) was used to measure frailty. The EF was calculated as the midpoint of the ranges measured by echocardiography. IBM SPSS 28 software was used for statistical analysis. Descriptive statistics were used to measure baseline characteristics and Pearson's correlation coefficient and linear regression were used to calculate correlation.

Results and discussion: 101 patients were analysed; 48 males and 53 females. Mean age was 81.2 years(SD 9.98). Mean CCI was 6.97(SD 1.63) and mean CFS was 5.09(SD 1.14). There was statistically significant positive correlation between CCI and CFS (r= 0.232; p= .01). There was statistically significant inverse correlation between CCI and EF (r= -.277; p=. 005). When taking into account the level of frailty the correlation between CCI and EF was much stronger in non-frail than in frail patients (r= -.612; p=. 035 and r= -.216; p= .047 respectively). There was no correlation between CFS and EF (r= .095; p=.26). This was not surprising as HFpEF is the most common type of HF in the elderly. HFpEF patients are more likely to have more comorbidities and to be more frail compared to HFrEF patients.

Conclusion: There was a positive correlation between multi-morbidity and frailty in older inpatients admitted with heart failure. There was statistically significant inverse correlation between CCI and ejection fraction but there was no correlation between frailty and ejection



1328. SP - Scientific Presentation - SP - Cardio (Cardiovascular)

CGA and related interventions to improve outcomes for older patients undergoing Transcatheter Aortic Valve Implantation

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Introduction: The number of transcatheter aortic valve implantations (TAVIs) performed in the UK is increasing exponentially, providing a new treatment avenue for patients with severe symptomatic aortic stenosis previously deemed too frail for surgical intervention. Frailty is known to be associated with poor outcomes following TAVI, however little is known as to whether comprehensive geriatric assessment (CGA), the gold standard intervention for older adults in a range of clinical settings, can change outcomes for older adults undergoing this procedure.

Methods: Databases EMBASE, MEDLINE, CINAHL and Cochrane CENTRAL, along with the World Health Organisation clinical trials registry platform and Clinicaltrials.gov registry were searched for relevant reports between 01/01/1980 - 26/01/2022 using a pre-specified search strategy. Patients had to be 65 or over and studies had to evaluate single- or multi-domain interventions that may form part of a CGA. Studies were not limited to those only looking at patients living with or at risk of frailty.

Results: No studies of adequate quality evaluated the effect of CGA on outcomes for older adults undergoing TAVI. 18 studies evaluating CGA-related interventions were identified that met eligibility criteria, with the majority evaluating cardiac rehabilitation (CR) as a post-procedural intervention. Other interventions evaluated included cognitive behavioural therapy, alternative exercise-based interventions and post-procedural protocols that promoted early mobilisation and allied health professional involvement. A high risk of bias and significant methodological flaws were found in the included studies. There was very low quality evidence that post-procedural CR reduces mortality and to support the role of occupational and physical therapy for improving in-hospital outcomes for these patients.

Conclusion(s): There is no convincing evidence to support CGA or related single domain interventions to improve outcomes for older adults undergoing TAVI. Further robust research is required to establish whether CGA improves outcomes for this group.



1175. SP - Scientific Presentation - SP - E&L (Ethics and Law)

Was ICU right for you? An exploratory qualitative study of patients >=65 yrs and next of kin in COVID-19: the ESCALATE study

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Introduction: The decision to admit an older patient to the intensive care unit (ICU) should reflect shared goals of care. Resource limitations during the Covid-19 pandemic highlighted challenges in selecting candidates for escalation. Patients and next of kin (NoK) who have experienced ICU are well-placed to reflect on whether the admission was right for them.

Objective: To explore older patients' (<u>></u>65 years) and their loved ones' views on escalation decision making.

Methods: Qualitative study involving semi-structured interviews with patients, NoK of survivors and NoK of deceased who experienced UK ICU admission with Covid-19 respiratory failure between March 2020 and February 2021. A preliminary questionnaire was used to maximise sample diversity of age, sex, ethnicity, survival, decision regret and impact of event scores. Interview data were collected via video conferencing or telephone. Transcripts were analysed using framework analysis. Results 30 participants were interviewed.

Results: Five themes were identified: 'Inevitability' - a sense that the illness and its management are out of the control of the patient or their loved one; 'Disconnect' - differences between hospital and lay person narratives; challenges to bridging that gap included effective communication aided by technology; 'Acceptance' - of the consequences, good or bad, of an intensive care admission as unalterable; 'Beyond comprehension' - participants had not contemplated ill health or ICU prior to admission and even with the benefit of hindsight struggled to describe which potential outcomes would be acceptable or unacceptable if they needed to be involved in similar decision-making around escalation in the future; 'Covid-19' - unique impact of a pandemic.

Conclusion: This study, which includes bereaved NoK as well as patients and NoK of survivors, adds perspective to inform decision making regarding treatment escalation of older people.



Connecting Through Caregiving: Perspective-taking Interventions for Adult Child Caregivers of Persons Living with Dementia

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Introduction: With the unprecedented population growth of older adults worldwide, higher life-expectancies are creating increasingly more multigenerational interaction. Funded by the General Research Fund of the Research Grant Council in Hong Kong, the study examined the effects of perspective-taking intervention in the context of intergenerational caregiving.

Method: One-hundred seventy-two adult child caregivers of persons living with Alzheimer's disease (AD) were randomised into two twelve-week interventions: 1) Connecting through Caregiving with intergenerational perspective-taking reappraisals (CTC: 91 participants) and 2) Basic Skill Building (BSB: 81participants). Both groups receive the basic skills training including 1) monitoring mood and scheduling pleasant events and 2) communication with the care recipient & 3) communication skills with other family member and helping professionals. The CTC group spends less time on basic skills and focused on perspective-taking reappraisals aiming to promote balance between self-care and caring of others. These reappraisals include: 1) connecting with self through enhancing self-awareness, 2) connecting with the care-recipient and 3) connecting with others who can help.

Results: In terms of primary outcomes, as compared to the BSB group, the CTC group reported significantly greater reductions in depressive symptoms and higher levels of psychological well-being. For the secondary outcomes, the CTC group scored higher in emotional and instrumental support and also lower levels of perceived presence and reaction to behavioural and memory problems of the care recipient. Perspective-taking was found to mediate between intervention effects and reduction of depressive symptoms of the caregiver.

Conclusion: The results provided evidence for the efficacy of the CTC program. With population aging, there is a rapid increase of people suffering from dementia and those who will provide caregiving. The study contributes towards enhancing sustainability of caregiving in dementia. The present findings can be relevant to countries where the demand for family caregiving is high due to collectivistic concerns.



An analysis of consultant job adverts in Geriatric Medicine in England and Wales

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Introduction: The British Geriatrics Society Flexible Workforce Statement supports national policy such as the NHS People Plan in promoting less than full time (LTFT) working. As LTFT trainee representatives on the BGS trainees' council we were interested to know what the future holds in terms of job opportunities. We analysed job adverts for Consultants in Geriatric Medicine to identify how many were LTFT posts.

Method: A freedom of information (FOI) request was submitted to online recruitment website NHS Jobs. The request identified jobs in 'Elderly Care Medicine' or those containing 'Geriatric' in their title between 01/04/2019 and 31/03/2021. Data were filtered to include Consultant grade posts only. The posts were grouped by region and analysed using Excel.

Results: The FOI request returned 7589 jobs; of these 1140 were consultant posts. These ranged from 17 in Wales to 293 in South East England. Data for Guernsey was excluded as only two jobs were advertised. On average, four percent of jobs were advertised as LTFT, ranging from 0.7% in East of England to 18.6% in Wales. On average, 48% of LTFT jobs were advertised as permanent posts ranging from 0% in London and East of England to 82% in South West England.

Conclusion: The number of LTFT job adverts was low considering the number of substantive LTFT consultants, although there is wide regional variation. This may be a barrier to flexible working in geriatric medicine. The heterogeneity of language in adverts and what constitutes full or LTFT working made data interpretation difficult. Another limitation was that details of job adverts were not released and it is likely a number of jobs were re-advertising unfilled posts. Further avenues of work include identifying LTFT opportunities for specialty and associate specialist doctors and allied health professionals.



Is virtual advance care planning simulation as effective as face-to-face learning?

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Introduction: Advance care planning (ACP) is about what matters to patients, enabling their wishes to be respected, even when they become unable to engage in decision-making. Evidence shows ACP improves end of life care for patients and reduces relatives' bereavement reactions (Detering KM et al. BMJ. 2010; 340:1345). A simulation course for multidisciplinary healthcare professionals, using actors, was developed to improve understanding of ACP, and confidence in having these conversations. In response to the COVID-19 pandemic, the course was adapted to an online format.

Method: Participants were asked about their ACP confidence and understanding pre- and post-course, using a Likert scale (1-Not at all to 5-Very confident). Data between 2018-2022 was analysed to compare face-to-face and online course responses. Free-text responses to 'How do you feel about attending the course online?' were analysed qualitatively. Ethics approval was not required.

Results: Five face-to-face and five virtual sessions trained 128 and 133 attendees respectively. Confidence in having ACP discussions improved significantly following the course in both cohorts; from a mean Likert rating of 2.77 (95% CI 2.60-2.94, n=132) to 4.11 following face-to-face training (95% CI 3.97-4.25, n=128), and from 2.79 (95% CI 2.66-2.91, n=149) to 4.11 following the online course (95% CI 4.01-4.21, n=133). Additionally, 97% (n=132) of face-to-face attendees and 99.2% (n=133) of virtual attendees said their practice would change because of the course. Following the training, 100% of participants across both cohorts reported that they 'fully understood' what was meant by ACP, from a baseline of 77.3% (n=132) in the face-to-face cohort and 81.9% (n=149) of virtual participants. Free-text analysis highlighted the convenience of attending online (n=22,21%), and only a minority reported technical difficulties (n=8,8%).

Conclusion: This course was successfully adapted to a virtual format, improving participants' ACP confidence and understanding as effectively as in-person training, whilst being more accessible.



Co-creating a Video for Training Healthcare Professionals in Dementia

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Introduction: There are 400 thousand people living with dementia (PLWD) in Egypt. Most of the care for PLWD is delivered by family members. Healthcare Professionals (HCP) supporting these families need adequate training. Involving HCP in designing and producing training material ensures sustainability of these educational resources as their content will be socially and culturally relevant.

Methods: The first part of the project involved the lead author (OM) meeting with 2 geriatricians to identify common challenging situations in dementia. A short video for training HCP in dementia using these situations was produced, based on OM lived experience, and then shared with 2 old-age psychiatrists for comments. Feedback on the video was subsequently obtained via semi-structured interviews with 16 HCP (2 doctors, 1 nurse, 1 dietitian, 1 communication therapist, 2 social workers, and 9 clinical psychologists) either in person (3), over the phone (1), or virtually (12) approached in two institutions for ageing in Cairo and Alexandria in 2021. The video was finally checked by an adult psychiatrist for consistency with non-violent communication approaches. All interviews were analysed using a thematic framework. Comments and feedback were used to co-produce a final version of the video.

Results: From the initial co-design phase, six frequently-encountered situations were identified: anger, low mood, wandering, repetitive behaviour, refusing support with activities of daily living, and sleep disturbance. Five key qualities for appropriate response in these situations were agreed on: kindness, sensitivity, compassion, avoiding confrontation, and shared-decision making in activities of daily living. The subsequent co-production phase with 19 HCP resulted in an 18-minute: 43-seconds simulation video of six challenging interactions between PLWD and their carers. The video is now freely available on YouTube, https://m.youtube.com/watch?v=yIINBXZwH8M&feature=youtu.be

Conclusions: Involving healthcare professionals in dementia in co-creating a video for training their peers led to a freely available online educational resource.



Do Not Attempt Conversations Pre-Rehearsal: Teaching Medical Students to Have DNACPR Conversations

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Introduction: The Recommended Summary Plan for Emergency Care and Treatment (ReSPECT) form is widely adopted to document advanced care plans, including Do Not Attempt Resuscitation (DNACPR) decisions. Communication between clinicians and patients, or next of kin is required for completion. It is widely documented UK medical students have little exposure to these experiences, including being asked to leave whilst they are occurring. During the COVID19 pandemic, Foundation Year 1 (FY1) doctors led discussions with increased frequency and autonomy, with no documented concurrent training. We present a novel learning experience designed to aid these discussions. Students were timetabled to a 1.5 hour workshop, facilitated by a clinical teaching fellow. They were invited to complete ReSPECT form for a celebrity to familiarise themselves with the layout. They then considered a patient admission scenario in 3 different groups from the perspective of the patient, family and medical team, and used this to contemplate potential, future, emergency treatments. Subsequently a discussion surrounding CPR effectiveness, ways of communicating this, and legal advanced decision documents occurred. The session concludes with scrutinising example ReSPECT forms provided by the Resuscitation Council UK.

Method: Students' confidence levels were measured pre and post session using a Likhert scale questionnaire.

Results: 90 students attended workshops across 6 rotations. 80% students completed post - session questionnaires, of which 100% reported an increase in confidence with having a DNACPR/advanced care planning discussion compared to before the session.

Conclusion: DNACPR conversations can incite anxiety in any seniority of health care professionals. Medical educators need to adequately prepare medical students during their training in advanced care planning and DNACPR discussions. This can be done with simulated workshop experiences, reinforced with opportunistic or organised observational experience. Adequate preparation will lead to increased confidence in discussions, ultimately leading to better experiences for patients and their families.



1142. SP - Scientific Presentation - SP - Epid (Epidemiology)

Association of Social Participation and Mortality in Widowed Persons -Results of the Taiwan Longitudinal Study on Aging (TLSA)

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Introduction: It has been suggested that the widowed have a higher risk of death. This study intended to explore whether social participation could improve this trend.

Method: A longitudinal study database was constructed to explore the trend of survival and its change with social participation in widowed persons. The Taiwan Longitudinal Study on Aging (TLSA), based on four consecutive waves of longitudinal follow-up data in 1999, 2003, 2007, and 2011 was linked with the National Death Registry from 1999 through 2012. In total, there were 1417 widowed persons and 4500 nonwidowed persons included in this study, excluding divorced and never-married people. The survival trend analysis was carried out with social participation as the main predictive factor stratified for comparative analysis.

Results: Our results showed that the widowed were older than the nonwidowed, were female-dominant, had a lower education level, were more economically stressed, and were less likely to engage in regular exercise, and thus showed generally poorer health; for example, being more vulnerable to having chronic diseases, disability with the Activities of Daily Living (ADL), cognitive impairment with the Short Portable Mental State Questionnaire (SPMSQ), and depression with The Center for Epidemiological Studies-Depression (CES-D). The death risk of the widowed was significantly higher than that of the nonwidowed, but the death trend for those with social participation was significantly lower than that of their counterparts in both the widowed and nonwidowed. After matching with gender and age for widowed persons, the widowed with social participation had a significantly lower risk of death.

Conclusion: It was concluded that social participation can improve the death risk for the widowed, and social participation is worthily included in health promotion plans and social welfare services for widowed persons.



1276. SP - Scientific Presentation - SP - Epid (Epidemiology)

Identifying multimorbidity clusters among Brazilian older adults using network analysis: findings and perspectives

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Background: In ageing populations, multimorbidity (MM) is a significant challenge for health systems, however with scarce evidence available in Low- and Middle-Income Countries, particularly in Brazil.

Method: A national cross-sectional study was conducted with 11,177 Brazilian older adults to evaluate the occurrence of MM and related clusters in Brazilians aged \geq 60 years old. MM was assessed by a list of 16 physical and mental morbidities and it was analysed considering \geq 2 morbidities. The frequencies of MM and its associated factors were analysed. After this initial approach, a network analysis was performed to verify the occurrence of clusters of MM and the network of interactions between coexisting morbidities.

Results: The occurrence of MM was 58.6% (95% confidence interval [CI]: 57.0–60.2). Hypertension (50.6%) was the most frequent morbidity and it was present all combinations of morbidities. Network analysis has demonstrated four MM clusters: 1) cardiometabolic; 2) respiratory + cancer; 3) musculoskeletal; and 4) a mixed mental illness + other diseases. Depression was the most central morbidity in the model according to nodes' centrality measures (strength, closeness, and betweenness) followed by heart disease, and low back pain. Similarity in male and female networks was observed with a conformation of four clusters of MM and cancer as an isolated morbidity.

Conclusion: The prevalence of MM in the older Brazilians was high, especially in female sex and persons living in the South region of Brazil. Use of network analysis could be an important tool to identifying multimorbidity clusters and address the appropriate health care, research, and medical education addressed to older adults in Brazil.



1361. SP - Scientific Presentation - SP - Epid (Epidemiology)

The Effectiveness of Preventive Home Visit on Resiliency, Health Status and Quality of Life of Older Adults: A Systematic Review

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Introduction: Resilient ageing is conceptualised as strive towards achieving satisfactory quality of life (QoL) at old age by embracing adaptive and coping mechanisms against adversities regardless of health conditions. Preventive Home Visit (PHV) including various types of home-care interventions were introduced to delay health deterioration and improved QoL. However, research related to resilience as indicator for QoL is scarce. Therefore, this systematic review aims to evaluate the effectiveness of PHV in improving resilience among community dwelling older adults and the association with health and other QoL related outcomes.

Method: Database search was conducted by using five databases (PubMed, PsycINFO, CINAHL, Web of Science and Scopus) up to 31 March 2022 involving community dwelling older adults who received PHV. Three authors reviewed the articles for inclusion and performed methodological quality assessment.

Results: Out of 1,580 records, 13 articles involving 7,254 participants met the inclusion criteria with age range between 79 to 85 years old. Quality assessment by using Joanna Briggs Institute (JBI) Critical Appraisal Tools indicated that all Randomised Controlled Trials (RCTs) and non-RCTs articles were having low risks of bias, suggesting high-quality studies were selected for this review. One remaining study was a cross-sectional study. More than two third of the studies focused on health or combination of health and QoL and only three studies yield positive impact of PHV. The rest were either yielded mixed results or no impact of PHV intervention. There was only one study measuring resilience with results showed no significant impact of PHV or home care intervention on resiliency of the older adults.

Conclusion: Research on the effectiveness of PHV has been introduced since for decades ago, however study focusing on resilience related outcomes is still lacking. Based on current evidence, it is essential to further evaluate the impact of multi-domain health and psychological intervention in PHV design considering the ability of older adults to face adversity in late life.



1094. CQ - Clinical Quality - SP - Falls (Falls, fracture & trauma)

Using a structured Friday Review Proforma to improve safety and clarity of weekend plans within our local Orthogeriatrics Teams

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Background: Good clinical handover is vital for the quality and continuity of patient care. Poor handovers may lead to adverse outcomes for patients including repeated investigations, inappropriate treatment, and delayed diagnoses. On weekends in our hospital – 2 senior-house-officers (SHOs) are responsible for the care of all Trauma and Orthopaedic (T&O) and Orthogeriatric (OG) patients - these doctors are likely to be unfamiliar with the patients they are reviewing.

Aim: This project aims to improve patient safety and care, as well as SHO weekend experience, by implementing a T&O and OG specific Friday Review Proforma.

Methods: A Friday Review Proforma was developed and implemented over a one-month period. SHOs/PAs on the team were surveyed pre- and post-introduction of the proforma.

Results: In the initial survey – 86% of responses reported issues related to the previous weekend handover arrangements, including unclear plans, poor handover and lack of treatment escalation plans. 86% felt that the previous weekend handover arrangement may negatively affect patient safety. In the subsequent survey – 85% of respondents found the proformas useful when reviewing patients on weekends. 62% felt that they improved the quality of patient care and a further 62% had noticed a reduction in issues related to medical care at weekends. Respondents were unanimous in supporting the continued use of the proformas.

Conclusion: The implementation of Friday Review Proformas were felt to reduce issues arising from weekend handovers and improve the quality of patient care in our T&O and OG teams. Team members unanimously supported their continued use.



1179. SP - Scientific Presentation - SP - Falls (Falls, fracture & trauma)

4.5 Tonnes of Food Wasted Across a Hospital Ward: A Service Evaluation of Dietary Intake and Food Waste

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Introduction: Malnutrition is a debilitating condition in hospitalised older people. There has been limited studies exploring dietary intake and oral nutritional supplement (ONS) compliance in these people. The purpose of this service evaluation was to observe daily energy and protein intake, plate waste and ONS compliance and to report food waste at ward level.

Methods: Three-day dietary (food-only) intake and plate waste of 19 older (≥ 65 years) people on a hospital trauma and orthopaedic (T&O) ward were assessed. Patients were categorised as 'nutritionally well' or 'nutritionally vulnerable' as per British Dietetics Association's (BDA) Nutrition and Hydration Digest criteria. Dietary intake was calculated by a Dietitian and compared with adjusted BDA standards to exclude energy and protein from drinks. Ward plate and food trolley waste were weighed after lunch and supper for five days. Thirty-three ONS from 11 patients were collected before disposal and weighed.

Results: Mean age of the patients were 84 ± 9 years (9 female, and 10 male) with the most common injury hip fracture (68.4%). Mean (standard deviation, SD) intake for 'nutritionally well' was 1592 (257) kcal/day and 65.7(8.5) g/day protein and 'nutritionally vulnerable' (n= 15) 643 (354) kcal/day and 24.8 (14.0) g/day protein. Plate waste for 'nutritionally well' was 4.1 (5.8)% at main meals and 1.7 (3.4)% at pudding and for 'nutritionally vulnerable' 53.1 (26.6)% at main meals and 38.6 (32.2)% at pudding. Compliance to ONS was 28.3 (38.8)%. The combined mealtime plate waste weighed 6.2 (1.2) kg/day and food-trolley waste 6.2 (0.9) kg/day. This equates to approximately 4526kg/year (4.5T).

Conclusions: Energy and protein intake and compliance to ONS in older T&O patients is sub-optimal. Food waste is high and urgently needs addressing. Further, interventions are warranted to improve dietary intake in hospital and to explore the acceptability of alternative ONS food/drink styles.



1355. SP - Scientific Presentation - SP - Falls (Falls, fracture & trauma)

Should we screen patients over 60 with femoral fractures for myeloma? A retrospective review of 807 patients.

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Background: Femoral fractures are the most common fracture type requiring hospital admission. The Fracture Prevention Service at Oxford University Hospitals (OUH) recommend that all patients over the age of 60 with a femoral fracture are screened for myeloma (immunoglobulins, serum electrophoresis, serum free light chain assay). This is not standard practice for orthogeriatric patients. This study aimed to determine the detection rate of new myeloma cases and establish whether the cost of screening was justified.

Methods: All patients over 60 years old admitted with a femoral fracture to the John Radcliffe Hospital in 2019-2020 were identified. Their electronic notes were retrospectively reviewed and their sex, age at presentation, fracture type and myeloma screen results were recorded. In line with OUH haematology guidelines, any patients with a monoclonal band identified on electrophoresis and a serum free light chain ratio outside 0.3-3.0 were considered intermediate-to-high risk for developing myeloma. The mechanism of injury, Clinical Frailty Scale (CFS) and outcome for these patients were recorded.

Results: 807 patient notes were reviewed with a mean age of 82.2. 89.3% were admitted with proximal femoral fractures and 69.8% were female. 694 patients had myeloma screens performed. Eight patients had a monoclonal band detected on electrophoresis and a serum free light chain ratio outside 0.3-3.0. The median CFS of these patients was six and there was no clinical suspicion of pathological fracture for any. One of these patients had known myeloma, and another, previously diagnosed MGUS. Five patients were diagnosed with likely MGUS and placed on low-risk monitoring pathways. One patient was reviewed in a myeloma clinic and declined further investigation.

Conclusions: No new confirmed diagnoses of myeloma were detected over 694 myeloma screens. We would not recommend screening orthogeriatric patients for myeloma and are planning to stop this practice at OUH, with a considerable saving.



1195. SP - Scientific Presentation - SP - HSR (Health Service Research)

Effectiveness of a new proactive multidisciplinary care service for older people with frailty: a non-randomised controlled trial

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Introduction: Integrated care potentially improves health outcomes for older people with frailty. We aimed to assess the effectiveness of a new, proactive, multidisciplinary care service in improving the wellbeing and quality-of-life of older people with frailty.

Methods: A community-based non-randomised controlled trial. Participants (≥65 years, electronic Frailty Index ≥0.36) received either this new integrated care service plus usual care, or usual care alone. Data collection was at 3 time points: baseline, 2-4 weeks, and 10-14 weeks; the primary outcome was patient well-being at 2-4 weeks, measured using the Integrated Patient Outcome scale, IPOS. The secondary outcome was quality-of-life, measured using EQ-5D. Wellbeing and quality-of-life at 10-14 weeks were measured to test safety and duration of effect. Data was analysed with STATA v17.

Results: 199 intervention and 54 control participants were recruited. At baseline, participants were similar in age/gender/body mass index/ethnicity/living status. At 2-4 weeks, the intervention group had improved well-being (median IPOS reduction 5, versus control group increase 2, p<0.001) and improved quality of life (median EQ-5D index values increase 0.12, versus control 0.00, p<0.001); these were clinically significant. After adjusting for age, gender and living status, intervention group had an average total IPOS score reduction of 6.34 (95% CI: -9.01: -4.26, p<0.05). Propensity score matching analysis based on functional status/deprivation score showed similar results (reduction in IPOS score in intervention group 7.88 (95% CI: -12.80: -2.96, p<0.001). At 10-14 weeks, the intervention group sustained well-being improvement (median IPOS score reduction 4, versus control increase 2, p<0.001) and improved quality of life (median EQ-5D index values increase 0.06, versus control -0.01, p<0.001).

Conclusion: This new integrated care service improves the overall wellbeing and quality of life of older people with frailty at 2-4 weeks; improvement was sustained at 3 months.

Ethics Approval: IRAS-250981 and NHS Research Ethics Committee 18/YH/0470



Ageing well in frailty: developing a practical model for use in community practice to improve patient reported wellness.

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Introduction: Empowering patients to 'age well' (NHS England Long Term Plan, 2019) has become a key driver to meet the rising demand for healthcare. Despite a growing body of evidence regarding ageing well and the benefits of patient empowerment (Selman et al, 2017) and reducing demand on resources (Age UK, 2020), there remains confusion regarding applied meaning for the spectrum of older persons health. This research will consider expert view on the topic of 'ageing well' related to the predictable patterns of ageing. The aims of this study will be to develop a new interventional frailty stratification model to best meet the needs in advancing frailty.

Method: This research study will incorporate a systematic literature review alongside patient and carer focus groups to inform initial questionnaire design for a modified Delphi panel of mixed professional experts. The overall aim of undertaking rounds of questionnaire and subsequent survey will be to arrive at consensus expert view to fulfil the research aims of identifying a conceptual approach to be further tested in community clinical practice.

Results: The results of the study will inform a defined model of intervention to guide community practitioners in preventative care for frailty. Testing of the intervention will consider impact upon individuals, clinicians, and ongoing frailty trajectory.

Conclusion: At the time of the Autumn conference, the research study will be at recruitment stage for the modified Delphi panel. This abstract application is requesting support to share the background and progress to date with conference delegates to actively support a modified Delphi research process. The opportunity to showcase the study and network with participants to gauge interest in the ageing well research area would be a valued way to recruit an expert panel with the aim of improving care in this emerging and exciting aspect of older person's care.



Health Care Workers' Experiences on Working at Residential Care Home for the Elderly: An Integrative Review

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Introduction: The ageing population poses challenges to the health care industry worldwide. The huge demand for residential care home for the elderly (RCHE) services induces pressure on health care workers (HCWs) recruitment and retention. HCWs are personnel who have prominent roles in direct basic care to the older adults, and all kinds of hands-on care. Due to the "unpleasant" work nature, shift work, and physical demands for HCWs, it is essential to unfold how HCWs comprehend their working experiences.

Methods: An integrative review was conducted to synthesize various streams of literature in order to generate new knowledge. Multiple databases such as CINAHL, ERIC, LWW nursing were adopted to search for relevant literature published between 2012 and 2022.

Results: A total of 24 articles were retrieved at the initial stage, and 7 articles were sorted after indepth review. In general, results supported that HCWs experienced positively on the works at RCHEs though there were job stresses. The HCWs perceived the roles at RCHEs as routinized and task-oriented by providing direct care to older adults. They perceived their roles at RCHEs as care providers who provided direct care to older adults. Also, their responsibilities to maintain the safety and dignity of older adults was expressed as utmost importance. The meaning of works lay on three levels: interpersonal (e.g. self-achievement), interpersonal (e.g. communication with team members), and job performance (e.g. task compliance).

Conclusions: This study reveals the experiences of working at RCHE from the HCWs' perspective. The HCWs' experiences reflected in this study as well as the meaning of works discovered can generate insights for policy-makers on HCWs recruitment and retention.

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Assessment and management of frailty: A survey of healthcare professionals

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Introduction: By 2030, it is estimated that 25% of Europeans will be aged over 65. [Dugarova; UN Development Programme; 2017] Frailty in this group is a key contributor to poorer outcomes. [Eamer; BMC Anesthesiology; 2017; 17:99] The term is common in healthcare but research into the issues faced by staff around assessment and management of frailty has been limited. We undertook a survey to identify challenges faced in providing care to those living with frailty and considered potential interventions.

Method: The survey was across three hospitals in our health board (which serves a population of around 390,000 with a range of services). [SBUHB;2022] It was developed iteratively through consultation in a multidisciplinary group and adapted questions from other similar validated surveys. [Eamer; BMC Anesthesiology; 2017; 17:99][Taylor; Future Healthcare Journal; 2017; 4(3):207-212]

Results: 218 responses were received covering a variety of medical and surgical specialties. Participants showed a strong (80%) self-reported understanding of frailty as a clinical concept, but only 46% felt confident in their ability to assess patients for frailty. 74% stated they would benefit from more education on frailty. Other barriers included systemic challenges such as staffing and social care, but also a lack of understanding of frailty by patients and relatives which impacted shared decision-making.

Conclusions: The survey showed a significant demand for more education, especially awareness of pathways and assessment methods. It also highlighted the issue of patients' (and relatives') lack of understanding of frailty. In response, we are planning a targeted multi-disciplinary educational programme on frailty across the health board, as well as introducing patient information leaflets.



Demographic and mortality evaluation of Urgent Community Response referrals that are managed in community vs those hospitalised

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Introduction: Demographic evaluation of urgent community response teams [UCR] is important to ensure equity of access and clinical outcomes for patients from all socio-demographic groups using such services. This retrospective descriptive study aimed to evaluate demographic and mortality differences between patients referred to UCR in terms of those managed in the community [Group1] versus those subsequently hospitalised [Group2].

Methods: Data was obtained over a 12-month period [2021-2022] for all new patients referred to a 7-day consultant-led UCR that serves a multi-ethnic, inner-city population. Data included demographic details, source of referral, urgency of referral and mortality within 60 days.

Results: Of 995 patients, 75.6%[n=752] were in Group 1; 24.4%[243] were in Group 2. The two groups were comparable in terms of age [mean(SD): 80.1(12.6) vs 80.0(11.4), p=ns] and gender [males:39.4% vs 42.4%,p=ns]. There were similar proportion of Black and minority ethnic patients within the two groups [21.0% (158) vs 24.7% (60), p=ns]. Source of referral were comparable between the two groups[p=ns]; overall, 67.7%[674] were from GP practices, 5.6%[56] Community Practitioners, 4.7%[47] NHS111, 2.7%[27] Ambulance, 32%[32] Palliative care, 5.9%[59] Emergency department, 10.1%[100] post-hospitalisation. Compared to Group 1 [46.9% (353)], significantly more patients in Group 2 were referred for urgent assessment within 2 hours [65.4% (159), p<0.001]. More patients died in Group2 within 60 days [22.2% (54) vs 11.3% (85), p<0.001].

Discussion: This large survey has described age, gender and ethnic similarities between the two groups, demonstrating equity of provision irrespective of protected characteristics. As might be clinically expected, patients referred for hospitalisation were assessed more urgently and had higher mortality rates compared to those managed in the community. This study provides valuable information for clinicians and researchers of similar UCR services in future.



The views and the use of information communication technologies to access dementia postdiagnostic support: a systematic review

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Introduction: Post-diagnostic support is key to ensuring the well-being of people with dementia and unpaid carers. The COVID-19 pandemic has caused a shift from in-person to remote service delivery, often with the use of information communication technologies (ICT) formats. This systematic review examined how ICT has been used to access remote post-diagnostic support services that address the needs people with dementia, or those of dyad, and explored care recipients' views on accessing dementia-related support remotely.

Method: Concepts relating to dementia and ICT were searched across six databases (*PsychInfo, PubMed, Cochrane Library, CINAHL, Social Care Online, and Web of Science*) in March 2021 and updated in March 2022. Studies published from 1990 and written in English, German or French were considered for inclusion. Methodological quality was appraised using the Hawker quality assessment tool and reporting structured according to PRISMA guidelines.

Results: The search yielded 8,485 citations. Following the removal of duplicates and two screening processes, 18 studies were included. Studies described a range of post-diagnostic support, including exercise classes and therapeutic sessions, which were largely delivered remotely on a one-to-one basis. Videoconferencing software was the most employed ICT format, and people with dementia were directly engaging with ICT to access post-diagnostic support in 13 studies. Whilst studies demonstrated the feasibility of accessing post-diagnostic service remotely, overall, care recipients' views were mixed.

Conclusions: Following the increased reliance on ICT during the pandemic, it is likely that service delivery will continue with a hybrid approach. Accessing post-diagnostic support remotely is likely to benefit some care recipients. However, to prevent widening inequalities in access, service provision is required to accommodate to people with dementia and unpaid carers who are digitally excluded. Future research should capture the support provided by unpaid carers facilitating the engagement of the person with dementia when accessing remote post-diagnostic support.



"To be a dementia-friendly hospital, I think you need to have..." - The perspectives of professional dementia experts

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Introduction: Dementia-friendly hospitals (DFH) are mentioned as one of several key initiatives in national dementia strategies. In our previous integrative review, we identified 17 descriptions of DFHs and analysed six characteristics of DFH: continuity, person-centredness, consideration of phenomena within dementia, environment, valuing relatives and knowledge and expertise within the hospital (Manietta, Purwins, Reinhard et al., BMC Geriatrics, 2022, 22, 468, 1-16). We also learned that the term DFH is based more on healthcare practice than research. To address this research gap, one step of our DEMfriendlyHospital study is to examine the perspectives of professional dementia experts working in hospitals in Germany.

Method: We used a qualitative design and conducted 14 semi-structured interviews with professional dementia experts from various healthcare professions (12 nurses, two physicians, and one physiotherapist). Data were collected between November 2021 and March 2022. Using an inductive content analysis, we furthermore analysed the interviews in a participatory way involving a group of research associates and professional dementia experts.

Results: From the professional dementia experts' perspectives, a DFH is characterised by specific hospital processes, structures and environment which consider the needs of people with dementia, dementia-specific knowledge and the skills of hospital staff, their awareness and attitude towards people with dementia. A DFH needs the social inclusion of patients with dementia and their perception as a person as well as the involvement of relatives, who are an important support for the patients and their care.

Conclusion: There are links between our results from interviews with professional dementia experts and our integrative review. At the same time, the perspectives of patients with dementia and their relatives are underrepresented. To fill this gap, our next step is to interview people with dementia who are hospitalised and their relatives, aiming to enhance the description of a DFH and its characteristics.



"I'm my own boss" – a qualitative study with people receiving adult day services in Germany about their understanding of leisure

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Introduction: Community-based care such as adult day services (ADS) are preferred by people with dementia. ADS offers the opportunity to support the health and social needs of their clients and provide respite to family members, contributing to a stable care situation at home. The psychological needs of humans according to the self-determination-theory (SDT) (autonomy, competence, and relatedness) can be fulfilled by leisure activities and thus improve well-being and quality of life. The implementation of leisure activities that reflect individual preferences support active participation, preserve autonomy, improve satisfaction with care and consequently can be understood as a core aspect of person-centred care. However, it is currently unknown how people receiving ADS understand leisure and which leisure activities they prefer.

Method: To gain insight, a qualitative design was chosen. We conducted semi-structure interviews with 13 people receiving ADS in Germany. Participants were recruited from two different ADS in one state in Germany. Interviews were recorded, transcribed verbatim and analysed using thematic analysis and categories of the SDT.

Results: The results show that over 90 % of participants were diagnosed with dementia and that the ADS was considered a place to participate in leisure activities. However, this consideration depends primarily on the degree of autonomy they experienced and thus the freedom to choose activities in the ADS according to their individual preferences. The participants mentioned a variety of preferred meaningful leisure activities related to competence and relatedness (e.g., mentoring, socializing, reminiscence).

Conclusion: The results indicate the importance of preference-based service design in ADS to meet clients' psychological needs and thus provide person-centred care to improve well-being and quality of life. These results can be used to develop an item-based assessment tool to assess the preferences of people with care needs regarding leisure activities in ADS.



Using realist programme theory to design a new intervention for improving recovery after delirium

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Introduction: People who recover poorly after delirium are likely to require an increased level of care. It is presently unknown whether interventions to improve recovery after delirium are effective and cost-effective. This research aimed to develop a programme theory to inform the design of an intervention to improve recovery after delirium.

Method: A rapid realist review of literature was conducted to develop an initial programme theory. Following this, a qualitative investigation of the perceived rehabilitation needs of older people who have experienced delirium during a hospital stay was conducted via semi-structured interviews with 41 key stakeholders (older people (5), carers (12), and healthcare professionals (24)). Data were analysed using a realist approach to identify what works, for whom, and in what context. This was deductively informed by the initial programme theory while also employing an inductive analysis to identify novel insights. Through an iterative, retroductive process, context-mechanism-outcome configurations (CMOCs) were coded to reflect stakeholders' views to refine the programme theory.

Results: The initial programme theory highlighted the importance of cognitive and physical rehabilitation and emotional support as key domains of recovery. New CMOCs included optimisation of good medical care to manage delirium and monitoring and management of underlying medical conditions to promote recovery. Others included developing educational resources and support networks for older people and their carers to aid sense-making, and encouraging social interaction to reduce isolation and empower independent functioning. These recovery elements should be addressed in a person-centred manner that is tailored to individual needs and preferences, engages carers, integrates intervention goals into daily functioning, and ensures continuity of care.

Conclusion: A refined programme theory was developed and is currently being used to design a manualised intervention to improve recovery after delirium. The acceptability of the intervention will be tested in a multi-centre, single-arm feasibility study.



rTMS treatment improved cognitive dysfunction through adult neurogenesis in ICV-STZ rat model of sporadic Alzheimer's disease

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Background: Intracerebroventricular streptozotocin injection at 3mg/kg of b/w causes phenotypes similar to that of sporadic Alzheimer's disease (sAD) from 14th day post-injection. On the other hand, the body of evidence indicated that impairment in the sAD is the major contributor for cognitive decline. Taken together, we tested the adult neurogenesis hypothesis in streptozotocin model of sAD in female Wistar rats after extremely low magnetic stimulation (MF: 17.96, 50Hz, 2hr/day, 21days).

Method: 33 rats were randomly divided into three groups viz. Sham+MF, AD and AD+MF. Consequently, animals were first induced AD with stereotaxic manipulation and then they were exposed to low frequency magnetic field stimulation, followed by terminal cognitive behavioural tasks brain tissue being isolated for both biochemical and subcellular expression experiments (ethical no. 12/IAEC-1/2017).

Results: showed reduction in latency to the goal quadrant (p= 0.002) and transfer latency (p= 0.045) in AD+MF group versus AD. Even, Dirichlet distribution of time spent in 4 quadrants indicated ununiform in all the groups except AD group (p= 0.067, LRS= 7.35). Further, cell count in CA3 and DG exhibited increase in cell density in AD+MF group (p<0.05). However, we found significant reduction in SOD1 activity after MF treatment (p= 0.035) but no change in GSH level in hippocampus and frontal cortex. Interestingly, these changes in AD+MF animals are associated with increase in density of BrdU+/Nestin+ cells in granular layer (p= 0.002) and hilus region (p= 0.0005) of DG along with increase in expression of L-type Ca2+ channels as compared to AD group.

Conclusion: This experimental evidence suggests that non-invasive brain stimulation can promote adult neurogenesis by activating L-type ca2+ channels in the hilus, which intern helps in retention of long term memory even after sAD.



Morpho-functional evaluation of 3mg/kg ICV-STZ rat showed sporadic Alzheimer's like pathology with progressive dementia

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Background: Intracerebroventricular streptozotocin (ICV-STZ) injection is among the best animal models to simulate sporadic Alzheimer's disease (sAD). Abnormality in brain insulin signalling, neurodegeneration, neuroinflammation, cholinergic damage, mitochondrial dysfunction, genetic abnormality, respiratory problem, oxidative stress, gliosis, sleep disturbances are associated with cognitive abnormalities seen in ICV-STZ injected rats. Available experimental evidence has used varying doses of STZ (<1 to 3mg/kg) and studied its effect for different study durations, ranging from 14-21 (short), 30-42 (mild), 90-105 (moderate) and 250-270 (long) days. These studies indicated that 3mg/kg of body-weight is the optimum dose for inducing sAD in the rodents. However, studies on the pathological process with related the morphological and functional abnormalities reported were illusive.

Objective/Method: Hence in the present study, we have investigated the morpho-functional changes after 3mg/kg ICV-STZ treatment with a follow-up of two months in 54 male Wistar rats (ethical no. 937/IAEC/PhD-2016).

Results: exhibited a spatial, episodic and avoidance memory decline and increase in anxiety (p<0.05) in ICV-STZ group progressively with time from 15th day to 60th day post-injection. Morphometry showed hippocampal atrophy with CA1, CA3 layer thinning (p ≤0.01) and loss of neurons (p<0.0001) associated with third ventricular enlargement (p=0.007) in ICV-STZ rats versus sham, along-with extracellular amyloid plaque in AD rats with Congored staining. In addition, spine morphometry with Golgi-Cox impregnation of mossy fibre showed a reduction of spine density in AD group versus control and sham group (p<0.0001). Finally, immunohistochemistry of GSK3ß, PI3K and mtCOX-1 antigen in coronal sections revealed an increase in mean intensity of GSK3ß and decrease in PI3K and mtCox-1 in brain areas associated with limbic system in ICV-STZ group on 60th day.

Conclusion: These findings suggest progressive dementia and anxiety in 3mg/kg STZ treated rats, which may be due to hippocampal atrophy, amyloidopathy, ventricular enlargement, synaptic dysfunction and deficits in energy homeostasis of brain.



Anticholinergic prescribing habits and its associations in a community population of people living with dementia

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Introduction: Many commonly prescribed medications have inadvertent anticholinergic effects. People with Dementia (PwD) are more vulnerable to these effects and at risk of adverse outcomes, the risk being higher with a greater degree of anticholinergic exposure. We investigated prescribing patterns and Anticholinergic burden (ACB) in a cohort of community-dwelling older adults with dementia and aimed to explore the effect of ACB on cognition, mood, and quality of life(QoL).

Method: The medication and demographic information for 87 (39 female) community-dwelling PwD were obtained from Electronic Care Summaries. We used the German Anticholinergic Burden Scale (GABS) to measure ACB. Additionally, we investigated associations between ACB and cognitive (ADAS-Cog), functional (BADL) and QoL (DemQoL) assessments.

Results: 28.7% of participants had a clinically significant score (ACB> 2). The most commonly prescribed medications with ACB were Lansoprazole(18.3%), Mirtazapine(12.6%), Codeine(12.6%), Levodopa(11.5%) and Furosemide(10.3%). 11.5% of PwD were on medication with an ACB = 3. The most prescribed medication with the maximal GABs score (ACB=3) was Amitriptyline (8%). ACB was negatively correlated with age, r(87)=-.21, p = .03. Initial analysis suggests that there was no association between self-reported QoL, gender or time since diagnosis. However, higher ACB was correlated to worse cognition (ADAS-Cog), r(29) = -.39, p=.02, higher dependency, r(14)=.56, p=.02 and lower carer perceived QoL, r(39)=-.31, p = .03.

Conclusion: A third of PwD in the community had clinically significant ACB. Initial analysis suggested higher ACB was associated with worse cognition, higher dependence, and perceived lower QoL. Despite increasing awareness of the adverse outcomes associated with ACB, our study suggests significant scope for improvement. Community prescribers should consider regular medication reviews with PWD and those involved in their care to ensure medications are prescribed safely and appropriately.



Novel approaches to post discharge care. Remote healthcare monitoring systems following traumatic brain injury in older adults

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Introduction: Major trauma including Traumatic Brain Injury (TBI) is an increasingly common cause of hospitalisation in older adults (OAs). We studied post-discharge recovery from TBI using a remote healthcare monitoring system that captures data on activity and sleep. We aim to assess the feasibility and acceptability of this technology to monitor recovery at home following a significant acute health event in OAs.

Methods: We installed Minder, a remote healthcare monitoring system, in recently discharged patients >60 years with moderate-severe TBI. We present descriptive analyses of post-discharge recovery for two males, corroborating data from Minder against verified activities and events. We recorded semi-structured interviews assessing acceptability. Both participants have similar household set-up, multimorbidity profiles and clinical frailty scores; however, one participant has prior cognitive impairment (PAT1), and one does not (PAT2).

Results: We present 10 weeks of sleep and activity data from Minder and feedback from interviews. Data observed from PAT1 revealed habitual patterns of activity and sleep. These remained stable, despite discrete clinical events. Conversely, PAT2's data revealed irregular sleep patterns that became increasingly fragmented. Activity was detected in multiple rooms throughout the house at night, consistent with carer reports of night-time wandering. Increased overnight activity coincided with multiple falls, prompting increased care provision. Initial feedback from interviews was the technology helped participants and those involved in their care feel supported.

Conclusions: As pressure on services mounts, novel approaches to post-discharge care are of increasing importance. Remote healthcare monitoring can provide high temporal resolution data offering 'real world' insights into the effects of significant health events in OAs. Our provisional results support our hypothesis that use of this technology is feasible and acceptable for frail, multimorbid participants and highlights the substantial potential of this technology to help clinicians improve community-based care and more effectively monitor interventions and chronic conditions.



Demographic and clinical presentation of hospitalised patients with SARS-COV-2 omicron variant

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Introduction: Objectives of this retrospective study were to describe clinical presentations and mortality outcome of hospitalised patients with COVID-19 omicron variant within two acute district general hospitals and to evaluate demographic factors associated with these presentations and mortality.

Methods: Data was obtained over a month in 2021-22 from a retrospective survey of all patients hospitalised and detected to have SARS-COV-2 omicron variant infection. The trust serves a diverse multi-ethnic inner-city population. Data included socio-demographic details, vaccination status, admitting specialty and mortality outcome. Patients were sub-divided into three groups; Group 1 were admitted with 'true' COVID pneumonitis; Group 2 were found to have 'incidental' COVID on admission screening; Group 3 were negative for COVID on admission but developed COVID >7days after admission.

Results: Of 553 patients, only 24.1%[133/553] were in Group 1; 322[58.2%] in Group 2; 98[17.7%] in Group 3. Patients with Group 1 and Group 3 were significantly older than those in Group 2 (p<0.001). 30% patients from BAME ethnicity had COVID pneumonitis compared to 19% from white ethnicity[p=0.002]. 20% patients were admitted within non-medical specialties i.e. surgical specialties, paediatrics and obstetrics. Of 36 requiring critical care, only 21 were in Group 1; 20/21[95%] of these were unvaccinated; 7/21 who died were all unvaccinated[100%]. This study showed that common COVID presentations included delirium, falls (and fractures), seizures, COPD, and antenatal problems. 13.7%[76/553] patients died; only 21 were in Group 1[27.6%]. Only 26 deaths were directly attributable to COVID; 4.7%[26/553] of all patients.

Discussion: This large multi-ethnic study has described clinical presentations and mortality of hospitalised patients with omicron. It has determined socio-demographic factors associated with these presentations including ethnicity and vaccination rates. The study useful information for future COVID studies examining outcomes and presentations of omicron and future COVID variants.



The prevalence of oral frailty and its association with dysphagia, frailty and formal care needs.

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Introduction: Oral frailty (OF), gradual loss of oral function combined associated with presbyphagia often in conjunction with cognitive and physical decline, has been recommended to be considered as a geriatric giant. DENTAL has been suggested as a possible screening tool for OF. We have looked at the prevalence of OF and its association with dysphagia, frailty and formal care, amongst people admitted acutely to the acute medical/frailty wards in our hospital.

Methods: OF, dysphagia and frailty were screened for as part of the routine clinical assessment of patients during the usual clinical ward round. Screening tools used were DENTAL for OF, Rockwood Score for frailty and 4QT for dysphagia. Age, sex comorbidities and the need for formal care was documented.

Results: 101 people were assessed over a 4-week period. Mean age was 84 years (65-99), 58 (57.4%) were female, 31(30.7%) were independent, 33 (32.6%) dementia, 57 (56.4%) frail, 54 (53.4%) had swallowing problems, and 34 (33.6%) OF. Of those with OF 97% had dysphagia, 88% were frail and 85% required formal care support (85%). OF was associated with dysphagia (p<0.0001), frailty (p<0.0001), formal care support (p<0.05) and dementia (p<0.05). There was an association between needing care and frailty (p<0.01).

Conclusions: OF is associated with dysphagia, frailty and the need for formal care. OF may result in poor oral health and contribute to dysphagia and frailty, conversely frailty and dysphagia may result in poor oral health due to dependency and poor nutrition and dehydration. The associations are most likely be bidirectional. Further work is required to elucidate this. Clinical staff need to be aware of OF and oral health and include oral screening in their clinical assessment of an older adult.



Supporting safe swallowing of care home residents with dysphagia: how does care compare with guidance?

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Introduction: Dysphagia affects up to 70% of nursing home residents, causes significant morbidity and increased hospital admissions. Speech and language therapists (SLT) make recommendations to reduce the risk of aspiration and support safe eating and drinking but have limited capacity to offer ongoing guidance to care home staff. This study aimed to measure the mealtime experience of residents with dysphagia, how this compared with SLT advice and what factors influenced care.

Methods: The safety of nutrition/hydration care of residents with dysphagia in 2 care homes was observed using a structured tool capturing 12 elements of expected practice. Observed practice was compared to recommendations in SLT/care-plans. Interviews with staff aimed to understand factors that contributed to how dysphagia care was delivered.

Results: SLT recommendations for 18 residents with dysphagia were predominantly focused on food/fluid modification, other safe swallowing strategies were mentioned less frequently. 66 episodes of mealtime care for 11 residents were observed. Adherence to SLT/care-plan recommendations for food texture, posture and alertness of the resident was observed on 90% of occasions, but on less than 60% of occasions for alternating food and drink, prompting resident during feeding, ensuring swallow completed and throat/mouth clear. Compliance with recommended fluid thickness was 68%; thickening was frequently not aligned to required IDDSI level. Nutrition care was less safe when residents were fed in the dining room when multiple care staff were present. Interviews with 11 care home staff found care-plans were rarely consulted, care needs were communicated verbally during handover, and training was targeted at fluid modification but not at other safer swallowing strategies. Limited knowledge about causes of coughing whilst eating/drinking drove inappropriate SLT referrals.

Conclusions: A safe swallowing culture that addresses system and workforce issues in care homes would improve the experience of residents with dysphagia and reduce their risk of aspiration.



Frailty prevalence and risk of sarcopenia in older heart failure (HF) inpatients

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Introduction: Both frailty and HF are common in the elderly population. Elderly HF patients have an increased risk of frailty and elderly frail patients are at a higher risk of developing HF. Frailty is an independent predictor of mortality in cardiovascular disease. Sarcopenia (defined as decreased muscle mass and muscle strength and/or performance) is also prevalent in HF patients and may progress to cardiac cachexia. HF may induce sarcopenia and sarcopenia may contribute to the poor prognosis of HF.

Aims: • To assess the prevalence of frailty in older HF inpatients

• To determine the risk of sarcopenia in these patients

Methods: A cross-sectional, retrospective analysis of consecutive patients, 60 years and over, admitted with HF to a UK hospital. Data was manually extracted from anonymized electronic records. The Rockwood Clinical Frailty Scale (CFS) was used for assessment for frailty and the SARC-F tool was used for screening for sarcopenia. Patients with medical history of HF but did not present with decompensated HF were excluded. Also, patients with incomplete data were excluded. The IBM SPSS 28 statistical package was used for statistical analysis. Descriptive statistics and risk estimates were calculated.

Results: 163 patients were analysed; 82 males and 81 females. The mean age was 81.4 years (SD 9.69). 71.5 % of patients were frail while 28.5 % were non-frail. The risk of sarcopenia was 10.9 times greater in the frail than in the non-frail patients (OR = 10.9; 95% C.I 4.85 - 24.67). There was a lower risk of sarcopenia in male patients than in the female patients (OR = 0.45; 95% C.I 0.22 - 0.94).

Conclusions: Frailty is prevalent in older heart failure inpatients. It significantly increases the risk of sarcopenia in these patients. Women are at higher risk of sarcopenia than men. More research is needed into frailty and sarcopenia in.



Can the Hospital Frailty Risk Score be Used to Predict Post-Operative Outcomes in Spinal Surgery?

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Introduction: Frailty is a syndrome associated with increasing numbers of elderly hospital admissions and prolonged inpatient stays (*Archibald et al, Geriatrics, 2020, 20, 17*). In 2015, an estimated 14% of inpatients in the UK were considered to have a degree of frailty, representing an approximate annual cost to the NHS of £5.8 billion (*Soong et al, BMJ Open, 2015, 5, e008456; Han et al, Age and Aging, 2019, 48, 665-671*). Frailty is poorly defined; there are discrepancies in existing literature on how to best quantify frailty. It is recognised there is a higher risk of adverse outcomes in this vulnerable population due to lack of physiological reserve (*Clegg et al, The Lancet, 2013, 381, 752-762*). The Hospital Frailty Risk Score (HFRS) is a recent development to measure frailty and identify patients at risk (*Gilbert et al, The Lancet, 2018, 391, 1775-1782*). This study sought to establish whether the HFRS could be used in patients with degenerative spinal disease, undergoing decompression surgery, to predict post-operative outcomes.

Methods: A retrospective service evaluation of eligible patients in Leeds Teaching Hospitals Trust between March 2018 - March 2020. The exposure was the patients' HFRS; the outcome was the length of stay (LOS) until physiotherapy discharge. Data was sourced from electronic records.

Results: 214 patients were identified with an available HFRS value. Patients were categorised as low, intermediate or high frailty. Kruskal-Wallis test for LOS and categorical HFRS: X2 =8.673, p<0.05. The median HFRS value was 1.25 (interquartile range 0.00 to 3.35). Mann-Whitney U test for LOS and numerical HFRS: W=29297, p<0.05.

Conclusions: The results of this study complement pre-existing studies of similar natures, evaluating frailty scoring and post-operative outcomes, thus, supporting the potential for standardised use of HFRS alongside holistic patient examination to streamline pre-assessment, improve outcomes and reduce the NHS frailty burden.



The impact of acute healthcare utilisation on functional decline in older adults over time: A Population-Based Cohort Study

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Introduction: Acute healthcare use varies by age, with older adults the highest users of most acute healthcare services. International reports have highlighted increased use of Emergency Department (ED) services by older adults. Older adults who visit the ED may be admitted to hospital or discharged home and are vulnerable to adverse outcomes including cognitive decline, falls, readmission, mortality and hospital acquired limitations in activities of daily living. Using data from The Irish Longitudinal Study on Ageing (TILDA), the aim of this study was to investigate the impact of acute healthcare utilisation at baseline on subjective and objective measures of function at four-year follow-up in older adults.

Methods: This study represents a secondary analysis of a prospective cohort study where data from Wave 1 (baseline) and Wave 3 (four-year follow up) of TILDA were analysed in conjunction with a public and patient involvement group of older adults. Acute healthcare utilisation was defined as an ED visit with or without hospitalisation in the previous 12 months. Function was assessed objectively using Timed-Up-and Go (TUG) and grip strength and subjectively using self-report limitations in activities of daily living and instrumental activities of daily living.

Results: A total of 1516 participants met the study inclusion criteria. Mean age was 70.9 years (SD=4.6) and 48% were male. At baseline, 1280 participants reported no acute healthcare use. 118 indicated an ED visit but no hospitalisation in the previous twelve months and 118 reported both an ED visit and hospitalisation. Adjusting for all covariates, compared to those with no acute healthcare utilisation, those with an ED visit with no hospital admission had poorer TUG performance at follow up (β = 0.67, 95% CI: 0.34, 1.29, p=0.039).

Conclusion: The results of this study support a relationship between acute healthcare utilisation and functional decline assessed by TUG at follow-up.



Volunteer-led online group exercise for older adults: a feasibility and acceptability study

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Introduction: The health benefits of physical activity for older people are well recognised and include reduction in falls, improvement in frailty status and physical function. Nonetheless, physical inactivity remains a significant problem among older adults. This study aimed to determine the feasibility and acceptability of implementing online volunteer-led group exercise for community-dwelling older adults.

Methods: This pre-post mixed methods study was conducted among older adults attending community social clubs. Eligible participants were aged ≥ 65 years, able to walk independently, and able to provide written consent. The intervention consisted of a once weekly volunteer-led online group chair-based exercise. The primary outcomes were the feasibility and acceptability of the intervention. Secondary outcomes included physical activity levels measured using the Community Health Model Activities Program for Seniors (CHAMPS) questionnaire, functional status (Barthel Index), and health-related quality of life (EQ-5D-5L). Outcomes were measured at baseline and at 6 months. *Trials registration: NCT04672200*.

Results: Nineteen volunteers were recruited, 15 completed training and 9 were retained (mean age 68 years, 7 female). Thirty participants (mean age 77 years, 27 female) received the intervention and attended 54% (IQR 37-67) of exercise sessions. One minor adverse event was reported. Participants had no significant changes in secondary outcome measures, with a trend towards improvement in physical activity levels. The intervention was acceptable to volunteers, participants, and staff. The seated exercises were perceived as safe, manageable and enjoyable. Volunteers were relatable role models providing positive vicarious experiences that improved participants confidence to exercise within a friendly, non-judgmental environment. Technological issues, or reluctance to learn how to use technology were barriers to the intervention. The social interactions and sense of belonging motivated participation.

Conclusions: Trained volunteers can safely deliver online group exercise for community-dwelling older adults and the intervention was feasible and acceptable to older adults, volunteers and club staff.



Towards an understanding of the biological mechanisms of delirium using functional MRI: Pilot Study

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Introduction: Delirium is a common condition in older hospitalised patients causing high morbidity and mortality. The neurobiological basis for delirium is uncertain and, for numerous reasons, research in this area has been limited. Several recent studies have demonstrated that functional neuroimaging in delirium is achievable and has suggested that a brain region termed the default mode network (DMN), may play a cardinal role in delirium pathogenesis. We set out to develop a pilot study to demonstrate that it is feasible to undertake functional magnetic resonance imaging (fMRI) scans in older patients with acute delirium.

Methods: Observational pilot study obtaining a fMRI scan of inpatients in an Australian, tertiary hospital, geriatric ward. Eligible patients diagnosed as delirious by a geriatrician were compared against non-delirious controls. Informed consent was obtained. A novel scanning paradigm was developed. Sequences assed brain structure and functional networks in resting state and during a simple task of sustained attention and response inhibition.

Results: 11 participants have been scanned. 6 participants were delirious: mean age 81 years (range 77 – 85 years), 3 female. 5 participants were non-delirious: mean age 83.4years (range 79 -90 years), 2 female. 10 of the 11 participants completed the full imaging protocol, including task engagement. Head movement during scanning, was generally within acceptable limits. Data demonstrates considerable cortical atrophy and ventricular enlargement consistent with age. Preliminary fMRI analyses show a variable pattern of cortical recruitment during task engagement in delirious patients.

Conclusions: These findings show it is ethically and logistically feasible to engage elderly patients with acute delirium into a high end structural and functional imaging study.



Using the Supportive and Palliative Care Indicators Tool (SPICT) to prioritise frail inpatients for anticipatory care planning

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Introduction: Patients with frailty who have emergency admissions are at risk of mortality and may benefit from Anticipatory Care Planning (ACP). Appropriate identification, to target limited resource in an in-patient environment can be challenging. We conducted a prospective study on a cohort of frail in-patients with a hospital admission of \geq 72 hours duration. We aimed to evaluate the effectiveness of the SPICT tool alongside CFS as a predictor of mortality to improve our targeting of patients for ACP.

Method: On a single day a SPICT form was completed prospectively for each inpatient on 3 hospital inpatient wards (Complex Frailty Unit, General/Orthopaedic Rehabilitation, Step-Down Unit). Patients were deemed SPICT positive if they scored on ≥ 2 General Indicators and ≥ 2 Clinical Indicators. CFS was also recorded. Electronic records of this patient cohort were followed up for 9 months.

Results: Of 66 inpatients, 58 (87.9%) were aged \geq 65 years and had a CFS \geq 4. Mode CFS value = 6 (23 patients, 39.7%). 32 (55.2%) were SPICT positive; 26 (44.8%) SPICT negative. At 3 months follow-up SPICT had Positive Predictive Value (PPV) 40.6% and Negative Predictive Value (NPV) 84.6% for mortality. At 6 months PPV = 56.3%; NPV = 80.8%. At 9 months PPV = 59.4%; NPV = 76.9%. SPICT negative patients with CFS 6 had mortality risk of 14.3% at 3, 6 and 9 months follow-up respectively. SPICT positive patients with CFS 6 had mortality risks of 50% at 3 months and 62.5% at 6 and 9 months.

Conclusion: SPICT is a predictor of mortality in patients with frailty during unplanned admissions to hospital of \geq 72 hours duration. It is now used alongside CFS for all patients admitted to our Complex Frailty Unit, identifying patients most likely to benefit from inpatient ACP on discharge.



'Frailty as an adjective rather than a diagnosis' - The Identification of Frailty in Primary Care: a qualitative interview study

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Introduction: In 2017 NHS England introduced proactive identification of frailty into the General Practitioners (GPs) Contract. There is currently little information as to how this policy has been operationalised by front-line clinicians, their working understanding of frailty, or perceptions of impact on patient care. Evidence from international settings suggests primary care clinicians may have mixed interpretations of frailty, with important implications for their willingness to support different frailty interventions. We aimed to explore the conceptualisation of frailty, and how community-dwelling frail older adults are identified in primary care.

Methods: Semi-structured interviews were conducted with primary care staff across England, including GPs, physician associates, nurse practitioners, paramedics and pharmacists. Thematic analysis was facilitated through NVivo (Version 13).

Results: 31 practitioners participated (12 GPs, 19 non-GPs). Frailty was seen as difficult to define, with uncertainty in its value as a medical diagnosis. The most common working model was the frailty phenotype, associated with deterioration at end of life. There was a mixture of formal and informal processes for identifying frailty. A few practices had embedded population screening and structured reviews. Informal processes included use of 'housebound' as a proxy for frailty, identification through chronic disease and medication reviews, and holistic assessment through good continuity of care. Many clinicians described poor accuracy of the electronic Frailty Index, yet it was commonly used to grade frailty during protocolised chronic disease reviews. The Clinical Frailty Score, in contrast, was felt to be easy to use and interpret, but inconsistently recorded within electronic health records. Most clinicians favoured better tools for identifying frailty, alongside resources to support these individuals.

Conclusions: Concepts of frailty in primary care differ. Identification is predominantly ad-hoc, opportunistic and associated with terminal illness. A more cohesive approach to frailty, relevant to primary care, together with better diagnostic tools, may encourage wider recognition.



Recognition and management of acute functional decline: a qualitative interview study with UK care home staff

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Introduction: Older people living in care homes sometimes experience episodes of acute functional decline. These represent a diagnostic challenge to healthcare professionals and can result in antibiotic prescriptions or hospital admissions, though this may not always the most appropriate management strategy. We aimed to understand how episodes of acute functional decline are recognised, managed and escalated by care home staff in the UK.

Method: This was a qualitative interview study with UK care home staff, including managers, nurses and carers. Participants were recruited through advertisements circulated via email, social media and word of mouth. Semi-structured interviews were conducted over the phone between January 2021 and April 2022. Thematic analysis was facilitated by NVivo software.

Results: 25 care home staff were interviewed. Participants described feeling confident in recognising when residents were less well than usual, especially if they knew them well. However, they sometimes felt it was difficult to differentiate between an 'off day' and something more significant. Most participants talked about clear early communication amongst the team to flag a resident of concern. Initial management steps in the care home included checking clinical observations and doing a urine dipstick. Many participants talked about considering the underlying cause for deterioration. Some participants felt comfortable monitoring residents for a few days themselves or trying a simple intervention. Others preferred escalating directly to outside clinical support. Triggers for escalation included perceived severity of illness, gut feeling or failure to respond to initial supportive management.

Conclusions: These results highlight the skill base of care home staff. However, it has also helped to identify areas for additional support and training including the use and interpretation of the urine dipstick. The findings of this study are being used to inform the design of a feasibility prospective cohort study of UK care home residents.



Bereavement in the time of COVID-19: Learning from experiences of the bereaved

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Introduction: The COVID-19 pandemic has resulted in many people experiencing bereavement in challenging circumstances. In April 2020 at a large London Trust, a "Bereavement Welfare Hub" (BWH) was established to offer support and advice by telephone to relatives and carers of all adults who died as inpatients. Data from these calls has been used to examine and learn from experiences of the bereaved at this time.

Methods: Data from BWH call records regarding 809 adults who died at the Trust in March - May 2020 were collated and analysed quantitatively. A random selection of 149 call records were examined using thematic analysis.

Results: 809 adults died at the Trust between March and May 2020. The mean age at death was 76 (SD=14) and 86% of deaths occurred on medical wards (outside intensive care). Bereavement calls were completed in 663 (82%) of cases. From analysis of call records, several themes that influenced the bereavement experience were identified. These included support from family and community, communication and contact with the dying person, support from bereavement services and ability to carry out usual rituals associated with dying.

Conclusions: Age is a significant risk factor for death from COVID-19 and the majority of deaths have occurred on medical wards. Improving hospital care of dying patients during the pandemic or at any time is relevant to geriatricians and other healthcare professionals working with older people. Our analysis identifies several factors which positively or negatively influenced the experiences of people bereaved during the first wave of COVID-19. From these findings, recommendations have been made which have the potential to improve the bereavement experience, particularly during the pandemic era.



1221 SP - Scientific Presentation - SP - PD (Parkinson's Disease)

A cross-sectional study exploring the treatment burden in people with Parkinson's and their caregivers

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Introduction: Treatment burden is the workload of healthcare and its impact on patient well-being and functioning. High treatment burden in other long-term conditions is associated with poor health outcomes. This study aimed to determine the extent and levels of treatment burden among people with Parkinson's (PwP) and their caregivers, and explore modifiable factors.

Methods: A cross-sectional survey using the Multimorbidity Treatment Burden Questionnaire (MTBQ) to measure treatment burden was conducted among adults (age >18 years) diagnosed with Parkinson's or self-identified caregivers of someone with Parkinson's. Factors associated with medium/high treatment burden levels on the MTBQ were analysed using logistic regression.

Results: 190 valid responses were received: 160 PwP (mean age = 68years, 52% female), 30 caregivers (mean age = 69years, 73% female) with or caring for PwP with all stages of Parkinson's severity (Hoehn and Yahr staging). Nearly half of PwP had frailty or multimorbidity. High treatment burden was reported by 21% of PwP and 50% of caregivers. Lifestyle changes was the most difficult aspect of treatment burden for both PwP and caregivers. Arranging appointments, seeing many healthcare professionals and taking multiple medications frequently contributed to the treatment burden reported by PwP and caregivers. Medium/high treatment burden was associated with PwP who were frail, had a higher number of non-motor symptoms, and took medications more than three times a day. Worsening Parkinson's severity and limited health literacy had increased odds of medium/high treatment burden levels in PwP. Female caregivers, those caring for someone with Parkinson's who experienced memory issues, and caregivers with poorer mental health well-being scores were associated with medium/high treatment burden.

Conclusions: PwP and caregivers experienced substantial treatment burden. Providing them support with enacting recommended lifestyle changes, streamlining healthcare appointments, addressing polypharmacy and frequency of medications, and improving health literacy may help reduce the treatment burden in Parkinson's.



1283 SP - Scientific Presentation - SP - Pharm (Pharmacology)

Medication-related Harm (MRH) in Older People after leaving Hospital - An Under-reported Egyptian Challenge

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Introduction: Ageing is associated with multimorbidity, polypharmacy and medication-related harm (MRH). A 2013 systematic review reported only one study of medication errors (MEs) in older Egyptian patients. Our study investigated MRH (adverse drug reactions (ADR), drug errors, and non-adherence) in older Egyptian adults after hospital-discharge.

Methods: Between 2018 and 2020, we recruited 400 Egyptian patients, aged ≥60 years on discharge from Geriatrics and Internal Medicine wards from 3 hospitals, and followed them up for 8 weeks. Study procedures adopted a modified PRIME trial methodology (1).

Results: The average age of study participants was 71 (range 60 to 93, SD +/- 6.29) years with 53% females. In the cohort of 325 patients completing follow up, MRH occurred in 99 patients (incidence of 30.5%), with 5 patients (5.1%) experiencing a fatal MRH. Almost two thirds (65.7%) of MRH events were secondary to ADRs, 2 % related to non-adherence, 18.2 % due to both ADR and non-adherence, and 14% related to MEs. Multivariate logistic regression analysis showed that non-adherence (p-value 0.000, OR- 95% CI: 36.029), inappropriate prescription using Beer's criteria (p 0.000, OR- 95% CI: 6.589), length of stay >7days (p 0.001, OR- 95% CI: 6.176), presence of Ischaemic Heart Disease (IHD) (p 0.000, OR- 95% CI: 5.695), Platelets count ≤ 245X 109/L (p 0.021, OR- 95% CI: 2.640), and dementia medications (p 0.017, OR- 95% CI: 4.616) were all significantly associated with MRH.

Conclusions: Medication-related harm in older Egyptian adults is common after hospital discharge. An integrated care pathway is required targeting high-risk older patients. References 1. Stevenson J, Parekh N, Ali K, et al. Protocol for a Prospective (P) study to develop a model to stratify the risk (RI) of medication (M) related harm in hospitalized elderly (E) patients in the UK (The PRIME study). BMC Geriatrics16, 22 (2016). https://doi.org/10.1186/s12877-016-0191-8



1207 SP - Scientific Presentation - SP - Psych (Psychiatry & Mental Health)

Exploring audio-recording in terminal illness- The Hospice Biographers model

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Introduction: The therapeutic benefits of narrative in terminally ill patients is widely studied and evidenced in the research literature. The Hospice Biographers are a charity offering a professional free service for end-of-life patients the opportunity to audio-record their life story in a memory stick and to keep copies for themselves and for their families. The objective of this qualitative study is to explore the experience of a group of people either recording or listening to an audio-biography.

Methods: Five semi-structured in-depth interviews with terminally ill adults who recorded an audio-biography and another interview with a family member were conducted virtually. Transcripts of the zoom interviews were coded using thematic analysis.

Results: Our findings showed that patients found talking to a trained audio-biographer provided a neutral, non-judgemental interlocutor. The biographer helped them reminisce in a guided conversation navigating their life stories in chronological order. The experience of planning for the recording varied from preparing a mind-map, to writing down some guide notes or no preparation at all. Patients reported a feeling of catharsis while telling their stories as well as being able to reflect on and analyse significant life events. However, it was challenging to convey difficult emotions whilst being mindful of how patients' life stories might be perceived by families. Although there was a degree of uncertainty about impact of the recording upon listeners, it was felt that leaving a voice-recorded account would still be informative and beneficial. A personal narrative could also provide a wider historical account of the relevant time period. Some individuals fed back that they would have valued the opportunity to edit their recording after listening and include a visual element.

Conclusions: Recording an audio-biography in terminal illness allows patients a space for reflection and provides a valued connection with immediate family members and future generations.



1100 SP - Scientific Presentation - SP - Stroke (Stroke)

Frailty, as assessed by the Rockwood clinical frailty score and 1-year outcomes following ischaemic stroke in a non-specialist UK Stroke Centre

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Introduction: Worldwide stroke is a leading cause of death. There is increasing awareness of the influence of frailty on outcomes following stroke, however, longer-term outcome studies are lacking.

Aim: Report impact of frailty on outcomes following an ischaemic stroke at a non-specialist UK stroke centre.

Methods: Frailty, using the Clinical Frailty Scale (CFS), was collected for all patients admitted in 2019, alongside age, co-morbidities, modified Rankin Score (mRS), National Institute of Health Stroke Scale (NIHSS), thrombolysis rates, length of hospital stay, discharge destination, improvement of NIHSS post thrombolysis and mortality up to 1 year. Area under the receiver operating characteristic curves (AUCs) were plotted for NIHSS, age, mRS and CFS to predict outcomes. Logistic regression was employed to assess independent predictors.

Results: 472 patients were included (median age 81 (IQR 70-87), 54% female). Median CFS was 4 (IQR 3-5); CFS was \geq 5 in 35% (n=178). 28-day mortality was 11% (n=54) 1-year mortality 21% (n=99) overall. Of those thrombolysed (n=83) there was no correlation between CFS and improvement in NIHSS. AUCs for 1-year mortality were: NIHSS 0.78 (95% CI 0.73-0.83), age 0.73 (0.68-0.78), CFS 0.71 (0.65-0.76) and mRS 0.68 (0.62-0.74). CFS, male gender, age, heart failure and arrival NIHSS were all independent predictors of 1-year mortality.

Conclusion: In this single-centre study frailty did not have a significant impact on length of stay/ discharge destination but it remained to be a useful predictor of short term and long term (1 year) mortality following admission with an ischaemic stroke. Frailty did not attenuate improvement in response to thrombolysis and did not appear to influence length of hospital stay. Further work could explore the impact of frailty on post stroke complications and response to thrombectomy.



1177 SP - Scientific Presentation - SP - Stroke (Stroke)

Socio-demographic and risk factor differences between TIA and TIA mimics

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Introduction: Diagnosis of Transient Ischaemic Attack [TIA] is important to minimise risk of future strokes. This retrospective descriptive study aimed to evaluate socio-demographic and risk factor differences between TIA and TIA 'mimics' in patients presenting to an inner-city neurovascular clinic.

Methods: Data was obtained over a 2-year period [2019-2020] for all new patients assessed in a consultant-provided daily week-day neurovascular service that serves a million multi-ethnic, population. Data collected included socio-demographic details, clinical risk factors, source of referral and final clinical diagnoses.

Results: Of 1764 patients, 39% [694] were diagnosed as TIA; 61% [1070] were TIA mimics with 40 distinct differential diagnoses. Compared to TIA mimics, TIA patients were older [mean(SD): 69.3(13.8) vs 59.7(16.1),p<0.001]; higher prevalence of TIA mimics in females vs males [66% vs 54%; p<0.001]. There were proportionately more patients with TIA mimics from Black and minority ethnic groups (401/610:66%) compared whites (669/1154:58%)[p=0.034]. Compared to TIA mimics, TIA patients had higher prevalence of hypertension [56% vs 40%,p<0.001], Diabetes [22% vs 14%,p<0.001], Atrial Fibrillation [10% vs 4%,p<0.001], Chronic Heart Disease [18% vs 9%,p<0.001] and moderate to severe carotid stenosis [5% vs 0.4%,p<0.001]. Prevalence of other risk factors in TIA patients included Patent Foramen Ovale [1.4%], Cardiolipin Antibodies [3.2%], and Thrombophilia [2.3%]. 14% of TIA patients had no identifiable risk factors.

Discussion: This large survey has described socio-demographic [age, gender and ethnicity] differences and prevalence of risk factors between TIA patients and TIA mimics. These differences may be useful in terms accurate diagnosis of TIA by experienced clinicians. This study provides valuable information for clinicians and researchers of stroke services in future.



1178 SP - Scientific Presentation - SP - Stroke (Stroke)

Retrospective survey of Differential Diagnoses in a Neurovascular Clinic

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Introduction: Diagnosis of Transient Ischaemic Attack [TIA] is important to minimise risk of future strokes. This retrospective descriptive study aimed to describe frequency of alternative diagnoses in a busy inner-city neurovascular clinic and evaluate processes of assessment and investigations of 'true' TIA patients.

Methods: Data was obtained over a 2-year period [2019-2020] for all new patients assessed in a busy consultant-provided daily week-day neurovascular service that serves a million multi-ethnic, population. Data collected included socio-demographic details, final clinical diagnoses, and process measures including speed of assessment and rate of neurological and cardiological investigations.

Results: Of 1764 patients, 39.3%[694] were diagnosed as TIA; 60.7%[1070] had 40 distinct differential diagnoses. Top ten diagnoses included migraine including ocular migraine[9.5%], Syncope[5.5%], Local Eye conditions (non-neurological)[5.3%], non-cervical radiculopathy[4.0%], Benign Paroxysmal Positional Vertigo[4.0%], Previous/Incidental Stroke[3.7%], Transient Global Amnesia[2.4%], Orthostatic Hypotension[1.8%], Non-migraine Headache syndromes[1.6%], Cervical Neuropathy[1.3%]. 10.9%[193] had no organic pathological diagnosis. For 694 TIA patients, 100% had neuroimaging[CT/MRI] and 98% had carotid dopplers on or before day of clinic. Non-urgent cardiovascular investigations performed included echocardiogram[83%], Holter monitoring[75%] and bubble echocardiogram[5%].

Discussion: This large survey has described the frequency of TIA and alternative diagnoses in a dedicated neurovascular service. The study highlights the importance of accurate diagnosis of TIA by experienced clinicians for appropriate secondary prevention. We also described the efficiency, and speed of assessment and proportion of investigations undertaken in these patients. This study provides valuable information to clinicians, researchers and commissioners of stroke services in future.



1196 SP - Scientific Presentation - SP- Planned and ongoing trials

FRailty and Arterial stiffness – the role of oXidative stress and Inflammation (FRAXI study)

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Introduction: There is an association between frailty and arterial stiffness. However, arterial stiffness does not uniformly correlate with the spectrum of frailty states. Both oxidative stress and inflammaging contribute to vascular aging. There are no human studies exploring links between arterial stiffness, oxidative stress, inflammaging and frailty. Our objective is to investigate arterial stiffness and inflammaging as predictors of frailty states.

Methods: An observational longitudinal cohort study will be used to examine the association between arterial stiffness, oxidative stress, and inflammation in 50 older adults (≥70 years) with clinical frailty scores (CFS) ≤6 over six months. All study measurements will be taken at baseline. Frailty assessment will include hand-grip strength, timed-up and go test, mini-mental state examination, geriatric depression scale and sarcopenia using body composition measurements with Tanita®. Arterial stiffness measurements will include carotid-femoral pulse wave velocity (cfPWV) and carotid-radial pulse wave velocity (crPWV) using Complior (Alam Medical, France). CAVI device will measure Cardio-ankle vascular index and ankle brachial index (ABI). Oxidative stress blood markers nitrotyrosine (NT) and 8-hydroxy-2′-deoxyguanosin (8-oxo-dG) and inflammation markers high-sensitive C-reactive protein (hs-CRP) and interlukin-6(IL-6) will be measured at baseline and 6-months along with lipid profile and glycated haemoglobin.

Data Analysis: Descriptive statistics for continuous data using means and standard deviations for normality distributed variables or medians and inter-quartile ranges for skewed variables will be used. Participants will be categorised into CFS 1-3, and CFS 4-6. Categorical data will use frequencies and comparison between groups. Change in frailty between the groups over 6 months will be compared using paired t-test. Simple linear regression will be done between frailty measures, arterial stiffness, inflammation, and oxidative stress biomarkers. Significance will be at p<0.5.

Conclusion: This study data will inform a larger, multi-centre study exploring further the interplay between frailty, biomarkers, and arterial stiffness parameters.

This study is funded by BGS



1285 SP - Scientific Presentation - SP- Planned and ongoing trials

Implementation of a medicine management plan to reduce medication-related harm in older people post-hospital discharge - an RCT

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Introduction: Medication-related harm (MRH) events are increasing among older adults especially in the 8-weeks after hospital discharge. The Discharge Medical Service (DMS), a UK initiative, aims to reduce post-discharge MRH. In this study, we will compare the clinical, economic, and service outcomes of the DMS.

Method: Using a randomised control trial design, 682 older adults ≥ 65years due for hospital-discharge will be recruited. Participants will be randomized to either intervention arm (medicine management plan (MMP) and DMS), or control arm (DMS only) using a 1:1 stratification. The MMP includes patient and carer education about MRH, copy of discharge medications, and MRH risk score calculated using a validated prediction tool (1). Data collection includes patient clinical and social demographics, and admission and discharge medications. At 8-weeks post discharge, study pharmacist will verify MRH through patient telephone interview, and review of patients' GP records.

Data Analysis: Univariate analysis will be done for baseline variables comparing the intervention and control arms. Variables known to be associated with MRH will be described by the randomisation groups. Further multivariate logistic regression will be done incorporating these variables. Economic evaluation will compare the cost-of-service use among the two arms and modelled to provide national estimates. Qualitative data from focus group interviews at participating hospital sites will explore practitioners' understanding and acceptance of the DMS and MMP.

Conclusion: This study will inform the use of a validated MRH risk prediction tool, and provide a clinical, and economic evaluation of the DMS and MMP in the NHS. The study has ethics approval and is adopted in the national ageing research portfolio. We are seeking additional sites.

Reference: 1. Parekh N, Ali K, Davies JG, et al. Medication-related harm in older adults following hospital discharge: development and validation of a prediction tool. BMJ Quality & Safety 2020; 29:142-153.



1322 SP - Scientific Presentation - SP- Planned and ongoing trials

Development of a Core Outcome Set for nutritional intervention studies in older adults with malnutrition and those at risk

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Background: Malnutrition (i.e., protein-energy malnutrition) in older adults is associated with significant complications and increased mortality, highlighting the need for effective treatments. Many randomized controlled trials (RCTs) testing the effectiveness of nutritional interventions for the treatment of malnutrition showed mixed results and there is a need for meta-analyses. However, evidence synthesis is hampered by the wide variety of outcomes and assessment methods in RCTs. This project, led by EuGMS Special Interest Group Nutrition, aims to develop a Core Outcome Set (COS) for nutritional intervention studies in older adults with malnutrition and those at risk.

Methods: The project consists of five phases: 1) a scoping review (completed) to identify frequently used outcomes in published RCTs and select additional patient-reported outcome measures (PROMs). Patient and Public Involvement (PPI) representatives have been involved to provide feedback on the proposed list of outcomes resulting from the review and PROMs; 2) a modified Delphi Survey whereby experienced researchers and health care professionals working in the field of malnutrition in older adults will be invited to rate the importance of the proposed outcomes; 3) a consensus meeting to discuss and agree what critical outcomes need to be included in the COS; 4) a systematic review to determine how each COS outcome should be measured and a second consensus meeting; 5) a dissemination and implementation phase.

Conclusions: The result of this project will be a COS that should be included in any RCT testing the effectiveness of interventions to tackle malnutrition in older people as a minimum. This COS will facilitate comparison of RCT results, will promote efficient use of research resources and might reduce bias in measurement of the outcome and publication bias. Ultimately, the COS will support clinical decision making by identifying the most effective approaches for treating and preventing malnutrition in older adults.



1088. A Quality Improvement Project to Improve End of Life Care Documentation on a Care of the Elderly Ward

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Introduction: The National End of Life Care Strategy highlighted the need for individualised care plans accessible to the multi-disciplinary team. Care planning tools have been shown to improve documentation, with proformas providing a systematic approach to recording EOL discussions. Our initial staff survey highlighted a lack of familiarity with required EOLC documentation. We aimed to increase awareness of existing documentation proformas and to improve EOLC documentation on an elderly care ward.

Methods: A Driver Diagram increased understanding of the principles underlying excellent EOLC and aided development of change ideas. The Model for Improvement allowed identification of measurable aims. 20 patient notes were reviewed fortnightly, including patients who had died since the previous intervention.

Results: Three PDSA cycles were completed, changes were measured by evaluating patient documentation. The first PDSA cycle involved providing training to nursing colleagues. Step-by-step teaching on the use of Cerner EOL documentation demonstrated a 15% increase in completed care plans. The second cycle (placing posters around the ward) - detailing how to access and document care plans resulted in a 5% increase. The third cycle (25% improvement) involved education sessions for ward doctors.

Conclusions: Comprehensive documentation is key to ensuring good EOLC, as it enables continuity of care and improves MDT communication. Withdrawal of the Liverpool Care Pathway resulted in a need for individualised care plans. Active interventions including face-to-face teaching were more effective than passive (posters) in improving documentation. Limitations included small sample sizing, likely due to a lack of engagement with questionnaires and inclusion criteria. Only documentation of deceased patients was analysed, excluding patients discharged home or transferred to hospice. We aim to extend to other elderly care wards and to integrate documentation training into junior doctor induction. A review of existing EOL proformas and their ease of access may also be considered.



1156. Clinical Quality - CQ - Clinical Effectiveness

Improving Recognition of Polypharmacy and Addressing Inappropriate Prescribing on a Care of the Elderly Ward

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Introduction: Polypharmacy is an increasing concern in medicine which will lead to prescribing errors, serious drug interactions and potentially inappropriate prescribing.

Aim: To improve recognition of 'Polypharmacy', routine medication reviews during patient admissions and better communication and awareness of 'Polypharmacy' to General Practitioners (GP).

Methods: This audit consisted of two cycles both performed over 6 weeks.

Inclusion criteria: patients aged 65 < and on 6 < medications, admitted to Elderly Care ward at Chelsea and Westminster hospital. Interventions after the first cycle included education such as encouragement of clear documentation in medical record and GP summary, introduction of medication reviews as part of ward round, collaborative work with pharmacists. Potentially Inappropriate Medications (PIMS) were assessed using the STOPP/START criteria approved by NICE guidelines for review of medication regimes and highlighting PIMS.

Results: First cycle - 30 patients were recruited with an average age of 79.2 (13 males and 17 females). An average number of PIMS at the time of admission was 1.3 and 0.5 on discharge. Only 1/30 (3.3%) has 'Polypharmacy' documented and medication reviewed; Medications Reconciliation was 29/30 (96.7%). None of the patient has documentation for Polypharmacy.

Second cycle - 29 patients were recruited with and average age of 80.1. (7 males and 22 females). PIMs on admission was 1.4 and 0.3 on discharge. 25/29 (86.2%) patients had 'Polypharmacy being documented and Medication review for 29/29(100%). Medication Reconciliation was 29/29(100%). Most Common PIMS across both cycles were statins, antihypertensive and Proton Pump Inhibitor.

Conclusion: The interventions complete improved significantly the awareness of Polypharmacy. There is a significant increment in number of medication review of 96.7% and 82.9% on documentation for 'Polypharmacy', and 20% reductions in PIMS on discharge.



1173. Clinical Quality - CQ - Clinical Effectiveness

Most hip fracture patients report moderate to severe problems with function at discharge despite recommended physiotherapy input

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Method: Twenty-two hip fracture patients completed questionnaires containing PROMs regarding mobility, function, pain and anxiety at time of acute admission (reflecting pre-morbid level), and at point of discharge from the acute setting. Inclusion criteria were aged 60+ without cognitive impairment (AMTS > 9/10) who underwent surgical management of an isolated hip fracture and consented to complete the questionnaire. Participant characteristics were median age 77 (IQR 10.5), 55% male, median New Mobility Score 9/9 (IQR 2) and ASA 3 (IQR 1). Median length of stay was 8.5 (IQR 9.75) post-operative days. 100% of patients received physiotherapy at a level equal to or greater than that recommended in the CSP hip fracture standards (2018) with mean physiotherapy session time in first 7 days equating to 4.75 hours (S.D 1.95) compared to recommended 2+ hours.

Results: 77% of patients reported moderate or severe problems with mobility at discharge on the EQ-5D, whilst 43% of participants reported being unable to complete their usual activities at discharge and an additional 52% having moderate or severe difficulties completing these activities. 22% of patients reported their anxiety to be between moderate and extreme on the EQ-5D at the point of discharge. Median pain when walking on the VAS was 3.5 at discharge (IQR 2.75) compared to 0 (IQR 1.5) prior to fracture.

Conclusion: Despite this high intensity of post-operative physiotherapy input in the acute setting, hip fracture patients continue to experience significant difficulties with mobility, usual activities, pain and anxiety at discharge from the acute setting. This project highlights the importance of both rehabilitation and expectation management with patients regarding hip fracture recovery, and also reinforces the need for further research regarding the ideal dosage and timing for rehabilitation following hip fracture surgery.



Assessment of Discharge Destination Following Short-Term Delirium Placement

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Introduction: "Pathway three delirium" is a short-term placement in a care home specific to North Yorkshire, for patients diagnosed with delirium during hospital admission, who are medically fit but have not recovered cognitively enough for discharge home. The goal is to allow extra time to recover from delirium, to allow return to patients' own homes. At this placement, patients are followed up by the acute hospital liaison team.

Aims: To assess final discharge destinations after pathway three delirium placement. To analyse characteristics between discharge groups.

Methods: We analysed electronic records of patients on this pathway between August 2020 and November 2021. Data was gathered on age, gender, prior cognitive impairment, visual impairment, hearing impairment, living alone, requiring package of care, and alcohol misuse.

Results: 64 patients were included, 39 females (61%), 25 males (39%), average age of 83.7 years. 20 (31%) were discharged home, 26 (41%) remained in residential or nursing homes, 10 (16%) were readmitted to hospital, 8 (12%) discharge location was unknown or "other". Average age of those discharged home was 82.65yo, those discharged to residential/nursing homes: 83.88yo, and those readmitted: 85.8yo. 80% of those discharged home were women, compared to 61% of the total group and 50% of those who remained in nursing/residential care. The discharged home group contained 80% patients who lived alone, versus 58% in the residential/nursing home group, and 30% in readmitted. 25% of the home group had a care package pre-admission: versus 46% in the residential/nursing home group, and 38% across all groups. Cognitive impairment, sensory impairment and alcohol intake showed no apparent difference across destination.

Conclusions: These findings show that this short-term delirium placement enables some patients to return to their own home. Analysis suggests that younger patients, women and those with apparently less social support were more likely to go home.



Quality Improvement Project on Medical Discharge Letters

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Introduction: The aim of this quality improvement project was to assess the medical discharge letters written by medical colleagues at this trust against the guidelines set by the Royal College of Physicians. The target was to achieve at least 90% compliance across the components evaluated at the end of this project.

Method: This quality improvement project evaluated medical discharge letters from three medical wards. Following the application of filtering criteria, a sample size of approximately 20 patients was randomly selected for data collection. Sections that were evaluated in the discharge letter included areas of clinical summary information, investigative results, medication changes, follow-ups and GP actions. Information obtained from the letters were reported as 'yes', 'no' or 'non-applicable' on an Excel spreadsheet. Data collected was analysed and areas of strengths and weaknesses were identified. They were used to form action plans, following which the cycle of evaluation was repeated.

Results: Two cycles were carried out in this project. Issues were identified in the sections of clinical summary, documentation of blood results, medication changes and their indication, and follow-ups. Action plans such as education (leaflet, emails and education session), introduction of a discharge letter checklist and acronym expansion were used. By the end of the third round of data collection, all components achieved at least 90% compliance, with the exception of changes in regular medications and differentiation of follow-ups into booked and those which needed booking.

Conclusion: This project has resulted in an increase in adherence to the standards set by the College when completing medical discharge letters. Periodic evaluation will be beneficial to ensure that a high standard of compliance is consistently achieved. Sample size could be increased to improve the significance of evaluation. This study can be expanded to other specialties to increase coverage.



Laxative prescription for opioid induced constipation in geriatric patients with hip fractures: a 2-cycle audit

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Background: Elderly patients presenting with surgical complaints including hip fractures are likely to require opioid analysics but are more likely to suffer adverse events such as constipation. Constipation itself can cause additional pain, delirium, and bowel obstruction [1,2] and therefore can increase length of stay. National guidance has championed the use of opioid receptor antagonist for opioid induced constipation [3] and are being explored by this trust.

Objective: Cycle 1: To assess the use of and compliance of laxative prescription for geriatric patients admitted with hip fractures and the impact constipation had on developing additional complications and length of stay. Cycle 2: Introduction of PAMORA - opioid receptor antagonists including Naloxegol 25mg OD/Naldemidine to reduce negatively associated outcomes of constipation within this population.

Methods: A prospective quality improvement project was conducted in the orthogeriatric department of a busy DGH. A search for trust guidelines was conducted to obtain an audit standard which included laxative regime and continence aims. Data was collected included the laxative regime prescribed, the length of time before bowels opened and documented constipation related side effects. Results: Data was collected from 30 patients in the projects first cycle and 22 from the second. The mean number of days until bowels opened was reduced in the second cycle compared to the first with the addition of Naldemedine (mean 3.29 days vs 4 days).

Conclusion: Recommendations from 2-cycle audit: consider incorporating the use of Naldemedine for initial laxative therapy in geriatric patients with hip fractures into trust guidelines.

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A teaching programme to improve rates of delirium screening on the medical take

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Introduction: NICE Clinical Guideline CG103 states that adults aged 65 and older should be screened for delirium within 48 hours of emergency hospital admission. The Geriatric Medicine Research Collaborative (GeMRC)'s World Delirium Day data from 2019 showed an average screening rate of 27% nationally. After an inpatient fall on the Medical Assessment Unit resulted in hip fracture for a patient who had not been screened for delirium with the recommended 4 A's Test (4AT), we decided to collect data on screening rates and devised a way of improving these.

Method: Baseline data was collected examining patient notes of adults over 65 years currently on the Medical Assessment Unit who had been seen by a doctor. The intervention was a teaching session on delirium for the junior doctors on the ward, focusing on the adverse prognostic features of delirium and importance of clear diagnosis with onward communication to the patient's GP. Repeat data collection was done following this.

Results: 55% of all patients on the ward throughout data collection were over 65 years of age. A total of 79 patient notes were examined. The baseline rate of delirium screening with a completed 4AT pre-intervention was 25%. Post-intervention this increased to 41.3%. Without further education this fell to 26.9%. Most of the unscreened patients showed incomplete 4ATs or only the Abbreviated Mental Test (AMT) section completed.

Conclusion: Integrating delirium teaching into departmental teaching on Acute Medical Units can increase the rates at which delirium is diagnosed, which is important for the patient's clinical trajectory and prognosis, both for their inpatient stay and long term. Further work is required to show sustained improvement. Future work may include assessing the rate of documented diagnosis out of those who clinically fit the criteria.



Improving Initial Screening, Investigation and Intervention of Bone Health in a Day Rehabilitation Unit

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Topic: We identified a deficiency in the identification and treatment of bone health in the Day Rehabilitation Unit. DRU is an Out-patient clinic where older people with falls or reduced mobility receive comprehensive geriatric assessment. We aimed to improve early screening for osteoporosis, prompting targeted investigation and intervention to improve patient outcomes.

Intervention: Our first intervention was consultant teaching specifically to the junior doctors working in clinic. This was followed up by the introduction of a Medical Assessment Proforma to include osteoporosis risk assessment. Finally, we had departmental wide teaching on bone health assessment. We hypothesised that a combination of clinical education and prompts in the proforma would improve our practice. A total of 205 patients where audited across an 18-month period from Sept 20 to Feb 22. We reviewed the electronic care record of patients seen in clinic to determine if bone health had been considered. A spreadsheet was designed in accordance with the NICE¹ guidelines to record data. This included what supplements were prescribed, if a FRAX score had been recorded and the outcome of this.

Improvement: We noted an improvement in supplements prescribed (from 27% to 83%), FRAX score recorded (from 0% to 100%). Routine bloods including serum calcium remained unchanged (100%). Recording of Rockwood score also saw an improvement (from 0% to 49%).

Discussion: Increased use of a structured screening tool, supported by targeted education improves recognition and intervention of bone health. 54% of people who had a FRAX score done required a DEXA as per guidelines, of these 26% have osteoporosis. This early intervention helps to prevent osteoporotic fractures, therefore improving the quality of life of our elderly population.

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A quality improvement project to improve the monitoring of fluid intake on older persons' wards.

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Introduction: Dehydration is the most common fluid and electrolyte imbalance in older adults; hospitalised older adults with markers of dehydration have mortality rates of 45% (Hodgkinson B et al, 2003). The current method of measuring fluid intake on wards is to record this hourly on fluid balance charts however this is often poorly documented (Jeyapala S et al, 2015). We wished to improve the accuracy of recording the oral fluid intake of older adults by introducing a simplified bedside chart which could identify those at risk of dehydration.

Methods: Using PDSA methodology, a team of doctors directly observed and recorded the oral fluid intake of patients in a 6-bed bay on an older persons' ward for 8 continuous hours. The collected data was compared to that recorded on pre-existing fluid balance charts. A new bedside fluid intake chart was then introduced; this laminated chart included example volumes of common drink receptacles and used 'ticks' to record each time fluid was consumed. A repeat PDSA cycle was performed with a second observation day. Guided interview qualitative methodology was used to obtain feedback from nursing staff.

Results: The mean difference in observed fluid intake versus charted fluid intake prior to intervention was 287.50ml (SD = 152.27, n = 6) and 95ml post intervention (SD = 94.21, n = 5). Analysis with an unpaired two sample t-test demonstrated a significant difference (p = 0.03). Qualitative feedback from nursing staff reported it to be easier to use and more likely to be correctly completed.

Conclusion: The redesigned fluid intake chart led to statistically significant improvements in the accuracy of recording fluid intake. A further PDSA cycle across a whole ward will inform feasibility on a larger scale of early identification of dehydration. The tool may also allow assessment of the effectiveness of hydration aids.



Improving Heart Failure Management within Hospital at Home

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Introduction: Heart failure (HF) is a common problem managed in our West Lothian multidisciplinary hospital at home (HaH) service, however significant variation in practice was noted with considerable resource implications. We aimed to standardise and improve this by developing a dedicated protocol.

Methods: We developed a protocol to guide the assessment and management of HF within HaH. We collected baseline (n=25) and follow-up data (n=10) after protocol introduction from patients referred to HaH with heart failure. Outcomes reviewed included anticipatory care planning (ACP) decisions, length of stay (LOS) and treatment strategy. We held staff education sessions and surveyed staff confidence regarding HF management.

Results: ACP discussion rates improved after protocol introduction, with decision rates improving for both escalation of care (28% to 80%) and resuscitation (44% to 60%). LOS reduced after protocol introduction (mean 6.3 days to 5.9 days). Titration of oral diuretics alone (71%) was associated with a shorter LOS (mean 5.4 days) compared to IV (29%, mean 8.1 days), with no difference in 28 day outcome. In those with HF with reduced ejection fraction, the rates of beta-blocker prescription increased (57% to 80%) however ACE-inhibitor prescription decreased (29% to 20%). Use of add-on therapy (e.g. thiazide diuretics) increased (12% to 30%) with a decrease in complication rates (12% to 0%). All staff found the protocol helpful with an improvement in confidence levels.

Conclusions: Through introducing a standardised protocol, we observed an improvement in anticipatory care discussion rates and a trend towards shorter LOS. Oral diuretic titration was less resource intensive without an adverse impact on outcome. Future plans include ongoing education and data collection, trialling a joint multi-disciplinary meeting with cardiology for discussion of complex patients and embedding a treatment strategy of oral diuretic titration with a 'discharge with planned review' approach in appropriate patients.



Improving compliance with NICE guidance of cervical spine imaging when older patients present with traumatic brain injury

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Background: Our ageing population has resulted in a higher incidence of traumatic injury in older patients, both in absolute numbers and as a percentage of national trauma admissions. Low level falls (<2 meters) are now the leading cause of major trauma in the UK¹. Head injuries, often associated with neck injuries, can be fatal or cause significant disability. A CT cervical spine scan will facilitate timely, appropriate intervention and improve outcomes for these patients².

Objective: To promote the following of NICE guidance (Head injury: CG176) with regard to CT scanning of cervical spine in patients ≥ 65 undergoing head scanning when presenting with head injury.

Method: An adult trauma clerking proforma was devised to streamline the assessment and management of trauma patients presenting to our hospital. Cervical spine imaging was agreed with Radiology for patients ≥ 65 undergoing head scanning for trauma. Whilst auditing the proforma, we assessed the number of CT cervical spines performed as per our guideline. Retrospective data was collected from medical notes for 20 patients aged ≥ 65 admitted with head injury under general surgery in 2019. Poor adherence resulted in pathway re-evaluation and engagement with A&E, Surgery and Radiology. With A&E we created a first contact head injury pathway, including a section for CT cervical spine. Re-audit was then conducted using retrospective data between 01/12/2019 and 31/01/2021.

Results: The first audit found 8/20 (40%) of head injury patients admitted had a CT cervical spine performed in 2019. The re-audit confirmed an improvement to 13/15(87%).

Conclusion: Change in practice and culture change is challenging, particularly when multidisciplinary engagement is required. However, by engaging with another department in the patient pathway a successful outcome was achieved. A simple intervention resulted in a marked improvement in compliance with NICE guidelines.

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A novel Pressure Injury Care Bundle for dependent patients with pressure injuries in Bermuda.

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Introduction: Pressure injury (PI) management is a challenge in dependent patients in acute care wards (ACW) despite standard care (regular pressure relief measures, incontinence management, debridement, optimisation of hydration and nutrition).

Method: A Pressure Injury Care Bundle (PICB), introduced by the Department of Geriatrics, enhanced standard care by diligent and regular interdisciplinary team monitoring of patients with PIs following transfer to Long Term Care (LTC) wards and thus may improve outcomes. The PICB was delivered by multiple PI Nurse Champions with education of all nurse assistants and medical staff into PI aetiology/management. Progress was monitored with weekly PI measurements/photography and Nurse Champion-lead team review of all PIs. Data are presented as mean+/-1SD. After 96+/-103 days in the ACW, the PICB was applied to 30 consecutive patients aged 80+/-14 years, (19(60 %) were female). All had stage 2-4 PIs (present in 25(83%) on admission to ACW). On transfer to LTC wards, all patients had severe physical dependency with a mean Charlson Comorbidity Index of 7+/-3, 27(90%) had palliative needs and 24(80%) were bedfast. Cognitive impairment was present in 22(68%) patients with 12(37%) dying due to advanced dementia. Patients were followed for 116+/-274 days.

Results: PI improvement by >2 stages occurred in 11(36%) patients after a mean of 103 days. Ulcers closed fully after 154+/-48 days in a further 15(50 %) patients. However, new ulcers emerged or preterminal (<21 days prior to death) deterioration occurred in 5(17%) patients, related to severe contractures, preterminal poor nutrition and sarcopenia with 16(54%) patients dying.

Conclusion: These results suggest that an intensive multimodal intervention involving best practice enhanced by PI Nurse Champions and delivered by educated staff with regular PI team progress reviews results in significant improvement/healing of PIs in severely dependent patients with palliative needs. Expansion of the PICB to other wards with prospective evaluation has been planned.



The Value of a multidisciplinary team (MDT) in managing patients with complex or unexplained syncope

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Introduction: Syncope is a common clinical problem with a lifetime prevalence of 20%. Syncope shares clinical features with other disorders including seizures, metabolic disturbances and sleep disorders. The assessment and management of syncope can be challenging. The syncope service at the QEUH is run by geriatricians and cardiologists with an interest in syncope. Although MDTs are recognised key components in contemporary patient care in areas such as heart failure and cancer management, there is no guidance on MDT working in syncope management. In November 2017, a syncope MDT was introduced at the QEUH involving cardiologists, geriatricians, a neurologist and cardiac physiologists. This in-person MDT occurs monthly with outcomes recorded on electronic medical records in addition to a database. The aim of this review was to understand the potential impact of the MDT on diagnostic yield and time to further investigation or management.

Method: A retrospective case note analysis was performed for patients reviewed at the Syncope MDT between November 2017 and December 2021.

Results: 103 patients were discussed with an average age of 64 years. The main reason for referral was cardiology specialist advice (65%), neurology specialist advice (19.4%) and complex case review (13.6%). After MDT discussion, the percentage of patients with unexplained TLoC reduced from 26.2% to 14.6% without requirement for additional investigations. 8.7% of patients were started on anti-epileptic medication prior to outpatient neurology review after a diagnosis of seizure disorder was established and 23.1% of patients were streamlined for pacemaker or ILR insertion.

Conclusion: Introduction of a syncope MDT reduces unexplained syncope rates in complex patients, streamlines investigations, reduces the need for multi-speciality outpatient reviews and allows earlier introduction of anti-epileptic medication for those with a new seizure disorder. These benefits improve the patient experience by reducing time to diagnosis and treatment.



Can P1NP levels influence management planning for patients with a fragility hip fracture receiving anti-resorptive medications?

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Introduction: Procollagen-N-terminal-peptide(P1NP) is a bone formation marker. Bisphosphonates lead to a reduction in P1NP levels and levels are significantly elevated shortly after fracture. In older patients taking bisphosphonates who have had a further osteoporotic fracture there is a lack of evidence to guide ongoing osteoporotic management.

Objectives: To assess if measuring P1NP in patients receiving Bisphosphonates treatment who develop neck of femur fractures helps guide further management in regards to long term bone protection treatment.

Method: Retrospective descriptive cohort study of P1NP levels for the patients who presented with NOF# (>60yrs) and who were taking anti-resorptive medications. Cases were discussed in our complex bone health MDM and patient specific plans made accordingly.

Results: 60 patients were identified between March 2017 and Sept 2021 had P1NP tested (2.6 % of the 2,303 total fractures in this time). Mean age 83 years (F:M - 54:6 / # type - IC:EC - 34:26). Overall: 17(28%) patients had significantly elevated P1NP with identifiable reasons. 39(65%) patients had supressed P1NP levels (< 35mcg/L) and 5(7 %) between 36-39 mcg/L. Of those with supressed P1NP: Patients taking treatment >5 years(n=9) - Treatment stopped for 6 patients, 2 changed treatment following DXA and 1 continued. On treatment 3-5 years(n=8) - 5 continued with treatment, 1 had further ix and 2 treatments changed On treatment 1-3 years(n=17) - 14 continued treatment, 2 treatments stopped, 1 treatment changed On treatment <1 year(n=16) - all continued the same treatment

Conclusion: The measurement of P1NP has been helpful in making patient centred decisions in this cohort. It has added to the detailed discussions in the hip fracture bone health MDM and for 23% of patients with supressed bone turnover contributed to a change in management. Most changes occurred in those patients taking treatment for more than 5 years where the evidence of bone turnover suppression gives confidence to stop or change treatment.



Laxatives prescription monitoring for an overlooked problem

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Introduction: Constipation is a common diagnosis among hospitalized patients. It results in considerable morbidity in elderly patients, healthcare utilization and economic burden. Laxatives are commonly prescribed but poorly monitored due to benign side effect perception.

Aim: We undertook a review of the quality of laxative prescribing and subsequent monitoring amongst an inpatient cohort. We propose new standards:

- Medication review at least once weekly;
- Documented rationale for choice of medication
- Specified timeframe review and outcome documentation

We reviewed current hospital trust policy of laxative prescribing and produced a new constipation management guideline in response to early audit data.

Method: Data collected across medical wards in Trafford General Hospital, Manchester. Data was collected on types of laxatives, reason for prescription, date of review, length of course, compliance and effect of laxatives. Two rounds of audit were performed 6 months apart, with an interim intervention of staff education and local introduction of a new constipation management guideline. The guideline consisted of decision algorithm and suggested treatment.

Results: 47 individual prescriptions were audited in round 1 and 72 prescriptions in round 2, this represented 23 and 32 patients respectively. Review of medications within first week of prescription improved from 17% to 83.7% across the two cycles. Documentation of constipation diagnosis improved from 52.2% to 97.2%. There were large percentage improvements in documentation of specified treatment outcomes across all audited fields, despite overall poorer medication compliance among patients in round 2 (56.9% versus 66% in round 1). The average length of laxative use decreased from 18.6 days to 15.3 with overall percentage of patient with constipation resolved increased from 65% in round 1 to 73% in Round 2

Conclusion: Staff education and implementation of treatment guidelines made a substantial improvement to the medical management of constipation in hospitalized patients.



Improving appropriate blood testing on elderly care wards

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Introduction: In 2021, the NHS faced a national blood test tube shortage which led to update of best practice guidelines to ensure all blood tests were essential. This raised questions regarding the liberal use of blood testing and excessive cost of unnecessary blood testing.

Aim: To investigate if blood testing on the Elderly Care wards is in line with the national minimum retesting intervals guidelines set by The Royal College of Pathologists.

Methods: A retrospective analysis of blood tests ordered from a single day across three wards were analysed against the 2021 National Minimum Retesting Intervals in Pathology (NMRIP). Intervention between 2 cycles include poster and education. Second cycle was repeated after intervention.

Results: Cycle one (N=98) demonstrated poor compliance with national guidelines. FBC (7.4%, 4/54), U&E (18.2%, 10/55), LFT (13.6%, 6/44), CRP (40.7%, 22/54). Cycle two (N=54) demonstrated a marked improvement in ordering of blood tests. FBC (80%, 20/25), U&E (64%, 16/25), LFT (26%, 6/23) CRP (80%, 20/25). Compared to the first cycle, there was an improvement in requesting of FBC by 72.6%, U&E by 45.8%, LFT by 49.1% and CRP by 39.3%.

Conclusions: Education and visual display is an appropriate method in reducing the amount of inappropriate blood testing ordered. Care of the Elderly represents a large variety in patients and blood tests for these patients may fall outside of national guidelines and be deemed as inappropriate, causing strain on resources. Reproducible data on a larger scale is required to further demonstrate the effectiveness of this intervention.



Implementing the HEE Comprehensive Geriatric Assessment (CGA) for falls in care home patients—a Quality Improvement Project.

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Introduction: According to the Health Education England (HEE) Framework for Enhanced Health in Care Homes 2020, 33% of people over 65 and 50% of people over 80 have one or more fall a year, figures which significantly increase in care home residents. Prevention of falls promotes the quality of life of elderly patients and could significantly reduce the burden on primary and secondary care stemming from fall induced fractures, loss of mobility and community follow up. The Comprehensive Geriatric Assessment (CGA) for falls includes a full falls assessment questionnaire, medication review, lying/standing blood pressure and frailty index. The HEE set out a requirement that all care home patients should have a CGA assessment within 7 days of readmission to a care home following a hospital episode because of a fall. This audit examined the compliance of Four Counties primary care network (PCN) to the 7-day CGA HEE guideline for falls.

Methods: Retrospective analysis of 68 eligible patients from Four Counties PCN between 31st March 2021 and 1st March 2022. Analysis indicated a poor compliance to the HEE CGA guidelines (15%). After presenting to the MDT, we formulated a system-wide plan to improve reporting of care home falls to OTs, creating protected time for pharmacists to conduct care home medication reviews and promoting in-person weekly care-coordinator meetings. The PCN was audited for a second time after 3 months.

Results: A significant improvement (15% to 57%) in adherence to the HEE CGA framework was noted after implementation of above changes. Medication review in 7 days improved from 42% to 80% and falls assessment questionnaire in 7 days compliance improved from 23% to 70%.

Conclusion: Creating clear protocols for reporting falls and clarifying MDT roles in the CGA are essential to identifying and preventing falls in at-risk care home residents.



Virtual Frailty Ward – Post Discharge Frailty Support

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Background: In response to the COVID pandemic when new robust discharge criteria were introduced to facilitate early discharge to optimise hospital capacity, Virtual Frailty Ward (VFW) was established. VFW provides nurse-led telephone follow-up for patients discharged primarily from the Emergency Department (ED) and the Acute Frailty unit (AFU).

Objectives: We aim to provide continuity of care by following up frail elderly patients at home, reviewing their medical, functional and social progress post discharge and ensuring they received adequate support to avoid hospital re-admission.

Methods: The service is overseen by the Lead Frailty Practitioner, supported by Consultant Geriatricians. Calls are made Monday to Friday by a team of Advanced Specialist Nurses. The case load is split up into 3 categories with different levels of priorities – 1: at least weekly calls; 2: Fortnightly calls; 3: Monthly calls. This service engages closely with community partners such as community frailty service, social care, district nurses and general practitioners.

Results: In year 1 (1/4/2020-31/3/2021), we had 598 patients on this VFW. 93 patients were referred to therapy team for urgent equipment to maintain safety, 73 patients were referred to community frailty and 112 patients had urgent discussions with GP to avoid hospital admissions. The 30 days readmissions rate was 14%. 547 patients were discharged. In year 2 (1/4/2021-31/3/2022), we had 297 patients. 49 patients were referred to therapy team, 32 patients were referred to community frailty team, and 41 patients required input from GP. The 30-day readmission rate was 11%. 224 patients were discharged.

Conclusion: VFW is a cost- effective service that has helped to reduce length of stay of frail elderly patients in an acute hospital setting, maintaining patient safety and prevent hospital re-admission, co-ordinated with community services. Our service has been highlighted in the recent GIRFT report on improving clinical practice.



Quality Improvement Project on Vitamin D Prescribing Following the Introduction of an Electronic Prescribing Order Set

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Introduction: Vitamin D deficiency remains an important condition affecting our elderly population, with particular relevance to bone health, frailty syndromes and falls risks. We aimed to improve prescribing practices for deficient patients through the implementation of a prescribing tool and order set on our electronic system.

Methods: We retrospectively analysed data from patients admitted to two of our wards in July (preintroduction of the order set) and November 2021 (post-introduction) respectively, paying particular attention to whether their vitamin D levels were measured as an inpatient, and then focusing on whether replacement was prescribed as an inpatient, on discharge and in the community, from their Greater Manchester GP Care Record.

Results: After review of a total of 266 patient records, following implementation of the prescribing guideline and order set, improvement was seen in prescribing practices in those identified as having low vitamin D on admission. 96% of deficient patients had a form of vitamin D replacement prescribed as an inpatient (compared with 84.4% pre-implementation), and 100% of patients had a form of vitamin D prescribed on discharge from hospital (compared with 90.7%). Despite seeing an improvement in identification of vitamin D deficient patients, a significant proportion of patients did not have their vitamin D level measured on admission.

Conclusion(s): Despite improvement seen in the initial identification of vitamin D deficiency and consistency of prescribing practices, we are failing to measure vitamin D levels on admission in a significant number of patients. Ways in which we can further develop this project include aiming to raise awareness of the importance of measuring vitamin D levels locally, and promoting continued use of the order set and frailty blood set amongst our junior doctors.



Improving Performance of Medication Review and Assessment of Bone Health in Geriatric Admissions: A Quality Improvement Project

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Introduction: Important parts of the comprehensive geriatric assessment (CGA) include medication review and assessment of bone health. Such aspects of CGA can be missed in clinical practice in the busy acute hospital setting. We aimed to improve performance of medication review, and assessment of bone health in patients with falls in the form of vitamin D levels and Fracture Risk Assessment Tool (FRAX) scoring, in admissions to the acute Care of the Elderly (COTE) team in a district general hospital in South Wales.

Method: Data were collected from documentation of the initial review of admissions under the acute COTE team, over a two-week period pre- and post- intervention. A new patient assessment document was produced for the initial COTE review with prompts for medication review, vitamin D levels and FRAX scoring.

Results: The sample included 38 admissions pre- and 32 admissions post- intervention. Implementation of the new patient assessment document resulted in an increase in medication review from 37% to 84% overall, and 91% in instances where the document was used. In patients with falls, we observed an increase in vitamin D level testing from 50% to 65% overall, and 83% where the document was used, and an increase in FRAX scoring from 22% to 47% overall, and 67% in cases where the document was used.

Conclusion: A standardised patient assessment document is a simple intervention that can be introduced easily on a departmental basis to act as an *aide memoire* for important aspects of the CGA. In this project the new patient assessment document produced an increase in performance of medication review and assessment of bone health. Future work will aim to improve utilisation of the assessment document and evaluate changes in prescribing practice as a result of its implementation.



Improving the quality of bowel care on geriatric wards by increasing compliance of daily documentation of bowel motions.

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Introduction: Bowel health is affected in acutely admitted patients due to illness, change in diet, dehydration, and reduced mobility. Constipation is common and older patients are particularly at risk of constipation due to reduced bowel transit speed. Bowel motion monitoring can help improve bowel health and reduce complications including delirium, which can prolong hospital admission. To increase detection of constipation, a quality improvement project was carried out in the Department of Medicine for the Elderly at Southend Hospital, with aims to increase compliance of daily stool chart entries. Early detection will prompt patient review, investigation, and treatment of constipation, thereby managing symptoms and preventing complications.

Method: Stool charts of patients across the geriatric wards were reviewed weekly for daily entries up to the last 7 days of their admission. Baseline compliance was determined on day 0 by dividing total days of stool chart entries over total days of admission (up to 7 days). Patients newly admitted or transferred to the ward on the day of stool chart review were excluded from the data. Interventions included verbal reminders to stakeholders (nurses, HCAs, doctors) at morning handovers, an electronic reminder with emails to stakeholders, and lastly a visual reminder with copies of a poster around the ward. The interventions were implemented separately on a weekly basis to quantify their effectiveness on compliance through further stool charts reviews on days 7, 14 and 21, and compared to baseline data.

Results: Overall compliance increased by 16.9%, and the largest improvement was in response to the poster strategically placed next to all patient charts.

Conclusion: The QIP was time and resource efficient, helping to identify constipation early and flag patients at risk for or for treatment of constipation. It is also easily repeatable and similar principles can be applied across other wards and specialties.



Proactive Comprehensive Geriatric Assessment for Care Home Residents Living with Frailty.

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Introduction: Frailty is a long term condition with potentially significant associated healthcare costs and resource usage. The gold standard evidence based intervention is a comprehensive geriatric assessment. The NHS Long Term Plan highlights the importance of ageing well and developing proactive services in the community. Care home residents often have unmet health and social care needs, and are frequently frail.

Methods: 59 patients with severe or very severe frailty (Rockwood clinical frailty score 7 or 8) across three care homes with both residential and nursing provision were reviewed in person. They were then discussed in an MDT comprised of geriatricians, GPs, community matrons, district nurses, community therapists and care home staff in order to complete a virtual CGA resulting in a personalised care plan.

Results: In the 8 weeks after MDT, compared to the 8 weeks before, there was a 49% reduction in GP contacts (28 vs 55) and a 17% reduction in ED attendances (5 vs 6). There was a 133% increase in proactive referrals (7 vs 3) and 20 advanced care plans were completed. 74 medications were reduced or stopped whilst 4 medications were started, with a cost saving of £812.58 over the 8 week follow up.

Conclusions: Despite a small sample size and a short follow up period, these results suggest that intervention with a proactive CGA provides benefits to frail care home residents, particularly with regards to reductions in polypharmacy and improved access to advanced care planning. These results also suggest potential benefits to the wider system, with reductions in GP contacts and unplanned hospital attendance. We suggest that in future a CGA should be completed for each new resident to a care home as the basis of a personalised care plan.



Postural hypotension Quality Improvement Project- How good we are in measuring it?

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Introduction: A large proportion of Morriston Hospital's acute medical take consists of elderly patients admitted with falls. Postural hypotension is a cause of syncope and fall which contributes to morbidity, disability and death in cases of injury in the frail and elderly population¹. Hence, diagnosing and treating postural hypotension is crucial. It is important that the measurement of lying-standing blood pressure (LSBP) is consistent to ensure reliability of results as this would affect patients' management. The aim of this project is to assess how postural hypotension is diagnosed in various clinical areas and assess the quality of detection.

Methods: We designed a survey to identify baseline variation in method and accuracy in measuring postural hypotension and compared it against National Audit in-patient Falls RCP "Falls and fragility Fracture Audit Programme"¹. The survey was distributed across acute and general clinical areas involving staff nurses, healthcare assistants and junior doctors. We collected and analysed the data, implemented outcomes and re-conducted the second PDSA. Grand Round presentation and worked-based tutorial sessions based on the above was our intervention.

Results: 57 staff members (acute medical, surgical wards and emergency department) participated. PDSA2 showed improvement of >25% of participants allowing patients to rest before initial BP measurement compared to PDSA1. There is an improvement of approximately 7% in repositioning the patient. 47% measured standing BP between 1-3mins at PDSA1 and this has doubled in PDSA2. Conclusions: This study showed the importance in ensuring consistency in measuring LSBP. There was significant variation in timing and measurements which have impacted the results and interpretation of postural hypotension. The education sessions had positive impact and is also a sustainable practice.

Reference: 1. Falls Prevention in Hospital, 2022



Improving Inpatient Management of Delirium in a District General Hospital

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Background: Delirium is a common clinical condition associated with increased morbidity and mortality, and prolonged hospital stay. Early detection is vital to improving management of the condition and improving outcomes.

Aims: Improve delirium detection using the 4AT screening tool as a validated approach; Improve delirium management across multiple domains using the PINCH ME approach; documented attempt at collateral history within 24 hours of recognition of delirium; obtain serological confusion screen in patients with recognised delirium. (100% each)

Method: Plan Do Study Act (PDSA) method was used to conduct this Quality Improvement (QI) project over 12 months. Data was obtained from paper and electronic records in the medical wards with regards to 'at risk patients' (i.e. over 65y, acutely unwell, background of cognitive impairment and/or acute fracture). The use of 4AT or alternative delirium screens from the emergency department (ED) and medical teams were noted. Assessment for pain, urinalysis, serological screens, bowel and nutrition review including MUST scores, medication reviews were looked for. Interventions included presentation and education at the medicine grand round, publishing a poster, and a PINCHME alert sticker for the medical notes to use at time of assessment. 2 PDSA cycles were completed and post sticker results obtained.

Results: Baseline data shows that collateral history was attempted for 70% patients - improved to 100% after sticker use. Use of validated screening test from 15% to 100% after sticker use. Nutrition assessment improved from 15% to 40%. Serological testing improved from 40% to 53%. 100% patients received a medication review after sticker use.

Conclusion: Introduction of PINCHME sticker serves as a prompt to ensure holistic management. Currently delirium management is clinician dependent as there is lack of formal delirium management pathway. Further plan includes involving nursing staff and 'delirium champions' to bring about a formal pathway for lasting change.



Review of outcomes of patients admitted to an Enhanced Assessment Bed at an Intermediate Care Unit

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Introduction: The Norman Power Centre (NPC) is an Intermediate Care Unit, in Birmingham, UK, providing enhanced assessment beds (EAB) where patients undergo functional assessment after an acute admission. There is little published data regarding the outcomes for patients admitted to EAB, so we set out to analyse outcomes in our unit.

Method: Data was collected from 50 patients who were discharged from EAB between September 2021 and March 2022.

Results: The mean length of stay was 36 days, median was 29 days. Of the 50 patients: 4 went home with no services, 9 went home with Early Intervention Community Team (EICT) support, 5 went home with package of care (not EICT), 13 went to new residential home placements, 6 went to new nursing home placements, 11 were re-admitted to hospital, 1 died and 1 received palliative care. 28 patients went to the destination that was originally intended on admission, 9 went to a less restrictive option and 12 required a higher dependency destination (predominantly re-admission to hospital.) The change in Elderly Mobility Scale from admission to discharge ranged from -1 to +15. Mode and median were both 0 and mean change was +2. 49 patients had Barthel scores on admission and discharge. Change in score ranged between -1 and +9. Mode and median change was 0, and mean was +1.7.

Conclusions: This data shows positive outcomes in terms of discharging most patients to their intended, or better, destinations. It also gives us an objective measure of the change in functional status that patients are achieving during their stay. There is a high rate of hospital re-admissions, indicating the unstable nature of the health of frail people. We are now ready to move onto a PDSA cycle to see if we can improve outcomes for our patients.



Proactive IT-assisted CGA in care homes improves adherence to preferred place of care & death, hospitalisation & mortality rates

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Introduction: Primary care-based frailty identification and proactive comprehensive geriatric assessment (CGA) remains challenging. Our Devon-based Primary Care Network has developed and introduced an innovative, community-based IT-assisted CGA (i-CGA) process, which includes advance care planning (ACP). We wished to see if this process could improve effectiveness of ACP in residential care home (CH) residents.

Methods/Intervention:

- 1) GPs clinically assessed all CH residents for frailty.
- 2) Proactive i-CGAs completed using our IT-assisted CGA tool, which prompts to review/consider/address: previous CGA-related entries; traditional CGA-domains/risks; high-risk drugs/deprescribing; ACP discussions (hospitalisation/resuscitation/place of death preferences)
 3) ACPs shared with relevant healthcare services/Out-Of-Hours.
 Interim analysis focused on adherence to ACP-documentation in severely frail residents, comparing
- groups:
- i-CGA (1-year post-i-CGA completion)
- Control (1-year post-frailty diagnosis, no i-CGA, usual care)

Results: i-CGA group: 196 residents (16 mild/69 moderate/111 severe frailty); control group: 100(13 mild/31 moderate/56 severe). No significant baseline differences. 100% residents in the i-CGA group had documented resuscitation decisions, vs 72% (72/100) controls: in 97% of both groups (191/196,70/72) to 'allow a natural death'. 85% (94/111) severely frail i-CGA residents preferred not to be hospitalised. 55% (52/94) died, 90% (47/52) in their CH. Compared to the preceding year, unplanned hospitalisation rates fell:0.86 to 0.68/person years alive. In severely frail control residents, unplanned hospitalisations increased: 0.87 to 2.05/person years alive. 29% (16/56) had no hospitalisation preferences documented. 16/16 died, 25% (4/16) in hospital. 40/56 had documented decisions, not all recent:38% (15/40) wished for admission. Significant group mortality difference was seen: 55% (62/111) severely frail i-CGA residents died compared to 77% (43/56) controls, p=0.0013.

Conclusions: Proactive primary care-led i-CGA in severely frail CH residents promotes up-to-date discussions regarding preferred place of care and death. Most prefer not to be hospitalised, despite traditionally high rates of unplanned admissions. Our i-CGA/ACP process improves adherence to preferences, reduces unplanned hospitalisations and mortality rates. Progressive i-CGA completion and annual/opportunistic reviews should confer progressive benefits.



Developing a pharmacist delivered medicines review tool for patients with frailty, enhancing CGA

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Background: Polypharmacy is a recognised burden on patients with frailty. Medication reviews as part of comprehensive geriatric assessment (CGA) ensure appropriate prescribing and minimise harms. This project aimed to develop and initiate a pharmacist delivered frailty medication review tool to enhance existing CGA within our acute frailty service.

Methods: A structured in-patient medication review tool was developed based on the STOPIT and STOPPFRAIL tools for patients with a clinical frailty score (CFS) of >4. Initial work tested this on 20 patients in our frailty ward evaluating usability and efficacy. A sample of patients seen by the acute frailty team were audited against this tool. Data was collected on falls risk medications, Anticholinergic Burden (ACB), medications stopped, medications to review and cost savings. On identifying the potential benefits, this tool was trialled by pharmacists on all elderly care wards with similar outcomes collected.

Results: Twelve acute frailty inpatients' CGAs were audited against the tool. Five had some evidence of a polypharmacy review but no FRAX or ACB scores were completed. 58% of patients were on 3 or more 'falls medications. Overall, 19 medications should have been stopped, 5 medications could have been reduced and 14 medications highlighted for review in primary care, with a potential cost saving of £956.35/year. After initiating pharmacist reviews with the tool, 34 of 34 patients had a review, 80% of FRAX scores were documented, ACB score was completed for all patients. All patients were taking medications that increased risk of falls (average 3.5/patient) with 16 patients on ≥4. Eighty-five medications were stopped, 10 medications reduced and 33 medications highlighted for review in primary care, with a cost saving of £2755.29/year.

Conclusions: This project developed a pharmacist delivered acute frailty polypharmacy tool which enhanced existing frailty medication reviews with potential cost savings.



1292. CQ - Clinical Quality - CQ - Efficiency and Value for Money

Medically Safe For Discharge (MSFD): Reducing doctor input in MSFD patients across geriatric medicine wards at a DGH in Somerset

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Introduction: Large numbers of geriatric inpatients within acute settings are deemed medically safe for discharge (MSFD) but stranded within the hospital due to a lack of community services and social care packages, leading to increasing length of patient stay and reduced hospital flow. These patients do not require inpatient care and would otherwise be discharged to their home or residential care. This project aimed to identify these patients and rationalise their medical input to mirror a community setting (without routine daily medical reviews).

Methods: MSFD patient were identified by the multi-disciplinary team (MDT). Patients identified received standard nursing and therapy input, alongside daily MDT discussion at a board round to progress discharge planning. If the MDT expressed concern about a MSFD patient, they would receive a medical review. A sticker placed in the notes identified patients deemed MSFD.

Results: A 3-week trial on a 19-bedded geriatric ward showed 46% of bed days were occupied by MSFD patients. On average, 8 MSFD patients did not require daily review. 0.6 unplanned reviews/day were needed due to MDT concern, saving an average of 7.4 patient reviews/day, equating to 3.3 hours/day doctor time saved.

Conclusions: Doctor time saved allowed redistribution of staff to busier wards with more unwell patients, with no detriment to patient care noted. The trust formalised a SOP and the MSFD pathway was introduced across the geriatric medicine department. A MSFD ward has now been opened, to cohort patients awaiting discharge to community pathways. This ward should require minimal doctor input to allow continued redistribution of medical staff across the hospital, as well as facilitating patient flow by admitting patients who reside on the acute frailty unit who require increased community care.



1293. CQ - Clinical Quality - CQ - Efficiency and Value for Money

A multidisciplinary team derived quality improvement project to improve the efficiency and effectiveness of their hybrid meeting

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Introduction: Working in a small district general hospital in Llanelli, West Wales, a weekly hybrid multi-disciplinary team (MDT) meeting is held on the stroke and care of the elderly unit. There are 3 separate geriatric teams covering the ward. Typically, these meetings are attended by physiotherapists, occupational therapists, speech and language therapists, discharge nurses, social workers, nurses and a doctor. The main agenda is to discuss the patients' current medical issues, rehabilitation needs and likely discharge destination/complexities. Medically, these meetings were attended by a single doctor who often found it difficult to concisely summarise the patient's medical problems from the notes of patients not under their care. Our aim was to streamline the MDT meeting with regards to quality of content, understanding of patient issues and general efficiency.

Intervention: An initial questionnaire was used to gather prospective data. 90% of MDT members suggested that a doctor from each team should attend to present patients under their care and engage in onward discussions. This was implemented over the period of a month. A follow-up questionnaire collected quantitative data by asking MDT members to retrospectively rate, on a scale of 1 to 10, the efficiency of the meeting and the understanding of patient's medical conditions before and after implementing the change.

Results: The average efficiency was rated at 4.8/10 before the change was implemented and 8.8/10 afterwards, a 40% improvement. Understanding of patient medical issues had a 28% improvement, from an average rating of 6 to 8.8. Qualitative and free text data was also collected highlighting a secondary benefit of reciprocal communication between the therapy MDT and the appropriate medical doctors hopefully improving the timeliness of any required action.

Conclusions: Suggestions of further changes include making the meeting fully face-to-face, providing a "proforma" to document what was discussed and introducing other members of community teams.



1349. CQ - Clinical Quality - CQ - Efficiency and Value for Money

Improving outcomes for older people living with frailty by implementing systematic Comprehensive Geriatric Assessment (CGA)

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Introduction: Orkney has an older age profile than both the Highlands and Islands and Scotland. A quality improvement project was undertaken to deliver Hospital at Home (H@H) (intensive hospital level care for acute conditions in a patient's home for a short episode through multidisciplinary healthcare teams) by implementing an integrated Frailty service which we called Hospital without Walls (HwW).

Intervention: A paper in *Age and Ageing* found that CGA done as part of H@H care was less costly than admission to hospital from a health and social care perspective and there was no difference in quality adjusted survival. Based on this evidence, we developed a systematic approach to identification, assessment and management of Frailty through CGA. Staff from community, primary and secondary care were trained to identify Frailty as a clinical syndrome through a 'Train the Trainer' program to ensure a standardised approach for Frailty identification and assessment across services. Clinical pathways were developed based on the five Frailty Syndromes: falls, delirium, immobility, medication side effects, incontinence ensuring robust clinical governance. Interventions from the HwW team was evaluated by examining patient journeys and the impact on acute spend by counting the number of bed days saved.

Results: The HwW project demonstrated that systematic Frailty identification and assessment of patients presenting in the ED or via referral from the GP resulted in 16 admissions avoided with 63 bed days saved, equating to savings of £53,487. Conservative estimates suggest this could result in savings of more than £3m over a year.

Conclusion: It is recognised that hospital admission for those with Frailty leads to a higher risk of falls, de-conditioning, longer lengths of stay and death. Our project demonstrates that systematic implementation of CGA and not only improves outcomes by reducing lengths of stay in hospital, but also results in savings for the system.



An Evaluation of a Geriatrician-Led Acute Medical Admission Unit at Morriston Hospital, Swansea

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Introduction: The medical intake at Morriston Hospital is accepted on two units; Rapid Assessment Unit (RAU) and Acute Medical Assessment Unit. Both were acute physician-led until July 2021

Method: (Phase 1). From July 2021, RAU became geriatrician-led (Phase 2). This evaluation concerns the performance of RAU.

Phase 1 (Acute Physician-Led Unit) Between 01/08/2020-30/06/2021, there were 3102 admissions with a median length of stay (LOS) of 2 days on RAU. 37.2% of patients were discharged directly from the unit. (SBUHB data). A detailed analysis of 496 patients consecutively assessed between November 2020–January 2021 showed a median LOS on RAU of 1, 28.8% were discharged directly from RAU. Overall health board (HB) median LOS for the cohort was 7. In over 70 years, median LOS on RAU was 1, overall HB LOS 9.

Phase 2 (Geriatrician-Led Unit) 1237 patients were assessed July-December 2021, with a median LOS of 2 days. 42.8% of patients were discharged from RAU. (SBUHB data). A detailed analysis of 566 patients consecutively assessed between September-November 2021 showed a median LOS on RAU of 2, 41.7% discharged directly from RAU. Overall HB median LOS for the entire cohort was 5. For the > 70 years, median LOS on RAU was 2, overall HB LOS was 7. Patient flow through assessment areas is dependent on the function of downstream medical wards. Mean LOS within medicine at Morriston increased 1.5 days between Phase 1 and Phase 2.

Results: Acute geriatricians have delivered the 72hr LOS standard that SBUHB has set for assessment areas. The unit has achieved a reduction in overall LOS for the cohort of patients evaluated (p<.01), especially for the > 70 years (p=.007).

Conclusion: This data supported a change in practice; RAU has taken a frailty specific intake since January 2022.



Care of Older People undergoing emergency surgery: meeting the standards of the National Emergency Laparotomy Audit (NELA)

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Introduction: There are well documented in-equalities for outcomes for surgical intervention associated with Age and Frailty including emergency laparotomy. NELA data has shown over half of such patients are over 65 years old about one fifth are over 80. These patients having significantly higher mortality, longer hospital stays and it has also shown frailty to be an independent marker of poor outcomes. Through application of key standards these outcomes have improved however input from "consultant geriatrician-led MDT" remains stubbornly low nationally. Aims: To improve local Trust performance in meeting the NELA standard: "Peri-operative assessment by a member of the Geriatrician-Led MDT for frail (CFS 5+) patients 65 or older" to >80% (Green: ≥80%, Amber: 50 − 79% Red: <50%) of estimated 100 patients per year.

Methods: 1. Proactive case finding with general surgical teams; 2. Engagement with Emergency Surgical Committee and NELA leads; 3. Improved our own electronic referral system; 4. Assist in development of electronic booking system with emergency laparotomy cases

Results: We showed a significant improved in meeting the NELA standard from the red zone (Mean: 33% range 5% to 35%) into the amber with a of mean 60% (quartile range 52% to 78%) but still remains below our target with significant quarterly variation seen. All referrals and assessment remain post-intervention.

Limitations in measures:

- Large variations in Frailty assessment and referral process (prospective Vs retrospective)
- Process rather than a Quality measure
- No balancing measures Is there Reduced service elsewhere?

Conclusions: Following a number of change ideas and despite challenging COVID related staffing issues we showed that a combination of key stakeholder engagement, proactive case-finding and improved referral processes we have improved Geriatrician input in frail patients undergoing emergency laparotomy. We suspect due to the non-systematic assessment of frailty that we may be missing some patients and or seeing late in care pathway.



Provision of Eye Care Services and Interventions in Care Homes – a narrative synthesis review

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Introduction: The prevalence of eye disease and visual impairment in care home residents is disproportionately higher compared to the general population. Access to eye care services and treatment can be variable for this vulnerable population.

Objective: This narrative synthesis reviews the available evidence of services and interventions for delivering eye care to care home residents. The key review questions:

- 1. What is the existing evidence for eye care interventions or services (including service configuration) for care home residents?
- 2. Does the provision of these interventions or services improve outcomes?

Methods: Literature search of EMBASE/MEDLINE for original papers published since 1995. Two reviewers independently reviewed abstracts/papers. Data was extracted and evaluated using narrative synthesis.

Results: 13 original papers met the inclusion criteria. On-site optometrist-led services improved diagnosis and management of eye conditions, with one study showing 53% of residents benefited from direct ophthalmology intervention. Provision of interventions such as cataract surgery, refractive error correction and low vision rehabilitation improved visual acuity and vision-related quality of life but did not improve cognitive or physical function, depression or health-related quality of life. There was little UK-based literature to inform eye service design or interventions to improve outcomes.

Conclusion: Care home-based eye assessments improve the management of eye conditions. Interventions improve visual acuity and vision-related quality of life. Further research and/or clinical service scoping is needed to better understand current UK services, access difficulties or examples of good practice as well as to identify and test cost-effective service models for this vulnerable group.



Palliative care Movement Disorders multidisciplinary meeting

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Introduction: It is well recognised that patients with Parkinson's disease (PD) have significant symptom burden in advanced stages of their disease. Integration of movement disorder and palliative care services has been limited by concerns about resource and sustainability. We present our experience of establishing a movement disorders palliative care multidisciplinary meeting.

Method: In 2019 we established a multidisciplinary virtual bimonthly meeting between movement disorders and palliative care specialists. Referrals were accepted from movement disorder specialists, community Parkinson's practitioners and palliative care specialists. Referring clinicians all actively applied primary palliative care approaches within their existing services. Aims of the meeting were to facilitate holistic management of complex needs, support advance care planning (ACP) and consider referral to specialist palliative care services.

Result: 37 patients in total were discussed over a 2-year period (although the service was limited for a time due to COVID pressures). On average 3 new patients were discussed per meeting. Reasons for referral included motor and non-motor symptoms, support with ACP, medication advice, caregiver concerns and emotional distress. Meeting outcomes included medication adjustments, expediting reviews, hospice support, carer support, and referral to other services. Since the meetings started 23 (62%) patients have died. Of these, 30% died in hospital compared with the national average of 43.4%. The average between discussion at the meeting and death was 139 days. The meeting has generated education opportunities, triggered joint assessments and a professionals' framework for the palliative management of patients with a movement disorder.

Conclusions: We present the experience of an MDT embedded within an early integrated palliative care service for movement disorders. The MDT has strengthened partnership working and findings suggest that alongside active primary palliative care, specialist palliative care for PD can be sustainable and resource efficient in a UK setting.



Evaluation of the Identification Bone Health of Patients on Geriatric Wards

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Introduction: NICE guidelines state that fracture risk assessment should occur in all women aged ≥65 and all men aged ≥75. This includes assessing patients' FRAX score, measuring serum vitamin D and calcium levels. Early detection and treatment can prevent complications like fragility fractures. We conducted a Quality Improvement Project to improve bone health assessments on Geriatric Wards.

Methods: A baseline audit assessed: admission reason, falls history, FRAX score, CFS, previous DEXA scans, whether vitamin D and calcium levels were checked during the admission, and if treatment was commenced (bone resorption medication and vitamin D/calcium supplements). Data was collected two further times following interventions over a 5-month period. The first intervention was an announcement at the morning departmental meeting reminding clinicians. The second intervention was an email reminder.

Results: There were 56, 51, and 58 patients per cycle. 19, 15, and 17 patients were admitted with falls. 23, 14, and 10 patients had a falls history. Average CFS was 5.4, 5.4, and 5.5. Average major osteoporotic fracture FRAX score was 15.8, 16.4, and 12.9. Checking serum calcium was 88%, 100%, and 100%. Checking vitamin D was 30%, 43%, and 60%. 28%, 43%, and 47% of patients were prescribed calcium and vitamin D supplements. Patients on bone resorptive treatment dropped from 7% to 3% to 2%. 8, 12, and 11 patients had a previous DEXA.

Discussion: Verbal announcement had the greatest impact. Visible reminders help sustainability. This QIP highlighted the lack of bone protection treatment with multiple contributing factors including some patients lacking the capacity to follow instructions to take weekly medications or patients requiring vitamin D being replaced initially, with initiation later. This QIP feeds into a larger trust project in developing a 'Fracture Liaison Service', which could improve adherence and provide a pathway in utilising annual and bi-annual treatments.



Increasing Referrals to the Fracture Liaison Service Through Improved Multidisciplinary Communication

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Introduction: The Fracture Liaison Service (FLS) is a multidisciplinary service for individuals over 50 presenting with fragility fractures. It is designed to assess future fracture risk, and appropriately diagnose and manage patients with osteoporosis. At Wrightington, Wigan and Leigh Teaching Hospitals (WWL), concerns were raised that access to this service was poor, meaning some patients presenting with fragility fractures were not receiving appropriate management to reduce risk of recurrent fracture. This project was designed to increase referrals to the service.

Methods: A cohort was identified of patients over 50 presenting to WWL with a fractured proximal humerus or distal radius/ulna over a three-month period from January to March 2021. These presentations were reviewed to identify the proportion of these patients who had been appropriately referred to the FLS. Following the initial audit, the FLS referral pathway was reviewed, and discussions were held with multidisciplinary teams (MDTs) in radiology and orthopaedic surgery to highlight the importance of appropriate bone health risk assessment. The number of patients referred each week by radiology were assessed before and after these discussions to assess whether access to the FLS had improved.

Results: In the initial audit 4.2% of patients with humeral fractures (n=24) and 0% of patients with radial/ulnar fractures (n=29) were appropriately referred to the FLS. Mean weekly referrals from radiology to the FLS significantly increased following the MDT discussions (mean 6.14, SD 4.40 vs mean 22, SD 6.38; t=6.71 p<0.001).

Conclusions: Pre-existing referral pathways to the FLS were found to be resulting in many patients not receiving appropriate care for their bone health. A simple review of referral pathways, and discussion with MDTs in other departments was found to be a simple way of improving access to the FLS and therefore hopefully reducing risk of fracture recurrence.

References:

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Geriatric virtual ward at Wythenshawe Hospital

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Introduction: A prolonged admission for geriatric patients is associated with a higher rate of hospital acquired infections and significant physical deconditioning. The goal for our team was to develop a virtual ward system which would facilitate a safe discharge whilst ensuring appropriate clinical follow up was in place, when a patient was determined to be medically, socially and therapy safe for discharge.

Methods: The criteria for referral for service users included: if they needed a follow up of urgent scans or bloods, monitoring the response of medication and welfare/delirium checks. The clinical frailty score of the patients had to be above 4 and they needed to be above the age of 65. Referrals would inflow from the Emergency Department and Complex Care wards via our electronic referral system – the patient subsequently being contacted by the frailty team regarding a telephone appointment.

Results: We analysed the data from 1/3/21 to 4/1/22 during which time 113 referrals were made, of which 97 met our criteria and were followed up. The average age of the patient demographic that was referred was 85.4, with the average length of hospital stay prior to discharge being 15.65 days. 56 patients were discharged with advice after a single phone appointment. 23 patients required a follow up telephone call prior to discharge. 16 patients had routine outpatient investigations arranged and were subsequently discharged from our service. 2 patients needed urgent investigations and were referred to a Day Hospital Clinic for a face to face follow up.

Conclusion: Our virtual ward service has demonstrated that over 97% of our service users had issues that were able to be addressed in a virtual outpatient setting without needing to further prolong their inpatient stay. This service has demonstrated a safe framework to expedite discharges in medically optimised patients.



1169. CQ - Clinical Quality - CQ - Patient Centredness

Quality Improvement Programme on Non-Medicinal Management of Postural Hypotension among MDT members in the Medical Wards (COE)

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Introduction: Postural Hypotension is a very common presentation in the elderly population. Appropriate knowledge to record postural hypotension and non-medicinal management for this is very important among MDT members working in the care of the elderly wards.

Method: We set out a questionnaire to assess the knowledge among MDT (multidisciplinary) members. An educational programme was initiated to improve the knowledge among MDT members. A complete audit cycle was done and the knowledge was reassessed with the same questionnaire based on the principles of the PDSA (Plan, Do, Studt and Act) cycle.

Results: It showed that the correct way of checking for postural blood pressure improved from 52.4% to 92% in recording the blood pressure. Correct identification of postural blood pressure improved from 33.3% to 88%. Self-rating of confidence to identify correctly postural blood pressure improved from 47.6% to 64% among the MDT Members. It was difficult to compare the answers about non-medicinal methods and exercises to help postural hypotension as there was heterogeneity in answers. It was also not possible to compare the impact of individual interventions on the alleviation of postural blood pressure.

Conclusion: Good improvement in the recording and non-medicinal management of Postural hypotension was observed in both the wards among the MDT Members. It is very important to have good knowledge and understanding in the management of this common condition as it helps in the identification and better management.



1191. CQ - Clinical Quality - CQ - Patient Centredness

Falls Prevention: Community Exercise Programme; reducing risk of falls, deconditioning and loneliness in frail elderly patients

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Introduction: Covid has had a devastating effect on the Elderly, resulting in deconditioning, increased falls and loneliness. Tailored exercises can reduce falls in people aged over 65 by 54% and participation in physical activity reduces the risk of hip fractures by 50%, currently costing the NHS £1.7 billion per year in England. This 8-week intervention delivered by trained volunteers in patient's homes, aims to reduce deconditioning, loneliness and the risk, incidence and fear of falling (FOF) amongst frail patients post-discharge from hospital.

Method: A gap in service was identified in Frail patients discharged from hospital, at risk of falling and awaiting community physiotherapy. A steering group was set up including acute and community therapists, volunteers and carers to design a collaborative intervention to bridge the gap. At risk patients were identified and referred by ward therapists supported by the hospital volunteering team. Volunteers were trained to deliver an 8 weeks programme of progressive exercises in patients' homes with additional signposting to appropriate statutory and voluntary services. Qualitative and quantitative outcome measures were taken at week 1 and week 8 of the intervention

Results: 91.5% total health outcomes improved or maintained by average:

- FOF reduced by 22.5%
- 180 degree turn improved by 43%
- 60 sec Sit to Stand improved by 14.75%
- Timed Up And Go improved by 15.5%
- Confidence to cope at home improved by 15%
- Pain / discomfort (self-reported) improved by 18.75%
- Overall health (self-reported) improved by 8.5%

Conclusion(s): Targeted exercise at home with skilled volunteers can improve functional fitness and health outcomes in a frail elderly population at risk of falls when discharged home from hospital. The programme increases patients' connectivity to local voluntary and community sector services. Volunteers' mental health improves by engaging in meaningful service.



Frail Trauma Pathway: Encountering stumbling blocks

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Introduction: The Trauma Audit and Research Network report "Major Trauma in Older People" highlighted the need to recognise falls in older patients as a mechanism leading to potentially life-threatening injuries. Reasons behind falls can be equally serious and must be addressed concurrently. A Frail Trauma Pathway was introduced in the Emergency Department (ED) of a Major Trauma Centre (MTC) and subsequent audit revealed it was underutilised. We relaunched the Frail Trauma Pathway incorporating a checklist with the aim of improving patient care.

Method: Retrospective data was collected over one week, including patients over 65 years with a Clinical Frailty Score ≥5, a low velocity trauma and multiple injuries or isolated head injury. We then updated the Frail Trauma Pathway incorporating a checklist, re-distributed it throughout the ED, sent staff email reminders and held teaching sessions. An educational "Advent Calendar" was circulated daily in December. Following this we repeated data collection.

Results: 20 patients pre and 18 post-intervention fitted inclusion criteria. There was a reduction in admission rates, improvement in ED senior doctor review for primary survey, increase in timely administration of Parkinson's disease medication and venous thromboembolism assessment. However, there was a decline in other parameters measured. Due to the small patient cohort, it is difficult to assess if changes in results post-intervention are statistically significant.

Conclusion: Several aspects of the frailty pathway showed improvement, notably admission reduction. This QIP demonstrates the difficulties of instigating change in an MTC, where numerous pathways result in 'information overload' and staff numbers are large and constantly changing. By focusing on the frail trauma checklist and incorporating it into our electronic records system we hope to improve compliance with the pathway. Further research on a national level is required to determine how to best care for this expanding cohort of patients.



Improving the Quality of Anticipatory Care Planning for Patients with Recurrent Aspiration Pneumonia

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Introduction: Recurrent episodes of aspiration pneumonia (RAP) are a significant problem in frail patients leading to high re-hospitalization and mortality. Anticipatory care planning (ACP) enables improved quality of life and end of life care. We reviewed the assessment, ACP discussions and communication with Primary Care in these patients.

Methods: We used a PDSA methodology, reviewing 116 patients with RAP referred to Speech and Language Therapy (SLT) in Elderly Medicine wards over six months, including the winter. Educational interventions were implemented. An illustrative case and pre-intervention results were presented at an online hospital-wide seminar and subsequently at an online departmental medical staff teaching session. Post-intervention analysis of 10 patients with RAP admitted over two summer months was conducted. The second round of interventions included departmental induction teaching for newly rotated doctors and creating an electronic ACP document (RAP ACP) for inclusion within the medical record.

Results: Baseline data was collected from 116 patients (mean age 85, 47% female). After the educational interventions, data was collected from 10 patients (mean age 88, 70% female). Data is being collected from winter months after the second intervention. This will be available before the conference. Baseline data demonstrated the need for improvements in documentation of Mental Capacity Assessment (MCA) specific to feeding (21.5%), ACP completion (26.7%) and flagging patients suitable for the Gold Standards Framework (GSF) on discharge (15%). Following educational interventions, there was a substantial improvement in MCA documentation (80%). Furthermore, there was a marked improvement in the completion of ACP discussions (70%). Communication of patients eligible for GSF was similar (14.2%) post-intervention.

Conclusions: Educational interventions substantially improved the quality of individualised care provided to patients with RAP. Mortality was high in both groups, yet documentation of eligibility for GSF was low, prompting further interventions targeting discharge communication.



Managing the deteriorating patient in a rehabilitation hospital: the role of treatment escalation planning

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Introduction: The pandemic has shown how vital patient-centred treatment escalation planning (TEP) is for older people. Locally we have seen inappropriate transfer of dying patients to acute hospitals from rehabilitation units. Mortality review found a lack of useful TEPs in these cases. Baseline data in our rehabilitation hospital showed 54% of patients had a TEP and 16% a decision made about repatriation during acute illness. We aimed to increase the proportion of patients in this setting with a TEP to 80% over six months.

Methods: A multidisciplinary team of doctors, ANPs and senior nurses worked together. We conducted stakeholder engagement to understand the factors that result in transfer of patients and found that completion of TEPs was felt to be an effective way to improve communication out of hours. Our first test of change involved an ANP raising the CPR status and TEP for all new patients at the weekly MDT. We measured the process of what decisions were made once a fortnight. Outcome data on the overall completion of TEPs and repatriation decisions was collected each month.

Results: New decisions were made at each MDT – for example, on one date two new DNACPRs and six new TEPs were completed. Overall TEP completion rate varies however since our first intervention we have seen a sustained increase in the number of TEPs which include consideration of repatriation – from 16% to 60%. Ongoing conversation with doctors in training reveals challenges with ward staff awareness of TEP content and their ability to guide unexpected events out of hours.

Conclusion: Involvement of motivated permanent staff across disciplines has allowed us to ensure escalation plans are being made each week and see a sustained increase.



Improving Communication Between Next of Kin and Medical Staff for Our Most Vulnerable Patients: a Quality Improvement Project

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Background: This project was completed by a team of junior doctors working across two general medical wards at Queen Alexandra Hospital.

Introduction: Due to persistently high bed occupancy, patients are increasingly subject to multiple moves, increasing the risk of missed or delayed communication (Toye C et al, Clin interv aging, 2019, 14, 2223-2237). Importantly, families who receive good communication from staff are more likely to feel satisfied with the care of their loved one (Ersek M et al, J pain symptom manage, 2021, 62(2), 213–222). Our aim was to increase the occurrence and comprehensiveness of documented discussions between next of kin (NOK) and the medical team, especially in vulnerable patients who may be unable to advocate for themselves.

Methods: We conducted a retrospective, cross-sectional analysis of patient notes across two PDSA cycles. NICE guidelines NG27, NG97 and NG96 provided an audit standard. Patients were identified as at-risk of poor communication if diagnosed with dementia, cognitive impairment, addiction, learning difficulties or needing an interpreter. Targeted intervention prior to re-audit included education of the medical team and introduction of a written prompt within the patient's notes.

Results: 25/55 patients were identified as at-risk in cycle one, with 39/71 patients at-risk in cycle two. Post-intervention, the number of at-risk patients with a documented NOK discussion increased from 74% to 82%. Patient treatment plan discussions increased from 81% to 97%. Discussions, where applicable, regarding escalation of care, Deprivation of Liberty Safeguards (DoLS), capacity and Mental Health Act (MHA) slightly decreased. Conversations regarding patient consent for data sharing were rarely documented.

Conclusion: Our intervention increased the proportion of documented patient discussions; however, it did highlight the need to improve the frequency of documented conversations surrounding escalation of care, DoLS, capacity and MHA. This has provided impetus for further improvement projects.



Do patients understand their ReSPECT forms? A QI project reviewing phrases used and whether they are meaningful to patients.

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Background: Hospital based Quality Improvement Project focusing on adapting language used on Recommended Summary Plan for Emergency Treatment and Care (ReSPECT) forms to improve patient understanding.

Introduction: ReSPECT forms have been used to document patient wishes and appropriate escalation of treatment in our hospital since 2019. There continues to be a lack of understanding of phrases used amongst both patients and healthcare professionals; the hospital receives regular complaints. This project explored patients' perceptions of language used and their thoughts on the ReSPECT discussion, to better guide discussions and documentation.

Methods: A questionnaire collecting qualitative and quantitative data was performed with 24 patients aged between 59-95 years old with ReSPECT forms on a medical ward (Geriatrics/Endocrine).

Results: The phrases 'DNACPR' and 'Not for ITU' were understood by 5/24 patients (21%), 'Ward based ceiling of care' was understood by only 1/24 (4%) and 'prioritising comfort care' understood by 8/24 patients (34%). Only 6/24 (25%) of patients said they were a 'little upset' by their admission conversation about ReSPECT and no patients surveyed were 'very upset'.

Conclusions: This first QI cycle found that overall, most patients did not understand the language commonly used on ReSPECT forms, particularly 'ward-based ceiling of care'. The majority were not upset by the ReSPECT conversation, so a fear of upsetting the patient should not be a barrier to having a clear discussion. The next step in our QI work will be to explore phrases that are better understood by patients and then feedback findings so that we can develop a digital ReSPECT form with drop down options for phrases better understood by patients to describe ceilings of care.



Outcomes from a pilot project offering frail older adults living with HIV a virtual MDT comprehensive geriatric assessment

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Introduction: Advancements in HIV treatment has resulted in an ageing population in people living with HIV (PLWH). Increasing prevalence of frailty in older PLWH has been demonstrated, giving rise to multi-morbidities, polypharmacy and consequently, complex medical and social needs. Approximately 5650 people are living with HIV across Greater Manchester. With increasing patient complexity, a pathway was developed to help provide holistic care and improve quality of life for older adults living with HIV.

Methods: A pilot involving multi-disciplinary professionals from the hospital frailty, HIV and community teams was established. Patients were screened using the Clinical Frailty Scale and patients with a CFS ≥ 4 were referred for completion of a comprehensive geriatric assessment (CGA). Patients would then be discussed at the Frailty MDT meeting, where action plans were devised.

Results: 47 patients were assessed between October 2020 to December 2021, with 30 eligible for review in the frailty clinic. Commonly reported issues were mobility n=26 (86.6%), pain n=23 (76.6%), low mood n= 14 (46.6%), memory issues n=3 (43.3%) and falls n=12 (40%). Following MDT recommendations, 8 (26.6%) referrals were completed for social care,1 (3%) referral for safeguarding and 9 (30%) referrals for active case management community teams for co-ordination of care in the community. Deprescribing recommendations were suggested for 16 (53.3%) patients and new medicine recommendations made for 24 (80%) patients.

Conclusion: A collaborative MDT approach to managing older PLWH can facilitate formulation of action plans to address patients physical, psychological and social needs.



"Weight Watchers" – A Quality Improvement Project Aiming to Enhance the Recognition of Inpatient Weight Loss on an Elderly Ward

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Background: Weight loss in the older adult is often multifactorial and can be associated with increased morbidity and mortality. Our quality improvement project focused on nutritional care of patients 75 years or older. This hospital has a standardised Nutrition and Hydration Policy based on NICE guidelines to prevent malnutrition in hospital inpatients including weighing patients every 72 hours, daily screening and food/hydration charts. Our project aimed to increase adherence, with a focus on increasing the percentage of patients being regularly weighed over a 6-month period to 90%.

Methods: Our stakeholder analysis highlighted the multidisciplinary nature of our project, particularly involving the healthcare assistants. The percentage of patients weighed within 72 hours was recorded weekly. The first PDSA cycle introduced the project and gained buy-in from the MDT, highlighting required weights in MDT meetings/board rounds. The second cycle included an education session for doctors. The third cycle involved a poster in each bay aiming to act as a prompt and promote patient and family involvement.

Results: Our run chart shows that following our first two PDSA cycles eight consecutive results were higher than the baseline (40% of patients weighed). Results ranged from 70-90%. Following the third intervention compliance returned to baseline but coincided with significant disruption to the ward structure and team. Our successful intervention of nutritional teaching was then repeated as a fourth PDSA cycle and the mean returned to 80%.

Conclusions: Nutritional care requires multidisciplinary involvement. The educational session had the most impact and in future could be delivered to additional MDT members. Disappointingly the poster did not stimulate patient or family participation. We would like to create an ethos on elderly wards where nutrition routinely features in ward-based comprehensive geriatric assessments. Future plans hope to further engage patients and families as visiting restrictions eased.



Improving Advanced Care Planning in Severe Frailty

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Introduction: NICE guidance recommends that doctors need to identify patients who are approaching their final year of life, through the utilisation of tools such as the Clinical Frailty Score (CFS). The 'Getting it right first time' (GIRFT) document recommended that all local health systems identify older people in the last phase of life and offer them Advanced Care Planning (ACP). Wigan has a large population of frail patients who would benefit from ACP discussions.

Aim: Initiate a strategy for identifying patients with severe frailty and establish a process for implementing ACP.

Method: Retrospective discharge data was used to identify patients aged >65 years, with a CFS of >7, over an 8-week period. The cohort was examined to see if they had been recognised as a patient who would benefit from ACP, or if an aspect of ACP had been completed during their admission. In total, 19 patients were identified, of which 6 were included and 13 were excluded.

Results: Initial data showed that we were poor at identifying and completing ACPs for patients with severe frailty. No advanced care planning decisions (0%) were taken during this period. Education (PDSA cycle 1) on ACPs for the ward doctors led to an improvement regarding ACP discussions. However, we were still poor at identifying severe frailty. Education (PSDA cycle 2) for nursing staff was undertaken, which highlighted inaccuracies with calculating CFS. Further PDSA cycles are to follow, including a geriatric frailty score assessment, introduction of Electronic Palliative Care Coordination Systems (EPACCS) and frailty posters and cards.

Conclusion: Severe frailty is an end-of-life state and should trigger a healthcare professional to identify and sensitively discuss end of life needs and preferences. ACP should be disseminated to other healthcare professionals to allow them to act in accordance with the patient's wishes or best interests.



Advance care plans (ACP) in secondary care: What are the patient outcomes following discharge from hospital with an ACP?

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Introduction: Treatment escalation plans are discussed in hospital but not always communicated to community care on discharge, leading to avoidable admissions to hospital and hospital deaths which may be not what the patient wants. The project aimed to review what happened to patients discharged from hospital with an ACP over a 12 month period.

Method: Older person service (OPS) inpatients were identified for ACP discussions, using Clinical frailty score, presence of life limiting conditions, co-morbidities, significant decline. Over a 12 month period 155 ACP's were completed using the ACP document on the Trust electronic record (EPR), including the level of appropriate care and preference for location of on-going care. On discharge copies of the ACP were sent with the patient, to their GP and the ambulance service. EPR was used to review patients up to 12 months post discharge.

Results: Of patients with an ACP; the wish of all patients was to remain out of hospital and be cared for in the community; 63% were discharged to care home setting; 19% were readmitted as inpatients (43.7% Trust OPS/no ACP readmissions); 8% of patients died before discharge; 92% of patients who died after discharged, died out of hospital (47.5% Trust OPS/no ACP deaths); 25% were still alive at 12 months. The process of completing the ACP and communicating the ACP was found to be long and not user friendly with multiple steps and needed refining.

Conclusion: ACP's offer support to facilitate patient's wishes. The use of ACP's in secondary care benefits patients on discharge, it reduces readmissions and in-hospital deaths. The current ACP document is lengthy and requires simplifying. This has led to a work group to redevelop the ACP into a more user friendly/shareable document, which will encourage on-going use of ACP's and can be adopted throughout the Trust.



The 'Consultation Communication' Proforma: enhancing effective communication between Outpatients and Intermediate Care

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Introduction: The Norman Power Centre (NPC) is a 32 bedded Intermediate Care Unit, run by an acute hospital trust in Birmingham, UK, for patients who require ongoing 24 hour care, rehabilitation or further assessment, but do not need to be in an acute hospital setting. These frail patients attend numerous outpatient hospital appointments, but rarely do staff receive communication back from these outpatient reviews. This can lead to delays in implementing specialist management plans, with potential for adverse outcomes for patients and increased staff workload in seeking out the required information. A 'Consultation Communication' proforma was designed, to be filled in at the appointment and brought back to NPC with the patient.

Method: Patients and escorts took proformas to outpatient appointments between March and June 2022. The information on the forms was then analysed to assess completeness and usefulness.

Results: Appointments were in surgical and medical specialities, as well as imaging in three hospitals within one trust. Proformas were taken to 19/20 appointments. 100% of these were at least partially completed, with only two forms being largely incomplete. 17/19 provided information about the assessment carried out. 12/19 included recommendations relevant to admission at NPC. 13/19 had information on medication changes. 14/19 stated whether follow up was required. Eight out of nine required follow-ups had specific details included. 13/19 had the professional's details, 11 with contact numbers. Of those without details, two were imaging appointments where contact details were not relevant.

Conclusions: This easy to implement, simple intervention, with an excellent engagement rate from both NPC and outpatient appointment staff, has led to improved continuity of care for patients. The proforma has scope to be improved based on staff feedback, and its use could be expanded across other off-site facilities such as community hospitals or care homes.



Improving the measurement of postural blood pressure with ad-hoc mobile teaching sessions for nurses and healthcare assistants

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Introduction: Falls are a major cause of morbidity and mortality in patients over 65. Unrecognised postural hypotension is a significant and treatable contributor. Training nurses and health-care assistants (HCAs) in correct measurement technique can be challenging, as these groups are rarely able to fully attend single sessions due to urgent clinical commitments, night duties and staff-shortages. We aimed to improve the frequency and quality of lying-standing blood pressure (LSBP) measurement in a Geriatric inpatient cohort.

Methods: 3 PDSA cycles were performed over a 10-month period on a single Care of the Elderly ward, including an initial audit in March 2021. The outcome measures were

- 1. the percentage of non-bedbound patients having LSBP correctly measured (5-min recumbent, 1 and 3 min standing readings), assessed by chart review and
- 2. the understanding and confidence of measurers in correct technique, as assessed by a questionnaire.

The intervention was developed into three separate days of ad-hoc mobile teaching sessions to allow reinforcement of knowledge. Trainers moved from bay-to-bay delivering a 5-minute preprepared presentation/demonstration on the indications and correct technique of LSBP measurement. This was repeated throughout each day until all measurers had participated.

Results: On initial assessment, only 21% (6/28) of non-bedbound patients had LSBP correctly measured. This improved to 44% (8/18) by July and 62% (8/13) by December 2021. When sampled, measurers had sustained improvements from July (n=8) to December (n=7), in terms of self-rated confidence (mean 4.4/5 vs 4.9/5), correct technique (25% vs 100%), interpretation of results (25% vs 43%) and knowledge of contraindications to measurement (88% vs 100%).

Conclusions: We describe a strategy using ad-hoc mobile teaching sessions to train nurses and HCAs to measure LSBP in a Geriatric inpatient cohort, which resulted in sustained improvements. We believe this technique is readily applicable to other units and areas of practice.



Improved performance against SSNAP parameters for thrombolysed stroke patients following changes in practice

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Background: The CQC inspection of the Royal Lancaster Infirmary (RLI) in May 2021 rated the performance of the stroke department unsatisfactory, leading to a number of changes. A retrospective audit was performed to determine the impact of these changes for thrombolysed stroke patients.

Aim: This retrospective audit assessed the performance of the stroke department at the RLI against the parameters set by the 'Sentinel Stroke National Audit Program' (SSNAP), comparing 6-month periods before and after the CQC inspection in May 2021.

Method: Using electronic medical records and SSNAP data, we reviewed every thrombolysed stroke patient at the RLI between November 2020 until April 2021 and from May 2021 until November 2021, assessing 10 parameters and comparing the results with SSNAP targets. Since May 2021, changes to practice introduced included opening a new, larger stroke unit located directly opposite the Emergency Department, ring-fencing stroke beds, doubling the number of stroke specialists and stroke consultants reviewing all suspected stroke patients face-to-face within working hours.

Results: 46 patients were thrombolysed with 42 confirmed as having had ischaemic strokes on subsequent MRI imaging. All patients were discussed with a stroke consultant before thrombolysis. Mean time from arrival to CT improved from 51 to 34.5 minutes, admission to stroke unit from 7hr53 to 4hr36 and to thrombolysis from 2hr18 to 1hr22. The number of thrombolysis complications decreased from 5 to 2. Since the changes, the SSNAP grade for stroke unit admission improved from C to A and specialist assessments from E to B.

Conclusion: The changes implemented following the May 2021 CQC inspection have had a positive impact on the care of thrombolysed stroke patients and overall SSNAP grades at RLI. Improvements are still required and the next steps include improving the efficiency of thrombolysis times and further improving SSNAP grades.



CWTCH in the community – improving education to reduce adverse outcomes for patients who fall in nursing homes (NH)

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Introduction: Falls have significant morbidity and mortality in Nursing Home (NH) residents. By improving education to NH staff we aim to reduce 999 calls and associated adverse outcomes. NH residents are more likely to fall than people living in the community and are more at risk of further falls as interventions and risk factor modification is more difficult.

Methods: *Phase 1* - Ambulance calls, where a vehicle attended the scene, between 01/01/2020-28/02/2022 from NH in Swansea Bay University Health Board (SBUHB) concerning Falls/?Falls (Haemorrhage/lacerations, Unconscious/fainting, traumatic injuries, sick person, convulsions/fitting) were analysed and survey was sent out to all NH.

Phase 2 - Education was provided about CWTCH (hug in Welsh) and staff were surveyed post intervention. Can you move them, Will it harm them? - new neck/back pain, anticoagulation, Treat them – analgesia, wound-care, Cup of Tea – can eat and drink, Help – when contact 999.

Results: *Phase 1* – Between 01/01/2020-28/02/2022, of 4907 calls, 866 were falls (17.65%) and 1032 ?Falls (21.07%), 60.49% conveyed to hospital. 47% of NH do not have falls guidelines and 100% patients are Nil by Mouth and 88.24% are not moved. Emergency services were contacted 88.24%. Phase 2 - Education was delivered to all NH in Swansea (122 staff). Feedback showed 100% feel more confident in giving food and drink, moving patients, with 90.98% less likely to contact 999 and 75.40% not having previous training with 96.72 % more confident in giving analgesia.

Conclusions: Falls remain a significant burden and a rapid service would improve care with conveyance reduction to 53.1% post education (60.55% pre-education). Future directions include offering this education to NH in Neath/Port Talbot. From March 2022, we offer same-day assessment for NH residents (and others) from primary care and ambulances and are developing a PRN analgesia pathway e.g. PENTHROX



Improving staff awareness of frailty in the emergency department: a multi-disciplinary quality improvement project

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Introduction: Comprehensive Geriatric Assessment (CGA) improves outcomes for frail older adults in acute hospitals. Patients aged 75 and over admitted into the Emergency Department (ED) at the QEUH will automatically generate a "frailty icon" on their electronic record. The number of frail people accessing emergency care is increasing. This Healthcare Improvement Scotland (HIS) frailty tool prompts staff to assess for frailty and refer to the local Frailty Pathway if appropriate. We designed a multidisciplinary quality improvement project (QIP) to increase completion of the frailty icon and the number of referrals to the frailty service from the ED.

Methods: Both medical and nursing staff in the ED were targeted for intervention. Weekly data was collected on the percentage of patients aged 75 and above who were discharged from the ED with a "frailty icon" completed over a 3-month period. Our main intervention was to hold a frailty awareness month. This involved multiple sub-interventions such as; announcements at handovers, e-mails, word-of-mouth, and posters.

Results: The weekly percentage of completed "frailty icons" increased from 28% 2 weeks preintervention (n = 283) to 48% in 1 month (n = 258). A peak of 57% (n = 293) completed icons was achieved immediately after our intervention. These increases were then sustained for a further 6 weeks with a weekly average baseline of 45.2% completion (average n = 281). Increased "frailty icon" completion in the ED led to a 100% increase in referrals to the frailty pathway.

Conclusion: Increasing awareness of frailty amongst ED staff results in increased front door assessment for frailty, and subsequent referral to the frailty team. This allows for more patients to receive a CGA. Multidisciplinary QIPs utilise the skills of diverse staff groups to best achieve sustainable change.



Development of a M&M meeting integrating the Situational Judgement Review (SJR) framework in a Geriatric Department

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Introduction: The National Mortality Case Record Review Programme commissioned in 2016 aimed to improve the learning from deaths process. As part of this aim, several reports were published, which identified barriers in implementing the mortality review process. Mortality and Morbidity (M&M) meetings can be an important mechanism for removing these barriers, and while have been in place for a long time in surgical specialties, are only recently becoming more common in medical specialties. We have developed an innovative M&M meeting in our geriatric department to integrate Mortality case reviews with teaching and QI development.

Methods: We created a standardised mortality data collection proforma, using the (SJR) framework as a template. During the development, feedback was obtained from consultants and juniors. Data was then collected using the proforma by trainees, and all mortality cases were then reviewed with consultant supervision, and specific cases were chosen for their educational benefit or requiring areas of improvement. Cases were then presented at the meeting. At the end of the meetings, an action plan was then created in collaboration with the consultant and juniors in the meeting to create a teaching plan or develop a QI project to help improve service.

Results: From feedback gained, the M&M was well received, and has already helped improve training and delivery of end of life care and recognising the dying patient. There were several difficulties identified during the process such as incomplete medical records, time & lack of engagement from other team members due to work pressures.

Conclusion: Mortality meetings are an essential part of junior doctor training and hospital clinical governance, often times underutilised. They can support quality improvement and professional learning, especially when facilitated by a standardised mortality review process.



A survey to assess Rehab Therapy Communication between different members of the MDT

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Introduction: Physical rehabilitation is related to better surgical and medical outcomes for patients (WHO, 2021). In hospitals, the role of the rehab team is essential to promote faster and better recovery and to prevent falls (Brett et al., 2019). We wanted to review the communication between the rehab team and medical team to aid discharge planning. Better communication can reduce repetition.

Methods: A baseline survey was given to doctors, nurses, and rehab staff on a geriatric ward to review communication. The intervention was an A4 template highlighting the patients' baseline and current function, which was placed by the bedside. A repeat survey was done to evaluate the effectiveness.

Results: Survey 1 had 13 participants. Survey 2 had 25 participants. 90% of doctors and nurses strongly agree that they need to know patients' ability to transfer, mobilise, wash, dress and falls risks. 71.4% of rehab team agrees that patients' rehab status is not clearly communicated between different members of the multidisciplinary team. 100% of rehab staff were asked about patient's rehab status which improved to 71.4% after the intervention. After the intervention, 60% of doctors agree that they still find themselves asking other members of the MDT about patients' rehab status, compared to only 37.5% of nurses.

Conclusion: To know patients' rehab status is extremely important for their medical management, nursing management, and for their safety. A simple intervention had improved the awareness of patient rehab status, reducing time wasted on repetition. Another cycle to further improve communication by a teaching session with be conducted at each rotation ensure sustainability.

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Improving the peri-operative management of anticoagulation in patients with neck of femur fractures (NOFFs)

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Introduction: Neck of femur fractures (NOFFs) are a clinically significant diagnosis, with 10% of patients dying within one month of diagnosis [1]. There is a strong association between earlier surgery and improvement in postoperative outcomes [2]. Taking anticoagulation can cause delays in patients being operated on. At Homerton University Hospital (HUH), no previous guideline existed to aid specifically in the management of patients with NOFFs on anticoagulation. We created a guideline in order to reduce delays to theatre, in keeping with national guidance (<36 hours to operation).

Methods: We audited all patients in 2020 admitted to HUH with NOFFs taking anticoagulation. A guideline was then created, reflecting new national guidance [3] on the management of anticoagulation pre-operatively for NOFF patients. Three PDSA cycles were completed, with repeat audit cycles following dissemination and teaching of guideline to relevant clinical groups.

Results: Following implementation of our guideline, 56% of patients had surgery within 36 hours of admission, compared to 25% previously. Advice being given to the admitting team regarding timing of the operation was more consistent, and the admitting team needed to ask for advice less often. There was an overall increase in consistency of management.

Conclusions: Ensuring NOFFs are operated on promptly reduces the risk of co-morbidity and mortality [2]. There are often incorrect delays to theatre following anticoagulation administration due to perceived risk of bleeding. We created and implemented a new guideline, which successfully reduced time taken for patients on anticoagulation to be taken to theatre for operation.

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A quality improvement project to improve assessment and documentation following inpatient falls

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Introduction: Inpatient falls are a major cause of avoidable harm in patients on elderly care wards. Delays in identification of fall precipitants and recognition of sustained injuries increases morbidity, mortality and length of stay (Cameron et al, Cochrane Database Syst Rev. 2018 Sep; 2018(9)). Patients sustaining falls are often initially assessed by postgraduate year 1 and 2 doctors independently. We aimed to improve patient outcomes following inpatient falls through standardisation of the assessment and documentation following a fall in hospital.

Methods: Using PDSA methodology, incident reports and documentation of inpatient falls were reviewed retrospectively over three 28-bedded elderly care wards. A post-falls proforma was devised that covered various domains of the post-fall assessment and was distributed to doctors throughout the hospital. Following the intervention, a repeat PDSA cycle was performed prospectively over the same wards and the proportion of assessments fulfilling each domain was compared between the cycles.

Results: Medical assessment of 27 falls from November 2020 to January 2021 was compared to 31 falls occurring between February and May 2022. Use of the proforma in cycle 2 was limited to 8/31 falls following intervention. Post-intervention, the proportion of assessments fulfilling medication review (19% vs 35%, p=0.14) and anticoagulation status (41% vs 55%, p=0.28) was improved. The proportion fulfilling fall circumstances (89% vs 90%, p=0.85), medical precipitant (70% vs 61%, p=0.46) and ordering of appropriate imaging (93% vs 97%, p=0.47) remained high.

Conclusion: Standardisation of post-falls assessment and documentation can improve patient safety outcomes through reducing delay in recognition of medical precipitants of falls and identification and management of sustained injuries. Improved integration of a post-falls proforma into electronic systems is needed to maximise its clinical benefit and would be the target of a further PDSA cycle.