Communications to the Spring Meeting of the British Geriatrics Society

26 - 27 April 2007
Brighton Centre
Brighton

programme of abstracts
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1 THE EFFECTS OF BLOOD PRESSURE REDUCTION ON COGNITIVE FUNCTION: A META-ANALYSIS OF TREATMENT EFFECTS

J Birns¹, R Morris¹, N Donaldson², H Markus³, L Kalra¹

1. Departments of Stroke Medicine and Clinical Psychology, Kings’ College London, 2. Biostatistics Unit, King’s College Hospital, London 3. Department of Clinical Neurosciences, St George’s Medical School

Introduction
Untreated hypertension is associated with cognitive decline but intervention studies show differing effects of blood pressure (BP) reduction on cognitive function.

Methods
MEDLINE, EMBASE, and Cochrane databases were searched to identify randomised controlled trials that measured the effect of BP reduction on cognitive performance. Additional studies were identified by searching bibliographies of retrieved articles and contacting experts in the field. Data was extracted on study quality, BP, performance on cognitive function tests, anti-hypertensive treatment regimens and duration of treatment. Studies were reviewed and abstracted independently by two trained readers.

Results
16 studies with 19,501 subjects were identified. Improvements in Mini Mental State Examination score (weighted mean difference (WMD): 0.19; 95% CI: 0.19 to 0.19, p<0.001) and performance on immediate (WMD: 0.62, 95% CI: 0.21 to 1.02, p=0.003) and delayed (WMD: 0.67, 95% CI: 0.23 to 1.11, p=0.003) logical memory tasks were associated with modest reductions in BP (<5/3 mm Hg) in 13,860 subjects. Tests of perceptual processing and learning capacity (trail making test-A, paired associated learning test) in 2,380 subjects showed that a mean reduction in BP of 17/7 mm Hg was associated with impaired performance (WMD: -1.12 seconds; 95% C.I.: -1.22 to -1.02, p<0.001 and WMD: -0.4; 95% C.I.: -0.4 to -0.4, p<0.001 respectively).

Conclusions
BP lowering shows a heterogeneous effect on different aspects of cognitive function that may be influenced by the magnitude of BP reduction.

2 AMYLOID DEPOSITION AND CEREBRAL GLUCOSE METABOLISM IN ALZHEIMER’S DISEASE: A LONGITUDINAL ¹¹C-PIB AND ¹⁸F-FDG PET STUDY

P Edison, A Okello, H Archer, N Fox, M Rossor, D J Brooks

Imperial College London and St Mary’s Hospital, London

Introduction
The role of amyloid in cognition is debated. Radiotracer ¹¹C-PIB binds to beta-amyloid plaques. ¹⁸F-FDG measures the glucose metabolism.

Objective
♦ Assess amyloid deposition and glucose metabolism in AD patients
♦ Longitudinally follow up these patients with ¹¹C-PIB and ¹⁸F-FDG-PET and to correlate with neuropsychometry.

Methods
22AD patients and 20 control subjects under went clinical evaluation, MRI scans and ¹¹C-PIB-PET scans. Of those 12 AD patients and 8 control subjects had ¹⁸F-FDG PET scans. 8 patients were clinically followed up with ¹¹C-PIB-PET and 6 of them had ¹⁸F-FDG-PET scans at 20 months.

Results
AD patients showed a 100% increase in ¹¹C-PIB binding in cortices at baseline. Brain glucose metabolism was reduced by 23% in cingulate and temporoparietal region. During 20 months follow up the mean cortical ¹¹C-PIB uptake remained the same. The MMSE and immediate recall declined by 50 percent. ¹⁸F-FDG showed a reduction of 20% in temporoparietal and cingulate cortex during the follow up.

Conclusions
AD patients showed a significant increase in ¹¹C-PIB uptake compared to controls which remained static over 20 months. The amyloid load did not correlate with the cognitive decline during longitudinal follow up. This suggests that the amyloid deposition takes place at an early phase of the disease but may cause continuing neuronal damage which is reflected by progressive changes in glucose metabolism.
Introduction
Two randomised trials have shown that multifactorial interventions can prevent many falls among patients in sub-acute and rehabilitation wards. The efficacy of this approach in acute and short stay rehabilitation wards is uncertain.

Methods
A cluster randomized trial involving 24 aged care wards was conducted in Sydney, Australia, between October 2003 and October 2006. The intervention team comprised a nurse and a physiotherapist who worked for 25 hours a week for three months in each intervention ward. They provided a targeted multifactorial intervention that included falls risk assessment, staff and patient education, medication review, bedside and ward environmental modification, an exercise program and heel alarms for selected patients.

Results
A total of 3995 patients participated. The median length of stay was 7 days. Intervention and control wards were well matched at baseline for prior falls rates and individual patient characteristics. There were 347 falls during the study. There was no difference in fall rates between intervention and control wards: 9.21 falls per 1000 bed days in intervention wards and 9.28 falls per 1000 bed days in control wards (p=0.96). The incidence rate ratio was 0.96 (95% confidence interval 0.72 to 1.28).

Conclusions
A targeted multifactorial falls prevention program was not effective in hospital wards with relatively short lengths of stay. Innovative approaches to falls prevention in this setting are required.

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### Platform Presentations

#### 3

**Cluster Randomised Trial of a Multifactorial Intervention to Prevent Falls in Hospital**

**R G Cumming**, **C Sherrington**, **S R Lord**, **J Simpson**, **I D Cameron**, **V Naganathan**, **C Vogler**

1. University of Sydney 2. Prince of Wales Medical Research Institute, Sydney

**Introduction**
High levels of mortality following hip fracture frequently lead to concerns in planning anaesthetic and surgery. To inform our consent process we have analysed postoperative mortality.

**Method**
We collected data on all 1,050 patients presenting in 2003-4, detailing care, and outcome up to 4-months. Admission assessment based on the Standardised Audit of Hip Fracture in Europe (SAHFE) dataset included American Society of Anaesthesiologist (ASA) grade as recorded by the anaesthetist at time of operation. We studied this as an indicator of risk.

**Results**
Inpatient follow-up was completed in 1,024 (97.5%) patients, aged 14-103 (mean 80.6) years. 8 died pre-op., and 20 were managed conservatively, 6 of whom died. Perioperative and early postoperative mortality was rare.

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<td>2 ‘asymp.’</td>
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<td>3 ‘minor’</td>
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<td>4 ‘severe’</td>
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**Conclusions**
Anaesthetists commonly overestimate risk in assessing and consenting patients, but comments such as “a 50:50 chance of surviving surgery” are refuted by very low perioperative mortality even in the frailest 11% of patients. This justifies offering surgical symptom relief to nearly all patients, and has implications for decision making in pre-operative assessment - such as about the need for echocardiography.
Introduction
Zoledronic acid (ZOL) is a bisphosphonate delivered by intravenous administration; does it reduce fracture risk over a wide age-range?

Methods
The HORIZON-PFT is a multinational, 3-year, randomised, double-blind, placebo-controlled trial evaluating the effect of once-yearly ZOL 5 mg to decrease fracture risk in 7736 postmenopausal osteoporotic women aged 65-89 years. This analysis examined the effect of ZOL 5 mg on fracture rates stratified by age group (<70, 70-74, >75 years).

Results
ZOL reduced the risk of all clinical fractures across all ages with hazard ratios for < 70 years (0.63, 95% CI 0.47, 0.83) and > 75 years (0.66, 95% CI 0.53, 0.82) (p interaction=0.83). There was a significant reduction at 3 years in the rates of vertebral fracture with ZOL in all age groups but the effect was greater for younger women (p interaction=0.048). The risk of hip fracture was reduced with ZOL in all age groups but the reduction in hip fracture risk was greater in patients < 70 years (HR 0.30, 95% CI 0.13, 0.70) relative to patients ≥ 75 years (HR 0.80, 95% CI 0.50, 1.28). However, this difference across age groups did not result in a treatment-by-age group interaction (p=0.12).

Conclusion
ZOL 5 mg significantly reduced the risk of all clinical osteoporosis-related fractures in all age groups, however, the effect on vertebral fracture was greater in younger women.

---

Introduction
Length of stay (LOS) has long been considered a central issue and many authors believe that LOS can be reduced without adversely affecting patients’ outcome. The aim of this study is to explore hospital organisational factors associated with variations in the LOS for Primary Elective Total Hip Replacement (PETHR) among patients >60 years in NHS hospitals.

Methods
We retrospectively analysed data from the Hospital Episode Statistics of the DoH of England for patients >60 years who received PETHR and were discharged alive during 2002/2003. 34,301 cases were included. The relationship between LOS as a dependent variable and other factors was tested using statistical techniques including independent t-test, X², one-way-ANOVA and multivariate analysis.

Results
Mean LOS was 10.74 days. Significant variations in the mean LOS were found between NHS hospitals ranging from 8.04-14.92 days (p<0.0001). We found significant positive correlation between LOS and pre-operative duration (p<0.0001) with only 16.1% of cases admitted on the surgery day. High percentage of admissions on Fridays for Monday surgery was associated with longer stays. Few discharges occurred at the weekend (10.7% of cases) especially among cases discharged to aftercare institutions (5.7%).

Conclusion
• Hospitals need to review organisational factors that may contribute to prolonged LOS.
• Reducing the pre-operative duration or ideally admitting patients on the same day as surgery can reduce LOS.
• Organisational changes in transferral from acute to aftercare institutions, particularly at the weekend, may contribute to increase weekend discharge.
THE EFFECTIVENESS OF REHABILITATION PROVIDED BY A HOSPITAL-BASED MULTIDISCIPLINARY EARLY SUPPORTED DISCHARGE TEAM FOR ELDERLY HOSPITALISED PATIENTS

B J Adler, G Creed, M Kirkwood, P Langhorne, D J Stott

Healthcare of Older Peoples project (HOP project) Academic Section of Geriatric Medicine Glasgow Royal Infirmary

Introduction
Early supported discharge (ESD) has been shown to reduce inpatient stay and the risk of death or dependency in patients following a stroke. The evidence to support similar interventions for elderly inpatients is not as clear. This systematic review aims to assess the effectiveness of ESD with a hospital-based multidisciplinary team for elderly inpatients with a range of medical and surgical diagnoses.

Methods
MEDLINE, CINAHL and EMBASE electronic databases were searched. Bibliographies of existing reviews in the area, as well as of all trial reports obtained were searched. Abstracts of studies were read by two reviewers to determine whether they met the inclusion criteria.

Results
9 randomised controlled trials including 1394 patients were identified. The method allocation concealment was described in 8/9 studies. Blinding of outcome assessment was described in 8/9 studies. ESD with a hospital based multidisciplinary team reduced the length of inpatient stay for elderly hospitalised individuals (Weighted Mean Difference 3.63 days, 95% CI 2.52 to 14.75, p<0.00001). ESD was associated with increased rates of hospital readmission (Odds Ratio 1.39, 95% CI 1.00 to 1.94, p=0.05). There was no significant effect on patient mortality (Odds Ratio 1.00, 95% CI 0.60 to 1.47).

Conclusions
ESD with a hospital-based multidisciplinary team reduces the length of inpatient stay for elderly hospitalised patients, however it is associated with an increased risk of readmission to hospital.

APOE GENE AND CYTOKINES IN DELIRIOUS AND NON DELIRIOUS ELDERLY MEDICAL INPATIENTS

D Adamis1,2, A Treloar3, N Gregson4, G Hamilton2, A MacDonald2, F C Martin1.

Department of Ageing and Health, Guys and St Thomas’ NHS Foundation Trust (1), Institute of Psychiatry (2), Oxleas NHS Trust, London (3).KCL Department of Clinical Neurosciences (4)

Introduction
Acute inflammatory illness or therapeutically used cytokines may each induce delirium. Do cytokines “drive” the delirium syndrome? APOE modulates CNS inflammation. We investigated the role of cytokines and APOE in delirium.

Methods
Consenting patients ≥70y were assessed within 3 days of admission and each third day for 2 weeks: MMSE, delirium status [Confusion Assessment Method], severity [Delirium Rating Scale], illness severity [APACHE II–APS]; Interleukins-1 and -6, Tumour Necrosis Factor-α, Interferon-γ, Leukaemia Inhibitory Factor; Interleukin-1 receptor antagonist (IL-1RA), and Insulin-like growth factor-I [IGF-I]. All were genotyped for APOE.

Generalised Estimating Equations and the mixed effects approach were used to investigate statistical associations with delirium status. Mixed linear model investigated associations with delirium severity.

Results
Sixty-seven participants rendered 205 assessments across 4 time-points. Twenty-eight (41.8%) had prevalent or incident delirium.

Higher MMSE, IGF-I and IL-1RA levels were significantly associated with non-delirium status at the individual (mixed effects model) and population levels (GEE approach). APOE was not associated with delirium status or severity. Higher MMSE and IGF-I levels, and lower Interferon-γ levels were associated with less severe delirium. APACHE II–APS and other cytokines showed no significant associations.

Conclusions
During acute illness, delirium risk may be increased by lower circulating IGF-I (neuro-protective) or IL-1RA levels (anti-inflammatory). Severity may be reduced by higher IGF-I and lower Interferon-γ levels.
THE IMPACT OF SPECIALISED MEDICAL INPUT ON USE OF MEDICATIONS IN DEPENDENT INSTITUTIONALISED ELDERLY

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Introduction
Despite debate and strong views, clinical impact of specialist Geriatrician input, on aspects of care in institutionalised elderly remain unknown. Of particular importance is their clinical and financial impact. We designed a large prospective study evaluating this.

Methods
Patients from 10 hospital continuing-care-wards (HCCW) were randomised to Control and Intervention Groups. All were screened by Geriatrician assessment, investigation, treatment and rehabilitation if appropriate pre-admission. A multidisciplinary group finally decided patient suitability for HCCWs. Patients’ demographic, medical, nursing details, dependency scores, medications, duration, frequency and costs were tabulated.

Prospectively a panel (Specialist Geriatricians, Pharmacists and Specialist Nurses) advised each ward’s Medical Officer (GP) of medication alterations in the Intervention Group only. Advice followed six international tools of accepted best practice. We reassessed all patients’ health status at six months.

Results
Control (115) and intervention (110) groups were comparable in age, gender, dependency, Barthels and Mental Test Scores. Six month Barthel and MTS had not changed. Total medications in the Intervention Group were reduced (1,280 to 1,220). However, they had increased medical reviews (Mean 4.0 Intervention v 3.1 Control<0.0005), acute hospital admissions (10% v 5.2%, p<0.001) and mortality rates (15.5% v 9.6%, p<0.001). Implementation cost was £71,460 and savings on medications of £14,628.

Conclusion
This study suggests no financial or immediate clinical benefit from formal specialist Geriatrician input reviewing medications of the institutionalised elderly with advanced or irreversible medical conditions.

MAGNETIC RESONANCE IMAGING OF INTRAPLQUE HEMORRHAGE IN SYMPTOMATIC MILD TO MODERATE CAROTID STENOSIS PREDICTS NEUROLOGICAL EVENTS

L Daniels1, 2; N Altaf2, 3; P S Morgan2; D P Auer2; S T MacSweeney3; A R Moody4; J R Gladman1

1. Division of Rehabilitation and Ageing, University of Nottingham 2. Department of Academic Radiology, University of Nottingham 3. Department of Vascular Surgery, Queen’s Medical Centre, Nottingham 4. Medical Imaging, Sunnybrook Health Sciences Centre

Introduction
Carotid endarterectomy is beneficial in severe symptomatic carotid stenosis. The risk of stroke in moderate carotid stenosis is modest, and so the role of carotid endarterectomy in this group is unclear. Intraplaque hemorrhage is associated with advanced atherosclerosis and can be detected in the carotid arteries by magnetic resonance imaging (MR IPH). This study evaluates whether MR IPH imaging can identify patients with mild to moderate carotid stenosis who are at higher risk of ipsilateral TIA and stroke.

Methods
Prospective longitudinal cohort study of symptomatic patients with mild to moderate (30-69%) carotid stenosis followed up for 2 years after MR IPH carotid imaging.

Results
64 participants were followed up for a median of 28 months (interquartile range 26 – 30). 39 (61%) ipsilateral arteries showed intraplaque hemorrhage. During follow up, 5 ipsilateral strokes and a total of 14 ipsilateral ischemic events were observed. 13 ischemic events, of which 5 were strokes, occurred in those with carotid intraplaque hemorrhage (HR= 9.8, 95 % C.I. 1.3 – 75.1, P=0.03)

Conclusion
MR IPH is a good predictor of ipsilateral stroke and TIA. This technique could help in the selection of patients for carotid endarterectomy.
POSTER PRESENTATIONS

Clinical Effectiveness
Nurses Group
Bones, Muscles & Rheumatology
Cardiovascular
Education and Training
Falls, Fractures and Trauma
Gastroenterology
Health Services Research
Law and Medical Ethics
Neurology and Neurosciences
Other Medical Conditions
Psychiatry and Mental Health
Respiratory
Stroke
Work in Progress and Planned Research

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A Wagg, D Lowe, P Peel, J Potter

Clinical Effectiveness and Evaluation Unit, Royal College of Physicians of London

Audit Indicators
Standards from the National Audit of Continence Care for Older people using the validated tool hosted at http://continenceaudit2006.rcplondon.ac.uk

Aim
To compare performance of hospital trusts taking part in the audit (2005) and re-audit in 2006

Method
Data returned were analysed and compared for trusts taking part in both rounds. Trusts were recruited using Binley’s Directory

Results
126 acute hospital sites contributed data to both rounds. 119 contributed organisational data. The table shows absolute data for each variable.

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>integrated service</td>
<td>43</td>
<td>53</td>
<td>10</td>
</tr>
<tr>
<td>clinical lead</td>
<td>24</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>policy</td>
<td>35</td>
<td>39</td>
<td>4</td>
</tr>
<tr>
<td>access to continence specialist</td>
<td>64</td>
<td>69</td>
<td>5</td>
</tr>
<tr>
<td>Integrated care path</td>
<td>23</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>referral to gynaecology</td>
<td>55</td>
<td>66</td>
<td>10</td>
</tr>
<tr>
<td>gastroenterology</td>
<td>29</td>
<td>42</td>
<td>13</td>
</tr>
<tr>
<td>geriatric medicine</td>
<td>41</td>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td>colorectal surgery</td>
<td>37</td>
<td>50</td>
<td>13</td>
</tr>
<tr>
<td>urology</td>
<td>59</td>
<td>75</td>
<td>16</td>
</tr>
<tr>
<td>structured training</td>
<td>54</td>
<td>56</td>
<td>2</td>
</tr>
<tr>
<td>means for audit</td>
<td>51</td>
<td>54</td>
<td>3</td>
</tr>
<tr>
<td>case finding</td>
<td>90</td>
<td>93</td>
<td>3</td>
</tr>
<tr>
<td>basic assessment</td>
<td>47</td>
<td>54</td>
<td>7</td>
</tr>
</tbody>
</table>

Re-audit at one year demonstrated a modest improvement in standards. The median number of continence nurse specialists available to hospitals in primary care services fell, from 2.0 to 1.4.

Conclusion
The re-audit has shown a modest improvement in standards between cycles. Anecdotal evidence from auditors confirmed that taking part in the process led to changes within services. These data are in keeping with the findings of other national audits, which show improvement in quality.

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A Wagg, D Lowe, P Peel, J Potter

Clinical Effectiveness and Evaluation Unit, Royal College of Physicians of London

Audit Indicators:
Standards from the National Audit of Continence Care for Older People using the validated tool hosted at http://continenceaudit2006.rcplondon.ac.uk

Aim:
To compare performance in process of care for urinary incontinence (UI) from hospitals taking part in both audit cycles.

Method:
Data were compared for trusts taking part in both rounds. Audit method described in Mian S et al. J Eval Clin Pract 2005; 11:533-43

Results

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>No initial diagnosis</td>
<td>51</td>
<td>47</td>
<td>-4</td>
</tr>
<tr>
<td>Documented continence history</td>
<td>45</td>
<td>53</td>
<td>+8</td>
</tr>
<tr>
<td>bowel habit recorded</td>
<td>61</td>
<td>65</td>
<td>+4</td>
</tr>
<tr>
<td>bladder diary</td>
<td>18</td>
<td>20</td>
<td>+2</td>
</tr>
<tr>
<td>QOL assessed</td>
<td>18</td>
<td>17</td>
<td>-1</td>
</tr>
<tr>
<td>Rectal examination</td>
<td>27</td>
<td>29</td>
<td>+2</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>74</td>
<td>78</td>
<td>+4</td>
</tr>
<tr>
<td>Specialist examination</td>
<td>53</td>
<td>56</td>
<td>+3</td>
</tr>
<tr>
<td>Abdominal examination</td>
<td>92</td>
<td>89</td>
<td>-3</td>
</tr>
<tr>
<td>residual vol measured</td>
<td>22</td>
<td>25</td>
<td>+3</td>
</tr>
<tr>
<td>identification of type/cause of UI</td>
<td>26</td>
<td>35</td>
<td>+9</td>
</tr>
<tr>
<td>treatment plan</td>
<td>45</td>
<td>52</td>
<td>+7</td>
</tr>
</tbody>
</table>

Conclusions
Re-audit has shown slight improvement in standards. The proportion of patients with no diagnosis after specialist examination remains high. Only half of patients have a management plan. The short time between audits may account for small improvement. The recent publication of guidelines for incontinence in women (NICE Clinical guideline 40, 2006) may add additional impetus for an improvement.
WHAT IS THE PREVALENCE OF USE AND PERCEIVED BENEFIT OF OVER THE COUNTER NON PRESCRIPTION (OTC) MEDICINES IN OLDER PEOPLE?

J Walker, E Wood, J Beynon
Department of Medicine for Older People, Portsmouth Hospitals NHS Trust

Introduction
OTC medication use is increasing despite the limited evidence base. We routinely ask about their usage and wished to identify the prevalence of their use in relation to current medical problems and prescribed medication.

Methods
We collected the following data from a random sample of patients attending the Department of Medicine for Older People:

Basic demographic data, principle medical diagnoses, current prescribed medication, current OTC medication and perceived benefit of OTC medication

Results
150 patients were included: 110 women, 40 men, mean age 81 (range 62 – 95)

This table shows the relationship between current medical problems, prescribed medications and OTC medications.

<table>
<thead>
<tr>
<th>Current Medical Problems</th>
<th>Number of Prescribed Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Median</td>
</tr>
<tr>
<td>No OTC Medication</td>
<td>3</td>
</tr>
<tr>
<td>(n = 95)</td>
<td></td>
</tr>
<tr>
<td>1 or more OTC Medication</td>
<td>2</td>
</tr>
<tr>
<td>(n = 55)</td>
<td></td>
</tr>
</tbody>
</table>

* Using the Mann Whitney test p = 0.007

33 (60%) patients taking OTC medications stated they helped, 17 (31%) were unsure, and 5 (9%) stated they did not help.

Conclusion
This study indicates patients are more likely to take OTC medications if they are on fewer prescribed medications. However there is no apparent relationship between the number of current medical problems and the use of OTC medications, which may be due to the small sample size. Patients continued to use OTC medication despite the perceived lack of benefit.

PRESCRIBED AND NON PRESCRIBED OVER THE COUNTER (OTC) MEDICINES; THE POTENTIAL FOR DRUG INTERACTIONS / ADVERSE EVENTS

E Wood, J Walker, J Beynon
Department of Medicine for Older people, Portsmouth Hospitals NHS Trust

Introduction
It is recognised that older people are at particular risk from interactions between prescribed and non prescribed medications. We routinely enquire about use of OTC medications. However little data is available on who recommended these OTC medications and whether potential interactions will occur with prescribed medications.

Methods
Data from a random sample of inpatients and outpatients was collected to ascertain current prescribed medication usage, current OTC medication usage, who recommended it and GP awareness of use. We used MEDLINE to identify any potential interactions between prescribed and OTC medications.

Results
150 patients were included; 110 women, 40 men, mean age 81 (range 62 – 95).

55 (37%) patients were taking OTC medications, mainly recommended by friends/family or the media, with only 3 recommended by doctors. GPs were aware of OTC medication in 22 cases. 20 different OTC medications were used, the commonest being cod liver oil (36), glucosamine (18), chondroitin sulphate (5) and garlic (4). Potential drug interactions/adverse events were identified in 28 (51%) patients.

Conclusions
This study highlights the widespread use of OTC medications in the elderly, often without the knowledge of their GP and despite the potential for significant interactions/adverse events with prescribed medications. We would therefore recommend that health care professionals identify prescribed and OTC medications taken by their patients and assess all interactions to avoid potential adverse events.
P Cousen1, K Holden1, O J Corrado1, N Barclay2, S Kite2
1. Dept of Medicine for the Elderly, Leeds General Infirmary
2. Dept of Palliative Care, Leeds General Infirmary

Introduction
The Liverpool Care Pathway (LCP) provides a framework for end of life care embracing the hospice model by assessing physical, spiritual and palliative needs of patients in hospital and other clinical settings.

Methods
We audited end of life care of the first 50 elderly patients on the LCP at our hospital comparing this with a retrospective review of 50 random elderly patients receiving ‘usual’ end of life care. We recorded comfort measures, psychological and spiritual needs, communication, ongoing care and care after death.

Results
The LCP showed overall improvement in recording comfort measures, ongoing care and care after death. Documentation and achievement of comfort measures such as analgesia improved from 84% in the ‘usual’ care group to 98% on LCP. LCP patients were more likely to have inappropriate interventions discontinued (42% in ‘usual’ care group to 98% on LCP). Assessment of ongoing care significantly improved e.g. assessment of respiratory tract secretions improved from 0% in ‘usual’ care group to 84% on LCP. Discussions with family about procedures after death improved from 4% in ‘usual’ care group to 46% on LCP and families were more likely to receive written information about these procedures (8% to 48%).

Conclusions
The Liverpool Care Pathway facilitates better documentation and assessment of dying elderly patients’ needs, ensuring more patients die in comfort and with dignity.

E J Dickinson, G Wright
Department of Medicine for the Elderly, Hammersmith Hospitals NHS Trust

Introduction
Inpatient episodes should be coded correctly for Payment By Results. Appropriate patients should be assigned to “Complex Elderly” Healthcare Resource Groups (HRGs) which carry a higher tariff. It is not clear whether existing systems result in correct coding in Elderly Medicine.

Audit Indicators
Accuracy of caseload identification, accuracy of coding, proportion of cases assigned to “Complex Elderly” HRG.

Methods
In the audit and re-audit, the coding of a consecutive patient series was assessed in relation to correct caseload identification and coding accuracy, by inspecting coding output, clinical records and ward registers.

Results
There were 130 cases. 22% of the caseload was misidentified by routine systems. 27% of cases were initially assigned a “complex elderly” HRG. Coding revision was suggested in 24% of cases, leading to 51% of cases being finally assigned to “complex elderly” HRGs.

Practice Change
The intervention comprised education of medical staff, circulation of key diagnoses, introduction of a simple caseload log, and discussion with coders.

Re-audit
There were 106 cases. Caseload misidentification decreased to 14%. Initially 53% of cases were assigned to a “complex elderly” HRG. Only 8% of cases required coding revision, after which, 55% of cases were finally assigned to “complex elderly” HRGs.

Conclusions
Routine systems appear to be inadequate for capturing caseload and accurate coding. However, simple interventions can substantially improve coding leading to more appropriate Payment By Results.
M Roesner, A Wagg

Department of Geriatric Medicine, University College London Hospitals

Audit Indicators RCP/BTS process of care and outcome standards for acute admissions in acute exacerbation of COPD.

Aim To investigate whether geriatric departmental care of equal standard to national data.

Method Prospective audit of older patients with exacerbation of COPD using national audit tool compared with national audit data.

Results 25 consecutive patient notes studied.

<table>
<thead>
<tr>
<th>Department</th>
<th>Hospital</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean)</td>
<td>84</td>
<td>74</td>
</tr>
<tr>
<td>Limited lifestyle (%)*</td>
<td>56</td>
<td>10</td>
</tr>
<tr>
<td>Co-morbidities(%)</td>
<td>84</td>
<td>80</td>
</tr>
<tr>
<td>Living alone (%)*</td>
<td>64</td>
<td>63</td>
</tr>
<tr>
<td>Social care (%)*</td>
<td>43</td>
<td>15</td>
</tr>
<tr>
<td>Smoker (%)</td>
<td>20</td>
<td>48</td>
</tr>
<tr>
<td>Respiratory nurse review (%)</td>
<td>80</td>
<td>93</td>
</tr>
<tr>
<td>Ex-smoker (%)</td>
<td>72</td>
<td>50</td>
</tr>
<tr>
<td>Admission (median days)</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Readmission in 90 days (%)</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Mortality (%)</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

\(*p<0.05, \text{departmental v hospital, } \sim\text{departmental v national } \) Fisher’s exact test

Older patients had more radiological pneumonic changes and fewer “COPD changes”. There was no difference in ventilatory support or steroid prescription. Recording of blood gas results was deficient (75% documented)

Practice Change
Record keeping and long hospital stay were addressed in departmental audit meetings.

Re-audit
Re-audit at one year demonstrated similar outcomes. Length of stay decreased as local intermediate care services developed.

Conclusion
Geriatric care quality is comparable to the national average. Most patients are seen by respiratory nurse specialists. Patients stay longer in hospital, are more likely to be readmitted but less likely to die.

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N Nidh1, M Mullans2, M J Vernon1

1. University Hospital of South Manchester NHS Foundation Trust, 2. Manchester Primary Care Trust

Introduction
Community active case management remains controversial: evaluation of such approaches in the UK to date has demonstrated no reduction in emergency hospital admissions. Since 2004 a multi-disciplinary team has undertaken active case management in South Manchester nursing homes. Utilising structured review, 200 beds have been managed with weekly visits. The team comprises a consultant geriatrician and pharmacist, supported by a dedicated care homes Macmillan nurse. Diagnostic re-evaluation including re-investigation where indicated, disability, nutritional, tissue viability assessments have been supplemented by anticipatory care planning, family meetings, staff training and development. We present data evaluating the effectiveness of this approach.

Methods
In May 2006 we identified 166 patients resident in 200 case managed beds. Data were collected retrospectively, analysed and compared for 6 month periods before and after first case management intervention.

Results/Conclusion
Data-sets were completed for 137 patients. In the intervention period, mean number of reviews was 3 (range 1-10), 91% had medication changed, 57% were re-investigated, and 36% were referred to other community services. Comparing data pre- and post-intervention, emergency medical admissions fell from 31 to 23 (26% reduction). Emergency bed days fell from 638 to 207 (68% reduction). For those admitted, mean length of hospital stay fell from 20.6 to 9.0 days (56% reduction). We believe these data demonstrate significant benefits from active case management in a nursing home setting.

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IS GERIATRIC CARE FOR COPD EFFECTIVE?

17

CAN NURSING HOME CASE MANAGEMENT REDUCE HOSPITAL BED OCCUPANCY?
Introduction
Long term care is increasingly provided in non-NHS facilities, funded by patients or social services. Criteria for NHS funded continuing care are vague and open to wide interpretation resulting in variable provision. Stockport NHS Foundation Trust has 25 continuing care beds (5 used for palliative care) and 28 beds for continuing care assessment (CCA). CCA allows a six-week period of multidisciplinary assessment to determine eligibility for continuing care.

Methods
A prospective audit of 100 consecutive patients was performed from October 2005. Information was obtained about length of stay, diagnoses and outcomes.

Results
61% of patients were female; mean age of 84.4 years. Mean length of total stay was 77.4 days, with a mean of 36.7 days on CCA. 45% were transferred from an acute older persons ward, 33% from rehabilitation wards and 5% from MAU. 62% had MDT assessment prior to transfer. 15% were waiting discharge, 30% died, 26% were discharged to Nursing Homes, 14% were waiting rehabilitation, 3% required further acute care. 12% were transferred to continuing care.

Conclusions
Assessment for continuing care can be difficult and is best performed in a skilled setting, to facilitate appropriate transfers. The beds were often used inappropriately at times of bed shortages. The high mortality reflects the frailty and serious medical conditions of the patients. CCA provides a valuable filter mechanism for continuing care and should continue to be provided.

R A Shinton, M R Pinkney, J Bell, D J Adam
Departments of Elderly Medicine and Vascular Surgery, Birmingham Heartlands Hospital, Birmingham

Introduction
Effective carotid endarterectomy (CEA) audit is not yet established. Decisions on who might benefit from CEA potentially rely on outcome data. We have addressed this requirement locally using the electronic patient record (EPR).

Methods
Theatre lists were examined for all CEAs performed between June 2002 and June 2003. The EPR was searched for surgical outcome. Where the record was deficient or complications possible, paper records were reviewed by a physician. Major complications were defined as a disabling event (modified Rankin Score 3 – 5) or death within 30 days of operation. After the initial audit, results were reviewed and a further audit conducted from June 2003 to Dec 2005. Confidence intervals (CI) were calculated from ‘exact’ limits for p from the binomial distribution.

Results
Over the initial twelve months, 44 CEAs were performed, 5 (11%, 99% CI 2 to 28%) had major adverse outcomes with 1 death and 4 disabling events. Patients with adverse outcomes had more co-morbidity than other patients but were not older. There were 4 (8.7%) minor complications. Following review, from June 2003 to December 2005, 80 CEAs were performed. None (0%) had major and 17 (21.5%) had minor complications.

Conclusions
Joint medical/surgical carotid audit using the EPR seems feasible and may contribute to improved CEA outcome. National audit projects should carefully consider features of this model in developing CEA audit.
S Zachariah, P Swailes, J M Orgee
Department for Care of the Elderly Cumberland Infirmary
North Cumbria Acute NHS Hospitals Trust

Introduction
We have shown how guidelines improve secondary osteoporosis prophylaxis prescribing in patients with hip fracture. We now assess the duration of secondary prophylaxis post-discharge, comparing prescribing on discharge vs advice given in the discharge letter.

Methods
Letters were sent to GP Practices for the 203 patients comprising the second part of our hip fracture audit (April 03 - March 04), asking for details regarding continuation / cessation/de novo prescriptions for Calcium/VitD3/Bisphosphonates. The proportion of GPs following advice wrt secondary prophylaxis commencement / DXA scan arrangement was also examined. Non-responding practices were sent a repeat letter / telephone call as required. Analysis was done using Fischer's exact / Chi squared tests.

Results
14 patient records were untraceable; 4 patients’ GPs declined participation. Analysis was undertaken for the remaining 185 patients. Of the 50 patients discharged on a bisphosphonate, and of the 135 patients discharged on Calcium/VitD3, 80% and 74% respectively were still receiving such prescriptions at 6 months. None of the patients’ whose GPs were asked to start bisphosphonates or Calcium/VitD3 were commenced on such at any point (p=0.049, p=0.019 respectively). 9/12 patients who had in-patient DXA referrals vs 4/80 patients’ whose GP’s were asked to consider DXA had scans (p<0.001).

Conclusion
Although the numbers are small, hospital prescriptions for secondary osteoporosis prophylaxis / referral for DXA scans in patients with hip fracture appear to be more effective vs hospital discharge letter advice.
**Introduction**
The modified Rankin Scale (mRS) is the preferred outcome measure in cerebrovascular clinical trials, but its value is limited by considerable inter-observer variability. Raters' background training can influence grading with disability scales. We sought to examine the influence of specialty on mRS grading.

**Methods**
We produced a video training package for mRS that has been used in two large prospective clinical trials. All researchers were formally assessed on mRS scoring using video recordings of patient interviews. Results were collected centrally and scored according to a pre-specified marking scheme. Native English speaking respondents were categorised according to medical specialty. Association between specialty and score was tested using a chi-squared test.

**Results**
Respondents comprised a mixed group of clinical disciplines and non-clinical researchers. Performance in the assessment exercise is presented in the table. There was a statistically significant association between training and mRS performance (p=0.003).

<table>
<thead>
<tr>
<th>Background</th>
<th>Fail</th>
<th>Perfect Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatrics (n=25)</td>
<td>12 (48%)</td>
<td>6 (24%)</td>
</tr>
<tr>
<td>Neurology (n=17)</td>
<td>5 (29%)</td>
<td>7 (41%)</td>
</tr>
<tr>
<td>Non Clinical (n=11)</td>
<td>5 (45%)</td>
<td>5 (45%)</td>
</tr>
<tr>
<td>Physiotherapy (n=13)</td>
<td>1 (7%)</td>
<td>6 (46%)</td>
</tr>
<tr>
<td>Research Nurse (n=49)</td>
<td>5 (10%)</td>
<td>5 (25%)</td>
</tr>
<tr>
<td>Stroke (n=6)</td>
<td>1 (17%)</td>
<td>2 (33%)</td>
</tr>
</tbody>
</table>

**Conclusion**
Clinical specialty may influence mRS grading. The trend was for the medically trained assessors to perform less well. Interestingly, Geriatricians consistently underscored disability while Neurologists over-scored. This may reflect bias introduced by specialty training. Strategies to improve reliability of mRS grading are required.

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**Introduction**
Institutional long-term care for older people has been largely privatised in England and geriatric departments (GD) have reduced clinical input. Government policy advises geriatricians' involvement pre-admission and in ongoing care. However performance targets and resources for implementation are lacking.

**Method**
Complementary anonymous surveys of Primary Care Trusts (PCTs) and GDs in England.

**Results**
Response rate: PCTs: 139/303 (46%), GDs: 109/167 (65%). Seventy-nine PCT respondents (56.8%) consider geriatricians' involvement in CHs highly important, a view shared by 72 GD respondents (66%). Only 48 PCTs (34.5%) require geriatrician assessment or panel review for unmet medical need pre-admission to nursing CHs (for residential CH admissions, 23.0%). GDs reported similar rates: 34% assess all hospital-to-nursing CH placements, but only 5.5% assess community-to-nursing CH moves (corresponding figures for residential CH are 29.4% and 0.9%).

Thirty-three GDs (30.3%) and 126 PCTs (90.6%) run initiatives to support healthcare in CHs. However only 49 GDs (45%) are aware of local PCT initiatives. 13.8% of GDs have regular forums for clinical discussion of CH residents: 11.5% of PCTs are aware of such forums locally. 15 PCT respondents (10.8%) believe CH residents have less access to geriatricians than domestic dwellers.

**Conclusion**
Geriatrician involvement in CHs falls short of policy intentions. PCTs and GDs have limited knowledge of reciprocal views and initiatives, but most believe such involvement important. Forty-seven community specialist nurses and 34 geriatricians expressed interest in further collaboration.
RISK OF FRACTURE NECK OF FEMUR IN ELDERLY PATIENTS WITH HEART FAILURE

J Renton, A J Baxter
Dept of Elderly Care, Sunderland Royal Hospital

Introduction
Fracture neck of femur (NOF) is a serious complication of falls in the elderly. Initiation and up titration of heart failure (CHF) medication in elderly patients may lead to increased risk of falls and fracture NOF. We carried out a study of elderly patients attending a heart failure service to assess their risk of fracture NOF.

Methods
Electronic hospital records of 439 consecutive elderly patients attending CHF clinic from 2001 to 2005 were searched for acute admission to our hospital. Medical notes of those admitted with read codes of syncope and collapse, fracture NOF or senility, within 6-60 months of first attendance to CHF clinic, were retrieved and coding diagnosis confirmed.

Results
Mean age was 80.6 (range 69-100). 392 patients had dose alteration of one or more of diuretics, ACE inhibitor, or beta blocker. 51 admissions with specified read codes were recorded in 44 patients. 12 cases of fracture NOF were identified by read code and 9 confirmed by case note review. Mean time from first attendance to admission with fracture NOF was 20 months (range 2-57 months.)

Conclusions
Risk of acute admission with a primary diagnosis fracture NOF in elderly patients undergoing CHF treatment optimisation is low. It would be advised to carefully assess falls risk, but concerns regarding risk of fracture NOF should not preclude appropriate treatment of CHF.

AUDIT SHOWING REDUCTION IN LENGTH OF STAY ON AN ACUTE ORTHOPAEDIC WARD WITH CHANGING MODELS OF ORTHOGERIATRIC CARE

S Lee, D Dasgupta
Department of Elderly Medicine, Homerton Hospital, London

Introduction
Fractured neck of femur (#NOF) is common and costly, accounting for 20% of acute orthopaedic bed occupancy. These patients' needs are complex and their care is a good indicator of the quality of hospital services for the elderly. Wide variation in hospital length of stay (LOS) exists, with 30 day average. National standards advocate Geriatric input but evidence for the various models of care is complex and inconclusive.

Method
We assessed changes in LOS for patients with #NOF who presented to our hospital over three periods of different models of care:
1. traditional liaison service
2. collaborative care based on the model used by the Geriatric Hip Fracture Program (GHFP); orthopaedic specialist nurse input, supported early discharge team
3. as for 2 plus early planned transfer of suitable patients to rehabilitation wards under care of geriatricians or discharge with supported early discharge team.

For each period LOS was audited by retrospective case note analysis.
For each period LOS was audited by retrospective case note analysis.

Results

<table>
<thead>
<tr>
<th>Period</th>
<th>Number of Patients</th>
<th>Duration (mean)</th>
<th>LOS (median)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>57</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>2</td>
<td>122</td>
<td>12</td>
<td>18.7</td>
</tr>
<tr>
<td>3</td>
<td>46</td>
<td>4</td>
<td>13.9</td>
</tr>
</tbody>
</table>

Conclusion
Marked reduction in LOS occurred with each change in model of care, bringing us to within the highest 25% performing trusts for LOS. Effective collaborative care implementing elements of the GHFP and early transfer of care under a geriatrician may have significant impact on LOS.
ATRIAL FIBRILLATION AND THROMBOPROPHYLAXIS IN THE ELDERLY – ARE WE GETTING IT RIGHT?

K Abdel-Aziz, J M Robson, T Thirugnanachandran, M Aldawoud
1. Department of Elderly Medicine, St James’s University Hospital, Leeds. 2. Department of Elderly Medicine, Bradford Teaching Hospitals.

Introduction
Atrial fibrillation (AF) is the commonest arrhythmia affecting the elderly and is a significant risk factor for thromboembolic stroke. Risk stratification systems have been evaluated and found to reliably identify patients at highest risk. NICE recently published guidelines to identify which patients should be offered thromboprophylaxis. We aimed to establish current thromboprophylaxis practice in the elderly and whether those at highest risk were receiving anticoagulation.

Methods
A retrospective analysis of 468 elderly patients in two teaching hospitals was performed. 71 patients with a diagnosis of chronic AF were identified. Risk scores using the CHADS2 system were generated and thromboprophylaxis regime recorded.

Results
71 patients (range 70 – 98; mean 86 years).

<table>
<thead>
<tr>
<th>CHADS2 Score</th>
<th>Patient numbers</th>
<th>Annual stroke rate (%)</th>
<th>Warfarin</th>
<th>Aspirin</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>1.9</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>8</td>
<td>2.8</td>
<td>1</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>33</td>
<td>4.0</td>
<td>15</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>5.9</td>
<td>6</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>8.5</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>12.5</td>
<td>1</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>18.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>71</td>
<td></td>
<td>24</td>
<td>41</td>
<td>6</td>
</tr>
</tbody>
</table>

Contraindications to anticoagulation were documented in 8 patients; 3 declined anticoagulation.

Conclusions
Over half of the patients at moderate/high risk of stroke (CHADS2 ?2) were not warfarinised. A small proportion had documented contraindications. Our study suggests warfarin is underused in the elderly. All patients over 75 with an additional risk factor should be considered for anticoagulation.

ANTIPLATELET PRESCRIBING IN ISCHEMIC STROKE, A DIRECT COMPARISON WITH NATIONAL INSTITUTE FOR CLINICAL EXCELLENCE (NICE) GUIDELINES

I M Ahmed, K Athorn, S Maitra, M D Chaudhuri
Department of Medicine for Older People, Stepping Hill Hospital, Stockport NHS Foundation trust

Introduction
The NICE recommends using the combination of modified release dipyridamole and aspirin for people who have had an ischaemic stroke or transient ischaemic event for a period of 2 years from the most recent event. We examined the choice of antiplatelet prescribing in ischemic stroke in three audit cycles.

Methods
We retrospectively collected data from patients admitted to integrated stroke unit over three cycles in a year. The first audit cycle was followed by a period of forward planning raising awareness amongst junior doctors, nursing staff and pharmacists in teaching sessions. A second and a third cycle were completed to check if compliance has improved due to Plan Do Study Act (PDSA) style audit.

Results
The first cycle had 28 patients, average age 76 years, of which 18 (64%) complied with NICE guidelines. The second cycle had 42 patients, average age 77 years, 32 were on aspirin-dipyridamole combination as per guidelines (76%). The third cycle had 38 patients, average age 78 years, 34 were treated with aspirin-dipyridamole combination as per guidelines (89%).

Conclusion
The prescribing of appropriate antiplatelet therapy after acute ischemic stroke as per NICE guidelines has increased over the past one year through PDSA style audit which may be the way forward for implementation of evidence based medicine.
INNOVATION IN ADVERSITY: THE SUCCESS OF A RAPID ACCESS GERIATRIC ASSESSMENT UNIT

L Cogan¹, T Breslin¹, O Donohue², D Power²

1. Mater Misericordiae Hospital, Dublin, 2. St Mary’s Hospital, Phoenix Park, Dublin

Background
Elderly people are frequent attendees of the Emergency Department (ED). An estimated 10% of patients admitted through the ED are suitable for comprehensive geriatric assessment in a non-acute setting. A rapid access geriatric assessment unit was set up at a specialist geriatric facility to provide this service.

Methods
A referral proforma was targeted to local GPs. Patients over 75, who could be safely managed in the community, were guaranteed a review within 72 hours. Data was collected prospectively on referral diagnosis, demographics and outcome.

Results
402 patients presented for comprehensive geriatric assessment from March 2003 to December 2004. 261(65%) were referred by GP and 141(35%) were referred by the ED. Clinical presentations included recurrent falls (18%), weight loss (17%), decreased mobility (22%) and pain (12%). Following their initial review no further follow up was required for 39.8%. 16.3% were referred to community care services and 20.2% were followed up in a geriatric day hospital. 15.7% needed inpatient management with 42% of these admitted to a geriatric care facility.

Conclusion
The existence of a dedicated rapid access clinic has proved to be an effective service in the management of medically unwell elderly patients. Rapid assessment and diagnosis obviates the need for protracted ED stays. The existence of such a unit resulted in an estimated 200 fewer elderly attendees to the ED per annum.

USE OF AN ORTHOGERIATRIC ASSESSMENT PROFORMA TO IMPROVE STANDARDS OF CARE FOR ELDERLY PATIENTS ADMITTED WITH FRACTURED NECK OF FEMUR

D Dasgupta, S Lee

Department of Elderly Medicine, Homerton Hospital, London

Introduction
Fractured neck of femur (#NOF) causes huge costs in terms of morbidity, mortality and financial burden to the NHS. This is set to escalate with an increasing elderly population and prevalence of osteoporosis. Good multidisciplinary care with Geriatric input including measures to reduce falls risk and treat osteoporosis leads to improved post fracture recovery.

Method
We introduced orthogeriatric assessment proforma to standardise best practice for patients >65years admitted with #NOF. We used the Scottish Intercollegiate guideline Network (SIGN-RCGP 56, 2002) guidelines to identify the following 5 areas (graded A or B) for retrospective audit both pre- and post- proforma use:
• full history within 48 hours
• risk assessment for further falls
• cost effective preventative intervention
• assessment for low bone mass density
• bisphosphonates prescribed appropriately

Results

<table>
<thead>
<tr>
<th>Category</th>
<th>% pre-proforma use</th>
<th>% post-proforma use</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>full history within 48 hours</td>
<td>48</td>
<td>75</td>
<td>0.0414</td>
</tr>
<tr>
<td>risk assessment for further falls</td>
<td>30</td>
<td>70</td>
<td>0.0046 *</td>
</tr>
<tr>
<td>cost effective preventative intervention</td>
<td>60</td>
<td>88</td>
<td>0.0240</td>
</tr>
<tr>
<td>assessment for low bone mass density</td>
<td>10</td>
<td>45</td>
<td>0.0469</td>
</tr>
<tr>
<td>bisphosphonates prescribed appropriately</td>
<td>22</td>
<td>68</td>
<td>0.0018 *</td>
</tr>
</tbody>
</table>

On Chi squared testing all five categories showed significant improvement with p values <0.05.

Conclusion
Introducing our orthogeriatric assessment proforma led to improved performance in all of the five areas audited. The proforma is user friendly and a helpful educational tool. It has been used to drive clinical improvement and is easily audited to show a rise in standards of care provision.
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**DOES AN OSTEOPOROSIS AND FALLS CASE-FINDING PROGRAMME IN A UK PRIMARY CARE SETTING LEAD TO LASTING IMPROVEMENTS IN MEASURED STANDARDS OF CARE WHEN COMPARED TO USUAL PRACTICE?**

J R Bayly1, 2, R D Hollands1,3, S J Yemm1, S E Riordan-Jones1, I Brough-Williams1, M Thatcher1, and R E Clifford1

1. Gloucestershire Primary and Community Care Audit Group, Gloucester, 2. University of Derby, Keddleston Road, Derby, 3. Underwood Surgery, Cheltenham

**Introduction**

This study evaluates the persisting documented benefits of a three year case-finding programme in UK primary care.

**Methods**

A case-finding programme aimed at community dwelling over 65 year old women at risk of fragility fracture was run between 2000 and 2003 in 13 practices. Training and support in systematic care was provided.

Three years after project closure database queries measured performance against indicators of optimal care in 82,252 patients served by the project compared with that in 474,019 patients receiving normal care.

**Results**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Project Practices</th>
<th>Normal Care</th>
<th>OR</th>
<th>95% CI</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients on bone re-modelling agents receiving calcium/D3</td>
<td>708</td>
<td>52</td>
<td>2516</td>
<td>16</td>
<td>1.50</td>
</tr>
<tr>
<td>Females &gt;75 with fracture &gt;45 and recent osteoporosis treatment/assessment</td>
<td>603</td>
<td>62</td>
<td>279</td>
<td>29</td>
<td>4.15</td>
</tr>
<tr>
<td>Females 65-74 with fracture &gt;45 with evidence of DXA scan</td>
<td>50</td>
<td>45</td>
<td>65</td>
<td>12</td>
<td>6.10</td>
</tr>
<tr>
<td>Females 65-74 with fracture and osteoporosis with recent treatment/assessment</td>
<td>29</td>
<td>69</td>
<td>83</td>
<td>67</td>
<td>1.10</td>
</tr>
<tr>
<td>High risk fallers &gt;75 referred to falls clinic</td>
<td>319</td>
<td>38</td>
<td>40</td>
<td>12</td>
<td>4.35</td>
</tr>
<tr>
<td>Fallers &gt;75 with osteoporosis assessment/treatment</td>
<td>115</td>
<td>61</td>
<td>31</td>
<td>10</td>
<td>13.03</td>
</tr>
<tr>
<td>Patients &gt;75yrs with fracture and evidence of falls assessment</td>
<td>134</td>
<td>26.3</td>
<td>92</td>
<td>3.7</td>
<td>9.37</td>
</tr>
</tbody>
</table>

**Conclusions**

In nearly all respects practices who had received practical training in the management of osteoporotic fracture risk continued to deliver higher standards of documented care.

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**SLEEP DISORDERS IN ELDERLY PATIENTS WITH PARKINSON’S DISEASE (PD): A LITERATURE REVIEW**

S Malpas, C Turnbull, V Henstridge

Arrowe Park Hospital, Wirral

**Introduction**

Sleep disorders – insomnia, parasomnias (particularly rapid eye movement behaviour disorder-RBD) and excessive daytime sleepiness (EDS) are thought to be commonly associated with PD. Sleep patterns and the prevalence of sleep disorder also alter with age. We reviewed the literature for relevant data.

**Method**

Eight data bases (Medline, CINAHL, EMBASE, Psycinfo, Cochrane Reviews, SIGN, York Systematic Reviews and Journals@Ovid) were searched for literature relating to sleep disorders in PD. Additional references were obtained from bibliographies and selected journals searched by hand.

**Results**

50 papers were identified, of which 30 contained original data. There was marked variation in the disorder(s) studied, recruitment and ascertainment criteria. Variable criteria were also used to define PD. Sleep disorders were assessed using questionnaires, validated sleep scales, multiple sleep latency tests and polysomnography. Some studies excluded patients with concomitant depression, dementia, hypnotic or neuroleptic use. Only one study compared sleep disorder in older and younger patients with PD.

Sample size varied from 5-3000 patients, with mean age of 48-77.5 years. The prevalence of sleep disorders varied from 44-76%, with odds ratios compared to age-matched controls of 1.6 – 7.

**Conclusion**

Sleep disorders are common in people with PD, but more data is needed regarding their prevalence and effects, particularly in older patients.
**Introduction**
More than half of those diagnosed with dementia suffer from significant behavioural symptoms. Atypical antipsychotics are the most commonly used by psychogeriatricians to treat BPSD. A Cochrane Review has confirmed their effectiveness. Risperidone was the choice of atypical antipsychotic for BPSD treatment but in 2004 a CSM warning regarding an increased risk of stroke and mortality led to a recommendation that risperidone not be used for this indication. Quetiapine is now increasingly used as an alternative atypical antipsychotic despite a lack of data regarding its safety.

**Methods**
The Cochrane library, Medline, Psychinfo and Embase databases were searched using the terms quetiapine, atypical antipsychotic, dementia, vascular dementia and Alzheimer’s disease. Evidence reviewed did not include information on quetiapine effectiveness, other indications for quetiapine use and only included BPSD due to Alzheimer’s disease, vascular and mixed dementia. Dementias related to movement disorders were not included as the atypical antipsychotic treatment of their associated behavioural disturbance is complicated because of movement disorder side effects. Of particular interest was evidence concerning stroke, mortality and accelerated cognitive decline.

**Results/Conclusions**
The evidence included one metaanalysis, three RCTs and one case series. There was an increased risk of mortality (OR 1.67). Evidence on cognitive decline was conflicting with one RCT showing decline and another showing none. There was only partially published evidence on stroke risk from which no conclusions could be drawn. Further research is needed.
ELDERLY MAJOR TRAUMA OUTCOMES IN HELICOPTER EMERGENCY MEDICAL SERVICES (HEMS) PATIENTS AND THE TRAUMA AND INJURY SEVERITY SCORE (TRISS): WHEN DOES AGE MAKE A DIFFERENCE?

H Pyne1, J Smith2

1. Royal Free and University College Medical School 2. Brighton and Sussex Medical School

Introduction
By 2050, those aged over 65 will exceed those under 15. Evidence suggests increasing age is an independent factor in predicting trauma outcomes, and TRISS (used for auditing trauma care performance) indicates age > 55 years is the cut-off for increased mortality. HEMS attends major trauma patients within the M25, and this study aimed to determine the effect of increasing age on outcomes in HEMS patients aged > 55, and to identify the age at which outcomes become predictably worse.

Methods
Literature search and retrospective analysis of data extracted from the HEMS database. Included patients seen between 21/09/1996 and 21/09/2006: 1,837 patients aged > 55 were compared with 1,165 aged 45-54. Outcomes were 'lived' or 'died' and trauma was classified as 'blunt' or 'penetrating'.

Results
15% of HEMS patients were aged > 55. There was little difference in survival between the 45-54 (83%) and 55-64 (81%) age groups, with a gradual decline thereafter; for 65-74, 75-84, 85-94 and 95-104, survival reduced by 8%, 7%, 11% and 22% respectively. Many more patients suffered from blunt than penetrating trauma (95.5% vs. 4.5%), and mortality was greater in blunt trauma (46% vs. 34%).

Conclusions
A significant proportion of HEMS patients are aged > 55 and they have a good chance of survival. There is a gradual, rather than sudden, decrease in survival with age, which has implications for triage, management and audit.

SUITABILITY OF WARFARIN USE IN A FRAIL ELDERLY POPULATION

F Kearney, S Doyle, N Caffrey, E Cogan, J Duggan

Dept. of Medicine for the Older Person, Mater Hospital, Dublin, Ireland

Introduction
Oral Anticoagulation is indicated in many patients with Atrial Fibrillation (AF) for stroke prevention. Many trials demonstrate that warfarin significantly reduces stroke risk in patients with AF when compared with Aspirin. Overall warfarin reduces the risk of stroke by 62-69%. However, aspirin 325mg has been shown to reduce stroke risk by 44% in one trial. In addition the risk of bleeding in an over 75 age group was less with aspirin. We proposed, based on comorbidity weighting, life expectancy and complication rate that older patients were being anticoagulated too aggressively. We analysed baseline data on all patients attending an elderly day hospital warfarin clinic with atrial fibrillation.

Methods
Data was recorded for all patients using a standardised form. Comorbidity weighting was calculated using the Charlson Comorbidity Index (CCI). From this an age adjusted comorbidity weighting, and 10 year predicted survival rate were elicited. Incidence of complications, falls, number of admissions and bed days were calculated.

Results
Baseline data was obtained from 126 elderly patients. The average age is 80.02 years. The average CCI was 1.8. The average age adjusted CCI was 5.36, giving an average 10 year predicted survival rate of 22.52%. 27 Patients (21.4%) reported complications with 17 (13.4%) requiring admission using 244 bed days.

Conclusion
Warfarin therapy impacts greatly on patient's lives. We need to give greater consideration to complications and impact on life in an aged population with multiple co morbidities.
Aim of Project

The findings of College visitors, Deanery visits and web-based survey were tabulated. Although formats differed, comparisons could be made between the different reports.

Results

There were areas of agreement, but many findings seemed dependent on the method used. Surveys are easily administered and repeated but hindered by poor response rates and lack of corroboration. Negative aspects can be exaggerated and positive ones overlooked. Visits are resource-heavy but give a better overview. Cross-checking is possible. External visits integrate large amounts of information to make an overall assessment at the Deanery level. They are independent and bias is less likely, but cannot routinely inspect individual facilities at all sites. Attempts to do this by the pre-visit questionnaire survey of trainees are hampered by poor response rates. Deanery visits are more detailed but less independent than College visits.

Conclusions

No one method alone would have picked up all the information. We recommend a robust Deanery-based system as a continuous quality assurance mechanism backed up by periodic focussed external visits.
M D Barnes, J Cunliffe, T Smith
St Helens & Knowsley Hospitals NHS Trust

Introduction
Increasing numbers of frail older people from care homes are attending Emergency Departments (ED) in the UK. Data indicated 13% of attendances at Whiston ED of those aged 65+ are resident in 24 hour care, with 62% being admitted. Traditionally an unstructured framework of education and support for staff working in care homes exists.

Methods
Audit aimed to identify and evaluate the health related training needs of staff, in the provision of care for the older person in nursing and residential homes.

262 questionnaires relating to a number of clinical skills were sent to staff from 9 care homes in the locality.

Results
All responses were anonymous, 142/262 staff replied (54%).

15% were completed by qualified staff.

Subjects in which all respondents considered themselves most confident:

<table>
<thead>
<tr>
<th>Subject</th>
<th>% of staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls prevention</td>
<td>75</td>
</tr>
<tr>
<td>Falls management</td>
<td>69</td>
</tr>
<tr>
<td>Nutrition</td>
<td>71</td>
</tr>
<tr>
<td>Pressure area management</td>
<td>60</td>
</tr>
<tr>
<td>Continence management</td>
<td>58</td>
</tr>
</tbody>
</table>

Qualified staff specifically identified training needs in:

<table>
<thead>
<tr>
<th>Subject</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venepuncture</td>
<td>43</td>
</tr>
<tr>
<td>Hypodermoclysis</td>
<td>67</td>
</tr>
<tr>
<td>Syringe drivers</td>
<td>76</td>
</tr>
<tr>
<td>Acute confusion</td>
<td>52</td>
</tr>
<tr>
<td>End of life care</td>
<td>52</td>
</tr>
</tbody>
</table>

Conclusion
The disparity between the training needs identified and ED activity from the homes, supports the need for the development of a meaningful and effective training programme. The identification of knowledge and skills is fundamental in promoting a workforce competent and confident in optimising the health of the older person living in care homes.

D Garrett
Bournemouth and Poole Primary Care Trust

Background
During the development of Case management there has been little focus on the views of practitioners undertaking the role and the process of developing the required skills. The study explores the views of case managing nurses in Poole PCT.

Method
The study is an 18th month action research project comprising 3 rounds of focus groups and planned interventions with two cohorts of community nurse team leaders all of which are undertaking case management. (n20)

A qualitative approach has been used to analyse the focus group data. Planned interventions have used a variety of evaluation methods as best benefits the intended outcome.

Results-to date
The results of the first six months of the study revealed an increased need for knowledge, skills and support relating to case management. Knowledge deficits included - disease specific information, interpretation of physical findings and interpretation of diagnostic results.

Skills deficits focussed on retention of extended technical skills, performing physical assessment and promoting self care. Deficits in the support structure included IT, documentation, local protocols, engagement with GP’s, capacity and dissemination of best practice. The involvement of the community geriatrician in education was highly valued.

Conclusion-to date
Further work was clearly necessary in a variety of domains in order to prepare practitioners for the role and within the organisation to engage GP’s.
FINDINGS FROM A PARTICIPATORY EVALUATION STUDY OF NURSE-LED INTERMEDIATE CARE; COMPARING PATIENT, CARER, NURSE-LED STAFF AND OTHER STAFF PERSPECTIVES

A Rawle1, T K Williamson2

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Introduction
There is scant evidence concerning effectiveness of nurse-led intermediate-care. This study was designed with public, patient and staff involvement as co-researchers from the outset. The study aimed to evaluate a nurse-led intermediate-care service in a community-based hospital incorporating multi-stakeholder perspectives.

Methods
Individual/focus group taped interviews were held with theoretically-guided samples of patients and carers (9), community staff (6), nurse-led service staff (39). Postal surveys to convenience samples of all nurse-led service patients (48) and carers (34), nurse-led staff (39) and a random sample of community staff that refer to the service (150). Data were collected between January and June 2006. Interview data were thematically analysed; survey data were analysed using descriptive statistics.

Results
The views of the different stakeholders were compared and contrasted. Patients and carers were largely positive about the service although staff views of the service were not always mirrored by patients/carers. Nursing staff expressed most concern relating to high patient activity, the perceived medical instability of some patients and their own skills to manage patients directly admitted from the community.

Conclusion
The views of the different stakeholders were illuminating. These findings directly informed an action plan for refinements to the service. Whilst a developing evidence-base exists for intermediate nurse-led care and its effectiveness, workload and organisational pressures are less reported factors that were perceived to limit the effectiveness of the service studied here.

NOW YOU SEE THEM NOW YOU DON'T: MENTAL HEALTH PROBLEMS IN OLD AGE IN THE GENERAL HOSPITAL SETTING

G B Grout
Hampshire Partnership NHS Trust

Introduction
This research examines how people within general hospitals perceive mental health problems. It considers the influences on those perceptions and asks questions about how service may best be provided.

Methods
Qualitative interviews were conducted with 20 older people, 20 relatives and 20 staff members. The research was conducted in two hospitals: one where psychiatric input is provided using traditional consultation, and one deploying a mental health consultation/liaison model.

Results
Definition of mental illness as unusual behaviour is exaggerated due to historical, political, medical and organisational influences. Mental illness is ascribed to those who do not fit in with proper business. Dementia is "the" mental illness of old age, depression was rarely mentioned.

Staff in the liaison site gain expertise through their contact. In common with all participants evidence of stigma is present. People want mental health issues to be addressed by someone outside the setting, either in a special ward or through increased liaison.

Conclusions
Mental Health problems are not perceived using the paradigm of psychiatry. Depression in old age is accepted as an inevitable part of being old and being ill. Dementia and delirium are perceived in the presence of challenge to the environment or the organisation.

While mental health liaison models hold some advantage over traditional methods, stigma is perpetuated by having separate services that prevent non-specialists from embracing this agenda.
WHAT DETERMINES COMPLIANCE RATES WITH HIP PROTECTORS IN HOSPITAL IN-PATIENTS?

N Hayes, J C T Close, S Witchard, R Awan-Bux, L Anthony, S Cawley, S H D Jackson

King's College Hospital NHS Trust, Denmark Hill, London

Aims
To explore compliance with hip protectors by older people in hospital and identify factors which predict compliance.

Methods
Older inpatients were recruited if they were judged to be at risk of falling and sustaining hip fracture. The intervention group received 2 pairs of hip protectors each, individually tailored education and encouragement by the project nurse. The control group received standard falls prevention.

Results
Seventy-six patients completed the intervention. Overall compliance was 52.8%.

Univariate analysis of the data identified 4 factors as significant predictors of compliance with hip protectors: independence in fitting hip protectors; female gender; shorter length of time in the study; discharge destination home.

On multivariate analysis, female gender (B 16.82, t 2.12, p < 0.05) and independence in fitting hip protectors (B 23.47, t 3.49, p = 0.001) remained significant.

Patients most frequently cited discomfort (37%), lost hip protectors (22%), and laundry problems (25%) as reasons for not wearing their hip protectors. Less frequently cited reasons for non-compliance included being unwell (6%), body image (1.2%), lack of assistance (3.6%) or confused patient (2.4%).

Conclusions
Compliance compared well with community studies, but was uniquely challenged by institutional factors which were difficult to control and likely to reduce cost-effectiveness of the intervention. Predictive factors were identified, suggesting that targeting of the intervention may improve compliance rates.

THE PREVALENCE OF CHRONIC KIDNEY DISEASE IN AN OSTEOPOROTIC POPULATION AND IT'S EFFECT ON FRACTURE RISK

H Cronin, L Brewer, C Walsh, J B Walsh, M C Casey

St James's Hospital, Dublin

Introduction
Osteoporosis and chronic kidney disease (CKD) become more prevalent with age and often go unnoticed (Coresh, Am J Kidney Dis 2003). Renal status is rarely considered in osteoporotic patients despite documented histological evidence of bone disease once GFR falls <60mls/min (Elder, J Bone Miner Res 2002). We aimed to establish the prevalence of CKD in an osteoporotic population and to correlate bone turnover, bone mineral density (BMD) and fracture risk with advancing renal impairment.

Methods
We retrospectively reviewed charts of patients who attended a specialist bone clinic March 2003-February 2006. Patients had PTH, 25(OH)D and CrCl measured and underwent a DEXA. Markers of bone formation (P1NP, Osteocalcin) and bone resorption (CTx) were routinely measured. Patients with prior exposure to a bisphosphonate were excluded. Our study population was divided into 2 groups according to CrCl.

Results

<table>
<thead>
<tr>
<th></th>
<th>CrCl&lt;60ml/min</th>
<th>CrCl&gt;60ml/min</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>133</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>80.11±7.16</td>
<td>73.76±6.48</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>BMD Hip</td>
<td>0.73±0.17</td>
<td>0.86±0.19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>BMD Spine</td>
<td>0.90±0.24</td>
<td>1.02±0.26</td>
<td>0.03</td>
</tr>
<tr>
<td>Osteocalcin(10-50ng/ml)</td>
<td>37.16±29.57</td>
<td>28.2±16.21</td>
<td>0.03</td>
</tr>
<tr>
<td>P1NP(10-80ng/l)</td>
<td>82.87±62.94</td>
<td>50.82±32.98</td>
<td>0.006</td>
</tr>
<tr>
<td>CTx(0.1-1.0ng/l)</td>
<td>0.504±0.32</td>
<td>0.464±0.33</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Conclusion
76% of our patients had moderate-severe CKD. These patients had significantly lower BMD at the hip and spine compared to those with mild CKD. They also had significantly higher bone turnover and a twofold increased risk of vertebral fracture (p< 0.05). It is essential to identify CKD in osteoporotic patients as it has important implications for future fractures and treatment options.
**Introduction**
Patients with hip fractures are at increased risk for morbidity and mortality in the first year. Associated with vertebral fractures may indicate higher risk of further fracture and should be targeted for optimum fracture prevention.

**Methods**
This was a retrospective review of patients referred to the Bone Health and Osteoporosis Service at St. James’ Hospital, Dublin over 18 months. Patients admitted with hip fracture underwent DXA and lateral spine assessment and bone markers were performed within 48 hours.

**Results**
185 patients were assessed with hip fracture. 58 (31.4%) patients had a concurrent vertebral fracture identified.

<table>
<thead>
<tr>
<th>Age (yrs)</th>
<th>Hip and Vertebral Fracture</th>
<th>Hip Fracture only</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>79.38</td>
<td>76.87</td>
<td>0.0916</td>
<td></td>
</tr>
<tr>
<td>0.85</td>
<td>0.97</td>
<td>0.0017</td>
<td></td>
</tr>
<tr>
<td>0.598</td>
<td>0.723</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>1.21</td>
<td>0.77</td>
<td>0.45</td>
<td></td>
</tr>
<tr>
<td>26.82</td>
<td>26.49</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td>52.74</td>
<td>49.00</td>
<td>0.557</td>
<td></td>
</tr>
<tr>
<td>41.69</td>
<td>29.93</td>
<td>0.033</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Differences in patients with only hip fractures and patients with both hip and vertebral fractures

**Conclusion**
Almost a third of patients with hip fracture have a concurrent vertebral fracture. These patients were older and were significantly more osteoporotic both in their remaining un-fractured hip and vertebrae. These patients appear to be at higher risk of subsequent fracture, highlighting the need for more active treatment and should be considered as potential cases for PTH therapy.

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**Brighton and Verona Seniors’ Study (BRAVES): The Effect of the Mediterranean Diet Versus the UK Diet on Traditional and Novel Cardiovascular Risk Factors**

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**Introduction**
The mortality rate from cardiovascular disease in the UK is higher than in Italy. The Mediterranean diet is associated with a beneficial effect on blood pressure (BP), vascular inflammatory markers and a reduction in cardiovascular mortality. Compliance of the large arteries is a sensitive, independent predictor of cardiovascular risk. The relationship between diet and arterial compliance has not been investigated.

**Hypothesis to be tested**
Pulse Wave Velocity (PWV) and Augmentation index (AI) will be significantly reduced in the elderly population of Verona compared to the Brighton population, indicating a relationship between Mediterranean diet and increased arterial compliance.

**Methods**
Two centre pilot study based in Verona (Italy) and Brighton (UK). 100 subjects >65 years recruited from the GP register at each site. Diet will be assessed quantitatively using a 3 day alimentary diary. Carotid to radial and carotid to femoral PWV will be measured with the Compliar Data acquiring system. AI will be derived from the radial application tonometry recording obtained by the PulsePen system. The Diasys Ambulatory BP Monitor will record BP and QKd interval. Results will be adjusted for metabolic variables, body composition and fat distribution.

**Questions to the BGS membership**
♦ Which alimentary diary tool would be recommended?
♦ What confounding factors should we adjust for?
♦ How can we ensure our group of subjects are typical of the Brighton or Verona population?
**PERCEPTION OF "ACOPIA" AS A DIAGNOSIS AMONG MEDICAL STAFF**

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**Introduction**

"Acopia" is often misused as a diagnosis in frail elderly people. Despite the fact that there is no recognised word or definition the term continues to be a pejorative term used in reference to frail elderly patients. The aim of our study was to determine the use of acopia as a diagnosis and the perception of its meaning among medical staff.

**Method**

A multiple-choice questionnaire consisting of three clinical scenarios involving patients with geriatric syndromes was used to assess staff attitude to acopia. The questionnaire assessed the definition of acopia and the frequency of its usage in clinical practice.

**Results**

93 staff were interviewed (64 doctors, 19 nurses, 10 paramedics). 25% of staff picked acopia as a diagnosis. 31% used the term as a diagnosis, and 82% felt they saw “acopia” patients at least once a month. The term was used more frequently by paramedics, accident and emergency nursing staff, as well as doctors in disciplines other than medicine or elderly care.

**Conclusion**

A significant proportion of staff (up to 82%) misuse the term “acopia” as a diagnosis. It is frequently used to describe frail elderly patients who present to A&E with geriatric syndromes. Raising awareness of the misuse of this term would prevent ageism and avoid potential misdiagnoses.

**FEASIBILITY AND EFFECTIVENESS OF A LOW INTENSITY MACHINE-BASED EXERCISE PROGRAM WITHIN THE COMMUNITY FOR PREVENTION OF FALLS TO THE FRAIL OLDER PEOPLE: A MULTI-CENTER CONTROLLED TRIAL**

S Inokuchi, N Matsusaka

*Department of Health Sciences, Graduate School of Biomedical Sciences, Nagasaki University*

**Introduction**

Low intensity resistance exercise programs to prevent falls have been performed mainly in the institutions. The purpose of this study is to investigate feasibility and effectiveness of low intensity training program within the community.

**Methods**

For this study, 161 frail older persons who were living at home, aged over 65 years and currently using day centers were selected. The training group (N=89) had resistance exercises (twice a week for 3 months) using 3 types of training machine (leg press, knee extension/flexion, and hip abduction/adduction). The programs consisted of 3 sets of 10-time exercise using each machine. The control group (N=72) had just social programs.

**Results**

The average age of the participants was 80.1±6.5. There were no significant differences in term of their baseline characteristics between the two groups. After the intervention, the number of further falls during the intervention in the training group (0.33±0.94) was significantly smaller than that in the control group (0.72±1.22)(p=0.023). GDS-15 (5.6±3.4) and Chair-standing Test (12.8±5.3sec) in the training group were significantly improved, compared with those (4.5±1.9, 12.8±5.3sec) in the control group (p=0.024, p=0.044). Approximately 90% of the participants in the two groups completed the study and attended about 90% of all possible classes.

**Conclusion**

It is suggested that the low intensity training program is feasible and effective to operate in the community, although it has limitations due to study design.
**Introduction**
Orthogeriatricians increasingly lead perioperative hip fracture care. Patients are frequently anaemic on admission and experience further blood loss as a result of the fracture and surgery. Planning perioperative resuscitation and transfusion requires an understanding of these issues.

**Method**
We collected data on 149 sequential admissions to one ward, profiling admission haemoglobin (Hb) and other blood parameters, and detailing Hb and transfusion requirements over the perioperative period.

**Results**
Data were available for 142 patients aged 48-100 (mean=80.5) years. Admission Hb ranged 7.2-16.4 (mean 12.4 g/dl). 7.7% of patients had an Hb<10 on admission. Admission WCC was 3.9-30.2 (mean 10.1), and MCV 67-126 (mean 88.1). On average Hb fell 2.38 g/dl between pre- and post-operative tests. 11 patients (7.7%) received perioperative transfusion, but even so 16.9% of patients had Hb<8 post-operatively. Blood loss was only slightly greater in patients receiving aspirin thromboprophylaxis, and in operations by non-consultants. Hb fell peri-operatively 1.6-2.6g/dl for most sites, but slightly more (3g/dl) for multipart- and sub-trochanteric fractures. This was explained by higher operative losses with intramedullary (IM) nailing (mean 4.3g/dl), compared with other surgical approaches; screws (1.8g/dl), dynamic hip screw (2.8g/dl) or arthroplasty (2.3g/dl).

**Conclusions**
Multipart- and sub-trochanteric fracture lead to higher perioperative blood losses. Pre-operative transfusion at a threshold of 10g/dl may be appropriate for other sites, but a higher threshold appears sensible for people in whom IM nailing may be necessary.

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**Introduction**
Undernutrition is common in older hospitalised patients, and routine screening is advocated. It is unclear whether screening tools such as the Birmingham Nutrition Risk (BNR) score and the Malnutrition Universal Screening Tool (MUST) can successfully predict outcome in this patient group.

**Methods**
Consecutive admissions to Medicine for the Elderly assessment wards in Dundee were assessed between 10/10/03 to 09/01/04. Body Mass Index (BMI), MUST and BNR scores were prospectively collected from nursing assessments. Time to death was obtained from the Scottish Death Register and compared across strata of risk. Length of stay data was retrieved from the local admissions database.

**Results**
121 patients were included, mean age 81.9 yrs. 42/121 (34.7%) were male. Mean BMI was 22.9 Kg/m2. 21 patients were identified as high risk by both methods of screening. A further 10 were high risk only with the Birmingham classification and 12 only with MUST.

80/121 (66%) patients had died at the time of accessing death records. MUST category significantly predicted death (log rank test, p=0.015). Neither BMI (log rank p=0.36) or BNR score (log rank p=0.21) predicted death.

Median length of stay correlated with BMI stratum (p=0.003, Spearman’s rho) but not with BNR category or MUST category.

**Conclusion**
The MUST score, but not the BNR, is able to predict increased mortality in older hospitalised patients. Neither tool predicted length of stay.
**POST-ACUTE TRANSFER OF OLDER PEOPLE TO INTERMEDIATE CARE SERVICES: THE SOONER THE BETTER?**

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1. Academic Unit of Elderly Care and Rehabilitation, University of Leeds 2. Aysgarth Statistics, Beaconsfield

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### Introduction

A randomised controlled trial of post-acute community hospital (CH) care for older people (BMJ 2005;331:317-22) provided an opportunity to investigate the effects of variation in the time to CH transfer on patient outcomes. Our hypothesis was that prompt transfer from the general hospital would be associated with better outcomes.

### Methods

Medically stable patients needing post-acute care were randomised to CH transfer (n=141) or to remain in the district general hospital (DGH) elderly care wards (n=79). The primary outcome was change in the Nottingham extended activities of daily living scale (NEADL) between baseline and six months. The effects of CH transfer times were investigated and three sub-groups were compared: ‘early’ CH transfer (within two days); ‘late’ CH transfer (after two days); and control (remaining in the DGH).

### Results

There was a significant relationship between time to CH transfer and NEADL outcome with worse outcomes associated with later transfers (Pearson’s r = -0.239; p=0.023). There was a significant difference between the three sub-groups for NEADL outcome adjusted for baseline variables (ANCOVA p=0.030). Post-hoc investigation of pairwise differences using a Bonferroni adjustment showed a significant difference only between the ‘early’ transfer and control groups.

### Conclusions

We have found provisional evidence that time to CH transfer was an important factor associated with improved independence at six months. That is, the sooner the patients were able to transfer, the better was their outcome.

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**WHAT CHARACTERISTICS WOULD PATIENTS FAVOUR IN SWITCHING FROM WARFARIN TO AN ANTICOAGULANT ALTERNATIVE FOR STROKE PREVENTION IN ATRIAL FIBRILLATION?**

C P Wilkinson¹, R Fuller¹, N Dudley¹, J Blacktop²

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### Background

The warfarin alternative ximelagatran, a direct thrombin inhibitor (DTI), possessed more stable characteristics than warfarin, but a hepatotoxicity risk. Mooted for stroke reduction in atrial fibrillation (AF), it was eventually withdrawn. Other DTIs are in development which could improve anticoagulant prescription in AF. We studied preferred anticoagulant characteristics influencing agent choice for stroke prevention in AF.

### Method

A Likert scale questionnaire (1="Strongly agree", 5="Strongly disagree") and interview.

### Results

30 subjects, mean age 72.2 years were recruited. 53.3% would never change, and 46.6% would consider changing. Questions most agreed with were “three monthly blood tests” (Likert score 1.47 SD 0.51), “no diet or drug interaction” (score 1.53 SD 0.86) and “stable bloodstream levels” (score 1.80 SD 0.61). Questions most disagreed with were “unknown long term effects” (score 3.97 SD 0.56), “low risk bleeding” (score 3.73 SD 0.69) and “stable levels but chance of liver abnormality” (score 3.7 SD 0.75). Subjects preferred less phlebotomy (p<0.05); stable levels (p=0.003); variable levels with normal liver function (p<0.05), and an older tablet (p<0.05). Content analysis identified safety, reliability and trust issues; 13.3% cited the adverse event at Northwick Park for not switching.

### Conclusions

Subjects favoured less phlebotomy, less interactions and stable drug characteristics. There were concerns over liver risk, long term effects and taking a novel drug. The DTI was not preferred which may affect future planning and costing for stroke prevention in AF.
Background

Patients’ treatment preferences should form a fundamental component of decision making. Trust in a medication comprises a key element of concordance. Research into treatment preferences for specific conditions has been done, but not regarding anticoagulation strategies in atrial fibrillation. We designed and piloted a questionnaire to identify key themes patients found important. Domains investigated were: food and drink, dosage timing, phlebotomy timing, drug handling and interactions, hepatic risk versus possible benefits, and attitude to taking a new tablet. Exploratory factor analysis was used to identify key themes and relationships from responses.

Method

A researcher administered Likert scale questionnaire (1=“Strongly agree”, 5=“Strongly disagree”) and interview.

Results

30 subjects, mean age 72.2 years were recruited. Questionnaire internal consistency was high (α=0.76), reinforced by correlation analysis. Themes favouring new drug acceptance were diet and alcohol compatibility and stable drug characteristics. Themes favouring rejecting a new drug were concern about drug behaviour uncertainty and unwillingness to take risks. Dosage timing was viewed as inconsequential. Factor analysis suggested subgroups of risk averse respondents unwilling to take risks, “middle grounders” who understood the risks and would take them, and risk takers.

Conclusions

The questionnaire format was well received by patients with high levels of reliability. Factor analysis provides a useful tool for exploring questionnaire responses when outcomes are unknown. Caution is required in interpretation due to small study size and is an exploratory exercise only.
OLDER PEOPLE SHOULD NOT BE EXCLUDED FROM PARTICIPATION IN CLINICAL RESEARCH SOLELY ON THE BASIS OF AGE

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Academic Unit of Molecular Vascular Medicine, Leeds Institute of Genetics Health and Therapeutics, University of Leeds

Introduction
In general, older people are under-represented in clinical research. Some of the reasons for this may be a perception that they would not want to take part, or that they would have difficulties reliably attending appointments with increasing infirmity.

Methods
We compared the attendance of two groups of healthy control subjects in research studies running concurrently in our department: older controls (OC) attending a study relating to Alzheimer’s disease and younger controls (YC) attending a study relating to Polycystic Ovary Syndrome.

Results
Data was collected for consecutive appointments over a five month period. In the YC group (mean age 32.4yrs) 32 subjects agreed to participate and had appointments made. Of these only 53% actually attended. In the OC group (mean age 81.4 yrs), of 68 subjects who agreed to participate and had appointments made, 35 were men (51%) and 33 were women (49%). The attendance rate was 94% for the men and 88% for the women. There was a significant difference (p<0.001) in the proportion of the OC group attending a research appointment compared to the YC group.

Conclusions
This data illustrates that older members of the population are a motivated, reliable group of individuals who should not be excluded from research solely on the basis of age.

'EYEBALLING' OF CLOCK DRAWINGS AS A PREDICTOR OF OUTCOME IN HOSPITALISED OLDER PATIENTS

E Eeles, M Linton, S White
University Department of Geriatric Medicine, Llandough Hospital Vale of Glamorgan Wales

Introduction
Cognitive assessment is recommended for all older hospitalised patients. Clock drawing is quick, and correlates with cognitive impairment. The aim of this study was to determine if ‘eyeballing’ clock drawings is predictive of outcomes of hospitalisation for older people.

Methods
Clock drawing was undertaken as part of a prospective study of hospitalised older patients. Each clock was scored by an SHO as pass, bare fail, clear fail and unable. For analysis the first two were classed as ‘pass’ and the latter two as ‘fail’.

Results
283 patients were recruited; data regarding clocks was available for 258 of whom 34% passed, and 66% failed. Those who passed were younger (median age 79 compared to 83 years, p <0.001); fitter (median Barthel Index 19 versus 16, p < 0.001) and less cognitively impaired (median Informant Questionnaire score 3.06 versus 3.5, p < 0.001). Their median length of stay was 7.5 days (versus 13; p < 0.001), and they had a tendency towards fewer falls (5% versus 14%; p = 0.07). Inpatient mortality was 2% in the pass group and 25% in the fail group (p < 0.001).

Conclusion
Visual inspection of admission clock face drawings is predictive of adverse outcome in terms of length of stay, mortality and possibly falls. We propose that it can be used by untrained staff to highlight at risk older patients.
D Adamis\(^1,2\), A Treloar\(^2\), Z Darwiche\(^1\), A MacDonald\(^2\), F C Martin\(^1\)

1. Department of Ageing and Health, Guys and St Thomas’ NHS Foundation Trust, London, 2. Institute of Psychiatry, Kings College London

**Introduction**
Most but not all studies have reported delirium in older hospital inpatients to be associated with higher short and longer-term mortality. Inconsistent findings might be explained by mortality being related to underlying patho-physiological mechanisms, not clinically detectable.

**Methods**
A cohort of 164 patients, \(\geq 70\)y were studied within 3 days of acute hospital admission and thence twice weekly until hospital discharge, to identify (Confusion Assessment Method) and monitor the severity (Delirium Severity Scale) of delirium. Initial albumin (n=149), CRP (n=76) and cytokines (n=60) levels were estimated. In-hospital and 6-months mortality were determined from clinical records and telephone contact.

**Results**
During hospitalisation 14 (8.5%) patients died, 6 with delirium. In-hospital death was associated with older age, lower albumin and higher initial interleukin-6 levels, but not delirium status (Mann-Whitney-U or Chi-square tests). At six months, 119 of 150 (77.3%) patients discharged were still alive, 21 (14.0%) dead, and 13 (8.7%) uncontactable. Six-month mortality was again associated with older age, lower albumin and higher interleukin-6 levels, plus CRP levels, but not with presence or severity of in-hospital delirium.

**Conclusions**
The lack of association between delirium and mortality may reflect inadequate statistical power in this study (numbers). Serum albumin and CRP have been previously reported as predictive of hospital mortality and interleukin-6 for longer-term mortality in older patients. These findings suggest that they may be important as relevant patho-physiological factors in the prognosis after delirium.

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M F Hameed, R L Soiza, M Chua, D G Seymour

**Woodend Hospital, Eday Road, Aberdeen**

**Introduction**
MUST is a screening tool for malnutrition which is increasingly being used in hospital practice. However, there is little information on its reliability and feasibility of use in older patients admitted non-electively to hospital for medical reasons.

**Method**
Two Specialist Registrars independently applied MUST in the acute geriatric wards of a University Teaching Hospital. A proforma bearing all the essentials of MUST was devised and 58 patients were randomly selected within the first 24 hours of hospital admission. They were weighed on the scales commonly used in the wards and ulna length was used as a surrogate marker to calculate height when direct height assessment was not possible. Inter-observer variability for each component of the MUST score was assessed by percentage agreement and Cohen’s Kappa coefficient.

**Results**

<table>
<thead>
<tr>
<th>MUST component</th>
<th>% Obtainable</th>
<th>% Agreement</th>
<th>Kappa (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Body Mass Index Score</td>
<td>87.9</td>
<td>88.2</td>
<td>0.66 (0.44 – 0.88)</td>
</tr>
<tr>
<td>Step 2: Weight Loss Score</td>
<td>87.9</td>
<td>82.4</td>
<td>0.53 (0.28 – 0.78)</td>
</tr>
<tr>
<td>Step 3: Acute Disease Effect Score</td>
<td>96.5</td>
<td>89.3</td>
<td>0.56 (0.25 – 0.88)</td>
</tr>
<tr>
<td>Step 4: Overall MUST Score</td>
<td>81.0</td>
<td>72.3</td>
<td>0.54 (0.35 – 0.7)</td>
</tr>
</tbody>
</table>

**Conclusions**
In older patients admitted to an acute geriatric medicine ward, a complete MUST Score could be obtained only in 81% of cases and only moderate levels of inter-observer agreement were found. This raises concerns about the suitability of MUST in this setting.
UNMET PSYCHIATRIC NEED IN OLDER PEOPLE ADMITTED TO HOSPITAL FOR UNSCHEDULED MEDICAL AND GERIATRIC CARE

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Introduction
Dementia is common in older people admitted to hospital for unscheduled care, but is often unrecognized. Psychogeriatric services could provide useful information on previous mental health of such patients, in addition to clinical assessment and follow-up, and advice on accessing support services.

Aim
To determine prior and post-admission involvement of psychogeriatric services with older people admitted to hospital for unscheduled care.

Methods
We studied a semi-consecutive cohort of 161 patients aged over 65 years, admitted non-electively to medical or geriatric wards of a large teaching hospital. DSM-IV criteria were used to assess for possible dementia. A blinded observer obtained details from psychiatric records.

Results
A total of 111/161 (69%) patients fulfilled DSM-IV criteria for dementia, of whom 30 (27%) had local psychogeriatric case-notes. Prior psychiatric diagnoses included dementia (n=22, 20%) and depression (n=6, 5%). During their admission, 19/161 (12%) patients were assessed by psychogeriatric services, of whom 12 had previous psychogeriatric contact. 110 admissions had no previous or current psychogeriatric contact, of whom 71 fulfilled DSM-IV criteria for dementia.

Conclusion
Despite a high prevalence of suspected dementia, only a minority of patients had prior or in-hospital contact with psychogeriatric services. There is potentially a large unmet psychiatric care need in this population.

NEUROPSYCHIATRIC SYMPTOMS IN THE COMMUNITY-BASED ELDERLY WITH MILD COGNITIVE IMPAIRMENT

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Introduction
Currently there are few reports of neuropsychiatric symptoms in mild cognitive impairment (MCI). No data represents the Asian population especially in a community-based setting. We investigated the pattern of neuropsychiatric symptoms of MCI patients in the Thai population.

Method
There were 107 participants aged 50 and over diagnosed with MCI (n= 77) or normal (n= 30) recruited from a community-based setting in Bangkok. MCI was diagnosed according to Petersen's criteria. The Neuropsychiatric Inventory (NPI) was used to assess behavioral disturbances in subjects.

Result
There was no difference in mean age of normal and MCI subjects 63.8 (+7.3) vs 66.3 (+7.9) years, education 6.7 (+3.2) vs 6.1 (+3.3) years, and male:female ratio 30% vs 42%. Compared to normal subjects, MCI patients had higher incidence of anxiety (53% vs 27%, p = 0.013), dysphoria (46% vs 17%, p= 0.006), and sleep problem (45% vs 23%, p= 0.035). Apathy was marginally significant more common in MCI patients (12% vs 0%, p= 0.059). The mean total NPI score and NPI distress score were higher in the MCI group (6.8 vs 1.9, p < 0.0005 and 2.9 vs 0.6, p= 0.01, respectively).

Conclusion
MCI is associated with significant neuropsychiatric symptoms which caused caregiver distress. In this study, the pattern of neuropsychiatric symptoms in a Thai population was similar to those reported in western countries.
CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN PATIENTS ATTENDING OPEN ACCESS ECHOCARDIOGRAPHY FOR SUSPECTED HEART FAILURE

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Introduction
A retrospective study of patients attending Open Access Echocardiography (OAE) for suspected heart failure revealed that 29% had pulmonary hypertension, defined as transtricuspid pressure gradient (TTPG) of 30mmHg or greater [Tan et al, Age Ageing 2004; 33S: i34]. A subsequent follow up study was conducted to identify patients with undiagnosed chronic obstructive pulmonary disease (COPD), and the relationship between COPD and raised pulmonary arterial pressure (PAP).

Methods
Spirometry was performed in subjects who attended OAE in 2002. All subjects with TTPG >= 30mmHg were invited, and subjects with TTPG < 30mmHg were randomly selected. COPD was defined using the Global Initiative for Chronic Obstructive Lung Disease (GOLD) classification.

Results
Spirometry results were available for 65 subjects, 19 had TTPG>=30mmHg. 33/65 (50.8%) subjects had a forced expiratory volume in 1 second (FEV1) / forced vital capacity (FVC) ratio < 70%. 16 (48.5 %) were classified as mild COPD (FEV1 >= 80% predicted) and 17 (51.5%) had moderate COPD (50% <= FEV1 < 80% predicted). 20/33 (60.6%) subjects had not previously been diagnosed with asthma or COPD. An FEV1/FVC ratio of < 70% was not associated with a higher PAP (mean TTPG = 25.8 ± 5.8 vs. 25.1 ± 9.8; t=0.34, p=0.75).

Conclusion
50% of our subjects had COPD, 60% of which were previously undiagnosed. Underlying COPD, however, did not appear to be associated with raised pulmonary arterial pressure.

THE VISUAL ANALOGUE SELF-ESTEEM SCALE: A MEASURE OF SELF-ESTEEM, OR GLOBAL PSYCHOSOCIAL WELLBEING?

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Introduction
The psychological assessment of stroke survivors particularly those with speech and language difficulties are often complicated, because there are a limited number of validated instruments. The present investigation aims to assess the value of the visual analogue self-esteem scale (VASES) as an index of self-esteem, in a sample of stroke survivors, with and without language impairments.

Methods
Thirty-six stroke survivors completed measures of self-esteem (VASES, RSE), self-efficacy (GSE), mood (GDS-15, Dartmouth COOP feelings chart) and health related quality of life (EQ-5D). Correlational and factor analysis was employed for comparisons between scales.

Results
The VASES correlated significantly with the RSE, GDS-15, and HRQoL measures (p < 0.05). The factor analysis of the items contained in the VASES, RSE, GSE, and GDS, revealed four clusters, the clearest two, contained eight items of the RSE and the other had eight items of the GSE, the remaining two clusters contained items relating to the GDS, and the VASES.

Conclusions
The VASES did not appear to be a reliable measure of Self-Esteem; rather it is more a measure of global psychosocial wellbeing. The face validity of the tool is also uncertain because the items of the VASES could subjectively be seen to contribute to an individual’s level of self-esteem, but not self-esteem per se. There are stronger and more significant associations with the depression scale and HRQoL scale than with the RSE.
IS STROKE EDUCATION THAT IS GIVEN IN TRANSIENT ISCHAEMIC ATTACK CLINIC EFFECTIVE?

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Introduction
Patients who have suffered a TIA are at increased risk of stroke and are therefore an ideal group to target for stroke prevention measures. Current guidelines recommend that these patients are seen in a specialist clinic. This clinic is a useful opportunity to address secondary prevention strategies.

Methods
Patients attending two TIA clinics completed pre-consultation questionnaires assessing knowledge of stroke and risk factors. Those diagnosed as having had a TIA were asked to complete two further questionnaires (immediately after clinic and at one week) to test whether their knowledge had improved.

Results
53 patients completed questionnaires. 41 (77%) were diagnosed as having had a TIA or stroke. Six declined or were unable to participate. Pre-clinic 91% of patients knew that a stroke occurs in the brain but most were not aware of all signs of a stroke. 91% said that if their risk of stroke was high they would change their lifestyle, but overall awareness of individual stroke risk was poor. In most areas questioned knowledge did not improve after the clinic visit (median knowledge score change = 0).

Discussion
Whilst background knowledge of stroke was reasonable, little improvement was evident after attending clinic. A particular deficiency identified was patients’ awareness of their stroke risk, a vital factor in facilitating secondary prevention. Clearer national guidelines regarding patient education are needed to ensure a standardised approach to stroke education.

INCIDENCE AND PREVALENCE OF NEWLY DIAGNOSED DIABETES MELLITUS AND IMPAIRED GLUCOSE TOLERANCE IN AN IRISH STROKE POPULATION

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Introduction
Diabetes mellitus is a known and independent risk factor for ischaemic stroke and adversely influences the recovery of patients. There is limited data on the incidence and prevalence of newly diagnosed diabetes mellitus in stroke populations. Early hyperglycaemia post stroke is common, with little diagnostic value. New guidelines from the American Diabetic Association state a serum fasting glucose of 5.6 mmol/L or above should be considered abnormal and have appropriate follow-up investigations.

Methods
This was a prospective study with data collection over a 9 month period of all referrals to the stroke service in St. Vincent’s University Hospital. This included baseline blood glucose and HbA1c and follow-up at 3 months.

Results
194 patients were recruited with 14 patients (7.2%) of these patients had known diabetes mellitus or impaired fasting glucose. 71 patients (36.6%) of the total population had a fasting serum glucose >5.6 mmol/L. 66 patients with a glucose of >5.6 mmol/L lived to 3 months, with 34 patients (17.53%) achieving the criteria for diagnosis of impaired glucose tolerance (IGT) and 16 patients (8.24%) were diagnosed with diabetes mellitus (DM).

Conclusion
One third of patients presenting with a stroke will have impaired glucose metabolism, with resultant IGT or DM. Optimization and active treatment of abnormal glucose metabolism post stroke may improve long-term outcome for these patients and reduce incidence of recurrent stroke.
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Introduction
Pre-discharge occupational therapy home visits are an integral part of the discharge process for older adults in acute care. There is limited quality research demonstrating that these pre-discharge visits enhance the health and well being of older adults. This paper outlines older adults, carers and occupational therapists’ perceptions of the home visit process from the exploratory phase of an ongoing research project.

Method
This qualitative descriptive study utilised semi-structured interviews with older adults and carers. Occupational therapists reflective diaries were used to triangulate the data. Data was analysed using thematic content analysis.

Results
In most instances carers and occupational therapists identified that a home visit was needed. However the data suggests that older adults are not fully prepared for the pre-discharge home visit and are unaware of its outcome. Although the home visit process appeared to eradicate carers’ anxiety, some therapists and older adults perceived the process as demoralising, daunting and increasing their own anxiety. Occupational Therapists rarely considered the impact of social occupations on health and wellbeing but focussed on risk elimination and short term functional needs.

Conclusion
The findings suggest that the current model of pre-discharge home visits does not promote health and well-being. For some older adults the home visit is anxiety provoking and negative emotions were also expressed by occupational therapists. However findings suggest that home visits are important to carers.

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Introduction
Through the Parkinson’s disease (PD) prevalence study in the Hai district of Tanzania we elicited a group of patients, the majority of whom had not previously been diagnosed or treated. As most patients in the UK would be diagnosed and treated in the early stages, this is a unique group of patients which can provide insight into later symptoms of the disease after no, or infrequent, drug intervention.

Methods
Patients were identified using a door-to-door screening questionnaire and, to maximise case finding, a variety of other sources. Each patient was assessed at home with a full history and examination with diagnosis confirmed by the UK PD Society Brain Bank criteria.

Results
Mean age of the 33 patients (23 male) was 74.5 years (range 38-94). 25 (78%) were undiagnosed or untreated. Mean age at onset was 69.4 years (men 67, women 74) and mean duration of disease was 5 years (men 5.5, women 3.9). Median Hoehn and Yahr stage 3 (2-5), mean Barthel score 14 (0-20). 7 reported hallucinations and 6 were confused. Probable or possible depression on Hospital Anxiety and Depression scale was seen in 17.

Conclusions
The reasons for the much higher proportion of men are unclear. Though younger, the men had longer disease duration. Some patients had onset of hallucinations more than one year after motor symptoms despite never having taken any PD medication.
**THE EFFECT OF TELECARE ON THE QUALITY OF LIFE OF OLDER PEOPLE WITH COGNITIVE IMPAIRMENT: A PROPOSED CONTROLLED CLINICAL TRIAL**

**N A Plastow**
Brunel University

**Introduction**
Telecare is being promoted as one method to promote independence and thus support active ageing in older people, initially through the 2006 – 2008 preventative technology grant of £80 million in England. The effect of this technology on improving the quality of life for people with cognitive impairments such as dementia has not been investigated.

**Hypothesis**
Telecare will have a positive effect on the quality of life of community dwelling older adults with a cognitive impairment (MMSE < 24). This papers outlines the proposed phase 3 controlled clinical trial.

**Planned methods**
This controlled clinical trial will investigate the effect of telecare products on the quality of life of approximately 100 participants over 6 months, with an equivalent control. The proposed primary outcome measure is the SF-36 survey of health-related quality of life. Secondary outcome measures include disease specific measurement of quality of life, functional capacity, behavioural disturbance associated with dementia, receipt of formal and informal care, and carer burden. Ethical approval will be sought from the local research ethics committee and the researcher’s university.

**Questions**
1. Is it essential and viable to include older adults with dementia in evaluation of their own quality of life?
2. Due to the lack of research in this area, would the clinical utility of the research be strengthened or weakened by a smaller cohort with a confirmed diagnosis of dementia?

**THE INCIDENCE AND LONG-TERM OUTCOME OF PARKINSONIAN DISORDERS IN NORTH EAST SCOTLAND (THE PINE STUDY): METHODS AND INITIAL RECRUITMENT**

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**Introduction**
There have been few high quality incidence studies of Parkinson’s disease (PD), and none that have performed long-term follow-up of the inception cohort. Following a successful pilot study, we are undertaking an incidence and follow-up study of parkinsonism, including PD.

**Methods**
Patients are recruited (using several overlapping methods) prospectively from the lists of 37 general practices around Aberdeen (total population 311,770) if the first diagnostic suspicion of parkinsonism occurs between April 2006 and March 2009. All patients are assessed by one of two study doctors. Parkinsonism is diagnosed if patients have two or more of the four cardinal motor signs, or an isolated asymmetric rest tremor. A specific cause for parkinsonism is diagnosed on clinical grounds. Consenting patients undergo lifelong yearly follow-up for survival, disease progression, cognition, mood, and quality of life.

**Results**
The pilot study identified 82 incident parkinsonian patients (50 with PD). In the first 6 months of the main study, 35 patients (mean age 73.0, range 37.9-89.5) have been recruited, including 18 with an initial diagnosis of PD, 9 of dementia with Lewy bodies, and 4 of vascular parkinsonism.

**Conclusions**
Recruitment to the main study continues and, combined with the pilot study, should provide a sufficient cohort for long-term follow-up. This will provide accurate incidence figures for degenerative and vascular parkinsonian syndromes in Scotland; and long-term, unbiased data on various aspects of prognosis.
**PLANNED RESEARCH AND WORK IN PROGRESS**

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**CAROTID-FEMORAL PULSE WAVE VELOCITY CORRELATES WITH EGFR IN ELDERLY PATIENTS WITH CHRONIC KIDNEY DISEASE**

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**Introduction**

There is a high incidence of chronic kidney disease (CKD) and associated cardiovascular mortality in the elderly population. Vascular stiffness increases in the elderly and in end-stage renal failure, and has been associated with increased mortality. Whether vascular stiffness is associated with CKD in the elderly population has not been studied. We have performed a cross-sectional analysis of baseline data which is part of a longitudinal study investigating the role of vascular stiffness in cardiovascular mortality in elderly patients with CKD.

**Methods**

Fifty-four well subjects over 65 years with glomerular filtration rate (eGFR) between 15-60 mls/min (calculated by the MDRD equation) were studied. Carotid-Femoral PWV (C-F PWV) was measured using the Complior® system (Artech Medical, Pantin, France). Data was analysed using SPSS version 12 (SPSS Inc, Chicago, Ill) using non-parametric analysis.

**Results**

Mean age of the cohort was 74 ± 6.2 years (mean ± SD) and 65% were male. Nine subjects were diabetic and 33 current or previous smokers. Mean blood pressure was 105.6 ± 12.2 mmHg. C-F PWV correlated with eGFR, r= -0.411 (p=0.004). eGFR was not an independent predictor of C-F PWV in multiple regression analysis.

**Conclusion**

Aortic stiffness increases in parallel with the decline in renal function in elderly patients with mild-to-moderate CKD. This may be a contributing factor to the high incidence of cardiovascular disease in elderly people with CKD.

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**NUTRITIONAL ASSESSMENT AND FOLLOW-UP OF MEMORY IMPAIRED GERIATRIC OUTPATIENTS. STUDY DESIGN AND PRELIMINARY RESULTS ON THE NUTRITIONAL STATE**

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4. Department of Nutritional Therapy, Seinäjoki Central Hospital, Finland

**Introduction**

Patients with dementia are at risk of malnutrition. Nutritional assessment should be integrated in the comprehensive geriatric assessment of memory impaired patients.

**Methods**

Nutritional state of 122 consecutive geriatric outpatients with memory impairment was assessed by the Mini Nutritional Assessment (MNA). Living arrangements, home help and use of meal services were inquired after. Cognition, mood and functioning were assessed by conventional standardized instruments. Medication was reviewed and renal function calculated. Patients with malnutrition or at risk of malnutrition (the MNA score 23.5 or less) were referred with their caregivers for nutritional counselling. The overall assessment was repeated after 6 months.

**Results**

Of the patients 81 (66.4 %) were women and 41 (33.6 %) men. The mean age was 81 years (range 71-93). At baseline, malnutrition was found in 6 (4.9 %) cases, 44 (36.1 %) were at risk and 72 (59 %) had normal nutritional state. Subsequently 30 (54 %) patients with malnutrition or at risk attended nutritional counselling with their caregivers. Follow-up assessment was completed in 107 (87.7 %) patients. 6 (4.9 %) had died. At follow-up, 89 (83.2 %) had normal nutritional state and 18 (16.8) were at risk of malnutrition.

**Conclusions**

Nutritional assessment was successfully completed in memory impaired geriatric outpatients. Risk of malnutrition appeared to be less frequent at the follow-up than at the baseline. Data of the cross-sectional and prospective statistical analyses will be reported.
Friday, 27 April 2007

Platform Presentations

Session J - The Ageing Eye 09:25 - 10:15

ABSTRACT BOOK NOS 70-72
**EXCESS BODYWEIGHT, DISABILITY AND MORTALITY IN OLDER PEOPLE: WHAT ARE THE CONSEQUENCES OF AN INCREASINGLY OVERWEIGHT ELDERLY POPULATION?**

I Lang, D Melzer  
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**Introduction**
Recent evidence suggests excess bodyweight in older people may have less effect on mortality risk than in younger adults. We compared the risks of disability and mortality in older people who were obese, overweight, and of recommended weight.

**Methods**
Analysis of cohorts aged 65+ in England (n = 3774) and the US (n = 5284) followed up for 5 or 10 years.

**Results**
For both men and women, mortality risks were lower in the overweight (BMI 25 to 30) category than in those with BMI 20 to 25. Higher BMI was more strongly associated with increased risk of disability than increased risk of mortality. For example, English men with BMI 30 to 35 compared to those with BMI 20 to 25 had an adjusted relative risk ratio (RRR) of 1.15 (95% CI 0.70 to 1.90) for mortality and RRR of 1.94 (95% CI 1.39 to 2.73) for disability. Results were robust to exclusion of early outcomes and of those whose weight changed.

**Conclusions**
Mortality risks in older people are not elevated at levels usually considered harmful, and being obese increases disability more than mortality risks. If excess bodyweight in older people decreases function but does not increase mortality, heightened levels of disability and an accompanying increase in demand on the healthcare system may be the result.

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**ARE RECOMMENDED LEVELS OF ALCOHOL CONSUMPTION FOR OLDER PEOPLE IN ENGLAND TOO HIGH? FUNCTIONING AND MORTALITY IN US AND ENGLISH NATIONAL COHORTS**

I Lang¹, D Melzer¹  
¹. *Epidemiology & Public Health Group, Peninsula Medical School, Exeter*

**Introduction**
Current US definitions of hazardous drinking in those aged 65+ are lower than in England but based on physiology rather than epidemiological evidence. We assess disability plus mortality risks in older people by level of alcohol intake.

**Methods**
Two population-based cohorts, the US Health and Retirement Study and English Longitudinal Study of Ageing, involving 13,333 individuals aged 65+ followed for 4-5 years. Outcome measures were difficulties with activities of daily living (ADLs), instrumental activities of daily living (IADLs), poor cognitive function, and mortality.

**Results**
10.8% of US men and 28.6% of English men (women: 2.9% and 10.3% respectively), drank above US recommended levels. Odds ratios (OR) of poor outcomes in those drinking within the US limits were similar to those drinking within the (higher) English limits. For example, those drinking at the higher level had OR=1.0 (95% CI 0.8-1.2) of ADL problems, OR=0.7 (95% CI 0.6-1.0) of IADL problems, and OR=0.8 (95% CI 0.6-1.1) of poor cognitive function. Findings were robust across alternative models. The shape of the relationship between alcohol consumption and risk of disability was similar in men and women.

**Conclusions**
Functioning and mortality outcomes in older people with alcohol intakes above US recommended levels but within English recommended levels are not poor. Based on current evidence there is no need to alter existing English recommended levels of alcohol consumption for older people.
Introduction
A later menopause has been associated with a decreased cardiovascular risk, but with an increased risk for breast and endometrial cancer. The net effect on mortality is, however, unclear. We determined the association of age at menopause with longevity and with the balance between cardiovascular and cancer mortality.

Methods
Pooled data from two breast cancer screening cohorts were used with 23,179 postmenopausal women. Follow-up: 17 years. Cox proportional hazards models and life tables were used for data-analysis. Life expectancy of an average Dutch female population aged 50 was calculated.

Results
During 393,611 person-years 5,270 deaths occurred (cardiovascular diseases: 2,091, cancer: 1,667). A later menopause was associated with longevity: age-adjusted hazard ratio (HR) for total mortality: 0.98 per year (95% confidence-interval (CI): 0.98; 0.99). Life expectancy in women with menopause > 55 years was 1.86 years longer compared to those with menopause < 40 years. With a later menopause ischemic heart disease risk decreased: HR 0.98 (95% CI: 0.97; 0.99), but the risk of fatal uterine or ovarian cancer increased: HR 1.06 (95% CI: 1.02; 1.09). The magnitude of the associations was largest among younger and leaner women. Adjustment for confounders did not change the results.

Conclusions
Each year menopause occurs later age-adjusted mortality is reduced with 2%. In particular, ischemic heart disease mortality is 2% lower. And although the risk of fatal uterine or ovarian cancer is increased by 6%, the net effect of a later menopause is an increased life span.

Introduction
P16ink4a and ARF play critical roles in regulating the Rb and p53 tumour suppressor pathways, and are expressed from the same genetic locus. Mutations in p16 account for many familial cases of melanoma. Expression of p16 is strongly age related.

Method
Initially 938 women aged 65 to 80 from the EPIC study (Norfolk UK) were genotyped for common polymorphisms in p16 and related genes. One SNP was significantly associated with physical functioning and was then genotyped in 1916 additional EPIC samples, 765 InChianti study and 419 Iowa-EPESE participants. Associations were tested with the SF36 physical performance subscale plus the Short Physical Performance test Score in ‘white Caucasian’ subjects, aged 65 to 80yrs.

Results/Conclusions
Of 25 SNPs in 5 genes initially tested, the rs2811712 SNP at the p16/ARF locus was associated with reduced impairment (p = 0.018). This association was replicated in the additional EPIC samples (p = 0.017) and the InChianti Study (p = 0.038), and on one sided significance in the Iowa-EPESE; for the overall association p = 7.4x10^-5. The prevalence of severely limited function declined from 12.7% in the p16 common homozygotes through 8.8% (heterozygotes) to 5.3% (rare homozygous).

The p16 / ARF locus and cancer control / cell senescence pathways play an important role in physical ageing. There are substantial effects of a common variant in this cancer linked gene on physical functioning and disability in older people.