

Autumn Meeting 2019

6-8 November 2019, Leicester

Book of Abstracts

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SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: MA-1710)

PLATFORM PRESENTATION: WEDS FRAILTY & URGENT CARE SESSION (10.30-10.45)

To what extent are patients' future care preferences shared between secondary and primary care? A retrospective chart review

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Introduction: When a doctor is informed of a patient's future care preferences if they were to lose capacity, there is an ethical and legal obligation to share this information with the treating medical team. In frail older patients, conversations about treatment preferences often occur during hospital admission. We sought to assess the communication of these preferences to the patient's GP.

Methods: Retrospective chart review of consecutive discharges from acute geriatric wards across seven hospitals. Records were excluded if the patient was admitted for less than 48 hours, was under orthogeriatric care, or died in hospital.

Results: 339 notes were included, 41-50 from each hospital. GPs were informed of the resuscitation status of 28% of all patients. 52% of patients had an inpatient DNACPR, the GP was informed of 54% of these. 36% of patients had an inpatient ceiling of treatment documented, of which GPs were informed of 19%. 53% of hospital DNACPRs were converted into community DNACPRs on discharge: GPs were informed of only 24% of new community DNACPRs. 47% of patients discharged with a new community DNACPR lacked capacity to be involved in that decision; for just 6% of these was the GP asked to review the DNACPR order in the community. Inpatient Advance Care Planning (ACP) discussions were held for 9% of patients, of which the GP was informed in 59% of cases. 49% of ACP conversations involved the next-of-kin but not the patient. Among patients who had a new DNACPR decision made during their admission (n=124), there was documentary evidence in only 25% that the patient or next-of-kin was informed whether this was time-limited or indefinite.

Conclusions: Communication from hospitals to GPs about resuscitation, ceiling of care and ACP discussions is very limited. For patients who have expressed ongoing future care preferences, there is a legal obligation to share this information with the treating medical team, which on discharge is the GP.

There is poor documentary evidence of discussions with patients about whether DNACPR decisions are time-limited or indefinite. Furthermore, many hospitalised frail patients lack capacity to make DNACPR decisions but they may subsequently regain capacity, particularly those with delirium. Despite this, GPs are rarely asked to review new community DNACPRs, including those made for patients without capacity.

SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: MA-1724)

PLATFORM PRESENTATION: WEDS FRAILITY & URGENT CARE SESSION (10.45-11.00)

Relocation In Care Homes (RICH) study: The experience of different stakeholders

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Introduction: In the UK, care homes in unsuitable older buildings are closing. Involuntary relocation is associated with increased mortality and negative emotions among residents. Extensive planning can mitigate this. The aim was to understand the experience of a planned relocation between two care homes.

Methods: In the UK, care homes in unsuitable older buildings are closing. Involuntary relocation is associated with increased mortality and negative emotions among residents. Extensive planning can mitigate this. The aim was to understand the experience of a planned relocation between two care homes.

Results: Seven themes were identified and organised under three stages: pre-move (communication and involvement; preparation for the move; and attitudes towards the move), day-of-the-move (organisation of the move), and post-move (environmental change and impact; staff organisation and management; and settling in). Family and staff members reported that the pre-move information provided was inconsistent and staff did not feel involved in the planning and design process. Pre-move visits and staff and family support were beneficial for residents' preparation for the move. All participants expressed sadness about the closure, and reported apprehension about moving. The moving day felt disorganised and stressful to staff who had to spread between the two homes. Post-move, the new care home was perceived by many participants as a 'hotel' rather than a home. Its larger size and confusing layout impacted negatively on residents and staff. New staff and changes in management structure were perceived by the different stakeholders to cause increased staff workload. Residents adjusted variably to the new home, with family support and staff continuity of care proving to be facilitators.

Conclusions: Despite extensive planning, relocation and adjustment was challenging. Recommendations for future relocations include: increasing involvement of staff in the planning and design of the home; ensuring consistent communication and organising staff rotas to maintain continuity of care.

SCIENTIFIC PRESENTATION: FALLS, FRACTURE & TRAUMA (REF: MA-1754)

PLATFORM PRESENTATION: WEDS FRAILTY & URGENT CARE SESSION (12.30-12.45)

Effects of community falls prevention service closure on ICD-10 coded fracture rates in older people: An interrupted time series approach

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Introduction: Guidelines on falls prevention recommend case ascertainment based on opportunistic case ascertainment and referral in those who have fallen. In October 2009 we implemented a novel multidisciplinary, multifactorial falls, syncope and dizziness service with enhanced case-ascertainment through proactive, primary care-based screening for associated risk factors. In addition to comprehensive geriatric assessment, 25% of 4032 service participants underwent strength and balance training. The baseline outcomes have been previously reported.¹ Funding was withdrawn, and the service closed on 31/01/2014. We examined the effect of service-closure on fractures presenting to secondary care with and without the service running.

Methods: An interrupted time series method was used. ICD-10 coded fracture numbers attending secondary care were determined (Hospital Episode Statistics from 01/02/2012-31/05/2017) for all North Tyneside residents ≥ 60 years at the time of service closure, including 25-months with, and 40-months without, service provision.

Results: There was a 0.9% ($p=0.018$) monthly reduction in falls over 25-months of service provision which increased during the winter months of a 9.8% ($p=0.015$) increase. In the month following the service closure there was an initial increase in fractures of 8.5% ($p=0.231$), followed by an increase in the monthly time trend of 1% ($p=0.018$). This resulted in a post-service monthly increase in fractures of 0.1%, an estimated extra 625 fractures over the 40-month post-service cessation period. At an average £8600 per fracture, the estimated cost may have been £5,375,000.

Conclusions: In this naturalistic experiment, following an initial drop in fractures, disinvestment in this service resulted in a rise in elders' fractures presenting to secondary care. The closure of the service may have had a large unintended cost, averaging £1.5 million annually, versus annual running costs of £220,000. Further research is needed to control for patient-level characteristics and to establish the cost-effectiveness of the service.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: LC-1784)

PLATFORM PRESENTATION: WEDS FRAILITY & URGENT CARE SESSION (12.45-13.00)

A review of reviews of Emergency Department interventions for older people: outcomes, costs and implementation factors

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Introduction: Older people's emergency care is an international public health priority and remains sub-optimal in the UK. Strategies are needed to manage older patients sensitively and effectively. We reviewed emergency care interventions, evaluating evidence for outcomes, costs, and implementation.

Methods: We developed and registered (with PROSPERO, CRD42018111461) a review of reviews protocol. Screening was according to inclusion criteria for subject and reporting standards. Data were extracted and summarised in tabular and narrative form. Quality was assessed using AMSTAR2 and Joanna Briggs Institute tools. Due to intervention and outcome heterogeneity, findings were synthesised narratively. McCusker's Elder-Friendly Emergency Department assessment tool was used as a classification framework.

Results: Eighteen review articles and three conference abstracts fulfilled inclusion criteria. The majority were systematic reviews, with four using meta-analysis. Fourteen reviews reported interventions initiated or wholly delivered within the ED, and four focussed on quality indicators or patient preferences.

Confidence was limited to each review's interpretation of primary studies. Descriptions of interventions were inconsistent, and there was high variability in reporting standards. Interventions mostly focussed on screening and assessment, discharge planning, referrals and follow-up, and multi-disciplinary team composition and professional activities. 26 patient and health service outcomes were reported, including admissions and readmissions, length of stay, mortality, functional decline, and quality of life.

Conclusions: Our review of reviews demonstrated that the current, extensive evidence base of review studies lacks complexity, with limited or no evidence for the effectiveness of interventions; reviews commonly called for more primary research using rigorous methods. There is little review evidence for factors influencing implementation.

There was evidence that among interventions initiated in ED, those continued into the community yielded better outcomes. Service metrics (as valued by care commissioners) were evaluated as intervention outcomes more frequently than person-centred attributes (as valued by older people). Interventions were broadly holistic in nature.

SCIENTIFIC PRESENTATION: EPIDEMIOLOGY (REF: MA-1648)

PLATFORM PRESENTATION: THURS SESSION B (9.30-9.45)

A cross-sectional study assessing agreement between self-reported and general practice recorded health conditions among community dwelling older adults

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Introduction: Self-reported data regarding health conditions are utilised in both clinical practice and research, however, their agreement with general practice records is variable. The extent of this variability is poorly studied among older adults, particularly among those with multiple health conditions, cognitive impairment or frailty. This study investigates the agreement between self-reported and general practice recorded data among such patients and the impact of participant factors on this agreement.

Methods: Data on health conditions was collected from participants in the Community Ageing Research 75+ (CARE75+) study (n=964) by self-reporting during face to face assessment and interrogation of the participants' practice health records. Agreement between self-report and practice records was assessed using Kappa statistics and the effect of participant demographics using logistic regression.

Results: Agreement ranged from K=0.25-1.00. The presence of ≥ 2 health conditions modified agreement for cancer (odds ratio, OR:0.62, 95% confidence interval, CI:0.42-0.94), diabetes (OR:0.55, 95%CI:0.38-0.80), dementia (OR:2.82, 95%CI:1.31-6.13) and visual impairment (OR:3.85, 95%CI:1.71-8.62). Frailty reduced agreement for cerebrovascular disease (OR:0.45, 95%CI:0.23-0.89), heart failure (OR:0.40, 95%CI:0.19-0.84) and rheumatoid arthritis (OR:0.41, 95%CI:0.23-0.75). Cognitive impairment reduced agreement for dementia (OR:0.36, 95%CI:0.21-0.62), diabetes (OR:0.47, 95%CI:0.33-0.67), heart failure (OR:0.53, 95%CI:0.35-0.80), visual impairment (OR:0.42, 95%CI:0.25-0.69) and rheumatoid arthritis (OR:0.53, 95%CI:0.37-0.76).

Conclusions: Significant variability exists for agreement between self-reported and general practice recorded comorbidities. This is further affected by individuals' baseline demographics. This study is the first to assess frailty as a factor modifying agreement and highlights the importance of utilising the general practice records as the gold standard for data collection from older adults.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1654)

PLATFORM PRESENTATION: THURS SESSION B (9.45-10.00)

Oral sodium bicarbonate therapy for older patients with chronic kidney disease and low-grade acidosis: The BiCARB randomised controlled trial

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Background: Oral sodium bicarbonate is often used to treat metabolic acidosis in older people with advanced chronic kidney disease, but evidence is lacking on whether this provides a net gain in health or quality of life.

Methods: We conducted a multicentre, parallel group, double-blind, placebo-controlled randomised trial. Adults aged 60 years and over with category 4 or 5 chronic kidney disease, not on dialysis, with serum bicarbonate concentrations <22 mmol/L were recruited from 27 UK centres. Participants were randomised 1:1 to oral sodium bicarbonate or matching placebo. The primary outcome was the between-group difference in the Short Physical Performance Battery at 12 months, adjusted for baseline. Other key outcome measures included generic and disease-specific health-related quality of life, anthropometry, physical performance, renal function, adverse events including commencement of renal replacement therapy, and health economic analysis.

Results: We randomised 300 participants, mean age 74 years; 86 (29%) were female. Mean baseline estimated GFR was 19 ml/min/1.73m². Study medication adherence was 73% in both groups. No significant treatment effect was evident for the primary outcome of the between-group difference in the Short Physical Performance Battery at 12 months (-0.4 points; 95% CI -0.9 to 0.1, p=0.15). No significant treatment benefit was seen for any of the secondary outcomes. Adverse events were more frequent in the bicarbonate arm (457 versus 400). Time to commencing renal replacement therapy was similar in both groups (HR 1.22, 95% CI 0.74 to 2.02, p=0.43). Health economic analysis showed lower quality of life and higher costs in the bicarbonate arm at one year (£1234 vs £807); placebo dominated bicarbonate under all sensitivity analyses for incremental cost-effectiveness.

Conclusions: Oral sodium bicarbonate did not improve a wide range of health measures in this trial, and is unlikely to be cost-effective for use in the UK NHS in this patient group.

SCIENTIFIC PRESENTATION: EPIDEMIOLOGY (REF: MA-1678)

PLATFORM PRESENTATION: THURS SESSION B (10.00-10.15)

Circulating Vitamin D levels and Frailty in the British Regional Heart Study: Cross sectional and prospective associations

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Introduction: Whether Vitamin D deficiency is linked to development of frailty, independent of other health conditions, is inconclusive. In the British Regional Heart Study we aimed to examine (1) cross sectional (CS) and prospective (PS) associations between Vitamin D levels and frailty; and (2) if these are mediated by conditions linked to low Vitamin D (diabetes, chronic obstructive pulmonary disease and inflammatory markers C-reactive protein & Interleukin-6).

Methods: Baseline (2010-2012) Vitamin D in men (71-92y) was categorised as deficiency (<12 ng/ml), insufficiency (12 - < 20 ng/ml) and sufficiency (\geq 20 ng/ml) states. Frailty, assessed at baseline and follow up (2014) was classified as robust, pre-frail or frail (score 0, 1-2, or \geq 3 out of 5 Fried Frailty components respectively). Multinomial regression determined CS & PS relative risk ratios (RRR) of being pre-frail or frail, relative to robust. Adjustments were made for age, BMI, season, smoking, drinking habits, social class, Vitamin D/calcium supplements, mental/physical health and potential mediators.

Results: At baseline, 20% of 1494 men were frail and 25% deficient in Vitamin D. Unadjusted RRR of being frail (vs robust) was 3.16 [95% CI 2.16, 4.62] in men with Vitamin D<12ng/ml (reference \geq 20ng/ml). Higher RRR persisted even after adjusting for covariates and potential mediating factors, [2.74; 95% CI 1.60, 4.69]. Of 977 men non-frail at baseline, 10% became frail. Men with Vitamin D <12ng/ml (reference \geq 20ng/ml) had higher unadjusted RRR of becoming pre-frail [1.47; 95% CI 1.04, 2.09] and frail [2.14 95% CI 1.29, 3.56] (vs robust). While the PS association with pre-frailty was completely attenuated with covariate adjustment, higher RRR for frailty remained even in the fully adjusted model [2.07 95% CI 1.07, 4.00].

Conclusions: Vitamin D <12ng/ml was associated with prevalent & incident frailty in older British men, independent of disease/inflammatory states. Further research exploring Vit D therapy for improving frailty outcomes is needed.

References:

1. Parry SW. JAGS:2016;64(11):2368-2373.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: MA-1680)

PLATFORM PRESENTATION: THURS SESSION C (12.30-12.45)

Does time 'Out Of Programme' offer increased academic output? The South East London Geriatrics Training Programme experience

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Introduction: In contrast to other medical specialties, trainees in Geriatrics have historically provided an increased contribution to clinical workload in General Internal Medicine and a reduced output of academic achievements. More recently, development of non-clinical skills has been recognised to have similar importance to clinical skills and the South East (SE) London Geriatrics Training Programme has thus supported trainees in applications for Out of Programme (OOP) opportunities to optimise career progression.

Methods: Doctors who had undertaken specialist registrar training in the SE London Geriatrics Training Programme at any time between 2011 and 2019 were sent a questionnaire to assess whether they had completed time OOP and whether they had been awarded research grants, published papers in peer-reviewed journals, had abstracts accepted for presentation at conferences, and/or published book chapters during their training programme. Chi-squared and Wilcoxon rank-sum tests were used to compare data between registrars who had completed time OOP and those who had not taken time OOP.

Results: 77 (24 male; 53 female) registrars completed training in the SE London Geriatrics Training Programme between 2011 and 2019. 71 registrars (92%) completed the questionnaire, of whom 31 (44%) completed time OOP. In total, registrars were awarded 15 research grants, published 86 papers in peer-reviewed journals, had abstracts accepted for 184 conference presentations and published 20 book chapters. A notably increased proportion of registrars who took time OOP had an output of research grants, papers published in peer-reviewed journals, abstracts accepted for presentation at conferences and/or book chapters respectively compared with registrars who had not taken time OOP (23% vs 5% ; 61% vs 23%; 84% vs 33%; 45% vs 5%). This equated to a combined academic output in 94% of registrars who completed time OOP compared with 48% who did not ($p < 0.001$).

Conclusions: A very strong association existed between registrars in Geriatrics taking time OOP and academic achievement substantiating the training programme's aspiration to support development of non-clinical skills that may be helpful to trainees in their future careers. It would be worthwhile further work being undertaken in this area in other regions.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: LC-1788)

PLATFORM PRESENTATION: THURS SESSION D (12.30-12.45)

Improving access to outpatient services for older people using a Clinical Microsystems approach

E Tullo, A Smith, J Ridden, R Ross, R Curless, M Doshi

Northumbria Healthcare NHS Foundation Trust

Background: Northumbria Healthcare NHS Foundation Trust provides services to more than 500,000 residents in the North-East of England across multiple sites.

Local problem: Outpatient services for older people across Northumbria include specialist (eg falls) and generic clinics with differing referral routes, demands and waiting times. Referrals derive from primary care, emergency services and elsewhere; some are complex patients requiring a comprehensive geriatric assessment (CGA). Existing pathways led to variable waits for clinics, duplication and delays.

Aim was to improve the timeliness, efficiency and access to appropriate assessment first time.

Methods: We adopted a Clinical Microsystems approach (Sheffield Microsystems Coaching Academy) for improvement. Main components were team coaching, weekly "Big Room" meeting of involved staff to share understanding of current process, agree change ideas, and test these with multiple plan, do, study, act (PDSA) cycles. Impacts of each PDSA cycle were discussed in Big Room, leading to refinement of the pathway.

Interventions:

Results: PDSA interventions were tested over 6 months:

1. Development of a single triage system
2. CGA clinic for frail older patients.
3. Development of shared documentation for CGA.
4. Improved cycle and lead times for assessment

Conclusions: Our quality improvement work supported the development and implementation of a new referral triage process with CGA assessment for complex frail patients. The change has reduced patient wait times, provided early intervention and reduced duplication. Work is ongoing to determine impact on patient satisfaction and time to discharge from clinic. The approach taken by this project could be applied elsewhere to improve outpatient referral processes.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1670)

PLATFORM PRESENTATION: THURS SESSION D (12.45-13.00)

PDSA audit improves identification and management of urinary incontinence in post stroke patients

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Introduction: Urinary incontinence is a prognostic indicator of mortality and functional recovery in stroke. There is a small evidence base that early intervention within the first three months may improve continence status and subsequent physical and psychological consequences.

Methods: Utilising a proforma and PDSA, data was collected on the identification and assessment of urinary continence status for patients admitted to a stroke unit. Five agreed standards from NICE (2012) and RCP (2016) guidelines formed the basis of audit. Three cycles of prospective data for a total of 66 patients was collected over four months, implementing quality improvement measures after each cycle.

Results: 22 participants per cycle. Cycle one demonstrated continence status was identified by the nursing team (100%), and the medical team (41%). However, standards regarding further care planning and assessment (22%), MDT input (11%) and subsequent behavioural and practical interventions (11%) was low.

Change strategy, i) awareness training, ii) development of MDT prompt sheet.

Cycle two, medical identification (82%), MDT discussion (100%), and continence specific interventions (66%), care planning decreased from 22% to 0%.

Change strategy, incontinent patients receive an individualised assessment within 7 days by the advanced nurse practitioner, this assessment should consider all available evidence-based interventions, with the aim of reducing urinary incontinence within the early phases of stroke.

Cycle three showed an overwhelming improvement to all five standards, nursing and medical identification (100%, 91

Conclusions: PDSA style audit led to quality improvement. The identification of urinary continence status post stroke was high, but due to multifactorial elements often did not progress to assessment or intervention from the MDT. Utilising the existing role of the trainee advanced practitioner patients received evidence-based continence reviews in a timely manner, with no additional cost impact to the service.

SCIENTIFIC PRESENTATION: BONE, MUSCLE & RHEUMATOLOGY (REF: MA-1746)

PLATFORM PRESENTATION: THURS SESSION C (12.45-13.00)

Changes in muscle strength in older patients during hospitalisation: A prospective repeated measures cohort study

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Introduction: Hospital associated deconditioning is a well-established phenomenon. Whilst mechanisms are not well understood, one is thought to be skeletal muscle wasting and/or loss of muscle strength. The primary aim of this study was to investigate changes in knee-extension muscle strength in older patients during and after an acute-hospital admission. We also aimed to explore the potential contributions of frailty, acute-illness severity and sedentary activity, with changes in knee-extension strength.

Methods: This was a prospective repeated-measures cohort study. Measurements of muscle strength and functional mobility were taken at recruitment, on day 7 of admission (or at discharge if earlier) and again 4-6 weeks post-hospitalisation. During the first 7 days of admission, daily measurements of muscle strength were taken.

Results: We recruited 70 participants, of which 65 had at least one repeated measure in hospital. Median age was 84 years, and participants participated in the study for a median of 6 days whilst in hospital, on average participants were 'active' for less than 4% of the day. Knee-extension strength significantly reduced by approximately 11% during hospitalisation, but no significant changes occurred post-hospitalisation. A repeated-measures mixed model included 292 observations from 62 participants and showed a significant decrease in the reduction in muscle strength as patients' sedentary time decreased on days 2 to 7 of the study. Additionally, the model showed that a higher frailty score, higher baseline knee-extension strength, lower baseline c-reactive protein levels were associated with greater loss in knee-extension strength during hospitalisation. Association between change in functional mobility after hospitalisation and change in knee-extension strength during hospitalisation was non-significant.

Conclusion: Our findings provide an important link in understanding the mechanisms and relative contributions of risk factors to hospital associated deconditioning. Further research is needed to confirm these findings and examine the impact of reducing sedentary time on muscle strength during and post-hospitalisation.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: MA-1671)

PRESIDENTS ROUND

The cinema and Geriatric Medicine: An approach to 'hard-to-reach' places in the curriculum

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Introduction: Cinema is powerful - it can depict complex stories, spark discussion and foster reflection.¹ Potentially, in geriatric medicine, the impact of serious diagnoses could be explored and learners' preconceptions concerning ageing challenged. Thus, could film be used to explore and assess 'hard-to-reach' curriculum areas? The Mental Health in Older Adults module (MSc in Geriatric Medicine - Salford University) uses film in the oral assessed presentation. We wished to explore the utility of this

Methods: Learners (North-West Speciality Registrars) were allocated different feature films exploring mental health themes. 8 learners each delivered a ten-minute presentation focusing on a topic selected after viewing the film. The audience comprised Speciality Registrars who could ask questions.

The content of the presentations was reviewed. The key topics/themes tackled were analysed.

Results: Learners watched one of the following: Iris, Tokyo Story, Still Alice, My Feral Heart, Firefly Dreams, The Carer, Away from Her and Amour.

Each film generated 3 or more topics/themes. These were diverse and included: depression in chronic illness; loneliness; neuropsychological complications of stroke and the management and impact of dementia. Presenters set these into the film's context and reflected on the interaction between physical health and social and psychological factors. 'Hard-to-reach' areas included: culture and social care, filial piety, and preconceptions of intellectual disability. Neglected areas tackled included suicide in older adults and the impact of dementia in younger adults.

Audience feedback was positive. The reflective nature of the session provided new insights and was engaging

Conclusions: Film is a medium that allows 'hard-to-reach' (and teach) areas to be tackled and assessed. The use of film was well received and importantly had utility. The topics learners reflected upon were complex and challenged their own and their audiences' conceptions of clinical problems.

References:

1. Law M et al, Perspect Med Educ. 2015 4(5): 218-224.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: MA-1695)

PRESIDENTS ROUND

Developing and testing an Education-Career pathway in Healthcare for Older People (ECHO) to promote retention in early-career gerontological nurses

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King's College London

Background: The NHS Long Term Plan (2019) sets specific targets for multidisciplinary services for frail older people over the next ten years. Delivery and sustainability is crucially dependant on the capability and capacity of gerontological nursing. High cost cities such as London experience high staff vacancy rates in acute care older adult services.

Aim: The study took a regional approach, working with NHS Trusts to develop a multicomponent intervention to increase retention and competencies of early career nurses working in gerontological services. The study examined the acceptability and feasibility of the intervention and tested a quasi-experiential evaluation design. Ethical approval was obtained from the University Ethics committee.

Methods: A co-design approach with stakeholders, early career nurses, educationalists and nurse managers, produced a multicomponent intervention: education module (masters level), gerontological competency booklet, external clinical learning opportunities, career coaching and mentorship delivered over a six-month period. The evaluation involved a mix-methods pre-post survey and focus group interviews.

Results: Twenty-nine early career nurses were recruited from five Trusts. The multicomponent intervention was well received, but there were difficulties facilitating external learning opportunities and providing career mentors. The primary outcome was intention to remain in gerontological nursing (measured using a point Likert scale). Pre-post the intervention this remained high (mean score 6 IQR 5-7), $p=0.78$. There was a significant increase in gerontological knowledge: at baseline the median score was 87 (IQR 81-102) compared to 107 (IQR 98-112) post-intervention, $p=0.006$. In focus groups participants identified three main mechanism of action for ECHO: building gerontological knowledge and skills; professional identity as older adult nurse; and networking to broaden horizons.

Conclusions: The study has demonstrated the potential of Trusts to work collaboratively with education providers to deliver a model of career-education pathway that may help attract and retain early career nurses to work in gerontology.

SCIENTIFIC PRESENTATION: EPIDEMIOLOGY (REF: MA-1663)

PRESIDENTS ROUND

A deficit accumulation frailty index predicts mortality in older South Africans: Findings from the HAALSI study

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Introduction: Few studies have investigated frailty in older people in sub-Saharan Africa, yet such information is vital to prepare responses to rapid population ageing. We aimed to derive and test a cumulative deficit frailty index in a population of older people from rural South Africa.

Methods: We analysed data from the Health and Ageing in Africa: Longitudinal Studies of an INDEPTH Community (HAALSI) study, which enrolled participants aged 40 years and older nested within the Agincourt Health and Demographic Survey Site, South Africa. We created a 32-variable cumulative deficit frailty index using questionnaire (illnesses, symptoms and activities of daily living), physical performance and physiological indices, and blood test results. Each variable was dichotomised to 1 (deficit) or 0 (no deficit). The frailty index for each individual was calculated as the mean of all frailty variables. Frailty categories were defined using cut-offs from the UK electronic frailty index: 0-0.12 (non-frail), >0.12-0.24 (mild frailty), >0.24-0.36 (moderate frailty) and >0.36 (severe frailty). Cox proportional hazards models, both unadjusted and adjusted for age and sex, were fitted to test the association between frailty status and all-cause mortality.

Results: We analysed data from 3989 participants, mean age 61 years (SD 13); 2175 (54.5%) were female. The mean follow-up period was 17 months; 1464 (36.7%) were non-frail, 2059 (51.6%) had mild frailty, 402 (10.1%) had moderate frailty and 64 (1.6%) had severe frailty. A total of 135 (3.4%) died. Adjusted Cox models showed worse frailty category was associated with higher risk of death compared with non-frail individuals: hazard ratios 1.94 (95% CI 1.23, 3.07) for mild frailty, 3.25 (95% CI 1.86, 5.68) for moderate frailty, and 5.50 (95% CI 2.44, 12.40) for severe frailty.

Conclusions: Frailty measured by a cumulative deficits index is common and predicts mortality in a rural population of older South Africans.

SCIENTIFIC PRESENTATION: FALLS, FRACTURES & TRAUMA (REF: MA-1714)

PRESIDENTS ROUND

Fear of falling as measured by the Falls Efficacy Scale International indicates gait and balance abnormalities in community dwelling older people

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Background: Falls are common in community dwelling older people, and gait and balance abnormalities (GABAb) are a key modifiable risk factor, through strength and balance training. In addition, there is a strong relationship between fear of falling (FoF) and GABAb, though Falls Efficacy Scale-International version (FES-I) scores have never been examined in this context. Our aim was to determine whether FoF, as measured by the FES-I, is associated with GABAb, as determined by commonly used gait and balance tests.

Methods: Consecutive patients attending our community falls prevention service completed FES-I questionnaires, and had Gait Speed (GS), Five Times Sit to Stand (FTSTS) and Timed Up and Go (TUG) tests assessed as part of a multifactorial falls prevention assessment. Cut-offs for falls risk are provided in the table. Sensitivity and specificity values for a 16-item FES-I cut-off score of 23.5 (>23 signifying significant FoF) were evaluated using the area under a receiver operating characteristic curve (AUROC), along with positive and negative likelihood ratios (LR+/LR-).

Results: There were 991 participants, 352 male, 639 female, mean age 74.5 years, mean FES-I score 28.7 and 57.0% had experienced at least one fall in the previous year. Gait and balance test scores were moderately associated with FoF per FES-I ≥ 23.5 as shown in the table. Specificities and sensitivities for all three are similar to commonly used diagnostic tests such as exercise testing versus coronary angiography for coronary artery disease.

Test	AUROC	95% Confidence intervals	Sensitivity	Specificity	LR+	LR-
Gait speed (<0.8 m/s)	0.77	0.74, 0.80	81%	55.2%	1.8	0.34
TUG (>14 s)	0.78	0.74, 0.81	87.1%	50%	1.74	0.26
FTSTS (>15s)	0.80	0.78, 0.83	82.9%	62.3%	2.2	0.27

Conclusions: FoF as measured by the FES-I is associated with scores on commonly used gait and balance tests that indicate a high risk of falling. This study highlights the potential of using FES-I as a screening tool to identify community dwelling older adults at risk of falling who may benefit from strength and balance training rather than relying on physical tests that are rarely performed outside falls clinics and physiotherapy departments. This application may have utility both in opportunistic individual screening and community screening programmes.

SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: MA-1762)

PRESIDENTS ROUND

The effectiveness of volunteer-led physical activity interventions in improving health outcomes for community-dwelling older people: A systematic review

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Introduction: Physical activity (PA) is important for older people to maintain functional independence and healthy ageing. PA interventions for community-dwelling older adults are often delivered by healthcare professionals, fitness instructors or trained members of a research team. Innovative approaches are needed to ensure that these interventions are practical and sustainable. This systematic review explores the effectiveness of volunteer-led PA interventions in improving health outcomes for community-dwelling older people.

Methods: Following PRISMA recommendations, five databases (MEDLINE, Embase, CINAHL, PEDro, Cochrane library) were systematically searched until May 2019, for studies using trained volunteers to deliver PA interventions for community-dwelling older people aged ≥ 65 years, reporting on participant outcomes. Meta-analysis was not conducted due to included study heterogeneity.

Results: Twelve papers (eight studies including three randomised controlled trials (RCTs)) were included in the review; five papers reported different outcomes from the same RCT. Intervention settings included community exercise groups (n=4), home (n=2) and care homes (n=2). All eight studies included strength and balance exercises and frequency of PA ranged from once daily to weekly sessions.

The three RCTs showed improvement in grip strength, nutritional and frailty status, and reduction in fear of falling, among 39 older adults (mean age 83 years) who received a physical training and nutritional intervention; improvement in grip strength and activity of daily living scores among 56 nursing home older adults (mean age 78 years) who received resistance exercise training; and a significantly higher proportion of older adults (n = 193, 9% improvement vs 0.5% in the control group) achieved the recommended target of 150 minutes of moderate vigorous PA per week using the Falls Management Exercise intervention.

Two studies compared volunteer and health professional-delivered PA interventions and reported that both interventions were equally effective in reducing fear of falls and improving quality of life. Two quasi-experimental studies reported improvement in functional outcomes including functional reach, timed up and go test, and chair stand. A large prospective cohort study (n = 1620) reported a reduction in disability among older adults who received volunteer-led exercise compared to control, with a hazard ratio of 0.73 (95% CI 0.62-0.86) for development of disability.

Conclusions: Trained volunteers can lead PA interventions among community-dwelling older adults with some evidence of improved health outcomes including nutritional, functional and frailty status.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1656)

PRESIDENTS ROUND

Approaches to eating and drinking with acknowledged risk: A systematic review

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Introduction: Patients with dysphagia may consider eating and drinking with acknowledged risk (EDAR) instead of artificial hydration/nutrition. Timely consideration of complex issues is required including dysphagia reversibility, prognosis, risk/benefit discussions, patient wishes, their capacity, best interests and advanced care planning. This study aimed to ascertain if EDAR protocols improve care through a systematic literature review.

Methods: PUBMED, MEDLINE, CINAHL and EMBASE were searched for English language articles to May '19 with terms related to EDAR, dysphagia and end of life. Articles and conference abstracts with original data were agreed for inclusion by two independent reviewers. Levels of evidence were assessed using the Sackett scale (Cook et al, Chest. 1995; 4: 227-230). Study themes were identified and discussed.

Results: 12 articles met the inclusion criteria with varied methodology. The highest level of evidence was III (cohort study) and most were limited to patients with dementia, stroke, in older person's wards or residential homes. 4 articles described a systematic approach to EDAR for in-patients and reported reductions in days nil-by-mouth until feeding plans are made and improvements in documentation of decision making, nutrition plans and capacity assessment. Other major themes included the need for an EDAR protocol, staff, patient and carer/family knowledge of EDAR, development of a protocol and the language of "risk feeding". Formal meta-analysis was not possible due to the level and mix of methodology.

Conclusions: There is a paucity of evidence to determine if EDAR protocols improve care. However support is emerging for a coordinated approach to managing EDAR. Findings suggest having a protocol is not enough; education, training and communication within teams and with patients and carers is essential and this justifies further work. The lack of research into the impact of EDAR protocols on patient and carer experience means they must be central to any future work.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1658)

PRESIDENTS ROUND

Prevalence of cognitive impairment in vascular surgery patients: Preliminary results of a systematic review and meta-analysis

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Introduction: Single-centre studies have shown a high prevalence of undiagnosed cognitive impairment in patients undergoing vascular surgery. The aim of this meta-analysis was to estimate the pooled prevalence of cognitive impairment in vascular surgery patients.

Methods: A systematic review and meta-analysis was performed of studies reporting cognitive impairment in vascular surgery patients (PROSPERO registration: CRD42019134684). Databases searched included: Medline, Embase, Emcare, CINAHL, PsychINFO and Scopus. Studies were excluded if they: did not use a validated cognitive assessment tool, included patients with asymptomatic or sub-threshold (for treatment) disease, or excluded patients with cognitive impairment. Quality of included studies was assessed using Newcastle-Ottawa scores (NOS), risk of bias was assessed using the ROBINS-E tool, and quality of evidence assessed using GRADE criteria. A pooled estimate of prevalence was calculated using the inverse-variance method separately for carotid artery disease (CAD), lower extremity arterial disease (LEAD), and studies including patients with multiple vascular surgery presentations. Data were pooled using random effects models and estimated prevalence presented with 95% confidence intervals (95%CI). Subgroup analyses were performed by cognitive assessment tool used.

Authors of 24 studies meeting inclusion criteria that did not report numbers of cognitively impaired patients were contacted to enable inclusion: responses are awaited.

Results: After de-duplication of search results, 7,169 records were screened and 11 studies (911 patients) included in the meta-analysis. Nine studies were deemed high quality (NOS ≥ 7) however 8 studies had a serious risk of bias. Only one study explicitly stated provision for recruiting patients without capacity. Six different tools were used to assess cognitive function (MoCA, MMSE, ACE-R, HDS-R, Mini-Cog and a global cognitive score). Two studies found an association of cognitive impairment with post-op delirium whilst one did not, and a further study showed an association with increased length of stay.

Pooled estimate of prevalence of cognitive impairment in CAD patients was 38% (95%CI 17%, 62%; 7 studies), and in "vascular surgery patients" was 61% (95%CI 47%, 74%, 3 studies). Only one study reported prevalence of cognitive impairment in LEAD patients alone of 19% (95%CI 14%, 24%). Quality of evidence was moderate to very low.

Conclusions: Cognitive impairment is highly prevalent in vascular surgery patients highlighting the need for close collaboration between vascular surgeons and geriatricians.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1687)

PRESIDENTS ROUND

A posture and mobility training package for care home staff: Results of a cluster randomised controlled feasibility trial

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Introduction: Provision of care for care home residents with complex needs is challenging. Physiotherapy and activity interventions can improve physical well-being but are often time-limited and resource intensive. A sustainable approach is to enhance the confidence, skills and abilities of care home staff. This trial assessed the feasibility of undertaking a definitive evaluation of the Skilful Care Training Package (SCTP) - a posture and mobility training programme developed by physiotherapists for care home staff.

Methods: A parallel-group, cluster randomised controlled feasibility trial was undertaken in ten care homes in Yorkshire. Five were randomised to receive SCTP, five to usual care. SCTP was delivered by specialist physiotherapists, with the intention of training all direct care staff. Following consent, data were collected from and about residents with restricted mobility (those fulfilling the eligibility criteria) at baseline, three and six months post-randomisation by blinded researchers. Outcome measurement included resident mobility, posture, pain and quality of life. The feasibility of recruitment, retention, data collection and intervention delivery was assessed.

Results: All residents (348) at participating homes were screened for eligibility. 250 were eligible and 146 took part. Follow-up was balanced between arms, with an overall loss-to-follow-up rate of 28.8% at six months. Where residents were available for six-month follow-up, proxy data provision was excellent (97.1% - 100% of expected data). Difficulty collecting data directly from residents was experienced (43.3% of expected data) due to high levels of cognitive impairment. Staff attendance at training met or was close to pre-specified criteria for acceptability in three homes, with 63.0%, 63.6% and 65.8% direct care staff attending all sessions, and >85% attending at least one session across all three homes. However attendance fell short of acceptability in two homes, with only 21.4% and 12.5% staff attending all sessions.

Conclusions: It is feasible to recruit and follow-up residents in a randomised trial comparing SCTP and usual care. Proxy data collection is a successful method, but collection of data from residents is difficult. Intervention delivery success was variable, illustrating heterogeneity between care homes. Future research will be informed by learning from those homes with greater intervention compliance. Work should be undertaken to investigate how best to collect meaningful data from residents.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1688)

PRESIDENTS ROUND

Process evaluation exploring the delivery and uptake of posture and mobility training for staff in care homes

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Introduction: Provision of care for care home residents with complex needs is challenging. Physiotherapists can play a major role in enhancing the confidence, skills and abilities of care home staff. The Skilful Care Training Package (SCTP) aims to provide staff with an understanding of good posture and training in skilled facilitation of movement. This process evaluation explored barriers and facilitators to delivery and uptake of the SCTP within the context of a feasibility cluster randomised controlled trial (cRCT) in 10 care homes.

Methods: A mixed methods process evaluation, incorporating non-participant observations and interviews, conducted in the five care homes receiving the SCTP intervention. Interviews were audio recorded and transcribed verbatim; resident conversations were captured via a Dictaphone and/or field-notes. Data analysis used the Framework approach.

Results: Fourteen staff training sessions were observed. Interviews with 22 staff and four trainers, and 13 conversations with residents were completed. Five factors influenced delivery and uptake of the SCTP:

- Organisational factors: strategies to publicise and facilitate access to training improved attendance; a convenient training location and trainer flexibility encouraged attendance and staff engagement.
- Intervention delivery: a practical participatory element to the training was highly valued; adapting the training to meet the needs of the homes was well-received.
- Engagement and interaction: relating training to workplace and residents' experiences engaged staff; high levels of engagement and positive interaction within the training sessions were reported; challenges relating to staff hierarchy affected training delivery in some homes.
- Intervention content: posture and mobility elements were seen as important; however, some repetition with prior training was highlighted.
- Training impact: there were indications that staff adopted SCTP techniques. Staff reported an increase in their wellbeing and confidence in movement facilitation; cascade training was reported in some homes.

Conclusions: Training was well-received, and feedback on its impact was largely positive. Practical elements were viewed favourably over classroom-based learning. Intervention content should be revised to optimise focus and avoid overlap with other training.

SCIENTIFIC PRESENTATION: BONE, MUSCLE & RHEUMATOLOGY (REF: MA-1660)

PRESIDENTS ROUND

Prediction of post-operative outcomes following hip fracture surgery: Independent validation of the Nottingham Hip Fracture Score

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Introduction: Risk scores for outcomes after hip fracture are widely used, but independent validation of scores is uncommon. We assessed the discriminant properties of the Nottingham Hip Fracture Score (NHFS) in a large cohort of patients with hip fracture using prospectively collected clinical data.

Methods: Consecutive hip fracture patients were identified from the Northumbria hip fracture database between 2014-2018. Patients were excluded if they were not surgically managed or if scores for predictive variables were missing. C-statistics were calculated to test the discriminant ability of the NHFS, Abbreviated Mental Test Score (AMTS), and ASA grade for functional independence and mortality at discharge, 30-days and 120-days, longest quintile of length of stay, and any post-operative complication, an aggregate variable of myocardial infarction, stroke, pneumonia or venous thromboembolism.

Results: We analysed 3208 individuals, mean age 82.6 (SD 8.6). 1347 (70.9%) were female. 194 (6.3%) died during the first 30 days, 1686 (54.5%) were discharged to their own home, 211 (6.8%) had no functional mobility at 120-days, 141 (4.6%) experienced a post-operative complication. The median length of stay was 18 days (range 1-183). For mortality, c-statistics for the NHFS ranged from 0.684 to 0.690, similar to ASA and AMTS. For functional independence, the c-statistics for the NHFS ranged from 0.737 to 0.834, similar to AMTS (0.609 to 0.823) and better than the ASA grade (0.678 to 0.713). The best predictor of post-operative complications was ASA grade (0.548-0.638), whilst NHFS (0.493-0.588) and AMTS (0.482-0.570) performed similarly poorly. For length of stay, the c-statistics were similar for NHFS (0.572-0.617) and ASA grade (0.565-0.611), but better for AMTS (0.587-0.633).

Conclusion: NHFS performed consistently well in predicting good functional outcomes, moderately in predicting mortality, but poorly in predicting length of stay and complications. This suggests the potential for enhancement by adding further predictive factors in future analyses.

SCIENTIFIC PRESENTATION: BONE, MUSCLE & RHEUMATOLOGY (REF: MA-1681)

Prevalence of sarcopenia in a longitudinal UK cohort study using EWGSOP2 criteria varies widely depending on which measures of muscle strength and performance are used

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Background: The European Working Group on Sarcopenia in Older People 2 (EWGSOP2) guidelines have recently been published to aid diagnosis of sarcopenia in the clinical setting and to allow for better comparison between research studies. The guidelines recommend several different tests for diagnosing sarcopenia. We hypothesised that the prevalence of sarcopenia might vary depending on which tests are used.

Methods: We used data from Wave 3 of the Lothian Birth Cohort 1936 study, a longitudinal ageing study of healthy, community dwelling older adults (n= 697, 52% men, mean age 76y), to assess the prevalence of sarcopenia using the suggested cut-offs in the EWGSOP2 guidelines. Probable sarcopenia was defined as low muscle strength (measured by handgrip strength and 5x chair stand test), confirmed sarcopenia was defined as low muscle strength + low lean mass (measured by bioimpedance analysis), and severe sarcopenia was defined as confirmed sarcopenia + low muscle performance (measured by gait speed and short physical performance battery score). SPSS version 24.0 was used for statistical analysis.

Results: The maximum prevalence of probable sarcopenia was 24.2% in men and 24.8% in women, of confirmed sarcopenia was 7.4% in men and 11.0% in women, and of severe sarcopenia was 4.6% in men and 5.9% in women, when either of the cut-offs for muscle strength +/- muscle performance were met. When using only one measure of muscle strength +/- performance, rates of probable sarcopenia ranged from 7.7% to 21.1% in men and 5.9% to 21.3% in women; rates of confirmed sarcopenia ranged from 3.9% to 5.3% in men and 5.1% to 9% in women; and rates of severe sarcopenia ranged from 1.4% to 3.9% in men and from 2.0% to 5.1% in women.

Conclusions: In a UK-based longitudinal ageing study we found that the prevalence of probable, confirmed and severe sarcopenia varied widely using the EWGSOP2 guidelines depending on which identifying tests were used. We found that the cut-off points suggested for some of the measures in the guidelines are not comparable and may lead to differing groups being identified as sarcopenic between different trials. We suggest modification of the cut-offs to adjust for this.

SCIENTIFIC PRESENTATION: BONE, MUSCLE & RHEUMATOLOGY (REF: MA-1740)

Is there a real relationship between Body Mass Index and Vasovagal Syncope or is it just anecdote?

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Introduction: Syncope is characterised by global cerebral hypoperfusion rapidly causing a transient loss of consciousness with loss of voluntary muscle tone and a subsequent spontaneous, prompt and complete recovery. It is often caused by Neurally mediated reflex syncope syndromes of which Vasovagal syncope (VVS) is the commonest form. The prodromal symptoms of VVS are explained by circulatory alterations (vasodilatation and bradycardia) and autonomic activation. Whilst many triggers and risk factors for such alterations are recognised, they are incompletely understood. Anecdotally, being “young and thin” is a risk factor but there is little published data evaluating the relationship between body weight and VVS. Whilst VVS can often be diagnosed on clinical history alone, further evaluation is warranted in some patients. The validated test to assess susceptibility to VVS is the head-up-tilt table (HUT) test. We set out to evaluate the relationship between Body Mass Index (BMI) and the outcome of HUT testing.

Methods: We reviewed the outcomes of 1193 patients attending for HUT testing at the University Hospitals of Leicester between December 2014 and October 2017. The protocol used was a 40 minute passive HUT (70 degree) followed by sublingual nitroglycerin. The parameters of height, weight, gender and test outcome were recorded prospectively and interrogated retrospectively.

Results: Of the 1193 patients, the passive HUT test was positive for VVS in 293 patients. These patients were then sub-grouped by BMI as set out in the table. The chances of VVS, as diagnosed by HUT testing are almost doubled in those with a (clinically underweight) BMI range 16-20. (p value 0.002- 0.001)

BMI range	Events	Total	Incidence
11-15	0	2	0
16-20	66	157	42.03822
21-25	100	415	24.09639
26-30	76	301	25.24917
31-35	39	224	17.41071
36-40	8	59	13.55932
41-45	3	29	10.34483
46-50	1	3	33.33333
51-55	0	3	0

Discussion: The presented data supports the anecdotal experience of many clinicians: that low BMI may be associated with an increased tendency to VVS. The physiological basis for this (if it is real) is not understood and requires further evaluation since it may have implications for future management strategies. Larger studies are required to further analyse this relationship to determine if BMI is an independent predictor or risk factor for VVS.

SCIENTIFIC PRESENTATION: BONE, MUSCLE & RHEUMATOLOGY (REF: LC-1790)

Prevalence of reported and unreported vertebral fractures in CTPAs in older adults above 75 years

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Introduction: Identifying vertebral fractures is prudent in the diagnosis of osteoporosis as they occur early in this hidden condition. Unfortunately, due to their unspecific presentation, only 25% are clinically recognised. Computerised Tomography Pulmonary Angiogram (CTPA) are frequently requested to confirm pulmonary thromboembolisms, but could also aid in detecting clinically silent vertebral fractures. Current literature suggests that less than one-third of incidental vertebral fractures are reported. The aim of this study is to measure the prevalence of vertebral fractures in CTPA and its relevance to clinical outcomes.

Methods: This is retrospective observational study based on the analysis of existing CTPA for acutely unwell patients admitted to medical assessment unit or A & E across three acute sites within Aneurin Bevan University Health board, Wales, UK between January and December 2015. All CTPA reports were reviewed for fragility fractures and CTPA images were reassessed for any unreported vertebral fractures. Age and gender were recorded for all patients. Analysis was done for all patients in respect to subsequent fragility fractures and mortality. Difference of proportion test was used to compare two groups with and without vertebral fractures.

Results: 179 CTPA were reviewed, 161 patients were included for further analysis. 14.3% (n=23/161) were reported to have a vertebral fracture, however only 8.7% (n=14/161) of reports used the correct terminology of 'fracture'. On subsequent review, an additional 24.2% (n=39/161) vertebral fractures were noted. Therefore, overall prevalence of vertebral fractures was 38.5% (n=62/161). Only 9.1% (n=9/99) of patients without a vertebral fracture developed a subsequent fragility fracture. In comparison, 22.5% (n=14/62) of patients with a previous vertebral fracture sustained a new fragility fracture over next 4 years and this was significantly higher (p = 0.017). Overall mortality over 4 years follow-up was significantly higher for patients with vertebral fractures (64.5%, n=40/62) as compared to those without fractures (43.4%, n=43/99, p = 0.009). Only 48.4% (n=30/62) received osteoporosis treatment.

Conclusions: Vertebral fractures could be underreported by radiologists, likely due to human factors as they might be concentrating on the clinical scenario to exclude a pulmonary embolism. However, considering a significant higher mortality in patients with underlying vertebral fracture, it justifies that radiologists could be asked to examine sagittal view in the bone window for possible underlying vertebral fractures, to ensure osteoporosis is treated to guidance.

SCIENTIFIC PRESENTATION: BIOLOGY & SOCIAL GERONTOLOGY (REF: MA-1650)

What health outcomes matter to frail older people?

KS Tipping

University of Liverpool

Introduction: The purpose of this project was to explore what health outcomes matter to frail older people. This would provide information that would be of use to both providers and payers of health care services to align their priorities in line with these. Frailty is an important and relevant topic in healthcare. In England 5% of people aged 60-69 have frailty. This rises to 65% in people aged over 90. There are 1.8 million people aged over 60 and 0.8 million people aged over 80 living with frailty. (English Longitudinal Study of Ageing (2016)). This number is due to increase.

The aims of this research were:

- To review the literature on health outcomes in older people including frail older people.
- To conduct a focus group interview with frail older people to ascertain their views on health outcomes.
- To disseminate and share the reviews and study findings via presentations and publications.

Ethics: Ethical approval was granted by the University of Liverpool's Health and Life Sciences Research Ethics Committee (application number 4163).

Methods: A systematic review of the literature was undertaken. Thereafter a focus group interview was held with six frail older people. The participants were aged 65 years and over and had mild to moderate frailty using the Clinical Frailty Scale. The interview recording was transcribed, and common themes identified and analysed.

Results: Eight themes were identified from the focus group: -

- Trust in medical professionals
- Vulnerability of being an older person in hospital
- Polypharmacy and wastage of medication
- Discharge Planning & Co-Ordination of Care at Home
- Taking responsibility for your own health
- Nomenclature
- Autonomy
- Falls

Conclusion: This study has identified themes that can be utilised to raise awareness among health care professionals on what matters to frail older people. The study findings will hopefully provide an opportunity for meaningful discussions around what is needed to better meet these desired health outcomes.

References: 34 were used in total, including the following:

Akpan A, Roberts C, Bandeen-Roche K, Batty B, Bausewein C, Bell D, et al. Standard set of health outcome measures for older persons. *BMC Geriatr* 2018;18(1):36.
Naik AD, Dindo LN, Van Liew JR, Hundt NE, Vo L, Hernandez-Bigos K, et al. Development of a Clinically Feasible Process for Identifying Individual Health Priorities. *Journal of the American Geriatrics Society* 2018;66(10):1872-9

SCIENTIFIC PRESENTATION: CARDIOVASCULAR (REF: MA-1753)

Effects of community falls prevention service closure on ischaemic heart disease attendances in secondary care: An interrupted time series approach

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Background: In 2009 we implemented a novel multidisciplinary, multifactorial falls, syncope and dizziness service model utilising proactive, primary care-based screening (≥60 years). Participants underwent comprehensive geriatric assessment, while 25% of the 4032 service participants had exercise training. All had additional lifestyle advice on exercise, alcohol intake, weight loss and smoking cessation. The preliminary outcomes of this approach have been previously reported, with occult atrial fibrillation, murmurs, ECG-evident ischaemic heart disease (IHD) etc reported to GPs for further action.¹ Funding was withdrawn and the service closed on 31/01/2014. We examined IHD secondary care attendances with and without service provision.

Methods: Patients: North Tyneside residents ≥60 years at time of closure of the service in January 2014, who were presented acutely to secondary care with IHD using an interrupted time series method. ICD-10 coded IHD numbers were determined (Hospital Episode Statistics from 01/02/2012[date of a change in coding compared to service commencement in 2009] until 31/05/2017) including 25-months with, and 40-months without, service provision.

Results: The Table summarises the change in IHD +/- service provision; there was a significant reduction in IHD non-elective admissions during both time series', but the reduction was significantly lower without service provision.

Time-period	Change in IHD non-elective admissions	P=
With Service*	-3.3%	0.0008
Service withdrawn **	-0.6%	0.029

01/02/2012-31/01/201401/02/2014-31/05/2017*

In addition, immediately following the service closure there was an initial increase in IHD complications of 18.4% (p=0.059) followed by an increase in the time trend of 2.7% (p=0.029), resulting in a 0.6% post-service monthly reduction in IHD complications.

Conclusions: Disinvestment in this service resulted in a slowdown in the underlying reduction of IHD diagnoses in secondary care. However, further research is needed to control for patient-level characteristics, the economic impact and to look at the effect of the service on other cardiovascular diseases.

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1. Parry SW. JAGS 2016;64(11):2368-2373

SCIENTIFIC PRESENTATION: CARDIOVASCULAR (REF: MA-1766)

Is cerebral autoregulation altered in ageing? A review

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Introduction: Cerebral autoregulation (CA) ensures constant cerebral blood flow (CBF) in the face of blood pressure (BP) disturbances. While CA impairment is often implicated in the aetiology of age-related disorders e.g. falls, syncope, and brain ageing, there is conflicting evidence on the effect of normal or healthy ageing on cerebral autoregulation. Here we present results of a review investigating the effect of ageing on CA.

Methods: A search was performed in Pubmed using the search terms "cerebral autoregulation" AND ("ageing" OR "age" OR "older" OR "elderly"). Studies were included if they were human studies in English assessing CA in healthy volunteers (free from disease) in which the effect of ageing on CAR was studied. Exclusion criteria included non-human studies, diseased cohorts and studies not measuring CA.

Results: 26 studies (n=1326 total participants, age range 12-88) meeting the inclusion/exclusion criteria were identified. Significant heterogeneity was noted in applied methodologies with 88% of studies using static and 53% using dynamic protocols to measure CA. Transcranial Doppler (88%) and Near Infrared Spectroscopy (NIRS) (11%) were the most commonly used. Transfer function analysis (TFA) (38%), the Autoregulatory Index (ARI) (15%), and wavelet analysis (11%) were used to derive CA metric. The majority of studies suggested that CA is preserved (n=15) with ageing. However, a smaller number of studies (n=7) noted that CA is impaired or altered with ageing.

Conclusions: There is a paucity of literature examining the relationship between CA and chronological ageing, with 60 per cent of studies reviewed suggesting that CA is preserved. Current hypotheses suggest that preservation of CA with ageing serves as a 'reserve' to compensate for impairment of other systems. Future work should investigate the role of impaired CA as potential biomarker of biological ageing.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: MA-1641)

An exploration of what stakeholders reveal about the behaviours and personality of registered nurses working in older people's acute care settings and the potential influence on nursing care

H Day

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Background: Concern around poor standards of nursing care for older people in hospital has been explored in relation to workload and operational pressures. What is less evident from existing literature is an explanation as to why nurses behave differently under the same pressures within the same concrete situations. Notions of personality and associated behaviours as possible influencers on nursing care delivery are variables that required consideration. Aim To critically explore the behaviours of registered nursing staff working in older people's acute care settings from the perspectives gathered from key stakeholders, and to identify whether there are any distinguishing personality traits that influence effective care delivery for older people.

Methods: A constructivist grounded theory methodology was used. Semi structured interviews were conducted to gather data from 12 stakeholder participants.

Results: Through the analysis of data gathered from stakeholders a rubric describing specific behaviours with associated traits emerged leading to the identification of two major types of nursing staff. One group of nurses who work with older people are perceived to have no real desire to do so and in turn their care behaviours are perceived as 'cold' and task based. The second group of nurses are perceived as having a true commitment to older people's wellbeing and their behaviours lead to the delivery of care that is perceived as being highly skilled and compassionate. The proposed theoretical framework that was constructed from this data analysis identifies four key personality traits related to nursing behaviours: conscientiousness, sociability, integrity and coping under a core category heading of 'the authentic self'. Whilst the authentic self is identified as being the direct influencer on how care is delivered which is defined as the consequence, the influence of context is also taken into account.

Conclusions: This research offers insights into the meaning of four key traits and the behavioral facets comprising them, the associated behaviors that are displayed and what effect these have on nursing care delivery. Implications for healthcare practice include the potential for further research that can inform the development of educational and recruitment strategies for older people's nurses which will have a positive impact on the care of the older patient in hospital.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: MA-1706)

Can simulation-based training be used to teach Geriatric Medicine?

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Introduction: Health Education England (HEE) and the Joint Royal Colleges of Physicians Training Boards recognise the importance of simulation-based training especially for Core Medical Trainees in improving patient outcomes and enhancing learning (Enhancing UK Core Medical Training through Simulation based training, Health Education England 2016). Research also suggests simulation training can be used to address a wide variety of medical curricula agenda from emergency presentations to breaking bad news (Beaubien 2004, Quality & Safety in healthcare). HEE suggests simulation training can be used to develop understanding but also communication skills and awareness of human factors and are focusing on developing a national strategy.

Geriatric Medicine is complex and trainees are expected to be competent in managing elderly patients in a variety of presentations. Our aim was to ascertain the confidence levels of CMT doctors managing elderly patients and whether simulation-based teaching is effective for geriatric teaching.

Methods: Three scenarios addressing common geriatric conditions were developed by a Geriatric Medicine Registrar and overseen by Geriatric Consultant. Scenarios including delirium secondary to sepsis, Opiate toxicity secondary to acute kidney injury (complicated by addressing dementia and risk of self-harm) and identifying and demonstrating appropriate palliative approaches to a catastrophic subdural haemorrhage. Trainees were given a brief summary of a case and asked to review and manage the 'patient'.

A geriatric registrar alongside two CMT doctors designed a pre and post confidence questionnaire using Likert scales and free text boxes to explore respondents' views.

Results:

- 100% of trainees found the simulation training useful and would recommend the sessions.
- 100% of trainees stated preference for simulation-based teaching opposed to lecture and work based assessments.
- Confidence increased across all three scenarios post simulation.
70% of trainees stated they felt confident to manage delirium with sepsis pre-simulation, this increased to 91% post simulation.
- Trainees commented 'feel confident to manage sepsis but not complicated by delirium or AKI' and 'prefer simulation to lectures'

Conclusions: CMT doctors enjoy and find simulation training in geriatric medicine useful and show preponderance to this. Simulation training can be used to expose trainees to real life complex geriatric medicine scenarios in a safe environment. This programme will be developed to encompass additional medical scenarios and also to be delivered to foundation year doctors.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: LC-1891)

Do medical students understand the ward environment? A survey of penultimate year medical students exploring how well healthcare of older people placements prepare them for working on hospital wards

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Medical students are expected to know how to function on hospital wards; i.e. where to find things, other Health Care Professionals' (HCPs') roles, and how to use certain items of equipment (GMC, 2018). This ward-based knowledge indicates that a student is 'ward smart' (Walker, Wallace, Mangera, & Gill, *The Clinical Teacher*, 2017, 14(5), 336-9). Whilst being 'ward smart' is key for many aspects of medicine, it is particularly important for students learning geriatric medicine: older patients (who make up around 42% of all inpatients [NHS Digital, 2018]) are more likely to have communication difficulties and to require assistance. However, formal teaching in this area seems to be somewhat neglected, with students being left to 'pick up' this knowledge as they go along (Prince, Bozhuizen, Van der Vleuten, & Scherpbier, *Medical Education*, 2005, 39(7), 704-12; Monrouxe, et al., *BMJ Open*, 2017, 7(1), e013656).

In our sample of 41 students in their penultimate year (most of whom were undertaking their Healthcare of Older People placement), 98% did not know how to turn on a hearing aid and only 24% knew what a Waterlow score was. Furthermore, 88% did not know how to read an oxygen flowmeter, and only 59% knew where the CPR lever on the bed was situated.

This is a significant gap in knowledge: students may not be as prepared to work in a ward environment as expected. Students felt that their understanding would be improved by teaching sessions, more time on wards, formal ward inductions, and shadowing other HCPs: only 41.5% had had a ward induction or introduction, and less than 20% had shadowed a nurse. We propose specific teaching/practical sessions for students during their Healthcare of Older People placement centred around patient communication and understanding the ward environment.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: MA-1728)

Virtual reality home visit simulation: Pilot study

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Introduction: There are multiple drivers to move healthcare into community settings, including people's own homes. Traditional healthcare training, particularly medical training, is largely hospital-based, and hospital-based models of care. Few professions have explicit training in how best to assess an individual at home, and the additional elements to examine when visiting an individual in their own home. To meet this training need Croydon Health Services were successful in a bid for funding to develop training to meet this gap. With this funding, a programme was developed and after attempts at simulation home visits in the simulation centre, a virtual reality (VR) home visit scenario was devised and filmed in the community using a professional actor to simulate a housebound individual. The recording was then professionally edited by a specialist VR team to maximise its effectiveness including interactive educational elements.

Methods: A pilot study examining the acceptability of the virtual reality home visit scenario was designed. A user group of medical staff with limited community experience participated in undertaking the virtual reality scenarios, delivered via Samsung Note 8 devices combined with Samsung Gear VR headsets. Feedback was received from participants by standardised paper-based surveys.

Results: 7 responses were obtained. 100% of respondents described the scenario as easy to use, as well as agreeing that the same experience could not be gained from watching a standard video of the same scenario. 100% of respondents felt that the on-screen information was helpful.

Feedback on areas for improvement suggested a desire for greater interactivity of other aspects of home assessment, and a desire to improve interactivity with the simulated patient, including history taking.

Conclusions: Virtual reality home visit simulations are an acceptable and effective tool to introduce new concepts to staff. Further development should aim to maximise interactivity in the scenario and explore options for greater interaction with the simulated patient. Further roll out of the virtual reality is planned for local and regional training sessions.

SCIENTIFIC PRESENTATION: EDUCATION & TRAINING (REF: LC-1791)

Do medical students understand the ward environment? A survey of penultimate year medical students exploring how well healthcare of older people placements prepare them for working on hospital wards

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Abstract: Medical students are expected to know how to function on hospital wards; i.e. where to find things, other Health Care Professionals' (HCPs') roles, and how to use certain items of equipment (GMC, 2018). This ward-based knowledge indicates that a student is 'ward smart'.¹ Whilst being 'ward smart' is key for many aspects of medicine, it is particularly important for students learning geriatric medicine: older patients (who make up around 42% of all inpatients)² are more likely to have communication difficulties and to require assistance. However, formal teaching in this area seems to be somewhat neglected, with students being left to 'pick up' this knowledge as they go along.^{3,4}

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1. Walker, Wallace, Mangera, & Gill, *The Clinical Teacher*, 2017, 14(5), 336-9)
2. NHS Digital, 2018
3. Prince, Bozhuizen, Van der Vleuten, & Scherpbier, *Medical Education* 2005;39(7):704-12.
4. Monrouxe, et al., *BMJ Open* 2017;7(1):e013656.

SCIENTIFIC PRESENTATION: FALLS, FRACTURE & TRAUMA (REF: MA-1761)

The truth behind the pubic rami fracture: Identification of pelvic fragility fractures at a university teaching hospital

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Introduction: Older patients presenting with pelvic fragility fractures (PFF) is an increasing epidemic. The most common pelvic fracture identified by plain radiograph is pubic rami fracture. These fractures are painful and often require admission to hospital. However, despite optimal analgesia, many of these patients struggle to mobilise and may have fractures of the posterior pelvic ring, which are overlooked and not visible on plain radiograph imaging. We aimed to quantify the number of patients progressing to further pelvic imaging in the form of computed tomography (CT) or magnetic resonance imaging (MRI) and the presence of concurrent fractures.

Methods: Prospective screening of pelvic imaging in patients aged over 70 years was undertaken at Nottingham University Hospitals NHS Trust over an 8-month period from October 2018.

Results: 103 predominantly female (83%) patients were confirmed to have an acute fragility fracture of the pubic rami on plain radiograph. 19% of patients were discharged direct from the Emergency Department, 45% were admitted to Health Care of Older People (HCOP) teams, 30% to Trauma and Orthopaedic (T&O) teams and 6% to other specialities. 25% of the patients admitted underwent further pelvic imaging, which confirmed fragility fractures of the pubic rami in 88%, with 40% showing acetabular fractures and 68% showing sacral fractures of all types. A further 10 patients were diagnosed with pubic rami insufficiency fractures on further imaging, having had a normal initial radiograph, but had been admitted with poor mobility due to groin pain. In these 10 patients, 20% also had an acetabular fracture and 60% sacral fractures. Overall, 59% of patients with pubic rami fractures had an ipsilateral sacral fracture; a Type 1 Lateral Compression pelvic fracture by AO classification.

Conclusions: Pubic rami fractures are a significant problem in older people and often require admission to hospital. Further imaging confirms these fractures are complex, with co-existing fractures of the acetabulum and sacrum common. However despite this, only a quarter of patients admitted had further imaging. Where pelvic fractures are missed or severity not appreciated, appropriate pain control can be more difficult to achieve. With the potential for minimally invasive surgical options to aid pain management in sacral fractures, it may be prudent for all patients hospitalised with suspected or confirmed pelvic fracture to undergo further imaging.

SCIENTIFIC PRESENTATION: FALLS, FRACTURE & TRAUMA (REF: MA-1767)

Poor attendance for DXA in older people with a low trauma fragility fracture: A 6 year data analysis of the Nottingham Fracture Liaison Service

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Introduction: Hip Fractures are common and result in significant patient morbidity and increased mortality. Up to 40% of these patients have sustained a previous low-trauma fracture. The Department of Health advises that patients presenting with fragility fracture should have access to 'Fracture Liaison Services (FLS)'. These are models of care which systematically identify patients at risk, assess bone health, treat patients (if needed) and follow patients up to support medication adherence.

Methods: Demographics of FLS patients between January 2012 and December 2017 was obtained retrospectively from the Nottingham University Hospitals FLS database. We examined DNA rates and further characteristics of these types of patients. Deprivation scores were deprived using the English indices of deprivation 2015 (1-Most deprived; 5-Least deprived). The 2016 cohort of patients were followed-up till January 2019 to assess for re-fractures.

Results: 6528 high-risk patients were identified and referred to DXA. Mean (SD) age was 68±10.5 years [Females=5302 (81%)]. 1386 patients (21%) did not attend. High prevalence of non-attendance was in females [1032 patients (74%)] and the most deprived individuals [398 patients (29%)]. Females from the most deprived areas had the highest DNA rate [287 patients (29%)]. All eligible patients >75 years old were referred (n=1542 (100%), [Females=1284 (83%), non-attendance=473 (31%), non-attendance in females=390 (82%), highly deprived females=96 (25%)]. **826 patients were referred in 2016. Median follow-up time was 2.46 years (IQR 0.16–3.00 years). 52 patients (7%) re-fractured. 17 patients (33%) DNA their previous DXA scan [Females=12 patients (71%)].**

Conclusions: Nottingham FLS have identified patients with fragility fractures that are high-risk for further fractures. Despite a dedicated FLS there is a DNA of 21%. Many patients that DNA are generally considered as having a high-risk of further fractures; females, older age and more deprived. Further studies are needed to explore why patients do not attend for bone density scanning.

SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: MA-1693)

What are the components of care offered by POPS (Perioperative medicine for Older People undergoing Surgery) services across the UK; a targeted national survey

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Introduction: Over the past five years the number of Perioperative medicine for Older People undergoing Surgery (POPS) services in the UK has increased.^{1,2} This expansion has occurred in response to the needs of an older, multimorbid surgical population with drivers for change coming from national reports and audit results. Different models of care have emerged; this study aimed to describe in detail the surgical specialties, components of care and staffing as delivered by current UK POPS services.^{3,4}

Methods: An electronic ten-question survey was sent to 31 acute NHS trusts, purposively selected from the British Geriatrics Society POPS network and previous survey respondents.

Results: Responses were received from 23 of 31 trusts (71%) with key results in Table 1. Eighty-three percent of respondents provided a geriatric-consult service, 13% a shared-care model and 4% had ceased their service due to inadequate funding. The surgical specialties covered included; general surgery (18/23), vascular (12/23) and other including urology, trauma, gynaecology (9/23). Team structures varied with 26% of geriatricians working independently and only 23% having dedicated allied health support. Forty-one percent of services were surgically funded, 36% medically funded and 23% from both directorates.

	No. hospitals	Outpatient service	Proactive inpatient service	Junior doctors	POPS nurses	>2 specialties covered
Consult	19	14/19	12/19	7/19	3/19	5/19
Shared-care	3	3/3	3/3	2/3	3/3	1/3

Conclusions: The predominant model of care remains a geriatric-consult service. The evidenced-based 'shared-care' model previously only in operation at a large teaching hospital has now been replicated in two smaller hospitals. A previously described model involving patients transitioning from surgical to geriatric medicine teams was not seen in practice in this study.⁴ In line with the NHS' vision of rationalising and scaling innovation, this survey highlights the growing need to establish a standardised POPS model across the UK.

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SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: MA-1705)

Goals-of-care and advance care planning discussions with hospitalised frail older people: what is the evidence?

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Introduction: National guidelines suggest that patients in the last year of life should be identified, their prognosis and future care options discussed, with advance care planning (ACP) recorded. Goals-of-care should be discussed with hospitalised patients at risk of deteriorating or with life-limiting conditions. The stated purpose of ACP and goals-of-care discussions is to increase goal-concordant care (i.e. patients receiving treatments they would wish to receive, and not receiving those they would not want). This literature review investigates the evidence-base for these policies and outcomes.

Review question: What is the evidence for goals-of-care and ACP discussions with hospitalised frail older people?

Methods: Systematic literature review and narrative synthesis. Electronic search of MEDLINE, CINAHL, ASSIA, PsycINFO, and Embase databases from January 1990 to September 2017. An updated search until May 2019 is currently underway.

Results: Of 8077 unique articles identified, 17 met inclusion criteria. There is no evidence that goals-of-care discussions lead to increased goal-concordant care; there is observational evidence that they increase the accuracy of documented preferences. Currently, rates of goals-of-care discussions are variable (38-72%), and there is poor concordance between patients' actual and documented preferences, with agreement in only 31-33% of cases.

Present rates of ACP are very low (0-3%), with mixed evidence for benefits of ACP. One single-centre randomised controlled trial suggests ACP improves outcomes for patients who die within 6 months of discharge, including increased goal-concordant care and reduced family distress.

There is very limited evidence concerning patients' and family members' experiences of these discussions, their reasons for wishing (or not) to participate in discussions, or their perceptions of the important outcomes. Most (80%) patients would like to be involved in decisions about their care; 48% consider these conversations very important. The views and experiences of healthcare professionals have been little studied.

Conclusions: The asserted aim of goals-of-care and ACP discussions is to increase goal-concordant care; the extent to which this reflects patients' priorities is unknown. In younger patient populations, while 40% of patients consider goal-concordant care the most important outcome, one third of patients consider family-related outcomes to be more important. Further research is needed to understand the perspectives of frail older patients, their families and clinicians, in order to make these discussions and subsequent care truly patient-centred.

SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: MA-1709)

Will routine frailty Identification by GPs improve patient care? A review of the 2017 GMS contract for General Practitioners (GPs) using PESTLE analysis tool

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Introduction: It is well established in the literature that frailty is associated with high health costs (Bock 2016, England: BioMed Central). Early identification improves patient outcomes. The 2017 GMS contract for General Practitioners' (NHS England 2017) had tried to implement this. This is a result from the government wanting to improve care for frail patients from the 'Five Year Forward Review'. This is first policy worldwide to introduce a policy on frailty screening (Reeves, 2018, BMJ, 362, pp. k3349). Majority of frail patients' first contact with the NHS is through Primary Care. However, with ever reducing number of GPs and increasing work burden, is it appropriate to ask GPs to undertake this?

Methods: This review uses the policy analysis tool PESTLE (Political, Economical, Social, Technological, Legal, and Environmental) (Visconti 2016, Corporate Ownership and Control,13), to assess the implications of this new contract obligation on GPs and patients.

Results: Once frail patients are identified, it is advised that they are reviewed by GPs annually. Whether this actually benefits patients are not clear (Page 2017 British Journal of Clinical Pharmacology, 82(3), pp. 583-623). The evidence for interventions being cost-effective is also inconsistent (Hamilton 2017, BMJ, 358, pp. j4478). Alternative methods include implementing a nurse-led community frailty service, has shown some benefit in Netherlands (Bleijenbergh 2017, JAMDA). Clinical Pharmacist can aid with medication reviews and focusing on Geriatrician 'outreach' clinics in primary care can improve patient care and outcomes (Goldstein 2014, CJEM, 16(5), pp. 370). Due to the work burden, GPs are often seen to be reactive rather than proactive (Goodwin 2010, The King's Fund). The shift in focus on frailty can simulate more constructive dialogue between primary care, secondary care, patients and their carers. The BMA has also tried to reassure GPs this is not an added burden, but this is controversial (BMA 2017).

Conclusions: To successfully implement such a policy, emphasis on clear objective outcomes and strategy is needed. There is a risk of frailty identification becoming a tick box exercise.

SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: MA-1720)

Complexity in Croydon

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Introduction: The Complex Care Support Team (CCST) are a newly-formed, integrated service, caring for Croydon residents when existing services decide additional multidisciplinary team input is required.

There is no single definition of healthcare complexity. Most cases encountered by the team have involved many different services and professionals. The team have found that by forging relationships and co-ordinating care across organisational boundaries, some of the 'complexities' can be mitigated. We aim to develop our understanding of the needs of this population and the underlying drivers for complexity in Croydon.

Methods: The records on EMIS, CERNER and ePJS were reviewed from the inaugural two months of the service, for:

- Rockwood Frailty Score
- Number of medications
- Number of long-term conditions
- ED attendances or admissions to hospital over the preceding year.

After team discussion on every case, underlying causes of complexity were assigned to four groups: medical, psychological, social and systems failure.

Results: Of the 57 people accepted by CCST over 2 months, 39 required reviewing in person. 5 records were not completed, so 34 cases were included for evaluation. The age range of this cohort was 49-92, with 17 male and 17 female. Results revealed significant frailty, multimorbidity and polypharmacy. 91% had two or more underlying drivers for complexity, with the largest underlying driver being systems failure, in 85% of cases.

	Frailty	Multimorbidity	Polypharmacy
Prevalence	72%	97%	76%
Range	Rockwood score 1-8	1-10 conditions	0-21 medications
Mean (score or number)	5.7	5.1	8.4

Conclusions: This work improves our understanding of the needs of the population deemed the most 'complex' in Croydon. The likelihood of multiple underlying drivers for complexity was high, highlighting how complex health issues are likely to span both professional and organisational boundaries. This can in itself be a significant underlying driver for complexity, illustrated here as 'systems failure'. In developing current and future services, this work reinforces the vital benefits of multidisciplinary and cross-organisational working currently occurring in CCST.

SCIENTIFIC PRESENTATION: HEALTH SERVICES RESEARCH (REF: LC-1771)

Telemedicine implementation in Croydon care homes

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Background: Croydon has one of the largest numbers of care homes of any London borough. Following the success of telemedicine in the Airedale and Partners NHS vanguard, care home telemedicine has been commissioned in Croydon.

Despite encouraging results for some individual services, the formal evidence base for telemedicine remains ambiguous. We aim to further our understanding of the use, perceptions and implementation of the telemedicine service in the care homes of Croydon.

Methods: Results are being collected from care homes including:

- Usage (e.g. time of day, patient/caller intention)
- Outcomes (e.g. GP calls, conveyances to hospital)

In addition, a survey of GPs and care homes was completed, with redistribution of the survey planned six months after introduction of telemedicine.

Results: In the first four months data of the service, 42 care homes have implemented telemedicine since Jan 2019. For these care homes, the results show a reduction in ambulance call outs of 7% and a reduction in conveyances to hospital of 4%. In the care homes that have been using the service on a regular basis, the reduction in call outs and conveyances is considerably bigger. There is also increasing use of the telemedicine service in preference to calling a GP. This data will become more robust and analysed further with the ongoing use of the service.

Initial survey results highlight the varied opinions of telemedicine, including perceived change in workload and quality of care, and will be repeated in August 2019 to assess any change in perceptions.

Discussion: The emerging data shows encouraging results for those care homes that are high users of telemedicine service. However, there is significant time and resource involved to ensure uptake and correct use of telemedicine in care homes. With the survey, we have uncovered a varied understanding and perception of telemedicine across the Croydon system prior to its implementation in care homes and will discover if these perceptions change following its increasing use.

We will present the successes and challenges to the implementation of the telemedicine service in care homes so far, then discuss the opportunities for care home telemedicine in Croydon for the future.

SCIENTIFIC PRESENTATION: NEUROLOGY & NEUROSCIENCES (REF: MA-1755)

The utility of informant history in delineating narratives of gait disorder in older outpatients

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Background: A scholarly focus on informant history is recent in geriatric medicine, mostly focused on cognition and syncope.¹ Gait disorders are common in older people and accurate diagnosis facilitates treatment.²

As there is a disparity between self-rated and 'objective' estimates of health among older people, and gait disorders often co-exist with cognitive impairment, there may be a significant difference between patient and informant narratives of gait disorder. We investigated the existence and extent of this disparity.

Methods: As no suitable informant measure could be sourced from the biomedical literature, inquiry with senior academic physiotherapists or through appeals on social media relating to physiotherapy, a mobility scale was designed. We included all patients with a gait disorder at serial outpatient clinics. Exclusion criteria were absence of gait disorder and dementia of sufficient severity to be unable to participate in the consent process. Paired t tests and Fischer exact test were used to analyse the data.

Results: Of 45 participants (mean age 79.8; 50% men), 35 (77.7%) had MCI or dementia. Twenty two (47.8%) informants considered an acute event precipitated an acute deterioration in mobility. Twenty seven informants (60%) had a fear of the older person falling compared to 9 (20%) of patients ($p=0.0002$).

Patient and informant impression of point on mobility scale differed ($t=3.61$, $p=0.0003$). Although Informants reported more falls (mean of 1.36 vs 0.91) in the previous year ($t=1.63$, $p=0.055$) this did not achieve statistical significance.

Conclusions: Our findings demonstrate a discrepancy between patient and informant narratives of level of mobility, and point to the benefit of obtaining an informant history of loss of gait stability, mobility and falls. In addition, perceptions of fear of falling may be of assistance in managing risk and independence.

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SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1640)

Increased hospitalisation associated with nasogastric feeding in advanced dementia: Experience of a geriatric unit in Singapore

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Introduction: Tube feeding is not recommended in persons with advanced dementia and dysphagia; it does not improve nutrition, reduce infections or mortality. In Singapore, limited data exists on the prevalence of oral versus tube feeding in persons with advanced dementia, and the alignment between the mode of administering food and fluids and a prior advanced care plan (ACP) discussion.

Methods: Retrospective review of 120 patients from January to October 2017 was conducted to examine the prevalence of oral and tube feeding in advanced dementia patients with ACP, and the alignment of the chosen mode of intake with their ACP. Outcomes include rates of readmission, pneumonia, ACP revisions and mortality at six months.

Results: 42 subjects fulfilling criteria were analysed. 81.0% continued oral feeding. There was a statistically significant difference in the decision for tube insertion between oral and tube feeding groups ($p=0.02$), which was influenced by the ACP discussion. Concordance with ACP discussion in the tube feeding group was mixed, with 50% agreeing for tube insertion and 33.3% who were clinically guided. Surrogates made the decisions in 90.5% of the discussions.

Six-month readmission rate was 32.4% for orally-fed patients versus 75% for tube-fed patients ($p=0.045$). 52.9% of admissions were attributed to pneumonia. 8.8% of orally fed patients revised their ACP to opt for a trial of treatment in their own home instead of readmission to the hospital. There was no difference in 6-month mortality ($p=0.123$).

Conclusions: Oral feeding was continued for most advanced dementia patients. Tube feeding does not offer survival benefit or prevent aspiration at 6 months, yet is associated with increased hospitalisations. ACP discussion should be initiated earlier to provide persons with dementia the opportunity to express their preferences for the mode of food and fluid intake.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1690)

Are we over treating thyroid disease in our older population?

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Introduction: The prevalence of subclinical thyroid disease is increasing with an aging population. Management of this condition remains controversial. Over treatment of subclinical hypothyroidism in older persons can be associated with significant morbidity and guidelines recommend a cut-off value of TSH ≥ 10 mIU/L before treating. Our aim was to determine the prevalence of abnormal thyroid function in older hospitalised patients in the West of Ireland and to determine how these individuals were treated.

Methods: We reviewed thyroid function tests (TFTs) processed through the local laboratory between January and December 2018 on individuals aged 85 years and older. Discharge prescriptions on those with abnormal TFTs were reviewed to determine if participants were on thyroid treatment.

Results: 1168 participants were included in this review, the majority of which were female with a median age of 88 ± 3.252 years. 24.41% (n=285) had abnormal thyroid function: 0.77% (n=9) were hyperthyroid, 7.28% (n=85) had subclinical hyperthyroidism, 13.78% (n=161) had subclinical hypothyroidism and 2.57% (n=30) were hypothyroid. 16.47% (14/85) of those with subclinical hyperthyroidism and 26.08% (42/161) of those with subclinical hypothyroidism were taking levothyroxine.

Discussion: Thyroid dysfunction is common in the older population admitted to Galway University Hospital. One quarter of those identified with subclinical hypothyroidism were on thyroid treatment which may not be clinically indicated. 16% of cases of subclinical hyperthyroidism may have been iatrogenic in the presence of over treatment with levothyroxine. These findings highlight the importance of the regular review of medications in older persons on treatment for thyroid disorders.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1718)

Poor appetite is common in hospitalised older people and associated with subclinical low mood

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Introduction: Appetite loss in older people -anorexia of ageing (AA) - is common. Recognised consequences include undernutrition, sarcopenia, frailty, and increased mortality after discharge from hospital. Identification and management of AA may prevent onset of these health burdens. Whilst appetite can be assessed, this is often not routine.

Methods: Cross-sectional data from three studies (carried out 2010-2017), with comparable data collection methods and drawn from the same population, were combined. Participants were over 70 years, admitted to acute wards within a large UK hospital. Appetite was assessed using the simple 4 item Simplified Nutritional Appetite Questionnaire (SNAQ); a score of $\leq 14/20$ defines poor appetite. Correlates of SNAQ scores were evaluated.

Results: The dataset included 474 participants (64% female) with mean age 84 (6.5), median Barthel 78 (IQR 53-91), mini-mental state exam (MMSE) 27 (IQR 23-29) and comorbidity index 5 (IQR 4-7). The median GDS for the population was 4 (IQR 4-6). The mean SNAQ score was 13.9 (SD 2.6), and 265 (56%) participants scored ≤ 14 indicating poor appetite. There was no significant difference between mean SNAQ scores of men and women ($P=.26$), or those living alone and with others ($P=.62$).

Age, MMSE, comorbidity index, and total number of medications were not related to SNAQ score in continuous analyses but geriatric depression score (GDS-15) was (adjusted coefficient $-.248$; $P<.001$); such that lower mood was associated with poorer appetite.

Conclusions: These findings highlight the importance of assessing appetite in hospitalised older people, as poor appetite is very common. Appetite can be assessed in hospital using the simple 4 item SNAQ tool. Subclinical low mood, measured by GDS-15, had the strongest association with SNAQ score whilst in hospital. Therefore, for those with poor appetite in hospital, clinicians should have a low threshold to evaluate and treat low mood.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: MA-1752)

Hyponatraemia in older patients is often untreated, despite greater mortality burden; results of a prospective cohort study

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Introduction: Hyponatraemia is associated with increased morbidity and mortality, and is commoner in elderly patients. The aetiology and outcomes of hyponatraemia in the elderly has not been defined in prospective studies.

Methods: A single-centre 9 month prospective observational study of hyponatraemic (HN) patients (≤ 130 mmol/L) was performed. Clinical outcomes in patients ≥ 65 years (Elderly patients, EP) and those < 65 years (Young Patients, YP) were analysed, and compared with age-matched eunatremic controls. Analysis was performed using Graphpad-Prism 7.

Results: 1321 consecutive admissions with hyponatraemia (67% EP, median age of EP 77 (65-98) years) and 1122 eunatremic controls (63% EP, median age of EP 77 (65-99) years) were analysed.

Median nadir plasma sodium was similar in both groups with HN, 128 (107-130) mmol/L EP vs 128(110-130) mmol/L YP ($p=0.62$). EP hyponatraemic patients were more likely to have hypovolaemic hyponatraemia (34%) compared with YP with hyponatraemia (28%, $p=0.03$). Diuretic-induced hyponatraemia was twice as common in EP (8%) compared with YP (4%, $p=0.01$). Malignancy-induced SIAD occurred with similar frequency in both groups (7% in EP SIAD vs 8% in YP SIAD, $p=0.65$). Respiratory disease was causative in 10% cases of EP SIAD, compared with 4% in YP SIAD, $p=0.0004$.

Hyponatraemia was corrected in 53% of EP, compared with 64% of YP, $p=0.0001$. Length of stay and re-admissions rates were similar across hyponatraemia age groups. EP with HN were 2.4 times more likely to die in hospital, compared with eunatremic age-matched controls, (OR 2.4, 95% CI 1.6 – 3.7, $p<0.0001$).

Conclusions: The causation of hyponatraemia is different in elderly patients. Hyponatraemia in EP is often uncorrected, despite increased mortality compared with eunatremic age-matched controls.

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: LC-1776)

Functional recovery in older women undergoing surgery for gynaecological malignancies: A systematic review and narrative synthesis

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Introduction: Older women are increasingly undergoing surgery for gynaecological malignancies. Although survival data is available other outcomes such as functional recovery are less well described. However older people are both more vulnerable to changes in function and often prioritise function over survival. There is limited published research examining function outside of context of sexual or urodynamic function following gynaecology surgery but a large body of research exists examining health-related quality of life (HRQOL) both as a pre-operative risk factor for survival and as a post-treatment outcome measure in its own right. HRQOL tools may report on physical function as a subcomponent within composite tools.

This systematic review and narrative synthesis describes functional recovery after gynae-oncology surgery with respect to baseline characteristics which - if identified - could enable pre- or post-operative risk reduction.

Methods: Systematic search of MEDLINE and EMBASE databases and Cochrane Library between 1974-2018. Two reviewers independently reviewed abstracts/papers for inclusion against the following criteria:

- Mean/median age >60
- Gynaecological treatment includes surgery (RCTs, observational or mixed methods studies).
- Any measure of functional ability as defined by WHO ICF classification section D1-D7 inclusive, D855, D860-79 and D9 using validated tool.
- Minimum pre-operative and one post-operative measure.

Results analysed and presented using narrative synthesis.

Results: Sixteen studies identified (7 Endometrial, 2 Ovarian, 2 Vulval, 6 mixed cancer types).

1/16 used a standalone functional assessment tool, 15/16 used Health-Related Quality of Life tools (EORTC QLQ C30 (10), FACT-G (3), SF-36 (3)) comprising items describing function.

More studies showed full recovery to baseline (n=11) than incomplete recovery (n=5 including 2 reporting age as a negative association). Recovery was more likely and occurred faster in minimally-invasive surgery. 1 study demonstrated failure to recover baseline functional independence by 12 months

SCIENTIFIC PRESENTATION: OTHER MEDICAL CONDITIONS (REF: LC-1786)

How do geriatricians view their future old age?

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Introduction: Despite, being a specialty intimately acquainted with growing old, there has been little research on how geriatricians view ageing in the terms it might affect themselves in the future. We wished to survey geriatricians as to how they viewed their own futures as they grew older.

Methods: We constructed a short survey using survey monkey and sent it to all BGS members, electronically. We also tweeted links to the survey from our personal accounts publicly. Only geriatricians were asked to reply. The survey was open between 25th March and 26th June 2019.

Results: 143 people responded to the survey

- 49% agreed or strongly agreed that they were looking forward to old age
- 65% agreed or strongly agreed that they were worried about the thought of being frail
- 70% agreed or strongly agreed that they were worried about developing dementia

Despite these responses

- 89% agreed or strongly agreed that old age will be an enjoyable time of life
- 76% agreed or strongly agreed that they promoted a positive image of older age to friends and colleagues
- 85% agreed or strongly agreed that they would be enthusiastic about life in older age
- 74% agreed or strongly agreed that they looked forward to the social life they would have in older age

Themes that arose in the free text responses regarding greatest fears for old age included dependence, physical disability and frailty, dementia, loneliness, bereavement, financial difficulties and the future of society. Respondents hopes for old age included independence and health, enjoying relationships, having more time, and contributing to society.

Conclusions: Despite, or perhaps because of, looking after frail older people as part of their profession, geriatricians have mixed feelings towards growing old themselves. Despite most agreeing that old age will be enjoyable, only half of respondents were looking forward to older age.

Dementia, dependency and loneliness were common fears for geriatricians. Geriatricians' experience of older age is often in the form of looking after the people who are the frailest of their age group, with the most marked disease burden. Strategies for geriatricians to consider the breadth and variety of old age might come through engagement with the field of medical humanities, reflective practice and spending more time with older people who have less disease burden.

SCIENTIFIC PRESENTATION: PARKINSON'S DISEASE (REF: MA-1721)

Participants and volunteer host experiences of First Steps course for those newly diagnosed with Parkinson's: A qualitative study

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Introduction: People with Parkinson's (PwP) and their caregivers often report poor diagnosis experiences and a lack of information, support and control over Parkinson's. First Steps is a two-day course delivered by volunteers with Parkinson's, which aims to help those newly diagnosed and their caregivers face the future positively and take control of Parkinson's. This study aimed to capture the views and experiences of participants and volunteer hosts of First Steps, and evaluate if it meets those aims.

Methods: Using purposive sampling, twelve participants comprising four PwP, five caregivers and three volunteer hosts were recruited. Face-to-face, semi-structured interviews were conducted, audio-recorded, transcribed verbatim and analysed thematically.

Results: Course participants found First Steps informative, supportive, and helpful in feeling more positive about Parkinson's. Participants were reassured by the hosts having Parkinson's, despite prior concerns regarding seeing people who might have more advanced Parkinson's. Some found First Steps more relatable than other support services and reported that the course complemented clinician-led courses as the content was aimed at caregivers as well as PwP, with variation in information delivery techniques. Among the PwP and caregivers, two thirds reported a lack of control over Parkinson's and some felt First Steps had improved their control. Hosts felt they had control over Parkinson's and perceived their role to be both challenging and rewarding.

Conclusions: First Steps was perceived as a helpful course, offering information and support for those newly diagnosed and their caregivers in a positive and non-clinical environment. Volunteer hosts felt more control over Parkinson's than other participants, but there was evidence that the course helped some experience more control. Suggested course improvements included: additions to the presentation content with more emphasis on taking control, and offering group follow up sessions. This will inform current expansion across the UK.

SCIENTIFIC PRESENTATION: PSYCHIATRY & MENTAL HEALTH (REF: LC-1795)

Rates and risk factors for hospital admission in people with dementia: Systematic review

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Background: Hospitalisation is often harmful for people with dementia and results in high societal costs, so avoidance of unnecessary admissions is a global priority. However, no intervention has yet reduced admissions of community-dwelling people with dementia. We therefore aimed to examine hospitalisation rates of people with dementia and whether these differ from people without dementia, and to identify socio-demographic and clinical predictors of hospitalisation.

Methods: We searched MEDLINE, Embase and PsycINFO from inception to May 9, 2019. We included observational studies which (1) examined community-dwelling people with dementia of any age or dementia subtype, (2) diagnosed dementia using validated diagnostic criteria, and (3) examined all-cause general (i.e. non-psychiatric) hospital admissions. Two authors screened abstracts for inclusion and independently extracted data and assessed included studies for risk of bias. Three authors graded evidence strength using Cochrane's GRADE approach, including assessing for evidence of publication bias using Begg's test. We used random effects meta-analysis to pool estimates for hospitalisation risk in people with and without dementia.

Results: We included 34 studies of 277,432 people with dementia; 17 from US, 15 from Europe and 2 from Asia. Pooled relative risk of hospitalisation for people with dementia compared to those without was 1.42 (95% confidence interval 1.21, 1.66) in studies adjusted for age, sex, and physical comorbidity. Hospitalisation rates in people with dementia was between 0.37 and 1.26/person-year in high-quality studies. There was strong evidence that admission is associated with older age, and moderately strong evidence that multimorbidity, polypharmacy, and lower functional ability are associated with admission. There was strong evidence that dementia severity alone is not associated.

Conclusions: People with dementia are more frequently admitted to hospital than those without dementia, independent of physical comorbidities. Future interventions to reduce unnecessary hospitalisations should target potentially-modifiable factors, such as polypharmacy and functional ability, in high-risk populations.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1646)

Improving mortality with an integrated model of care for cervical spine fracture in patients over 75 years old

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Introduction: Cervical spine injury is a potentially life threatening trauma. Given the increase in the number of patients presenting to the emergency department (ED) who are elderly and who have fallen and sustained trauma, it has become ever so challenging to manage this cohort of patients. In addition to diagnostic challenges in the elderly population, a robust, integrated care pathway and comprehensive geriatric assessment with involvement of a geriatrician is essential to provide effective care to these patients who require cervical collar after cervical spine injury to prevent morbidity and mortality.

Intervention: Data was gathered about the patient’s demographics, nature of cervical spine injury, care required from January 2013 till November 2016 (pre intervention) and from November 2016 till October 2017 (post intervention). Current practice was reviewed which showed significant variability in care provision to patients with cervical spine injury including collar care.

An integrated care pathway was designed with involvement of multidisciplinary team (MDT) members to standardise the care of this cohort of patients in our hospital. This included early identification of patients with cervical spine injury, co locating all patients, developing nursing expertise for cervical collar care, sitting up early to prevent complications like aspiration, pressure area care, early nutritional support, training staff in post discharge collar care with developing interface with primary care team. Outcome measures in patients over 75 years including length of stay (LOS) inpatient mortality and at 6 and 12 months were recorded respectively.

Results: Total: 54 patients, average age: 86.6 years

Pre-intervention: Jan 2013-Nov 2016	Post-intervention: Nov 2016-Oct 2017
Total: 35	Total: 19
Average age: 87.29 years	Average age: 85.26 years
Female: male ratio: 22:13	Female: male ratio: 12:7
LOS: 17 days	LOS: 10.89 days
Inpatient mortality: 8/35 = 22.85%,	Inpatient mortality: 0/19 = 0%
6 month mortality: 13/35 = 37.14%	6 month mortality: 3/19 = 15.78%
Mortality at 1 year: 16/35 = 45.71%	Overall mortality at 1 year: 4/19 = 21.05 %

Conclusions: Cervical spine injuries are common in older patients, who are at greater risk of falls and thus sustaining injuries. Early identification and management of these patients in a clinical area with multidisciplinary approach with appropriate expertise is key to reducing LOS and adverse outcome including mortality.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1649)

Review of the identification and management of contractures in inpatients with dementia in a district general hospital

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Background: Patients with dementia are at risk of contractures which are associated with pain, pressure sores, increased carer burden and reduced function (1). It has been estimated up to 55% of residents in nursing homes have a contracture (2). Locally, patients are identified and treated in care homes. We questioned why comparatively few hospital inpatients were seen.

Methods: We audited acute elderly inpatients at a large district general hospital on two days. Patients with a diagnosis of dementia were identified and then checked for contractures. Information was collected on a proforma. Patients audited on day one were excluded from day two.

Results: 410 patients were audited. 100 patients were identified with dementia. 21 individual contractures were identified with the hands been the most common site (47.6%). Only three contractures had been highlighted in the medical notes. Patients with contractures were more likely to be at home with carers or in a care facility (93.7% verse 64.3%). None of the patients with contractures were independently mobile. Higher proportions (31.2% vs 8.3%) with contractures were bedbound compared to those without. Complications were identified, with two patients reporting pain and three patients having pressure sores. Only one patient was receiving treatment for their contractures. Patients with contractures were more likely to have a higher frailty score, had a previous stroke (37.5% verse 13.1%) and have a vascular type dementia (31.3% verse 14.2%).

Conclusions: Contractures were a significant problem in our inpatient population in patients with a diagnosis of dementia. A large proportion were not identified by the clerking team, not receiving treatment and beginning to have complications. Subsequently a presentation highlighting this issue was carried out to junior doctors on the elderly wards, a coding proforma for contractures was produced and a guide to management of this issue is being put together for use in the inpatient setting.

References:

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CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1659)

UTI diagnosis and management in the over 65s according to Public Health England guidelines

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Introduction: The diagnosis of urinary tract infections (UTI) becomes increasingly difficult with age. Dipsticks are unreliable and with the prevalence of asymptomatic bacteriuria increasing to 17% in females over 75 even urine culture results can be unreliable. Public Health England (PHE) released new guidelines in November 2018 with criteria for diagnosing UTIs in the over 65s.

Methods: Identify patients over 65 who are diagnosed with a UTI in Solihull acute medical unit. Collect data on presenting symptoms, dipstick and culture results and antibiotic use. Aim to improve guideline adherence and decrease dipstick use through education of medical and nursing staff via presentations and posters.

Results: Prior to the educational intervention guideline adherence when diagnosing UTIs in over 65s was 55%. This rose to 82% following the educational intervention. Dipstick usage decreased from 49% to 28% following the intervention. Dipsticks were shown to be unreliable as 21.6% of dipstick positive urine samples sent for culture had a normal (0-80) white cell count in the laboratory, whilst 43.8% of dipstick negative urine samples sent for culture had a raised white cell count in the laboratory. On retrospective analysis 16.1% of patients treated for a UTI appeared to have had an asymptomatic bacteriuria. Co-amoxiclav was initially used for 51% of patients however there was resistance to Co-amoxiclav in 31% of samples where an organism was cultured.

Conclusions: The educational intervention was able to increase PHE guideline adherence for diagnosing UTIs in the over 65s. There was also a decrease in the use of dipsticks which were shown to be unreliable in this age group. Prescribers remained reliant on broad-spectrum antibiotics with Co-Amoxiclav being most commonly used. This is likely to be ineffective in a significant number of patients given the common resistance seen in urine culture sensitivities.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1662)

Effects on hospital admissions from the completion of good quality treatment escalation plans in care homes

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Topic: Some care home residents are admitted to hospital when they either do not wish for admission or will not benefit from admission. Meeting residents and their next of kin to explore the person's goals and priorities can facilitate the completion of a good quality Treatment Escalation Plan (TEP).

Intervention: A pilot service was commenced in November 2018 to complete and review TEPs in the top ten admitting care homes to Musgrove Park Hospital. A small team of clinicians (1.5 full time equivalent) worked in the selected care homes completing and reviewing TEPs, with an aim to see 80% of residents. Clinicians met residents and their next of kin to discuss the person's wishes. Completed TEPs were left in the care home, shared with GPs and uploaded to the IT system in the acute hospital. The number of Emergency Department (ED) attendances and inpatient admissions from care homes were recorded and compared to data from 2017/18.

Improvement: Over 5 months, 492 residents had TEPs reviewed or completed by the team; this was 76% of the total bed base of the selected care homes. Data were compared to the same period a year earlier. During the final two months of the pilot, attendances to ED from care homes with the intervention were reduced by 24%, whilst the control group saw an 8% decrease. In the same period, inpatient admissions from the intervention group were reduced by 35%, compared to an 11% decrease in the control care homes.

Discussion: Whilst there are too few data to provide conclusive evidence, early indications suggest that facilitating the discussion of good quality TEPs in care homes reduces attendances to ED and inpatient admissions. Further evaluation is required as the service continues. There were challenges to the implementation of the pilot; these included communication and engagement with GPs, in addition to access to GP IT systems.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1668)

Improving diagnosis and management of urinary tract infections for elderly patients

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Introduction: Diagnosis of urinary tract infection (UTI) in the elderly population is challenging as they commonly present with atypical signs and symptoms. Prevalence of asymptomatic bacteriuria in the elderly population is high. Hence, urine dipstick and urine culture are no longer diagnostic tests. UTI is over-diagnosed and overtreated in the elderly, resulting in poor antimicrobial stewardship. This project was carried out to assess and improve the current practices in the diagnosis and treatment of UTI in the Department of Medicine of the Elderly.

Methods: We reviewed current Scottish Intercollegiate Guidelines Network (SIGN) and National Institute for health and Care Excellence (NICE) guidelines on management of UTI and defined indications for performing urine dipstick and sending urine culture. We then collected and assessed data on all urine dipsticks performed, urine cultures sent, and use of antibiotics in treating UTI and asymptomatic bacteriuria in three Medicine of the Elderly wards in Aberdeen Royal Infirmary.

We carried out intervention by means of presenting and discussing findings of Plan-Do-Study-Act (PDSA) cycles in departmental multi-disciplinary Quality Improvement (QI) meetings followed by educational sessions.

Results: Our baseline data showed 77% of urine dipsticks were performed without clinical indication and 18% of patients had urine cultures sent without clinical indication. After presenting our initial findings and carrying out an educational intervention session, 25% of patients had urine dipstick done without clinical indication, and 0% of patients had urine cultures sent without clinical indication. However, over the course of four subsequent PDSA cycles, practices in investigation of UTI fluctuated but were overall consistently better than the initial practice with further interventions. In all PDSA cycles, no patients were treated for asymptomatic bacteriuria.

Conclusions: Multidisciplinary team involvement in discussion of this QI project findings and educational sessions proved to be an effective form of intervention for improving current practice.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1672)

Perioperative urinary catheterisation in hip fracture patients

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Introduction: There are currently no national guidelines, in the UK, advising when to catheterize hip fracture patients and when to trial without a catheter (TWOC). We audited the practice in a UK teaching hospital where there is a consultants’ consensus that all patients should be catheterized on the day of admission (or day of surgery; which is usually within 36 hours of admission) and TWOC as soon as possible within 72 hours postoperatively. We also correlated delays in TWOC with urinary tract infection (UTI) rates.

Methods: Audit of consecutive hip fracture patients who had undergone surgery. Patients who had long term indwelling urinary catheter were excluded. Data collected include: demographics and date and time of admission, catheterisation, operation and TWOC, also duration of catheter post operatively, reason if TWOC delayed and whether the patient had a UTI.

Results: 43 patients were included; 30 males and 13 females with a mean age of 82.9 and 83.9 years respectively. Urinary catheters were inserted in 100% of patients preoperatively. Overall 23% of patients had a UTI. There were more UTIs with prolonged catheterization. The results are summarised in the table. The reason for delaying a TWOC was not documented in any of patients’ notes.

Postoperative day	Patients who had TWOC	Patients who had UTI
<3 days	12%	20%
3-<7 days	53%	22%
7-<14 days	21%	11%
>14 days	14%	50%

Discussion: The low rate of TWOC within 72 hours can be attributed to:

- Lack of clear guidelines
- Reluctance to have a TWOC for older patients with poor postoperative mobility with concerns regarding inability to reach the toilet timely.
- Reluctance to have a TWOC for those who did not open their bowels postoperatively.
- Time and resources pressure.

Conclusion and recommendations: National guidelines for urinary catheterisation in hip fracture patients are needed meanwhile Orthopaedic Department guidelines will improve the care in these patients. Patients should have a urinary catheter “passport” documenting the date of insertion, expected date of TWOC and the reasons for delaying TWOC. It is important to educate the team about the importance of TWOC as early as possible and improve communication.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1677)

Stop falling before it starts: Increasing access to multifactorial falls and fracture risk assessment and intervention for older people at risk of falls or early in their falls career via proactive case finding

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Background: Target population: patients from 6 (of 43) Newcastle upon Tyne General Practices, age 65 – 75, mild frailty on electronic frailty index, who had fallen or noticed a balance problem in the previous year.

Introduction: Usually multifactorial falls and fracture prevention services target frailer older people and intervention begins after a fall or fracture has occurred. There is limited provision of community-based strength and balance exercise.

Intervention: New service model 'Stop Falling Before It Starts (SFBIS)': proactive case finding by postal questionnaire; multifactorial falls and fracture risk assessment by specialist nurse; interventions recommended to General Practitioner (GP); community-based exercise offered to all, predominantly new 15 week 'Steady On' strength and balance classes suitable for fitter older people.

Methods: Data collection: patient characteristics, physical performance (Timed up and Go (TUG), 30 second sit to stand (STS)) before starting and on completion of Steady On classes, service process measures, patient and GP experience.

Results: 157 patients assessed. 80 (51%) fallen in previous year. 9 (6%) history of syncope / pre-syncope. 18 (11%) orthostatic hypotension. 124 (79%) culprit medications. Recommendations: GP review of history 6 (4%) or medications 13 (8%); referral to secondary care falls service 1 (0.5%); optician assessment 58 (37%); DXA 13 (8%). 131 (83%) referred to Steady On; 119 (91%) attended first class, 61 (51%) completed classes. Mean initial TUG 11 seconds, mean improvement 3 seconds. Mean initial STS 11 repetitions, mean improvement 3 repetitions. Mean patient feedback score 14.6/15 (15 best). GP feedback positive.

Conclusions: SFBIS was effective in identifying the target population and engaging them in community-based strength and balance exercise classes. Meaningful improvements in physical performance were demonstrated. A smaller number of additional risk factors were identified. There was a high level of satisfaction from patients and GPs. Wider implementation would increase participation in evidence-based community exercise.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1686)

Improving identification and assessment of urinary incontinence in older people

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Introduction: Urinary incontinence is very common in the older people and wrongly considered a normal part of aging. The prevalence of UI is 39.1% in people with frailty and 19.4% in those without (Veronese et al. European Geriatric Medicine, 2018, 9(5), 571–578). Despite the high prevalence of urinary incontinence, its detection and management remain suboptimal. A comprehensive multidisciplinary continence assessment is recommended to assess and manage urinary incontinence in older patients (NICE CG171).

Methods: Plan, Do, Study, Act (PDSA) cycle audit was conducted to identify the practices for identification and assessment of urinary incontinence on a care of elderly ward. Data was collected on a structured proforma containing six standards prospectively. Following the results of first cycle, a strategy was developed and implemented.

Results:

Standards	Cycle 1	Cycle 2	Improvement
Identification by nursing staff	100%	100%	Maintained
Identification by medical staff	00%	57%	00-57%
Specific Interventions	00%	84%	00%-84%
Continence assessment care plan	00%	100%	00%-100%
Alert on Handover	55%	100%	55%-100%
MDT Discussion	00%	53%	00%-53%

Strategy: Cycle 1 (35 patients) results were disseminated to the Divisional Safety and Quality Committee, ward teams, educational sessions held for multidisciplinary teams, involved Trust's continence advisor, displayed multidisciplinary teams prompt sheets, trialled new nursing documentation booklet, discussed continence status at daily board round and conducted audit cycle 2 (28 patients) after 4 months.

Conclusions: PDSA cycle audit with involvement of multidisciplinary teams, presentation to the Divisional Quality and Safety Committee combined with regular educational sessions and prompt about continence status at the daily board round led to better detection and improved management of urinary incontinence. We recommend other clinical teams to follow our strategy to improve the urinary incontinence care in older people without any additional resource.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1689)

The 'Colchester Older Persons' Evaluation for Surgery (COPES)' clinic: A multidisciplinary approach to preoperative management of frail, older patients

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Introduction: In 2014-15, 2.5 million patients over 75 years old underwent surgery compared to 1.5 million in 2006-7. The population is aging with increasing numbers of comorbidities, and associated frailty.¹ The Royal College of Anaesthetists recommends that preoperative assessment for these complex older patients takes a "cross-specialty approach."² In Colchester the COPES clinic has been introduced in which selected high-risk patients are seen by a Consultant Anaesthetist and Consultant Geriatrician. This aims to medically optimise patients prior to surgery and to facilitate shared decision making.

Methods: The new clinic was introduced in October 2018. The following data was collected from COPES clinic letters from October to February 2018-19 (n=46):

- Patient/ surgery characteristics: age, comorbidities, frailty score and any cognitive impairment
- Interventions: changes to medication, specialty referral, intravenous iron, diabetes optimisation, other
- Outcomes of surgery following the COPES clinic

Patients were asked to complete feedback forms to evaluate the service.

Results: 52% of patients had 4-6, and 28% had 7-9 comorbidities. The majority had Rockwood frailty scores of 4 or 5. 28% of patients had medications changed, 48% had specialty referrals, 17% received intravenous iron, 8.7% required diabetes optimisation and 28% of patients had investigations including echocardiograms, MRI and CT scans. 12/46 patients had surgery deemed unlikely to go ahead after shared decision making with patients in conjunction with the multidisciplinary team involved in their care. 2 patients died of their comorbidities after deciding not to proceed with surgery. 12/46 patients underwent surgery; 4 developed post-operative complications, none died and the mean length of stay was 3.38 days. The remaining 22/46 patients are awaiting surgery. Patient feedback questionnaires (n=10) were overwhelmingly positive. Everyone felt that they were treated with respect and that their fears were addressed and they were clear in the next steps in management.

Conclusions: The introduction of the 'COPES' clinic has helped address frailty and multiple comorbidities by optimising patients' medical conditions and allowing alternatives to surgery to be considered. Patients were very satisfied with the COPES clinic and felt it has prepared them for upcoming surgery.

References:

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2. RCoA. Guidelines for the Provision of Anaesthesia Services. www.pre-op.org/sites/default/files/GPAS%202016.pdf

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1697)

Improving communication about death between primary and secondary care: A quality improvement project

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Introduction: Communication between the hospital and primary care regarding the death of a patient is incredibly important. Previous literature surrounding this area has shown that it is often done poorly, resulting in substandard documentation. Furthermore, lack of information for General Practitioners (GPs) means it is difficult for them to enter discussions with families, which can negatively impact on the bereavement process.

The previous expectation was that an electronic discharge summary was completed, but that this was not optimally designed to inform GPs about the circumstances surrounding the death. Reasons given that summaries were not completed included: the busy workload of junior doctors and the lack of awareness of their importance.

Methods: The aim of our quality improvement project was to ensure 80% of GPs received notification and information about a patient's death by August 2018.

Following an initial cycle to assess the baseline notification rates, we developed a standardized death notification letter following feedback from local GPs. This included information such as date of death, if the coroner had been informed and a brief summary of events. Following introduction of the letter, we recorded the uptake and then gained further feedback regarding the ways in which it could be improved. A final cycle was then implemented.

Results: Baseline data showed an electronic discharge letter was only being completed in 13.3% of cases (n=3/21). Following introduction of the new letter, 83.6% were completed (n=56/67).

Conclusions: In conclusion, the introduction of a simple and standardized letter template has vastly increased the notification of GPs about a patient's death from our hospital. Limitations of our project included the varying numbers of deaths in audited periods and some hospital teams having a separate process in place.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1700)

Mortality rates for patients admitted to Complex Care/Care of the Elderly wards at Southmead Hospital, Bristol

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Background: Existing data examining mortality rates following inpatient hospital admissions in the United Kingdom is either condition specific or examining all inpatient mortality based on single time point audits. This clinical effectiveness project aimed to assess 1, 3, 6 and 12 month mortality rates in patients admitted to complex care/care of the elderly (CC/CotE) wards at Southmead hospital, Bristol

Methods: Data were collected by the trust's Business Insider department and analysed by the authors. All patients admitted to the four CC/CotE wards from July-December 2017 were included. Data collected included age, gender, date of admission, length of stay, date of discharge, and date of death if applicable.

Results: 2673 patients were admitted to CC/CotE wards from July-December 2017. 42.72% of patients were male, mean age of patients was 82.46 years. Mean length of stay was 16.68 days, with mean length of stay on CC/CotE ward specifically 9.08 days. 292 (10.92%) of patients died during the index admission. Overall mortality rates were:

- 1 month: 11.34% (303 patients)
- 3 month: 21.59% (577 patients)
- 6 month: 30.15% (806 patients)
- 12 month: 38.53% (1030 patients)

12 month mortality increased with age from 75 upwards (34.04% in 75-79 years, 42.94% 85-89 years, 50.27% 95-99 years, 66.67% 100-104 years) but was similar in those aged 65-69 and 70-74 (29.41% and 28.18% respectively).

Discussion: An improved understanding of mortality rates in patients admitted under CC/CotE may aid clinicians' ability to prognosticate. Appreciating that over a third of CC/CotE patients are potentially in the last year of life provides further impetus to begin advanced care planning discussions during inpatient admissions.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1702)

Exploring hospital discharge as an opportunity for falls prevention exercise referral

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Topic: Proactive prevention is at the core of the NHS Long Term plan and falls prevention is an important public health priority. National guidance recommends that all health professionals have competence in falls assessment and prevention and advise that older adults at risk of falls are considered for strength and balance exercise.

With rising numbers of older adults occupying inpatient beds, some clinicians may not have the skills to identify these opportunities to prevent falls. Previously, physiotherapy staff on a respiratory medicine ward were not delivering best practice in falls prevention.

Aim: Within 3 months, to achieve a 30% increase in older adults at risk of falls, being offered exercise referral at hospital discharge.

Intervention: Quality improvement methodology including stakeholder engagement and Plan-Do-Study-Act cycles were used to influence behaviour change amongst physiotherapy staff on a respiratory ward. Interventions included training and a documentation sticker. For evaluation, the weekly number of older adults at risk of falls with evidence of offer for falls prevention exercise was collected over 13 weeks and evaluated on a Statistical Process Control chart. Staff confidence scores and cohort data were also recorded and described using descriptive statistics. The NHS Improvement Sustainability Model was used to measure project sustainability.

Improvement: At baseline, 0/18 (0%) older adults had an offer for fall prevention exercise. Over the intervention period, this increased to 22/37 (59.5%) and demonstrated special cause variation that was confidently assigned to the interventions. There was a 44.5% improvement in staff confidence in offering fall prevention exercise. The project scored 53.7% using the NHS sustainability model.

Discussion: This project demonstrated favourable behaviour change in falls prevention practice amongst physiotherapy staff on a respiratory ward. There was variability in the improvement possibly as a result of contextual influences of staffing and seasonality. Hospital discharge is a good opportunity to assess falls risk in older adults and offer information and referral for exercise. Wider implementation may be useful to help older adults optimise health outcomes but will depend on organisational stakeholder support to improve sustainability.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1704)

Amending admission protocol to reduce proton pump inhibitor-induced hyponatraemia on a specialist Hip Fracture Unit

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Introduction: Hyponatraemia is a common electrolyte disturbance amongst elderly patients. Defined as a sodium concentration below 135mmol/L, the BNF cites hyponatraemia as a 'rare' side effect of Omeprazole, a common proton pump inhibitor (PPI). In elderly patients, hyponatraemia can have significant morbidity.

On our Hip Fracture Unit (HFU) at St Helier Hospital, all patients are commenced on Omeprazole on admission. We conducted a quality improvement project to reduce the incidence of PPI-induced hyponatraemia by altering standard protocol from Omeprazole to Ranitidine.

Methods: Phase 1: Retrospective analysis identifying incidence of PPI-induced hyponatraemia, defined as sodium concentration below 133mmol/L on two consecutive readings and resolving on switching to Ranitidine (Group A: n=86).

Phase 2: Identifying incidence of hyponatraemia following administration of Ranitidine from admission (Group B: n=62).

Exclusion criteria: Patients already on gastric protection or hyponatraemic on presentation. Chi squared analysis to establish statistical significance for risk of hyponatraemia associated with omeprazole.

Results: Total number of patients was 148. Age range 60-101 years (median 82 years). Incidence of PPI-induced hyponatraemia in Group A was 10.5% (9 cases). All resolved on switching to ranitidine.

Following change in admission protocol to Ranitidine (Group B), incidence of hyponatraemia was 1.6% (1 case). The chance of developing hyponatraemia with Omeprazole was significantly higher than with ranitidine (P=0.0454).

Conclusions: 10.5% of admissions to the HFU experienced PPI-induced hyponatraemia. The European Medicines Agency defines side effects occurring at greater than 10% as very common. Whilst 45% of patients were on medication associated with hyponatraemia on admission, the absence of hyponatraemia at presentation and biochemical response when switching to ranitidine, demonstrates this is a significant side effect of PPIs. Given the increased morbidity associated with hyponatraemia, particularly in frail, elderly patients, amending protocol to ranitidine for gastric protection has the potential to reduce harm and improve patient outcomes.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1707)

Rational prescribing in the frail elderly population: A quality improvement project to reduce inappropriate prescribing using STOPP-Frail criteria

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Introduction: 2.5 million people in the UK are aged over 80 and up to 50% can be considered frail. Complex co-morbidities and polypharmacy are linked with adverse drug effects and negative outcomes. NICE recommends a medication review yearly, and a hospital admission provides an opportunity for this. STOPP-Frail is a screening tool designed to highlight medications that could be reduced/stopped with a view to improving quality of life. We conducted a quality improvement project to quantify levels of inappropriate prescribing at Croydon University Hospital (CUH), with a view to de-prescribing and reducing adverse drug effects.

Methods: A retrospective analysis was carried out on the Elderly Care wards at CUH. Data was collected from 60 consecutive patients discharged from 1st November 2018, utilising electronic Cerner records. Recorded medication on admission and discharge, noting any amendments in accordance with the STOPP-Frail criteria.

Results: Data collected from 60 patients; one exclusion for not meeting STOPP-Frail criteria (n=59). Median age 86 years (69 to 103 years). Mean number of medications on admission 7.42 (1 to 15). 93.2% patients had polypharmacy (defined as ≥ 4 medications). Mean number of medications on discharge 8.22; an increase of 0.8/patient.

19.4% admission medications met STOPP-Frail criteria for inappropriate prescriptions. Only 18.8% of these were reduced or stopped during admission. Gastrointestinal and cardiovascular medications were most commonly inappropriately prescribed (n=27 and 24 respectively). Most common medications not amended were lipid-lowering therapies (n=21) and proton-pump inhibitors (n= 20).

Conclusions: The opportunity to rationalise medication in the frailest patients admitted to CUH is missed in over 80% of cases. STOPP-Frail provides clear guidance to aid clinicians in reducing inappropriate prescribing. An educational programme is in place to highlight medication rationalisation and guide clinicians in the use of the STOPP-Frail tool. This includes doctors' induction, departmental teaching, posters and computer flash cards.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1715)

Structured geriatric liaison services in mental health inpatient facilities

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Introduction: Older people admitted to mental health facilities may be at increased risk of deterioration in the physical co-morbidities and increased rates of mortality when admitted in acute medical settings. Our model of care focuses on intervening in the physical aspect of patients admitted in the mental health unit addressing their comorbidities and polypharmacy and offering staff support during the admission process. Our Older Mental Health Unit is based in the district hospital with a total of 22 beds for people over 65 years old distributed in two areas: dementia with behavioral and psychological symptoms (BPS) and functional disorders.

Methods: Allocated geriatrician once a week to attend MDT and medical ward rounds. 5 working days telephone consultations for advice and supporting trainees in teaching and research. We measure the impact of our intervention comparing the data predating our intervention comparing 20 patients in each period 2016 and 2018.

Results: Mean age increased from 74.3 to 77.8 in a two year period with an average of 3.5 medical co-morbidities. Reduction in polypharmacy from 7.15 to 5.5 number of medication, 58% reduction in the number of hospital transfers and 90% reduction in specialty referrals.

Conclusions: Structured Geriatric Liaison Services in Mental Health in inpatient facilities are shown to be effective in reducing acute hospital and outpatient clinic attendances minimising the challenges of management of these patients in non-mental health facilities.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1722)

Comparison of characteristics and outcomes for older adults admitted to specialty wards versus outlying wards at Royal Bournemouth and Christchurch hospitals

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Background: At Royal Bournemouth and Christchurch Hospitals (RBCH) elderly patients are admitted to either the acute medical unit or the older person's assessment unit. If the inpatient stay is likely to be longer than 72 hours, then patients are transferred to one of three elderly care wards. If these wards are at capacity, then patients must be outlied to other wards.

Introduction: GMC guidance June 2014, states hospital inpatients should have a named consultant. Studies have shown that length of stay and outcomes can be affected when the patient is on an outlying ward. This issue affects many hospitals and specialties, and also impacts older frail patients at RBCH. During winter elderly care admission rates increase, and more patients are outlied. Our aim was to improve the care and outcomes for elderly care patients treated on outlying wards.

Methods: The notes of 50 specialty ward patients and 50 outlying patients were compared from the first two weeks of January and February 2019 using scanned electronic records where elderly care was responsible for their treatment. We studied demographic characteristics, length of stay, mortality, readmission within 30 days of discharge, frequency of consultant review, escalation plans, discharge destination and ward moves.

Interventions: A dedicated outlying team was created for the 2018/2019 winter to attempt to improve outcomes for outlying elderly care patients. This team consisted of a geriatrician, registrar, SHO and allied health care professionals including a physiotherapist and discharge coordinator.

Results: Our results showed that outlying patients had a significantly longer average length of stay compared to patients on specialty ward (13.8 days vs 8.2 days, $p=0.01$). A significantly higher proportion of patients in outlying wards did not have a consultant review every 72 hours (66% vs 8.3% specialty ward patients, $p=0.001$). However the specialty ward patients had a significantly higher number of readmissions within 30 days (30.6% vs 16%, $p=0.04$).

Conclusions: We found that despite a dedicated team, outlying patients had a significantly longer length of stay and were seen by a consultant less often than patients on a specialty ward. Further work is needed to ensure equality of care for these patients. Patients with complex medical needs are generally triaged to specialty wards, which may account for their higher readmission rate.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1726)

Improving frailty identification and Comprehensive Geriatric Assessment (CGA) completion on the wards

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Introduction: The Comprehensive Geriatric Assessment (CGA) is known to deliver substantial and measurable health improvements to frail older people, including increased independence and a reduction in mortality.¹ The Clinical Frailty Scale (CFS) can detect older adults at higher risk of complicated course and longer hospital stay.² Despite the known benefits, previous audits has shown poor documentation on geriatric wards at Southend Hospital. Therefore, we devised a Quality Improvement Project to improve the uptake of both these.

Methods: A total of two Plan Do Study Act (PDSA) cycles were completed where CGA completion and CFS documentation was audited. Each cycle lasted two weeks (25 patients). Qualitative feedback was obtained from the members of multidisciplinary team to aid improvements. The baseline audit was based on the introduction of a 2-page ward proforma for all new patients. The first intervention was an improved 2-page ward-proforma. The second intervention was a single page ward-proforma.

Results: Originally, 40% of new patients admitted onto the ward had a CGA assessment and CFS score. After the first intervention, 79% (19) patients had a CFS score and a CGA assessment. 21% had a full CGA completed and 58% had partial CGA. Feedback included wanting a single page proforma to increase uptake. Questions needed to be more unambiguous and more tick boxes. After the second intervention 100% (25) patients had a CFS score and a CGA assessment. 40% (10) had a full CGA completed and 60% (15) had a partial CGA. Feedback include incorporating the ward round documentation to avoid repetition.

Conclusions: The results show that by using a focused, concise and user-friendly proforma, uptake of the Comprehensive Geriatric Assessment and Clinical Frailty Scale can be significantly increased, bringing substantial and measurable health improvements to frail older people admitted to elderly care wards.

References:

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CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1738)

The use of a multifactorial intervention to improve bowel chart recording and laxative prescription in a tertiary geriatrics department

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Introduction: Constipation has a high prevalence of 30-40% in those aged over 65. It can lead to complications including delirium, faecal impaction, stercoral ulceration, and bowel obstruction. Although stool charts are used in geriatric wards to monitor bowel movements to guide management of constipation, they are often inconsistently recorded. Similarly, regular laxatives are often not prescribed for constipated patients due to ward pressures or unawareness regarding their importance.

Aims: Our aims were to audit the rates of recording on stool charts and laxative prescription in a geriatrics department, and to assess whether a multifactorial intervention aimed at both doctors and nursing staff improved these rates.

Methods: Two independent assessors audited the recording of stool charts, and rates of constipating medications and laxative prescription in two geriatrics wards in a tertiary UK hospital. A multifactorial intervention was implemented, consisting of didactic sessions for doctors and nurses, healthcare assistant champions to promote the recording of stool charts, and consolidation of bowel movement recording onto a single paper stool chart by the bedside rather than multiple charts. After the intervention, the data was re-audited on the same wards. Descriptive statistics and frequency tabulation were used for data analysis.

Results: Data was collected from 33 patients. Pre-intervention, stool charts were recorded daily in 13 patients, 10 patients had no stool chart record, 20 patients were on at least one constipating medication, 12 patients were prescribed at least one laxative, and 5 out of 7 patients with opiates had laxatives co-prescribed. Post-intervention, stool charts were recorded daily in 21 patients, all patients had a stool chart record, 20 patients were on at least one constipating medication, 23 patients were prescribed at least one laxative, and 2 out of 4 patients with opiates had laxatives co-prescribed. Our intervention improved daily recording on stool charts by 24%, resulted in all patients having a current stool chart and improved prescription of regular laxatives by 34%.

Conclusions: A multifactorial intervention based on educational sessions, healthcare assistants acting as champions, and consolidation of recording of bowel movements into a single chart, improved stool chart recording and prescription of regular laxatives in a tertiary geriatrics department. Future auditing will extend the sample size and generalise the intervention to other hospital departments.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1739)

"Love the day job still;" "more job satisfaction;" "I will never give up my GeriGP job;" - Results of the BGS GeriGP Workforce Survey 2018

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Background: In 2017, two GPs decided to form the GeriGP group, for BGS GP members with a particular interest in the care of older people. GPs are increasingly using their holistic approach and expertise in new models of care within the community and the acute setting ("GeriGP" roles), and many no longer work in traditional General Practice.

Introduction: By late 2018, the group had around 100 members. The committee recognised the vital role GeriGPs could play in the development and delivery of innovative models of care for older people, as recommended in the NHS Long Term Plan¹ and 2019 GP Contract². There was no data available about GeriGP roles, which appeared to have arisen in an ad hoc fashion. An online survey was undertaken with the aim of using the results to engage with national policy makers and to identify pathways into these roles to improve recruitment and retention of the GP workforce.³

Methods: We are grateful to the BGS who collated 58 questions for the online questionnaire, which was sent to all GeriGP members between October and December 2018. There were five main categories: role and venue; employment conditions; indemnity; appraisal; qualifications and training. Most questions had space for free-text comments.

Results: 47/100 GeriGP members responded; 68% respondents held GeriGP roles of whom 62% were practising GPs. 60% of all respondents were over 45 years old. 30 job descriptions covered community frailty hubs, intermediate care, community hospitals, care homes, acute front door, visiting services and memory clinics. 60% were community based. Rates of pay and types of contract varied dramatically. GP appraisal was often difficult due to patients having frailty or dementia, with contradictory advice common. 45% had difficulty accessing training and two-thirds of jobs were gained by word-of-mouth. 87% in GeriGP roles were more likely to continue practicing medicine because of this role, yet career development barriers existed at all levels. Many comments concurred with a plea for a "primary care geriatrics specialty", and repeatedly the joy of having time for patient-centred care was the driving force behind experienced GPs opting to continue in GeriGP roles.

Conclusions: The enthusiasm for GeriGP roles should be seized upon to improve healthcare of older people and bolster the GP workforce. GeriGPs plan to use these results to influence policy makers nationally.

References:

1. NHS Long Term Plan (<https://www.longtermplan.nhs.uk/online-version/overview-and-summary>)
2. 2019 GP Contract (<https://www.england.nhs.uk/wp-content/uploads/2019/01/gp-contract-2019.pdf>)
3. GeriGPs. (<https://www.bgs.org.uk/gerigps>)

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1742)

Cervical spine fragility fractures in older people: 5-year experience at a regional spine centre

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Introduction: Cervical spine fractures are particularly prevalent in older people and commonly occur following a fall from standing height or less, in the presence of degenerative spinal disease. Atlanto-axial complex and odontoid process injuries are the most frequent type of fractures and are potentially life threatening. Published in-hospital and 1-year mortality rates in older people are eightfold higher than in younger patients. The aim of this study was to identify the incidence and characteristics of cervical spine fractures in older people presenting to a regional spine centre.

Methods: Clinical records and radiographs were retrospectively reviewed using our institutional registry covering a 5-year period. Data included patient age, gender, mechanism of trauma, level of fracture, stability of the fracture, treatment modality, imaging modality, and mortality rates.

Results: A total of 209 patients above the age of 70 with cervical spine fractures were treated in our centre from 2015-2019. The mean age of the patients at the time of injury was (82.4 ±7.5) years with the majority (n=117; 56%) being females.

One-hundred fifty-one patients (72.2%) experienced fractures in the atlanto-axial complex. Particularly, Dens fractures were the most commonly reported fracture (n=119; 56.9%). Most of the patients encountered stable cervical spine fractures (n=181; 86.6%) and these were managed by external immobilization with hard collar or halo vest.

Mechanism of trauma was divided into two main categories, low energy and high energy. Low energy trauma was the most common cause that lead to cervical spine fractures (n=169; 80.9%), compared to high energy trauma (n=40; 19.1%). CT scan and X-ray were the main imaging modalities utilized to detect cervical spine fractures. Whereas, MRI was only utilized in (n=51; 24.4%).

Overall mortality rate was (n=17; 8.1%) at 30 days. Out of which (n=1; 5.9%) was in a patient who was surgically treated while the remaining (n=16; 94.1%) were in those treated conservatively.

Conclusions: Cervical spine injuries in older people are clinically important. Low energy trauma particularly falls, were the main mechanism of cervical spine injury. Upper cervical spine injuries, mainly C2, is the most common cervical spine fracture and were most commonly detected using CT scan. External immobilization was our treatment of choice for most of the cervical spine injuries in the older people. These patients are very similar with respect to mean age, mechanism of injury and 30 days mortality rate as hip fracture patients.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: 1748)

The Jean Bishop Team, Hull: A new model of care for Comprehensive Geriatric Assessment of the frail population

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Introduction: Hull CCG recognised system's over-reliance on reactive, hospital care and workforce deficits, requiring a modernised service model for frail older people that moved from individual provider focus to system-wide perspective, with emphasis on proactive care.

Methods: Electronic Frailty Index (eFI) in primary care system identified 3,200 out of 300,000 Hull residents Hull with severe frailty. Recruited 9 GPs with extended role in older people's care and Advanced Nurse Practitioners to support 4 Community Geriatricians. Redesigned roles for pharmacy, social services and non-clinical care coordinator teams. New therapy roles created, multiple third sector organisations involved, including carer support, and purpose-built location with older people in mind

Interventions: Structured and anticipatory comprehensive geriatric assessment of all 3200 residents (either at home or in care homes) by the multidisciplinary multiagency team. Pre-assessment home visit by support worker to complete patient concern's questionnaire. Dedicated patient transport and one-stop multi-disciplinary team assessment in one building. Proactive discussion of RESPECT and advance care planning, electronic personalised care plan delivered with system-wide record sharing across providers. Same day basic diagnostics available. Complex care coordinators ongoing support in community. Multi-disciplinary outreach to care homes and truly housebound.

Results:

- 99.7% patients and carers extremely likely/likely to recommend the service
- 21,000 interventions for 2,500 patients seen since June 2018
- Majority of patients moderately frail by Clinical Frailty Score
- Average saving on drug costs - £110.17 /patient/year
- 15% reduction in ED attendances, 29% reduction in emergency admissions
- Patients' survey: adequate time and opportunity to discuss health problems/concerns, felt informed and empowered during consultation and in future planning
- Very high levels of staff satisfaction

Conclusions and future:

- Innovative high quality, cost-effective new model of care delivering improved patient care and experience with emphasis on proactive care and future planning
- High levels of patient and staff satisfaction
- Future expansion with disease specific teams including COPD, parkinsonism and diabetes and targeting moderately frail by eFI.
- Redesign of community services with improved integration across teams and providers can be a blue-print for other services

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1756)

Design and implementation of a nutrition clinical pathway for patients with fractured neck of femur

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Background: Patients with a fractured neck of femur (FNOF) are commonly malnourished pre-admission, have reduced oral intake in hospital and a hypermetabolic state up to three months postoperatively (E Paillaud 2000). Malnutrition is associated with functional deterioration, higher morbidity and mortality.

Evidence suggests nutritional supplementation post-surgery can reduce postoperative complications. As a result, nutritional assessment is included in the National Hip Fracture Database best practice tariff (Avenell, Cochrane Database of Systematic Reviews 2016).

Introduction: Our aim was to design and implement a clinical pathway for patients with FNOF to identify malnutrition and provide appropriate nutritional support.

Intervention: A retrospective audit of 25 patients was completed to understand baseline rates of assessment, prescription of supplements and referral to dietetics. Using these data meetings were arranged to develop a clinical pathway. Key stakeholders included dietetics, orthopaedic surgeons, geriatricians, physiotherapists and nurses. The pathway was evaluated and optimised with two Plan-Do-Study-Act (PDSA) cycles looking at 25 patients each time.

Results: Baseline: 79% received a nutritional assessment, 32% had nutritional supplements prescribed and 36% (n=9) met criteria for referral to a dietician, of which 55% were referred. However, an additional 5 referrals were made to dietetics for patients who did not meet criteria, a 50% inappropriate referral rate.

PDSA cycle 1: increased nutritional assessment (85%), increased nutritional supplements prescribed (92%), decreased inappropriate referrals to dietetics (43%).

PDSA cycle 2: increased nutritional assessment & nutritional supplements prescribed (100%), increased inappropriate referrals to dietetics (80%).

Conclusions: The implementation of a nutrition pathway has led to increased identification and treatment of malnutrition, which has in addition improved accrual of the best practice tariff. However, greater number of inappropriate referrals have been made to dietetics. This is partly attributed to difficulty weighing patients on admission, and where no weight is inputted on the Malnutrition Universal Screening Tool a "High Risk" score is generated triggering a referral. We are now looking at alternative methods to obtaining a weight such as a mid-upper arm circumference.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1758)

Earlier therapy intervention in the emergency department to improve clinical outcomes for fallers aged 65 and over

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Purpose: To improve clinical outcomes for fallers aged 65 and over presenting to the emergency department through earlier therapy intervention and multidisciplinary focussed assessments.

The intended benefits to the older person and service were for:

1. Older adult fallers to be referred more quickly for a therapy assessment.
2. Older adults to spend less time immobile on an emergency department trolley.
3. Timely multidisciplinary discharge plans being formulated in line with national guidelines.
4. Increased numbers of older adults receiving holistic comprehensive geriatric assessments.

Methods: The quality improvement project was carried out using the Plan, Do, Study, Act (PDSA) cycle. Three iterative PDSA cycles were carried out over the course of the project to deliver simple, proactive interventions developed as a result of local baseline data analysis as well as stakeholder and root cause analysis. These interventions were all aimed at increasing the visual presence of the therapy team within the emergency department.

Results: The project resulted in an increased referral speed of fallers aged 65 and over for assessment, which led to increased numbers of older adult fallers receiving holistic, multidisciplinary assessments. 120% more adult fallers were seen in January 2019 compared to the previous year, and 58% more fallers were seen in February 2019 compared to 2018.

The earlier intervention by the therapy team also led to more older adults up and moving sooner, which had positive effects in terms of maintaining their dignity.

Conclusions: The quality improvement project found that more older adults aged 65 and over admitted to the emergency department with a fall can receive holistic, multidisciplinary assessments through the introduction of small, simple interventions aimed at increasing the proactivity and overall visual presence of the physiotherapy team.

The team are providing care to a larger number of older adults, improving their functional independence, dignity and quality of life and giving them an overall more positive experience.

The ED model of care is traditionally nursing and medical led but what this improvement project shows it that it is essentially the collaborative nature of the multidisciplinary team that can lead to better clinical outcomes for older adults attending the emergency department.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1759)

Improving the investigation and treatment of anaemia in older adults admitted through the Acute Medical Unit

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Background: This project was based within acute medical unit within a tertiary hospital in London and was conducted by junior doctors working both in geriatrics and in acute medicine. The patient group this project was aimed at was adults aged 65 and over who were admitted under acute medicine.

Introduction: Anaemia is common in older adults and associated with poor outcomes. This project aimed to explore attitudes and improve recognition, investigation and management of anaemic older adults in acute medicine through a multi-pronged approach.

Methods: Serial PDSA cycles were conducted over 3 months. Retrospective audit was performed, reviewing electronic records to compare a 2-week period before and after the interventions, identifying which patients admitted under acute medicine and aged over 65 years were anaemic, underwent haematinics and treatment.

Interventions: Firstly, a survey explored doctors' attitudes and knowledge of anaemia in older adults as well as identifiable barriers to investigating anaemia when working in acute medicine. The data from this was used to design interventions to address the gaps which emerged. Interventions included an algorithm regarding haematinic interpretation disseminated amongst junior doctors, multiple teaching sessions conducted and posters distributed which highlighted the importance of investigating and treating anaemia.

Results: The initial audit included 144 patients, of which 50 were anaemic, and the re-audit included 148 patients of which 56 were anaemic. Following the interventions, more patients had haematinics requested, from 60% to 70%, and more were treated, from 30 to 55% ($p < 0.05$). Doctors were surveyed before and after the intervention. The repeat survey demonstrated that more doctors felt addressing anaemia was important, 83% from 55% ($p < 0.05$). More doctors were also confident in the interpretation of haematinics, 61% from 28% ($p < 0.05$) and in prescribing iron, 66% from 27% ($p < 0.05$).

Conclusions: Anaemia amongst elderly patients in the acute setting is under-estimated, investigated and treated. Targeted educational interventions can improve doctors' attitudes and knowledge, helping to facilitate the investigation of older adults and enable treatment.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: MA-1763)

A pilot implementation of providing enhanced support to care homes within a Primary Care Network

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Introduction: People living with severe frailty in care homes are vulnerable to frequent non-elective hospital attendances. However provision of enhanced healthcare support to care home residents can reduce this risk and increase quality of life for residents.¹ The framework for enhanced health in care homes (EHCH) summarises best practice in this area and provides guidance for implementing services.²

Methods: This study was a pilot implementation of the EHCH framework based on a Primary Care and Specialist Frailty Multidisciplinary Team (MDT) and delivered on a Primary Care Network (PCN) footprint. The MDT targeted five care homes in a PCN area with historically high levels of non-elective attendances. The model of care was based on the principle of anticipatory care planning, training and support for care home staff to understand and implement plans.

Results: Over the pilot period of 9 months, non-elective attendances from the 5 homes reduced by 27% compared to the previous year, which was a significant reduction ($p < 0.042$). There was variation between the homes in the reduction in non-elective attendances with the greatest impact seen in the homes that had the highest level of attendance at training and engagement in the care planning process. Feedback received from the care home staff indicated that they felt more confident to refer to the care plans and had alternative options to calling 999. A quality audit of the care plans completed as part of the pilot revealed a number of additional training needs for clinicians completing the plans to ensure consistency of recoding. This training was delivered following the pilot period.

Conclusions: The pilot demonstrated that the EHCH framework could be successfully implemented on a PCN footprint. Analysis shows this implementation coincided with a reduction in non-elective attendances from the targeted homes. Further analysis is required to compare the impact in different homes and to understand contributing factors. The pilot implementation provides helpful information to inform PCN development.

References:

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2. NHS England (2016) The framework for enhanced health in care homes.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: LC-1770)

Empowering nursing staff to identify delirium and provide intervention for older patients post transcatheter aortic valve implantation procedure in a cardiology ward: A quality improvement project

E Bulled

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Background: Delirium is a common condition, particularly in the hospital setting, and has associated poor outcomes. Transcatheter Aortic Valve Implantation provides a less invasive intervention for the treatment of Aortic Stenosis and this patient group often presents with increased risk factors for delirium. Nurses are in a key position to identify and manage delirium with literature suggesting educational interventions can support this.

Aim: The aim of the quality improvement project is to empower nursing staff to identify delirium and provide intervention for older patients post Transcatheter Aortic Valve Implantation procedure in a cardiology ward.

Methods: A driver diagram supported local problem analysis and stakeholder analysis identified those required to support change. The Behaviour Change Wheel and COM-B system identified behaviours required for change and guided intervention design. Plan, Do, Study, Act cycles directed project planning and the implementation of interventions.

Results:

- Nurse knowledge of delirium scores increased for ten out of twenty-three nurses or 43.7% post delirium training session.
- Nurse self-perceived confidence increased in three aspect of delirium care: recognising signs and symptoms, undertaking screening and delivering interventions for the management of it.
- All nurses were either likely or extremely likely to recommend both delirium training sessions provided to their colleagues.
- When comparing the data prior to and during the QIP intervention, an increased in identification and management of delirium was demonstrated. However demonstrating if there is a direct correlation between nursing staff attending delirium training sessions and patients having increased identification of delirium and management interventions has been more difficult to ascertain.

Conclusions: The Quality Improvement Project was well received and useful in raising awareness of delirium and enhancing nurse knowledge and confidence in delirium care. Next steps involve additional delirium training and data collection to explore the impact of the interventions further. Feedback has been positive and discussions about potential spread to other contexts and care pathways have taken place.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: LC-1774)

Re-audit of orthostatic blood pressure measurement to prevent falls and fall-related complications for geriatrics inpatients from a secondary care hospital

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Introduction: Orthostatic Hypotension is a common cause of falls leading to injury and morbidity in older adults. In the National Audit of Inpatient Falls 2015 audit, only 16% of 4846 patients had an orthostatic Blood Pressure (L/S BP) recorded by their third day in the hospital. There is also variation in the understanding of how doctors and nurses perform orthostatic BP. This could have adverse effects on detection rates and accuracy of the procedure resulting in misdiagnosis. As a result, the Royal College of Physicians (RCP) has released guidance on Orthostatic BP measurements to perform the standardising practice and improving accuracy. The purpose of this quality improvement project (QIP) is to work on the action plan from the orthostatic BP measurement QIP has done in 2017, by introducing laminated guidelines in patient's notes and re-audited in 2018 to record any improvement. The re-audit of 2018 showed remarkable improvement but still not as equal as the gold standard as RCP. Therefore, the second loop of re-audit performed in 2019 in major Geriatrics wards and other wards while involved larger sample (patient) numbers. We used four questioners as the audit proforma.

Methods: Wards were audited to find out whether orthostatic BP is measured as per RCP guidelines. Afterward, a laminated copy of the RCP recommended method of measuring orthostatic BP was put into all Early Warning Score 'Observation' folders with a sheet designed specifically for recording Orthostatic (L/S BP). The procedure of L/S BP measurement was re-audited after the intervention to find out changes in performing orthostatic (L/S BP) (as per RCP guidelines).

Results: There is a remarkable improvement of outcome reveals in the second loop of re-audit. Regarding RCP guideline compliance, it is 93.33% which is closer to the gold standard. And in case of symptoms identification and documentation, it is 100%, which is equal to the RCP gold standard.

Conclusions: Inclusion of guidelines in notes improves investigation; inclusion of supplementary recording sheet improves documentation. Re-audit reflects the remarkable improvement to compliance with RCP guidelines in measuring Orthostatic BP measurement and patient's symptoms documentation.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: LC-1775)

Can Comprehensive Geriatric Assessment be achieved in the Emergency Department?

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Background: Our National Health Service is facing unprecedented challenges to accommodate our frailer healthcare users. The gold standard tool for the identification and management of frailty is the Comprehensive Geriatric Assessment (CGA) and has been shown to lead to better outcomes in terms of morbidity and mortality.

Introduction: With a largely elderly demographic profile in the East of England, the Norfolk and Norwich University Hospital opened the first Older People's Emergency Department (OPED) in the UK in 2017. This work reviews the effectiveness of a geriatrician-led CGA in a dedicated OPED, which operates during daylight hours, compared to usual care in Accident & Emergency (A&E).

Methods: 99 patients assessed in OPED and 99 patients assessed overnight in A&E during February 2019 were included in this retrospective study. Electronic case notes for each patient were reviewed by the authors and results were expressed as percentages.

Results: OPED outperformed A&E in all components of the CGA; strongest areas included assessing for pain, falls risk and activities of daily living. Both departments performed well in reviewing medications and assessing for safeguarding concerns. Areas for improvement include assessing for mood disorders, sensory impairment, discussing Do Not Attempt Cardiopulmonary Resuscitation status, and end of life care plans. The average length of stay of OPED patients was only 7.3 days compared to 8.7 days in A&E, and 89% of OPED patients were discharged back to their usual residences compared to 87% in A&E.

Conclusions: The improved CGA process in OPED has led to better outcomes, notably through a reduction in the average length of inpatient stay. Nevertheless, certain components of the CGA still require improvement. Further examination is needed to assess long-term mortality to support the use of CGA in the emergency setting.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: LC-1782)

Geriatric Emergency Medicine (GEM) bootcamp and bootcamp bitesize training

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Imperial College Healthcare NHS Trust

Introduction: In 2016 we ran a successful pilot of Geriatric Emergency Medicine (GEM) Bootcamp at Imperial College Healthcare Trust. This has developed into an annual regional conference which to date has been attended by over 440 delegates. This year we have been able to expand GEM Bootcamp to offer smaller 'Bitesize Bootcamps' with tailored learning for individual organisations, with more than 100 delegates already having accessed this resource.

Methods: In developing the curriculum for GEM Bootcamp and Bootcamp Bitesize we engaged a significant range of local healthcare providers. We undertook a learning needs analysis, which surveyed the target audience- specifically looking for self-reported gaps in knowledge- as well as analysing data from incidents, complaints and compliments. This allowed us to identify areas which there was opportunity for learning as well as ensuring a personalised curriculum

Results and conclusions: GEM Bootcamp feedback was overwhelmingly positive, with 100% of delegates stating they would recommend the day to colleagues. The relevance to practice was rated 4.4/5 with many positive comments about the opportunity to meet many interested people, generate conversations and raise awareness of frailty. The self-reported improvement of knowledge was from 2.95/5 pre-course to 3.89/5 post course.

To date we have delivered Bitesize Bootcamp to a local nursing care centre (which accounts for 50% of the admissions from care homes to the ICHT), London Ambulance Service (LAS), acute medicine and medicine for the elderly from a local trust, ICHT A&E nurses and Capital Nurse trainees. All bitesize training delegates self-reported an increase in their frailty knowledge. On average over the 5 bitesize sessions delegates reported an improvement from 3/5 pre-training to 4.1/5 post training. The development of links with local partners and the delivery of a consistent message about best practice in frailty have also been valuable outcomes

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: LC-1785)

The role of a virtual clinic in reducing waiting times for out-patient follow-up

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Topic: Hospital admissions for older people are increasing with subsequent pressure on out-patient (OP) clinics. By early 2018, 350 patients were waiting up to 6 months for follow-up, with limited capacity in existing clinics. There were concerns regarding potential harm to patients from delayed review of significant results.

Intervention: A working group considered options for managing the OP waiting list. We decided to pilot a fortnightly virtual clinic (VC) where cases were reviewed without the patient present. All patients awaiting results were listed for the VC rather than routine OP. Each VC had 50 patients listed. Patient's GP received a clear action plan. Clinic rules were modified as issues were identified. Links with other specialities evolved reducing the number of missing results. Data was analysed for 50% of consultations between January 2018 and March 2019.

Improvement: 311 VC appointments were reviewed: 207 in 2018 and 104 up to March 2019. Maximum 25 cases could be completed per clinic, additional sessions cleared initial backlog within 3 months. Completion time/case ranged from 2-15 minutes depending on complexity. Main reason for VC was test results: 82% in 2018, increasing to 93% in 2019. 61% in 2018, 80% in 2019 were discharged directly from VC. 20% required a 2nd VC for outstanding results. OP review post-VC fell from 16% in 2018 to just 2% in 2019. General OP requirements fell from 24hrs to 10 hours/ week as a result of VCs, releasing consultants for other clinical areas.

Discussion: VCs are an effective means of reviewing outstanding results from recent admissions and OP consultations. Routine listing of patients with outstanding investigations provides a safety net. Most results are normal and do not require follow-up. Repeat CXRs at 6 weeks continue to be requested for severely frail people who are unlikely to benefit.

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: LC-1789)

Understanding of Comprehensive Geriatric Assessment among fifth year medical students

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Introduction: There are 191 foundation programme jobs in geriatrics in the North East.¹ Students often don't receive teaching sessions on the comprehensive geriatric assessment (CGA). It is an assessment foundation trainees use on a daily basis on the geriatric ward and the acute take.

Methods: We designed a series of teaching sessions for fifth year medical students, delivered by different members of the multidisciplinary team. A pre- and post-session questionnaire assessed their understanding.

Results: Nine students completed the pre-session questionnaire:

- 22% were able to define CGA
- 11% identified the different components
- 22% identified the target population, the benefits of CGA and the members involved
- 44% offered solutions to obtaining a history from patients with confusion
- 100% identified the barriers to carrying out CGA

Seven students carried out the post session questionnaire; the table below represents the number that answered correctly.

Conclusions: The majority of foundation trainees will have at least one job in geriatric medicine and participate in the acute take. The average age of hospital admissions has been rising for years,² highlighting the importance of being able to accurately and thoroughly assess the older population. The initial questionnaire demonstrated the limited understanding that fifth year students had on the comprehensive geriatric assessment. Following sessions by different members of the MDT there was clear improvement.

What does CGA stand for?	7
What is CGA?	5
Main Components of CGA?	5
CGA target population?	4
Benefits of CGA?	7
Members involved in CGA?	6
Barriers to CGA?	5
History from confused patient	7

The sessions covered: general overview of CGA; session by the frailty pharmacist; functional assessment by physiotherapy team; cognitive assessment by the dementia and delirium team; and life as an F1 on geriatric medicine. Positive feedback was received, emphasising the improvement in confidence in preparation for foundation training.

References:

1. Oriel website: <https://www.oriel.nhs.uk/Web/FND>
2. NHS digital Hospital Admitted Patient Care Activity 2015-16

CLINICAL QUALITY: CLINICAL EFFECTIVENESS (REF: LC-1797)

Medicine for Older People liaison service to acute surgery reduces length of stay of older people living with frailty

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Background: Of people admitted to the acute surgical unit (ASU) only 23% of them are aged over 70. However the number of bed days they occupy are disproportionate to this; comprising 48% of the total bed days. The average number of bed days rises exponentially with age, with those aged under 70 averaging less than two days; those aged 80 averaging approximately 4.5 bed days and those aged over 90 approximately 7 bed days.

This disparity was recognised and a Medicine for Older People (MOP) liaison team comprising consultant geriatrician and Advanced Clinical Practitioner in Frailty starting working with the acute surgical team in November 2018, initially providing support two days a week, increasing to 5 days in March 2019.

Methods: The MOP liaison team meets with the acute surgical team each morning identifying and discussing relevant patients; those identified as living with frailty with associated complexity and uncertainty. This group of patients is then reviewed by the MOP liaison team utilising the principles of the comprehensive geriatric assessment to formulate a person-centred plan. Plans are discussed and coordinated with the surgical, nursing and therapy teams utilising a multi-disciplinary/ multi-professional approach.

Results: Length of stay is the main outcome measure and readmissions are monitored. Data on admission length and readmissions was analysed from April 2018 and has continued following commencement of the liaison service.

Primary results- Length of stay has reduced from 4.4 to 3.3 days on average for all over 70-year-olds admitted to the ASU team. Whilst admission rates have dropped across all age ranges the biggest reduction in readmissions is among the over 80-year-olds with an almost 50% reduction as opposed to a 33% reduction in the under 70 age group

Conclusions: Proactively managing the admissions and discharges of patients with frailty allows them to receive the right care at the right time in their period of crisis and shortens their admissions by approximately 25%.

CLINICAL QUALITY: PATIENT SAFETY (REF: LC-1780)

Post Inpatient Fall Medical Assessment (PIFMA) performa quality improvement project

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Introduction: Inpatient falls are the most commonly reported patient safety incidents and in the United Kingdom, there are 250,000 reported falls per year¹. A rapid response report (RRR) issued in 2011 by the NPSA highlighted need for improvement in identifying fractures and neurological observations. These figures reflect significant implications to patients' health and financial burden to the NHS.

Aims: To improve assessment and documentation of inpatient falls assessment.

Methods: Two PDSA cycles were completed. First PDSA cycle established a baseline of post fall assessment and documentation in which raising awareness and teaching (RAT) to junior doctors was done. Second PDSA cycle identified room for further improvement and post inpatient fall medical assessment (PIFMA) Performa was developed to aid assessment and documentation for use of junior doctors. Feedback regarding the usefulness of the PIFMA Performa was collected via survey.

Results: The RAT intervention involved 30 patients of the Elderly wards in November and December 2017 and the PIFMA intervention involved 29 patients in all Medical wards in January and February 2019. The PIFMA Performa improved the time taken to review patients as per doctors survey. On comparing the RAT against PIFMA Performa interventions, documentation improved in the categories of physical examination (from 80% to 97%), neurological observations (from 49% to 98%), medication review (from 53% to 83%), and measuring lying standing blood pressure (from 83% to 90%).

Conclusions: Feedback from junior doctors states that the PIFMA Performa was certainly a very useful guidance tool and help to speed up documentation. These improvements only translated if junior doctors utilize the PIFMA Performa and so this is now being implemented in the trust policy. Further PDSA cycle can reassess if improvements truly represent the population cross-section.

References:

1. The incidence and costs of inpatient falls in hospitals (2017), NHS improvement
2. National Patient Safety Agency NPSA/2011/RRR001 (13 January 2011)

CLINICAL QUALITY: PATIENT SAFETY (REF: LC-1781)

Targeting elderly patients on inhaled corticosteroids for respiratory optimisation

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Introduction: Inhaled corticosteroids (ICS) are associated with increased rates of pneumonia, fracture and diabetes. ICS have limited short and long term benefits in COPD, and cessation of steroids in selected patients has been proven safe. We observed that a large proportion of inpatients in the geriatric service were prescribed ICS, and we aimed to review the reasoning for this and introduce a program of respiratory review in order to optimise care in these patients.

Methods: We conducted a retrospective audit of patients discharged from a geriatric service over a 3 month period. Sequential discharges were assessed for the presence and type of inhaled therapies, the documented diagnosis. After identifying high rates of inhaled therapy usage, we undertook a series of quality improvement interventions aimed at optimising respiratory care in these elderly patients. This included a guideline based protocol for reviewing respiratory diagnoses and prescriptions.

Results: In the retrospective analysis, 67/297 (22.5%) patients were discharged on inhaled therapy. 55/67 (82%) were discharged on an ICS, of which 20/67 (36%) were on high doses, equivalent to >1000micrograms of beclomethasone. Very few of these patients had evidence of inhaled therapy review during admission. 15/55 of these patients were given a discharge diagnosis of pneumonia; whilst only 6/55 were admitted with an exacerbation of their COPD. Our preliminary data suggest that a single paged protocol aimed at improving adherence to best practice lead to practice change: Dose modification has occurred in 50% of patients on ICS, leading to a reduction in steroid burden, and an annual reduction in prescription costs of £75 per patient reviewed. None of these patients have been re-admitted with respiratory exacerbations.

Conclusions: By introducing measures to assist in the review and modification of inhaled therapies, we were able to change practice. The alteration in practice led to reduction in prescription costs, and a reduced burden of inhaled corticosteroids. We propose that widespread encouragement of geriatrician led respiratory review could lead to harm reduction and cost saving in elderly inpatients.

CLINICAL QUALITY: PATIENT SAFETY (REF: LC-1792)

Geriatric Surgical Liaison staff perspectives of geriatric care before and after introduction of an embedded service

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Introduction: National evidence demonstrates that older people having surgery, both in the elective and emergency setting, have more adverse outcomes postoperatively when compared with their younger counterparts (1). National reports have recommended daily input from a geriatric team for older patients having surgery (2). At our hospital we have introduced a geriatric surgical liaison consultant as a formal post to ensure daily geriatric input or review for patients over the age of 70 or comorbid younger patients as requested. The aim of this study was to review perspectives across the multi-disciplinary team on care provided to these patients before and after introduction of the surgical liaison team.

Methods: We created a 10 part questionnaire, which was distributed amongst all members of the multi-disciplinary team, asking them to rate confidence out of 10 in management of comorbidity, polypharmacy, discharge planning, pain assessments and nutrition. These data were then analysed to produce median scores for each category before and after the introduction of the service. We compared the change in scores between the foundation year 1 (FY1) doctors and the remainder of the respondents.

Results: The below table demonstrates the median scores across all 36 respondents in their confidence with the assessment and management of the 10 key domains before and after the liaison service was introduced:

Domain	Before	After
Co-morbidities	5	9.5
Polypharmacy	4	10
Capacity	6	9.75
Delirium	3.5	9
Advanced care planning	4	10
Heart failure and chronic obstructive pulmonary disease	5	9.5
Acute Kidney Injury	6	9
Nutrition	7	9
Pain	6.25	9.5
Discharge planning	6	9

Conclusions: Universally within our survey, staff reported improvement in all 10 key indicators of care of older patients on surgery with the introduction of a geriatric surgical liaison team. Greatest benefit was seen within the FY1 group.

References:

1. McVeigh TP, Al-Azawi D, O'Donoghue GT, Kerin MJ. Assessing the impact of an ageing population on complication rates and in-patient length of stay, *Int J Surg* , 2013, vol. 11 (pg. 872-5)
2. Wilkinson K, *An age old Problem: A Review of the Care Received by Elderly Patients Undergoing Surgery: A Report by the National Confidential Enquiry Into Patient Outcome and Death*, 2010 London

CLINICAL QUALITY: PATIENT SAFETY (REF: MA-1639)

Quality improvement project: should we be doing more or less CT head scans in the health care of older people department?

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Introduction: Older people are likely to have more CT head scans given their multiple co-morbidities, being on anticoagulants, and increased falls. The aims of this quality improvement project (QIP) were to identify the number of patients who had CT head scan, the reason/ indication of it, the number of patients who had new finding/s on it, actions taken on new findings, and whether the management plan was altered because of the CT scan.

Methods: Medical notes and CT head scan reports of all patients admitted to the Health Care of Older People department from April to September 2018 were reviewed to evaluate the indications of CT head scans, new findings, and management plans following the findings.

Results: 461 (10.7%) out of the 4323 patients discharged from the healthcare of older people department during April to September 2018 had CT head scans during admission. Frequent indications for CT head scans included delirium, falls and head injury. Only 46 (9.9%) patients had new finding/s on the CT head scan, and action was taken on 26 (56.5%) of these patients. The CT head scan changed the management plan of only 17 (3.6%) patients. Please see Table for more details.

Indication	Total number	No abnormality detected, number (%)	New finding, number (%)	Action taken, n (%)	Action not taken, n (%)
Confusion	99	82 (82.8)	17 (17.2)	7 (41)	10 (59)
Head Injury/Fall/ Intracranial bleed	90	83 (92.2)	7 (7.8)	5 (71)	2 (29)
Falls and Confusion	88	82 (93.2)	6 (6.8)	4 (67)	2 (33)
Stroke	63	57 (90.5)	6 (9.5)	2 (33)	4 (67)
Falls Whilst On Anti-coagulation	57	53 (93)	4 (7)	3 (75)	1 (25)
Confusion Whilst On Anti-coagulation	29	28 (96.6)	1 (3.4)	1 (100)	0
Metastasis	11	11 (100)	0	0	0
Seizures	10	9 (90)	1 (10)	1 (100)	0
Others	14	10 (71.4)	4 (28.6)	3 (75)	1 (25)

Conclusions: By using our clinical judgement, following NICE guidelines on head injuries, educating our colleagues on the criteria for requesting a CT head scan, taking collateral histories about patients' cognition and ascertaining the mechanism of fall, we can lessen the financial burden on the NHS and minimise the radiation exposure to our patients.

CLINICAL QUALITY: PATIENT SAFETY (REF: MA-1667)

Evaluating the acute use of Rotigotine patch for dopaminergic replacement in an inpatient population

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Introduction: Rotigotine, a trans-dermal dopamine agonist (DA), can be used acutely for inpatient populations and is an option in end of life (EoL) care for people with Parkinson's disease (PD) where enteral (oral or naso-gastric) routes are no longer available or appropriate. Concerns regarding acute use of DAs in hospital include: i) difficulty achieving dopaminergic equivalence; ii) promotion of delirium; and iii) promotion of terminal agitation at EoL.

Methods: We retrospectively evaluated acute inpatient Rotigotine use in a UK teaching hospital. Prescriptions between January-June 2018 were identified from the pharmacy database and relevant inpatient records were analysed. The OPTIMAL calculator was used as a gold standard for dopaminergic conversion.

Results: 33 eligible inpatients were identified. 13 (39%) patients were prescribed the recommended dose of Rotigotine; 7 (21%) higher and 13 (39%) lower than recommended dose. Of 22 (66%) patients with delirium, 18 (82%) inappropriately received the higher dose. 12 (36%) patients developed new or worsening delirium; and 6 (18%) developed new or worsening hallucinations. 19 (58%) patients were dead at time of evaluation with median survival of 22 days (range 1-207). For patients prescribed Rotigotine for EoL (n=13), median survival was 15 days (range 1-62); for patients not prescribed Rotigotine for EoL (n=20), median survival was 81 days (range 6-207). Of 13 (39%) patients prescribed Rotigotine for EoL, 9 (69%) had evidence of terminal agitation.

Conclusions: Acute conversion to Rotigotine remains problematic, despite availability of validated tools. Inappropriate dosing may precipitate or worsen delirium. Acute prescription of Rotigotine appears to act as a proxy marker for poor prognosis and could be a red flag for triggering advanced care planning. Little is published regarding use of Rotigotine at EoL, this data raises concerns regarding risk of terminal agitation and is an important area for further study.

CLINICAL QUALITY: PATIENT SAFETY (REF: MA-1674)

Improving medicines safety for care homes residents

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Introduction: Care home residents often have multiple, chronic conditions and are receiving complex treatment regimes, yet 30-50% of prescribed medicines are not taken as recommended [1]. Polypharmacy and medication errors are common. Evidence suggests that there is a linear increase in medication errors with the number of medications a patient is prescribed.

This paper describes an approach to identify and address inappropriate polypharmacy and safety concerns in Buckinghamshire care homes. The workforce used was: primary care and care home pharmacists, technicians and geriatricians.

Methods: A successful business proposal enabled a new interdisciplinary model of care to be established. This was delivered in 2768 Buckinghamshire care home beds (63% of Bucks ICS bed capacity). The CCG pharmacists, GPs and pharmacy technicians reviewed medication for all residents followed by a medication and clinical review by a geriatrician for the most complex individuals. Other community specialist teams were included as part of a Multidisciplinary team as needed. Data on reviews, medicines stopped and safety were collected from 2013-2018.

Results: Overall 2134 medications were stopped for 1268 residents of 2102 reviewed, with 505 interventions to reduce falls risk. 942 safety issues were identified and resolved. Total savings on medicines optimisation, waste and non-elective admission prevented was £619,000. System wide safety included: community psychiatric nurse to support dementia diagnosis, specialist enteral feeding nurse reinstated and a new website to share and disseminate good practice standards.

Conclusions: Future direction of this work focuses on system wide improvements to promote multi-organisational interdisciplinary healthcare and social services professionals work in care homes. NHSE Pharmacy integrated funding has provided extra pharmacists and technicians to support the 37% of the care home beds not yet covered by March 2020.

Reference:

1. Horne R, Weinman J, Elliot R, et al. 2005, NHS National Coordinating Centre for Service Delivery and Organisation report.

CLINICAL QUALITY: PATIENT SAFETY (REF: MA-1682)

The use of proton pump inhibitors in an older population in a tertiary hospital: a patient safety issue?

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Background: PPIs form part of the most commonly prescribed medications in Ireland. There has been emerging concern regarding the risks associated with their chronic use. PPI use has been linked with clostridium difficile infection, pneumonia, hypomagnesaemia, nephrotoxicity, hyponatraemia as well as many other GI and non GI pathologies including dementia. Therefore there has been emerging concern regarding their chronic use. The aim of our audit was to identify the spot prevalence and appropriateness of PPI use for gastro-protection in an older population of medical inpatients in accordance with NICE 2014 PPI guidance "Management of dyspepsia in adults in primary care."

Methods: We audited the prevalence of PPI use in medically admitted patients aged ≥ 65 years at our institution and the use of PPIs within this population.

Patients' admission proforma, clinical notes, and drug kardex were reviewed. We collected : age, gender, past medical history, drug list, and laboratory results. This data was used to identify the prevalence and appropriateness of PPI use.

Results: The total number of medically admitted patients aged ≥ 65 years was 107. 52(48.5%) were prescribed PPIs. Of the 52, only 7(13.4%) had an appropriate indication:

Five patients had concomitant prescription of low dose Aspirin \pm clopidogrel and a documented history of gastritis/esophagitis/duodenitis.

One patient had a hiatus hernia and gastro-esophageal reflux disease.

One patient had chronic NSAID use due to arthritis.

Subgroup analysis showed 46/52 were prescribed high dose PPI without indication.

Conclusions: Our audit confirms this showing that almost 50% of patients aged ≥ 65 y admitted to our hospital have been prescribed PPIs. Furthermore, PPI prescriptions were only appropriate in 13.4%. In line with recent guidelines, NICE PPI guidance 2014 and AGA Best Practice Guidelines, our data shows there is scope to rationalise PPI use in older people with resultant cost savings and reduction in complications.

CLINICAL QUALITY: PATIENT SAFETY (REF: MA-1685)

Reducing delays to operative management of anti-coagulated patients with hip fractures

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Introduction: In the UK, the gold-standard treatment of a hip fracture is surgical fixation within 36 hours. Reduced delay to surgery has been shown to minimise the risk of complications. Locally, frequent delays to surgery were observed in patients taking long-term anticoagulation. There are no national guidelines regarding anticoagulation reversal and surgery timing in patients with hip fractures, and doctors are often unfamiliar with increasingly prevalent Direct Oral Anti-coagulants (DOACs). This quality improvement project aimed to reduce delays to surgery in anti-coagulated patients with hip fractures.

Methods: A guideline was formulated following literature review and consultation with a Consultant Ortho-geriatrician, Orthopaedic Surgeon and Haematologist. Retrospective casenote audit was conducted including 3-month period before and after implementation. The new guideline was disseminated in poster form. Due to the observation that delays in receiving INR results resulted in reversal delay, patient's on warfarin were recommended to receive 5mg IV Vitamin K prior to receiving INR results. The INR was rechecked after 6 hours, and if less than 1.6, surgery could proceed. Those on DOACs could undergo surgery 24 hours after the last dose providing eGFR >30, and after 48 hours if eGFR <30. Exclusions were those anti-coagulated for metallic heart valves or recent venous thromboembolism.

Results: In the 3 months prior to guideline implementation, 71 patients had a hip fracture; 15 were anti-coagulated. Of these, 8 patients were delayed due to their anticoagulation. Repeat audit after implementation, included 46 patients with a hip fracture over the 3-month period; 7 were anti-coagulated. None were delayed due to anticoagulation ($p < 0.05$).

Conclusions: This improvement project describes formulation of a simple protocol with evidence from the literature and local expert opinion in order to reduce unnecessary delays in anti-coagulated patients with hip fractures.

CLINICAL QUALITY: PATIENT SAFETY (REF: MA-1765)

Urinary catheterisation in trauma and orthopaedic patients

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Background: The use of urinary catheterisation in neck of femur fracture patients is often debated as common best practice to manage and appropriate fluid assessment. Routine catheterisation increases the risk bacteraemia, genitourinary injury, worsening mobility, risk of pressure sores and predisposition to delirium and falls. There is a need for increased awareness of urinary catheterisation management in conjunction with healthcare-associated infections. NHS improvement has issued a letter aiming to half healthcare-associated Gram-negative bacteraemia, the majority of which is catheter-related. This project aims to identify barriers to safe catheter care in the orthopaedic population; by determining if management of urinary catheters is compliant with NICE quality standards (QS61).

Introduction: Appropriate perioperative care can help manage the associated risk of neck of femur fractures. The British Hip Society and British Orthopaedic Association have provided little guidance on postoperative care and risk management. Appropriate catheter care will improve overall patient care but reducing mortality and associated morbidity, by shortening stay by early mobilisation and management of complications.

Methods: All catheterised trauma and orthopaedic patients in a district general hospital over one month (February) were included 67% of which had sustained neck of femur fractures. Data from nursing and doctors' records on the following parameters were collected: demographics, the reason of admission, indication/location for catheterisation and responsible clinician; the number of days catheterised, the reason for the retention of catheterisation and management of suspected/confirmed catheter-related infection. Data were collected in April following the implementation.

Intervention: A urinary care pathway was launched based on the HOUDINI algorithm and educational seminars for medical and nursing staff were conducted.

Results: Mean age of patients was 78. Initial data was suggestive of poor documentation and prolonged, inappropriate retention of urinary catheterisation and not in accordance with current guidance. Data was recollected in April after the launch of the pathway; data was indicative of marginal improvement of catheter care management, reduced time of catheter retention, improved documentation likelihood of review.

Conclusions: Incorporating a catheter care pathway in managing orthopaedic patients has shown improvement in the overall documentation and management of urinary catheterisation. Despite this improvement demonstrated, implementation of the pathway is still substandard. This pathway will be incorporated into an innovative integrated neck of femur pathway in June.

CLINICAL QUALITY: EFFICIENCY & VALUE FOR MONEY (REF: MA-1664)

Geriatricians in intermediate care settings: A modern approach to Geriatric Medicine

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Introduction: Due to growing older population with increasing medical complexity and care needs, over-reliance on acute hospitals for care delivery, disconnect between social and medicalised care and challenging national health services (NHS) financial climate, it is essential to provide much of this care to our older patients outside the acute hospital before they reach crisis point. This prevents unnecessary hospital admissions and outpatient referrals especially to our geriatric services. Therefore, newer and innovative care models are required to cater the needs of our aging population especially within the community settings. The North West Surrey clinical commissioning group (CCG) catchment area is divided into three localities, namely SASSE Locality in Spelthorne, Thames Medical Locality in Runnymede/West Elmbridge, and the Woking Locality (Bedser hub) in Woking.

Locality hub model of integrated care led by GP with multidisciplinary (MDT) input along with wellbeing coordinators was introduced to address above issue.

Objectives: Our mission was to find a way to manage the challenges we face from a growing older population within an integrated GP-led community service and in a manner that promotes independence, reduce social isolation, improve patient experience and safely deliver appropriate acute care in the community whilst reducing dependency on regional acute hospitals. A fully qualified geriatrician input was introduced within the hub model at Bedser hub.

Results:

Locality	Referrals from April 2016-March 2017 (n)	Referrals from April 2017 -March 2018 (n)	Increase or decrease (%)
Woking	203	155	23.65% - less
SASSE	228	244	13.63% - more
Thames Medical	285	330	6.55% - more

- Total savings: £16,484,
- Geriatricians input cost: £16,500
- Cost neutral intervention

Conclusions: Newer models of collaborative healthcare within the community dwellings with GP and geriatrician input along with multidisciplinary approach are essential to deliver safe and high quality care to our older population, thus reducing reliance on our ever so stretched local acute NHS hospitals.

Our intervention has resulted in reduction of referrals to geriatric outpatient clinic and enabled us to provide the required care to our older population closer to home. It has also led GPs to build their skills in managing the very frail patients with complex needs safely and effectively. In the long run, the intervention will be cost effective with further projected reduction in referrals.

CLINICAL QUALITY: EFFICIENCY & VALUE FOR MONEY (REF: MA-1673)

Enhanced Service through an Integrated new model of care in a Buckinghamshire care home

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Introduction: Care home residents often have multiple, chronic conditions and are receiving complex treatment regimes. Polypharmacy and medication errors are common. The frequency and quality of medication reviews is variable with limited general practice (GP) capacity to carry out comprehensive reviews.

The initiative used a care home pharmacist, technician, geriatrician and GPs to tackle these issues on an individual and care home level. The objective being to ensure the safe and effective use of medicines for all care home residents. NICE guideline [NG56] recommends reducing pharmacological treatment burden for adults with multimorbidity at risk of adverse drug events such as unplanned hospital admissions. A study by Dilles et al¹ found adverse drug reactions in 60% of residents.

Methods: A new interdisciplinary model of care was delivered in a 120 bedded Buckinghamshire care home. Clinical Commissioning Group pharmacist, general practitioners and pharmacy technician reviewed medication for all residents. The most complex individuals were reviewed by the geriatrician and if needed by other multidisciplinary team members specialist.

Results: Overall 115 medications were stopped for 109 residents, with 31 interventions to reduce falls risk and 19 interventions on medication at high risk² of causing admission. Total cost savings on medicines optimisation, medicines waste and non-elective admission prevented was £35,211. Residents' care plans were updated to reflect best practice standards.

Conclusions: Future direction of this project focuses on system wide improvements to promote interdisciplinary healthcare professionals work in care homes. The success of this integrated model of care has enabled recurrent funding of pharmacist by the local county council and an additional 42 geriatrician sessions into Buckinghamshire care homes.

References:

1. Dilles T, Vander Stichele R, Van Bortel L, Elseviers M. Journal of American Medical Directors Association 2013;14:371-376.
2. Pirmohamed M et al. British Medical Journal 2004;329:15-19 61.

CLINICAL QUALITY: EFFICIENCY & VALUE FOR MONEY (REF: MA-1711)

Older Surgical Patients Pathway: improving care for frail older people in General Surgery

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Background: The Older Surgical Patients Pathway (OSPP) was established in 2014 and aims to improve care for frail older people on General Surgery (GS) wards at Sheffield Teaching Hospitals NHSFT (STH) by delivering consultant-led Comprehensive Geriatric Assessment (CGA). The OSPP team proactively review frail, surgical patients 75 years or older.

Introduction: Patients over 75 account for 10% of admissions in GS at STH, occupying 33% of bed-nights (14,000/year, costing approximately £4.2M). They may present a challenge to surgical staff due to multiple co-morbidities, cognitive or mental capacity concerns, leaving them vulnerable to clinical decompensation, with subsequent increased health and care needs. Geriatrician input prior to 2014 was ad hoc and reactive. OSPP was developed to improve and co-ordinate care in this vulnerable group.

Methods: The project team consisted of surgeon, geriatrician, senior nurse with service improvement expertise and data analyst. Stakeholder events were held to raise awareness and target interventions.

Through regular review of outcomes with iterative testing and service redesign, the main interventions have been:

- Introduction of a frailty screening tool
- Embed a geriatrician into the colorectal unit, providing clinical review and leadership
- Establish regular, frequent multidisciplinary team meetings
- Use of eWhiteboard
- Training for multiple professions in geriatrics and general surgery
- Gather objective (see table) and subjective outcome measures (staff survey and Foundation Programme feedback)
- Access to CGA for all over 70 year olds who have undergone emergency laparotomy

Results: The OSPP team review approximately 200 frail older patients per year in detail. The objective results, compared to baseline data from 2014, are in the table.

Frail patients 75 years and over	Baseline 2014	2015/16	2016/17	2018/19
LoS (days)	19.4	18.3	17.0	15.9
Readmissions %	15	8	8	12
% discharged to usual place of residence	72	85	90	91

The reduction in LoS equates to a saving of 700 bed-nights (at £300/bed-night, a total financial saving of £210k) over 5 years. Thirty six more patients are returned to usual place of residence per annum. Multiple staff groups on the colorectal unit have greater awareness of frailty and its consequences and more than 150 junior doctors have received extra support and training in this area.

Conclusions: OSPP has improved quality of care for frail older people in general surgery in Sheffield in both objective and subjective measures. This template could be used to replicate this service in other surgical specialities with a large cohort of frail older patients.

CLINICAL QUALITY: EFFICIENCY & VALUE FOR MONEY (REF: MA-1723)

Enhance GP-Geriatrician care homes multidisciplinary team

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North West Anglia NHS Foundation Trust, Broughbury Medical Centre.

Introduction: Peterborough Care Home Support Team (CHST) have worked on a small pilot of 4 care homes with a local GP and an interface geriatrician to address the complex needs of the residents within those care homes to improve patient experience, quality of care and reduce attendances and admissions to hospital in a geographical area of 5000 care home beds.

Methods: The multidisciplinary team (MDT) consisted of a General Practitioner, Interface Geriatrician, Pharmacist from the medicine optimisation team and Care Home Support Team member with once a month meeting in the selected Care Home. We measure the impact of our intervention comparing the data predating our intervention comparing 4 selected care homes with high A&E attendances in each period 2017 and 2018.

Results: 50% reduction in hospital attendances with £4985.48 cost saving following medication review in the 4 care homes under study.

Conclusions: Commissioners, Local Authorities and Care Home Providers have started to look towards more innovative solutions to improve patient experience, quality of care and reduce attendances and admissions to hospital. Our experience and results aim to consider enhance GP-Geriatrician Care Homes MDT as a good model of care.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: MA-1647)

Quality improvement project: A pilot study of a high-risk podiatry service model introduced into a care home

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City Hospital Sunderland NHS Trust

Introduction: This report aims to demonstrate how a podiatry service quality improvement project into a residential care home was implemented and why it was needed. Risk of foot ulceration increases in those with age, neuropathy, peripheral vascular disease and immobility. In 2013 the Sunderland Care Commissioning Group piloted, through the readmission scheme, a podiatry service providing specialist care into 11 care homes in the Coalfield's locality of Sunderland, which are a mixture of both nursing and residential homes. The service provides, foot care for all residents and prevention strategies for those classed at risk of developing foot ulceration and to provide specialist wound care interventions for residents presenting with foot ulcers into each care home in the Coalfield's locality. There are financial constraints to rolling out the Coalfield's model to the further 36 care homes in Sunderland. Therefore, a new model was explored. This is a high-risk model only, piloted in one care home.

Methods: Driver diagram was used to define key problems, activities required to deliver improvement. Fish bone diagram was used to establish the route cause analysis. The plan do study act (PDSA) cycles were used to pilot the interventions at the study site to ensure effective small change The Comb-B Behaviour Change Wheel was also included to ensure that interventions undertaken were sustainable by identifying the behavioural change required.

Results: There were no pressure injuries identified at post-intervention, this was a significant improvement from baseline. Staff had referred three grade 1 pressure injuries and one foreign body, one foot pain and two trauma ulcers during the intervention, showing a 300% increase in reported grade 1 pressure injuries.

Conclusions: This quality improvement project has demonstrated a person centred, evidence based, older person service delivery for sustainable future that embeds a multi-disciplinary team to the high-risk podiatry model of service. It has shown that behavioural change has occurred with small change interventions. It has used the robust methodology of PDSA to effect this change and allow for a clear report to be able to articulate the benefit.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: MA-1657)

Using patient centred care to redesign integrated discharge services in Derby

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Background: Discharge to Assess as outlined by the Department of Health was adopted in Derby in 2016. Previously the discharge pathways to community settings from the acute trust were complex. Challenges included: •

- Operating from a traditional residential care home
- No integration of community health staff and social care teams leading to delays in treatment and decision making as well as multiple referrals and hand-overs and no joint communication which was confusing for patients • Stakeholder anticipation of 6 weeks length of stay.
- Limited responsiveness to capacity demand within planned and unplanned community physiotherapy.
- Changing the culture and mind-set of staff.
- Different health and social care processes and procedures, IT systems, working patterns, contracts and pay scales.

Methods: A new service model, joint processes and standard operating procedures was developed with the patient at the centre of the design. Trusted assessment and information sharing reduce multiple assessments and hand overs, ensuring a smoother and improved patient experience.

Outcomes: Triage of patients from the Integrated Discharge Hub to the appropriate pathway, early discharge planning, board rounds and MDT's and timely assessments combined with an enablement ethos have increased the flow of patients through the service, decreased care package hours and increased capacity through reducing both length of stay and delayed transfers of care. The health and social care teams are now delivering fully integrated care and undertaking joint training. This has led to a reduction in treatment times from 20 days to 12 days, reductions in DTOC to average of 8 days per month and improved access to community based routine therapy from 85% of referrals being seen by 6 weeks 2017-18 to 99% in 2018-19.

Conclusions: The integrated service delivers more for less resulting in significant savings in the healthcare and social care system while maintaining quality standards and outcomes.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: MA-1727)

Screening for atrial fibrillation in housebound individuals: An evaluation of the use of the AliveCor Kardia device

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Background: The Croydon Rapid Response service is a multidisciplinary team providing admission avoidance support for people at crisis in their own homes or care homes. This population includes many living with frailty, the majority of whom are housebound.

Introduction: Atrial fibrillation (AF) is common, and often asymptomatic, and a significant risk factor for developing an ischaemic stroke. There is an ambition across health systems to improve identification of people with AF to better manage their risk of stroke. Screening is often performed using ECG readings typically performed in healthcare settings such as GP surgeries or hospitals.

The Croydon Rapid Response Team were provided with 10 AliveCor Kardia devices as part of a programme funded by the Health Innovation Network, with the aim to screen for AF aiming in traditionally hard-to-reach populations such as those people who are, through ill health or poor mobility, unable to leave their own home.

Methods: Activity use of the AliveCor Kardia devices were collated from centralised activity data based on the device serial numbers. Data collected were reviewed over a 12 month period. After 12 months use a survey was performed of clinician's views on the devices.

Results: Over a 12 month period (March 2018 – February 2019) 389 recordings were performed across all Kardia devices. One device was lost within 1 month of the roll-out. Of the 389 recordings performed, possible AF was identified in 56 cases (14% of those screened). Survey results were received from 6 clinicians. 1 clinician used the device everyday in their practice. 2 staff members report using it 1-2/week, 3 staff members report using it 1-2/month.

- 100% of respondents described the device as easy to use and helpful in clinical practice.
- 100% of respondents agreed that they were clear how to manage a positive result.
- None of the respondents described increased workload due to the device and screening programme.

Conclusions: The AliveCor Kardia device is an acceptable and effective tool to aid detection of AF in housebound individuals seen by the Rapid Response team. The scheme should be considered for extension to other community teams, and further diagnostic equipment such as 12 lead ECG should be considered to complete the pathway.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: MA-1737)

A model of interdisciplinary working to enhance the care of residential home patients

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Introduction: 291,000 patients in the UK live within the care home setting. The King's Fund reports that the average residential home patient is an 85-year-old female with a 12-30 month life expectancy. Care needs are complex with six or more diagnosed conditions, seven or more prescribed medications and a combination of physical frailty, disability and mental health conditions. In line with the NHS Long Term plan 2019 the Care Home project sought to promote ageing well through interdisciplinary working.

Aims:

- Provide cost neutral interdisciplinary review of care home residents
- Review the medication of all residents
- Review resuscitation status and initiate anticipatory care plans for appropriate residents
- To further the education and professional relationships across primary, secondary and mental health interface.
- Reduction of transitions between care settings for residents.

Methods:

- 12 sessions in 1 care home over a year (2018-2019)
- Team consisted of GPs, Geriatric Registrars, Old Age Psychiatry Registrar, care home staff and CCG pharmacist
- 2-4 patients per session chosen on the basis of complex physical and/or psychological needs
- Format of session consisted of:
 - Pre-assessment discussion of patient
 - Interdisciplinary patient review
 - Debriefing and formulation of management plan
- Sessions concluded with teaching from the different disciplines.

Results: We reviewed 25 residents with an average Clinical Frailty Scale score of 7. 100% patients had a medication and psychiatric review. 100% had review of DNAR status with 40% increase in DNAR forms completed. There was a 60% increase in anticipatory care plans initiated. There was a reduction in acute admissions from the care home with a resultant cost saving of over £45,000. 100% of participants would strongly recommend the project and reported improved relationships. 90% of care home staff thought the project was beneficial to the residents and staff felt more supported.

Conclusions: Interdisciplinary working within the patient's own setting provides patient centred care, promotes sharing of professional expertise, enhances clinical skills and builds professional relationships. This model of project is easily scalable and is a cost-effective way of providing high quality care for patients in their own residence.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: MA-1745)

Wirral's teletriage service

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Introduction: The Wirral Teletriage Service provides non-urgent clinical support to Wirral Care Homes in order to help avoid unnecessary hospital admissions for their residents. It also aims to provide quicker access to clinical assessment than via NHS 111 and to provide this care in the patient's residence wherever possible.

Methods: Care homes call the Teletriage service when they have concerns about the health of one of their residents. The Teletriage nurse undertakes a clinical assessment of the resident remotely via Skype. Care Homes have been provided with a secure NHS email address to facilitate secure sharing of data. They have also been provided with iPads and training for their staff. After being assessed by Teletriage, residents are signposted to the most appropriate care pathway for their needs.

Results: 76 Care Homes have signed up to the service. On average, the Teletriage Service receives 300-400 calls a month. In an 18 month period, the number of calls to NHS 111 have reduced by 76%. Out of all the calls to Teletriage, 22% of patients were managed by the Teletriage team with no onward referral, 57% were managed via community services e.g GPs, Community Geriatricians, and 10% were referred to the ambulance service. Emergency Health Care Plans (EHCPs), Preferred Priorities of Care and EOL (End of Life) wishes are taken into account.

Conclusions: The Teletriage project has reduced the number of phone calls to NHS 111 and the ambulance service, and subsequently has reduced the number of patients conveyed to hospital by 12%. The Teletriage nurses work very closely with various community services as well as GPs, NWAS and Community Geriatricians. The ongoing training and education provided to the Care Home Staff means that overall there has been good engagement with the project from the majority of the Wirral Care Homes.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: MA-1749)

Implementing a frailty at the front door service in the emergency department

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Background: University Hospital Hairmyres is a small District General Hospital in Lanarkshire Scotland. We have an active Care of the Elderly Department with a well-established Acute Care of the Elderly (ACE) team of Advanced Nurse Practitioners, supported by Consultants. This team delivers Comprehensive Geriatric Assessment (CGA) to frail older people in acute medical receiving as well as offering liaison to medical, surgical and orthopaedic wards.

Local problem and intervention: Our patients were not always being managed by the correct professionals in a timely manner, leading to delays especially in the Emergency Department (ED). We set up a Frailty at the Front Door (FAFD) service to address this, commencing July 2018. Supported by additional consultant sessions, we re-focused the ACE team on assessing and managing frail patients in the ED. The aim was to get the right patient to the right place at the right time and to manage acutely ill people at home where this was safe. Where admission was required we aimed to admit directly to a specialty bed, bypassing acute receiving wards.

Methods: We routinely collect important data including number of frail patients, %patients receiving CGA within 24 hours, number of discharges. To assess the impact of our change we analysed the data by plotting on run charts and statistical process control charts. In addition we assessed the effect on referrals from medical specialties and the number of direct-to-specialty admissions.

Results: After the 22 July 2018 we noticed a significant increase in patients screened for frailty, and a significant increase in discharges. We were able to reliably sustain over 95% of frail patients getting CGA within 24 hrs. There was an increased use of hospital at home. There was a reduction in referrals from medical wards (median = 10/week before, 5/week after intervention). Between August 2018 and May 2019 we were able to admit 163 patients directly to specialty beds. There was no change in re-admission rate.

Conclusions: We successfully changed our service to have consultant delivered Frailty at the Front Door, assessing more frail patients. Most importantly, we have an improved patient pathway, both managing more people at home but also reducing ward moves by achieving direct to specialty admissions. CGA can be safely delivered in the ED.

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: MA-1764)

The accuracy of frailty scoring and uptake of Comprehensive Geriatric Assessment (CGA) in patients living with frailty admitted through the emergency department (ED) in Wythenshawe Hospital

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Introduction: Frailty can be defined as a state of physiological decline related to ageing and its identification is crucial for subsequent management. A Cochrane review found that CGA significantly reduces mortality and institutionalisation at 6 months.¹ Published standards for the hospital state that patients with a clinical frailty score (CFS) of ≥ 7 should be seen by a geriatrician within one hour of presentation to hospital. We investigated if this was met.

Methods: Assigning a CFS to all patients ≥ 65 was introduced to ED triage in November 2018. Patients scored as ≥ 4 were identified over a 10-day period. We assessed the accuracy of ED based frailty scoring, subsequent hospital wide CGA uptake and investigated if patient's frailty scores influenced this. We also compared CGA uptake across specialities.

Results: Over 10 days, 230 patients entering ED were identified as frail. 33% of patients received CGA. On average, it took 18 hours for a patient to get CGA, and 23 hours for a patient with a CFS ≥ 7 to receive CGA from a geriatrician. The CFS had no influence on them receiving CGA. Surgical specialities were better than some medical specialities in assessing frailty. 38% of the patient's CFS were correct.

Conclusions: The hospital is falling short of the standards set out by the department; suggesting that changes need to be made to the process of CGA. There is currently no hospital-wide proforma for CGA; collecting data on the process is laborious and the triggers for CGA are not working as they should. Adding CGA to the hospital EPR would improve this. Highlighting the patients CFS will encourage referral for CGA. Specialities such as cardiology and respiratory can learn from the systems for the recognition and assessment of frailty in place on surgical wards.

Reference:

1. Ellis et Al, Cochrane Review, 2017,

CLINICAL QUALITY: IMPROVED ACCESS TO SERVICE (REF: LC-1783)

Care home liaison role- Bridging the gap between acute hospitals and care homes

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Imperial College Healthcare NHS Trust

Introduction: There are over 400,000 people over 65 in UK care homes, three times the number than that in acute hospitals. They are amongst the frailest in our community, with average life expectancy of 15 months once in the home. Their needs are often complex and challenging, which when unmet, often result in unwanted and unnecessary hospital admissions.

Imperial College Healthcare Trust (ICHT), along with funding from Health Education England (HEE), have introduced a care home liaison nurse. The aim is to bridge the boundaries, making a significant difference to cross organisation communication and support.

Methods: The care home liaison nurse manages a frailty liaison service with the largest local nursing care home. This home has 140 residents with complex needs. The care home liaison nurse provides a point of contact for advice, guidance and support for individual patient pathways, she provides face to face assessment and treatment or verbal advice. In addition, the nurse supports discharge from the acute setting. This direct contact allows rapid access to specialist advice, and aims to build confidence both within the care home team and within the acute team, that the patients' needs can be met in their own surroundings.

Results: The preliminary data demonstrates a positive impact this role is having both to the acute trust and most importantly patient's experience. Comparing ICHT data from April-May 2018 to April-May 2019 it showing that the number of avoidable admissions has decreased from 54.3% to 37.5%, length of stay when patients are admitted has decreased from 11.7 days to 6.5 days, and the number of patients with an advanced care plan has risen 14.9%. Feedback from nursing staff at the care centre as well as that from patients and families has been overwhelmingly positive.

Conclusions: The role is still in the pilot phase. Given the already positive impact it is hoped that it will continue and expand into other care homes and extra sheltered accommodations.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1644)

Five things about me

EM Robertson

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Background: It has long been recognised that when care is centred around the person dignity and personhood are preserved and outcomes are improved. However, the dehumanising effect hospital systems and practices can have on older people persists and there are still frequent reports of harm caused by failures to prioritise what matters to the person.

Local problem: The “what matters to you?” campaign (Dewar & Nolan, 2013) has been championed locally to good effect but a key component of the model; “who you are,” is missing, there is limited evidence of the older person’s voice or identity in their hospital notes or care plans and many report not feeling involved in decisions about their care.

Methods: Engagement with older people, their loved ones and ward staff alongside a review of the published literature enabled effective analysis of the problem and the design of a suitable intervention. The COM-B model was used to identify and support the behavioural changes needed to ensure the intervention was implemented effectively and PDSA cycles of Improvement ensured it was rigorously tested. The Person-Centred Practice Inventory (PCPI) was used to structure the measurement of improvements in person centred care on the ward.

Results: Engagement with older people, their loved ones and ward staff alongside a review of the published literature enabled effective analysis of the problem and the design of a suitable intervention. The COM-B model was used to identify and support the behavioural changes needed to ensure the intervention was implemented effectively and PDSA cycles of Improvement ensured it was rigorously tested. The Person-Centred Practice Inventory (PCPI) was used to structure the measurement of improvements in person centred care on the ward.

Conclusions: This was a rewarding project which achieved its aim of improving person-centred care and the experiences of older people, staff got to know the people they were caring for better which was an enriching experience. The key factor which contributed to its success was the enthusiasm and hard work of the ward staff who participated and their passion to ensure the care they give is person-centred.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1645)

'Remember to put ME in your assessment': Increasing the completion of person-centred information by registered nurses on an acute medical ward for older people

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Introduction: In an ageing society many older people in the United Kingdom live with complex co-morbidities, disability and frailty who require care which is based on an assessment of their individual needs and preferences. Numerous initiatives are utilised in the Trust which aim to collect individual needs. Despite this, person-centred information was not documented. The project aimed to increase the completion of person-centred information as defined by National Institute for Health and Care Excellence (2010; 2015) by registered nurses on an acute medical ward for older people by 20% over a 3-month period.

Methods: The Person-Centred Practice Framework was used alongside the 'COM-B' model to understand the project aim in behavioural terms and facilitate the development of theory-driven behavioural change interventions. Plan, Do, Study, Act cycles supported the development and testing of these interventions. An audit tool was developed to assess case-notes to determine if 'individual needs' were captured. The PCPI staff survey was used to understand the nurse's perception of person-centredness. Semi-structured interviews were conducted with nurses to understand if the interventions had improved their capability, opportunity and motivation. The nursing assessment form was structured and articulated to be person-centred. Training was delivered to enhance the nurses' understanding and capability to complete a person-centred assessment. A visual prompt within nursing documentation was used to motivate the nurses to complete more person-centred assessments.

Results: The results of the case-note audit demonstrated the aim was achieved with an aggregate percentage increase of 27% of individual needs captured. This finding was supported by themes in the interviews with the nurses highlighting improvements in their interpersonal skills, self-awareness and practice relating to person-centred assessment.

Conclusions: The project demonstrated how acute care nurses can be supported to ensure that their assessments of the older person are person-centred and captures individual needs by implementing theory-driven behavioural change interventions.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1655)

Specialist physiotherapist leading in the frailty revolution in ambulatory emergency care at the John Radcliffe Hospital, Oxford

B Greensitt

Oxford University Hospitals NHS Foundation Trust

Background: The Ambulatory Assessment Unit (AAU) at the John Radcliffe Hospital aims to provide excellent care for complex patients with varying range of medical presentations. It sees over 50% of the acute take in operational hours, with over 40% of AAU patients over the age of 70. Staff feedback consistently identified a suboptimal service provided to the frail group within this patient cohort. A dedicated physiotherapist specialising in older people living with frailty joined the team in October 2018 to address this.

Aims:

1. Early identification of patients with frailty attending the unit
2. Improve staff understanding of frailty to enhance patient care
3. Assess patients to either enable a patient to return home safely or support ambulatory pathway
4. Refer to community services that can support the patient and enable them to live well after hospital attendance
5. Review the impact of the specialist physiotherapist's role

Methods:

1. Introduction of frailty identification as per frailty team guidance
2. Frailty questionnaire to ascertain baseline understanding and learning needs to develop staff training
3. Assess patients using a Comprehensive Geriatric Assessment
4. Raise staff and patient awareness of community support services available within the community
5. Data collection to review interventions taken, bed days saved and re-attendance rates

Results:

- 129 new patients were seen in a 4-month period.
- 85% returned home the same day; 64% had their ambulatory pathway supported with therapy intervention and 21% had an acute admission avoided directly due to therapy. 15% were admitted to an acute bed for safety
- 60% of patients were referred to community services and 50% were signposted to a range of community and support services
- The re-admission rates for therapy related reasons within 7 days and 30 days were 0% and 4% respectively. 38 bed days were saved with a calculated cost saving of £15,162

Future service delivery and conclusions: There is ongoing work to obtain patient experience data for those who had their admission avoided directly due to therapy intervention. A training programme on frailty for all members of the MDT is to be developed. A dedicated therapy service in an ambulatory setting has a role in ensuring that patients' needs are met in the most appropriate place and enhances their quality of life after hospital attendance.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1661)

Introducing a geriatrician into a renal service to aid decision-making and advance care planning

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Introduction: Over the past 30 years the population of end-stage renal disease (ESRD) patients has aged; the average age of starting dialysis is 67. Many have significant comorbidities, and the benefit for frail patients or those over 80 starting dialysis is uncertain.

Despite this, when older patients with ESRD are admitted to hospital as an emergency, few have an advance care plan or resuscitation decision. The Nephrologists in our hospital recognised that many of these patients might benefit from an out-patient Geriatrician review.

Methods: The Renal Low Clearance Clinic in Leeds assesses patients with ESRD who are approaching dialysis or conservative management. A Geriatrician was established within this setting, seeing patients in an alternate-week clinic. A collaborative approach with the pre-dialysis nurses led to identification of appropriate older patients. This work has been described elsewhere (KimeZ et al, abstract accepted for UK Kidney Week 2019.)

Use of comprehensive geriatric assessment (CGA) allowed for sensitive exploration of long-term goals, with discussions regarding plans in relation to renal replacement therapy and resuscitation, as well as generating continence, falls and memory clinic referrals. Where possible, family were involved.

Results: 43 patients had completed encounters, with an average age of 79 (range 67-90.) The median Rockwood Frailty Score was 4 (range 1-7). 29 patients were seen at one visit, the rest requiring 2 or 3 appointments.

Prior to the encounter, only 2 patients had a DNACPR decision in place. Following this, 42 patients had had a resuscitation discussion and 18 patients chose DNACPR. Initially, only 7 patients had already chosen conservative management; this increased to 21 following discussions, including 7 who had previously opted for dialysis, the other 7 having been undecided. Those choosing conservative management were referred on to a specialist Renal-Palliative Care clinic.

Conclusions: Introducing a Geriatrician into the Low Clearance clinic has been welcomed by Renal colleagues and the effect has been apparent, with increasingly challenging patients being referred. CGA and advance care planning is feasible in this setting, which should have beneficial outcomes for patients in the longer term.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1675)

Cognitive assessment of patients as mandatory part of MDT in a community rehabilitation hospital

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Introduction: Undiagnosed underlying cognitive issues have an impact on progression with rehabilitation. Early diagnosis of these is beneficial to the patient as it can offer them early treatment and advance planning for their future care.

Methods: Patients transferred to our rehabilitation wards from other specialities often do not have a routine cognitive assessment done. This has a negative impact on their rehabilitation goals and discharge planning. We hence routinely assessed cognition for all the patients transferred to our rehabilitation unit across two sites for 3 months. In the weekly MDT, we discussed in detail the cognition of each patient, taking into account not only the doctor's view, but also nursing and therapists. Once a concern was raised, we investigated them fully with blood tests, imaging and MOCA or ACE-R.

Results: 56 patients were diagnosed as having cognitive issues. Average age was 81.67 years. Of them 32.14% were from surgical specialities and the rest from other sub-specialities of medicine.

In the MDT cognitive concerns were raised 73.2% by therapists, 66.1% by nurses and 60.7% by doctors.

Of the concerns raised, 87.4% of patients were diagnosed with some form of underlying dementia or cognitive impairment. 55.4% were started on treatment. Remaining was either palliative deemed unsuitable for treatment or needed more detailed input from community psychiatry team on discharge.

75% were for follow up with the mental health team on discharge, 7.14% by the Parkinson's specialist and the rest by the own GP.

All diagnosis was notified to the patient, next-of-kin and the GP

Conclusions: Routine multidisciplinary approach to cognitive assessment helps us in new and prompt diagnosis of dementia, offer appropriate treatment and plan ahead for the future.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1679)

Working collaboratively: Geriatrician input in older patients undergoing emergency laparotomy reduces overall length of stay - a complete audit loop

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Background: Great Western Hospital is a busy district general hospital with a catchment population of 340,000. Target population of this study was elderly patients aged >70 undergoing Emergency Laparotomy (EL).

Introduction: Approximately 8% of the population is aged over 75 years and operations in this patient group account for 23% of all surgical procedures. The 2010 National Confidential Enquiry into Patient Outcome and Death report "An Age Old Problem", suggested routine daily input from Geriatrics should be available to elderly patients undergoing surgery.

This study focuses at the impact of Geriatrician input for EL patients with primary outcome of reduction in Length of Stay (LoS).

Methods: The service was designed with allocation of 4 hours per week of Consultant Geriatrician and 2.5 days per week of a Clinical Innovation Fellow (CIF) time. The existing team of surgical junior doctors, nursing and allied health professionals carried out plans suggested by the geriatrician.

Retrospective data (Prior to service initiation) for the emergency laparotomy patients >70 years, was collected from December 2015-May 2016.

Prospective data collected from February 2018 – July 2018 for EL patients aged > 70, patients with inpatient stay > 7 days, patients with delirium/ inpatient falls.

Length of stay and Inpatient mortality were compared between the two cohorts.

Intervention: Prior to the establishment of this service the medical support was provided on ad-hoc basis. Funding was obtained from local postgraduate medical education for CIF and twice weekly consultant led ward rounds were carried out.

Patients were recruited from hospital database and from a referrals book kept at surgical ward.

Results: 45 patients were included in prospective study and Mean LoS was 17.8 days, which was reduced from 22.5 days prior to Geriatrician involvement (N=56).

Average 4.7 days per patient were saved.

IP mortality was 8.8% (2/4 deaths were palliative resections) after geriatrician input compared to 8.9% previously.

6.6% of patients had a new medical diagnosis, 24.4% patients were followed up in prospective cohort.

Conclusions: This study suggests the regular geriatrician input reduces the inpatient LoS. A day stay at surgical ward costs roughly £250, for 45 patients in last six months it saved approximately £52,875.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1708)

A community cure for frequent reattenders: Developing an interface geriatrics service

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Poole Hospital NHS Foundation Trust

Topic: Setting up an interface geriatrics service in a seaside area with a large elderly population. Many elderly patients are readmitted due to the challenge of managing their chronic health conditions in the community. These patients are frail, with frequently exacerbated chronic conditions causing regular readmissions. We noted that treatment was rarely changed during these admissions and patients were not uniformly managed.

Aims: Aims for this project were to improve care for older people, reduce readmissions and produce clear patient care plans.

Interventions: Our first PDSA cycle involved implementing geriatrician presence at community MDTs (involving social services, GPs, intermediate care teams, and various others). This generated home visits to several patients, with a mix of acute and chronic issues. We offered Advance Care planning where appropriate to these patients. We noted several patients were repeatedly discussed at MDT. This brought into focus frequent attenders who were usually well-known to the community. In the next cycle we introduced 'frequent attender' plans for these patients, ensuring a unified approach to their management. Subsequent cycles involved geriatrician presence at the 'frequent attenders' steering group, and further links with community teams. Our primary intervention has been Advance care & frequent attender plans offering tailored management for complex patients. These are completed by a geriatrician discussing patients wishes for treatment and future care.

Improvements: Readmission rates show up to 90% reduction in admissions/ED attendances for patients following care plan implementation. Feedback from families and patients is positive – the service is 'pragmatic and supportive', delivering 'empathetic care'.

Discussion: Implementing an interface geriatrics service highlights the importance of caring for frail patients in their preferred place of care, reducing unnecessary/inappropriate hospitalisations. Geriatrician presence at community MDTs has improved care by offering prompt access to medical advice and review of complex patients. It highlights patients presenting frequently to services, allowing us to work with patients and families to improve management. A frequent attender list generated by the hospital helps target patients for whom intervention will give significant benefit. We plan to extend this further by working with nursing homes that have high conveyancing rates. The service is being extended to more areas within our region, and we are working with GPs and care homes to further offer advance care planning to vulnerable and frail patients.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1712)

Does the community geriatrician’s role in Advanced Care Planning help community dwellers achieve their preferred place of care?

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Introduction: Advanced Care Planning (ACP) is well established for patients with terminal cancer diagnoses but is poorly utilised when caring for elderly patients with other terminal illnesses. We aimed to assess the effectiveness of ACP in our older, community dwellers following a period of increased awareness.

Methods: A closed loop audit was undertaken, assessing deaths from a dementia care home within rural Norfolk, before and after implementation of an education and focus programme (cycle 1=Jan 2017-Jan 2018, cycle 2: Feb 2018-Jan-2019). Deceased patients were identified from care home records and data from electronic hospital and general practice records were analysed. Results were compared according to existing guidance outlined in the Palliative Gold Standards Framework (GSF) and Department of Health End of Life Care Strategy 2009. Compliance between cycles was compared using the chi-square test with $p=.05$ indicative of statistical significance.

Results: 59 patients were included (median age=84, male=31). Results of the audit for each criterion are shown in table 1. More patients achieved their preferred place of care (PPOC) following the implementation of the education programme, with access to end of life medications significantly improving.

Cycle 1		Cycle 2		p
Total cases	Patients meeting standard (%)	Total cases	Patients meeting standard (%)	
25	20 (80)	27	26 (96.3)	.066
25	25 (100.0)	27	27 (100.0)	-
22	13 (59.1)	24	23 (95.8)	.003

ACP = advanced care plan; GP = general practitioner; GSF = gold standard framework; PPOC = preferred place of care

Conclusions: Increasing awareness and understanding of ACP in the community has been shown to improve compliance with GSF standards, particularly access to end of life medications. Further efforts are still required to improve care and a third cycle is scheduled for January 2020, following further training.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1716)

A quality improvement project on the recording of stool charts

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Introduction: Change in bowel movement is a common complaint in frail patients, which can be indicative of conditions such as constipation, infection or malnutrition. Without prompt action, this can result in increased length of stay. The recording of stools can be variable. This quality improvement project was to improve stool chart completion rate and staff confidence.

Methods: We conducted two Plan-Do-Study-Act cycles over three months. We surveyed multidisciplinary staff confidence using Likert scales covering each element on the Bristol stool chart. We then reviewed patient stool charts. The first intervention was a poster. The second intervention was the addition of a sticker to the charts to help staff more easily identify them in the patient's bedside notes. Staff-wide emails were sent to inform every one of the interventions and key stakeholders including ward managers were asked to hand this over.

Results: 44 multidisciplinary staff were interviewed and 217 individual stool charts assessed over a 3 month period. 43% of stool charts were not filled in as directed after the first cycle. Posters improved staff confidence in filling out the charts from 72.3% to 92.3% after the second cycle, while 61% of stool charts came to be filled in correctly - over the initial 57%. Healthcare assistants consistently scored the highest in terms of believing charts to be up to date being whereas doctors remained the most cynical. There was little sustained change in stool chart completion rates after three PDSA cycles. Eventually, after both interventions, completion rates returned to baseline.

Conclusions: Stool chart completion rates can be improved in the short term, but sustainability is a challenge. Factors contributing to this include the variable number of agency nurses. Further improvements include teaching at the nursing induction.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1717)

Quality improvement project to assess how informed patients are about do not attempt cardiopulmonary (DNACPR) decisions?

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Introduction: Despite growing evidence regarding DNACPR decisions, there is a paucity of information given to patients regarding resuscitation decisions. The main aim of this quality improvement project was to assess and improve patients' and their relatives' understanding about DNACPR decisions.

Intervention: We initially surveyed 30 inpatients or their next-of-kin (if the patient lacked capacity) in a geriatric ward who had DNACPR decisions in place. Although, 86% knew the implications of a DNACPR decision, only 50% knew that a DNACPR decision would not limit them from receiving other treatment. 66% reported that the information given by the healthcare professional is "too little".

35 questionnaires were also given to doctors of all grades to assess their practice of DNACPR discussions and barriers for discussion. Majority (95%) of doctors knew what should be included in a DNACPR discussion. Medical staff not considering DNACPR discussions during assessment, medical staff not comfortable to make the DNACPR decision and the fear of distressing the patient are the three main issues that were highlighted as barriers. 17% of doctors reported that they would have attended a cardiac arrest at least on 2-5 occasions for a patient when resuscitation was futile.

We presented this data and educated doctors on effective DNACPR discussions using video demonstrations in weekly journal clubs. All doctors were informed to distribute DNACPR

Improvement: After the intervention, only 80% understood the DNACPR discussion. 76% knew that DNACPR does not limit them from receiving other treatment. 73% reported that this was not stressful and 76% were satisfied with the discussion and reported that their questions were answered adequately. 11 out of 30 patients had received the information leaflets and all found it useful.

Discussion: Although after the intervention the percentage who understood the DNACPR decision had reduced compared to the initial audit, there was a 20% improvement in who knew that DNACPR decisions did not limit other treatment. We hope to extend this study by carrying out training sessions for doctors to improve the quality of these conversations and thereby enhance adherence to expected practice in DNACPR decision making.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1747)

Quality improvement project on the bowel charts in an elderly care ward in Basildon University Hospital-

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Background: To improve the rate of documentation on bowel charts on an elderly care ward with a significant percentage of patients suffering from dementia.

Importance: As a junior doctor working on an elderly care ward with patients who often had memory problems and were unable to recall their bowel patterns, it was extremely challenging to establish whether a particular patient has constipation or diarrhoea.

Constipation in an elderly patient can lead to multiple complications like urinary retention, intestinal obstruction and often decreased oral intake.

Methods: An audit was carried out to see the rate of completion of the Bowel charts on the ward.

Only about 23% of the bowel charts on the ward were complete in the initial survey.

Then interventions were introduced in steps and three more audits were done.

At each step, we were able to show how the interventions introduced changed the degree of completion of the bowel charts.

Outcome: We have seen a marked improvement of 37% since the start of the project 5 months ago. From 23% to 60% completion of bowel charts.

There appeared to be a sustained change only falling short at the weekends (due to staffing issues)

Overall awareness had increased vastly.

We were able to make a measurable change and improvement in the quality of care provided.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: MA-1760)

Improving patient centred care on an acute older persons unit: A quality improvement project

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Topic: Improving patient centred care through the implementation of an occupational therapy assessment that is framed by 'gold standard' intervention of comprehensive geriatric assessment (CGA) and Canadian Model of Occupational Performance and Engagement (CMOP-E). Occupational therapy staff had limited knowledge of the CGA process.

Intervention: Implementation of an adapted occupational therapy assessment form that reflects the CMOP-E and addresses the domains of the CGA; using the Plan, Do, Study, Act methodology to support a sequential cycle of change over a three month period (Dec 2019 – Feb 2019). The form also addresses patient centred care and personalised care planning. An education session was undertaken with occupational therapy staff to increase the knowledge and understanding of the CGA process resulting in more effective participation in multidisciplinary team (MDT) meetings.

Improvement: The above intervention resulted in successful implementation of an adapted occupational therapy assessment form for older people addressing the domains of the CGA within the CMOP-E framework and encompassing patient centred care. Occupational therapy staff had increased confidence with their knowledge of the CGA and participation in MDT meetings and patients felt more involved in their care.

Discussion: It is possible to have both an evidenced MDT model of practice and a uni-professional occupational therapy model working alongside each other to provide patient centred care and effectively address the complex needs of frail, older people.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: LC-1773)

Can volunteers improve the well-being, participation and activity of patients on an acute older-persons' unit in hospital?

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Background: A multi-disciplinary led, charity-funded initiative was implemented to deliver an Activity Promotion Project (APP) on the older adult wards of a large teaching hospital, providing acute medical management for adults over 65 with complex needs.

Introduction: Previous local studies show that our patients are inactive, lonely and their activity is inhibited by ward culture. Cognitively impaired patients experiencing long delays for placement are often agitated and restless. Staff feel disheartened by their inability to spare time for non-medical needs. To respond to the Social Prescribing directive the APP aims to create a sustainable volunteer team to provide patients with company, stimulation and opportunities to be active.

Methods: A Volunteer and Activity Coordinator (VAC) was appointed to recruit, train and coordinate applicants for the volunteer role on the unit which is advertised on the trust website. Analysis of volunteer team impact has been through patient, carer and staff surveys. Observational studies recorded patients' physical position, activity and company as well as use of the dayrooms before and during the project.

Interventions: Patients of all functional abilities can be referred by any staff member. Individual and group activities include conversation, games, reminiscence quizzes, lunch and tea parties, musical bingo, walking tours, trips to hospital facilities and gardens and visits from therapy dogs and musicians. Before discharge participating patients are given information about local social and exercise opportunities.

Results: All staff surveyed would recommend the project to colleagues, 97% thought it improved patient mood. One noted: 'volunteers have created a new energy on the ward, the patients appear to be much more engaged and occupied, and the dayroom is being used as it is intended to be'. Observational data showed a change in the percentage of patients resting in bed from 59% before the intervention to 49% during and a decrease in patients who were alone from 83% to 60%.

Conclusions: The volunteer team has had a positive effect on ward culture and patient well-being and could be replicated in other ward settings. The programme's impact is contingent on the consistency and reliability of volunteers, which makes the role of the VAC essential for careful management and communication of clear expectations. The VAC role will be proposed in business planning for next financial year.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: LC-1794)

A qualitative study evaluating patient education in the pre-operative pathway for elective hip and knee arthroplasty at a major London teaching hospital

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Introduction: Rising demands for hip and knee arthroplasty have been met with incremental advancements in both implant design and surgical technique. Despite these advancements in the intraoperative setting, the preoperative pathway has remained largely unchanged. The resulting ineffective demand management and improper patient optimisation through education and engagement, has contributed to long waiting times and increasing surgical cancellations. This has in turn lead to both patient distress and the disruption of clinical workflow.

Aims: This study aimed to investigate the effectiveness of patient education in the pre-operative pathway for elective hip and knee arthroplasty, at Imperial College Healthcare NHS Trust, from the perspective of key clinical stakeholders.

Methods: 16 Semi Structured Interviews were conducted with Healthcare professionals (HCPs) along the preoperative pathway. These included GPs, Orthopaedic Surgeons, Nurses, Anaesthetists, Orthogeriatricians, Occupational Therapists and Physiotherapists. Interviews were recorded, transcribed and thematically analysed. Sampling continued until information redundancy was reached.

Results: HCPs stressed that patient education lacked engagement & effectiveness. Whilst joint school (an MDT run seminar) is in place for patients before surgery, it was resource intensive meaning sessions were infrequent and often overcrowded.

Furthermore, not all patients were invited/attended joint school as a result of problems with scheduling and transport. Of those whom did, information retention was identified as a problem, highlighted by patients not bringing in medication, and failing to follow fasting instructions, leading to cancellations on the day of surgery. A significant proportion of elderly patients also needed additional and continued support in understanding and interpreting information, a key issue that was not addressed by traditional joint school.

Conclusions: This study has provided a more in-depth analysis of patient education in the pre-operative pathway revealing inadequate tailoring, and delivery of education material particularly for the older patient. Both timing, content and frequency of patient education could be improved in order to improve quality of care and reduce cancellations in turn improving the management of demand for orthopaedic services. Future studies may want to evaluate the use of digital technology in this area of the pathway in efforts to overcome these issues.

CLINICAL QUALITY: PATIENT CENTREDNESS (REF: LC-1796)

Findings from the first round of the National Audit of Care at the End of Life (NACEL)

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Background: NACEL is a national comparative audit of the quality and outcomes of care experienced by the dying person and those important to them during the last admission leading to death in acute, community hospitals and mental health inpatient providers in England and Wales.

Methods: The audit, first undertaken during 2018/19, comprised:

- An Organisational Level Audit covering trusts (in England)/Health Boards (in Wales)
- A Case Note Review completed by acute and community providers only, reviewing all deaths in April 2018 (acute providers) or deaths in April – June 2018 (community providers); and
- A Quality Survey completed online, or by telephone, by the bereaved person.

Data was collected between June and October 2018. 206 trusts in England and 8 Welsh organisations took part in at least one element of the audit (97% of eligible organisations). A total of 11,034 case note reviews were included. 88% of all patients audited were aged 65+.

Results: Documentation that a person may die imminently was high. For half of patients, imminent death was recognised less than one and a half days before they died, leaving a limited amount of time to discuss and implement an individual plan of care.

People's experience of care was good, excellent or outstanding in most cases (80%), as reported by the Quality Survey. However, 20% felt that there was scope to improve the quality of care and sensitive communication with both the patient and the family/others. [SL2]

Conclusions: Governance of end of life care was strong. Improvement is required in the documentation of an individual plan of care (documented evidence of a plan for 62% of people who died). Similarly, for one third of people who died, a discussion about the plan of care, and discussions about medication, hydration and nutrition had not been recorded. The second round of NACEL is running in 2018/19.