communications
to the
Spring Meeting
of the
British Geriatrics Society

5 to 8 April 2006
The Sage
Gateshead/Newcastle

programme of abstracts
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Thursday 6 April 2006
Introduction
Section 6.11 of the National Service Framework for Older People classes “taking four or more medications, in particular centrally sedating or blood pressure lowering medications” as an intrinsic risk factor for falls. Care home residents often have multiple medical and psychiatric problems, requiring complex treatment, but research work on this topic has been limited by difficulties in accessing this population.

Methods
As part of a large fracture prevention study we collected information about 785 care home residents (mean age 84.2 years, 73.5% females) - 20% living in nursing, 38% in residential and 42% in dual-registered homes.

Results
Complete drug histories were available for 776 residents (98.9%). A total of 394 patients (50.2%) were on some form of hypotensive cardiovascular medication (beta-blockers, diuretics or vasodilators). Prescription rates of psychoactive drugs (antipsychotics, antidepressants or benzodiazepines) were very high with two-thirds (67.5%) of residents in nursing homes receiving at least one such drug, 60.1% in residential homes, and 63.6% in dual-registered homes. 99.2% of patients were receiving at least one regular medication, and the mean number of drugs prescribed was 5.7 (range 0-17). Three-quarters (76.7%) of residents were receiving 4 or more drugs.

Conclusions
Our work raises concerns over prescribing practice in UK care homes, not least in respect of falls prevention. Future clinical and research work must strive to address the treatment priorities of this all too easily neglected population.

Introduction
While the relationship of modifiable behavioral factors such as smoking and physical activity with health endpoints such as mortality and cardiovascular diseases are well documented, the association with functional health is less well understood. Nevertheless, subjective functional health is an important health endpoint particularly in ageing populations.

Methods
We measured functional health using a 36-item questionnaire (SF-36) in a cross sectional analysis in 16,678 men and women aged 40-79 years in the EPIC - Norfolk population based study. We examined the prevalence and likelihood of reporting poor and good functional health by smoking status, physical activity and alcohol consumption.

Results
Smoking and physical inactivity were associated with poorer physical functional health, equivalent to being seven years and 10-13 years older respectively compared to non-smoking or being physically active. Non-smokers and those who were physically active had better mental functional health. After adjusting for age, body mass index, social class, education, prevalent illness, and other lifestyle behaviours examined; men and women who currently smoke were more likely to report poor physical functional health compared to non-smokers {Odds Ratio (OR) = 1.85(95% confidence interval (CI): 1.49, 2.30) and 1.56 (1.30, 1.87)} and poor mental functional health {1.38 (1.12, 1.70); 1.77 (1.51, 2.07)}, respectively. The OR for good physical function in those who were physically active compared to inactive was 1.67 (1.41, 1.97) in men and 1.63(1.39, 1.91) in women. Moderate alcohol consumption (>0, <21 units/week) was positively associated with good functional health.

Conclusions
Modifiable behavioural factors are associated with substantial differences in the observed age-related decline in physical functional health and the prevalence of those in good and poor functional health in the community.
**Introduction**

The effectiveness of broad-domain preventative care in older people on health outcomes has yet to be established. This randomised controlled trial evaluated the impact of multi-domain health promotion on health risk behaviours and preventative care use in older people.

**Methods**

Participants were community-dwelling people aged 65+ without functional dependencies from 3 London primary care group practices (n=2503). The intervention was self-administered Health Risk Appraisal for Older Persons (HRA-O) questionnaire, leading to computer-generated individualised written health promotional feedback, and clinical information integrated into general practice information-technology systems. Primary care staff received training in preventative health for older people. Outcomes were self-reported health behaviours and preventative care use after 1-year.

**Results**

Respondents (n=2006) were comparable at baseline [intervention (n=940), control (n=1066)]. Pneumococcal vaccination was higher in the intervention group (32.8% vs 27.5%, p=0.04). There was no effect on influenza vaccination uptake, blood pressure and cholesterol monitoring, diabetes and cancer screening, or dental, hearing and vision checks, or on targeted health behaviours, including physical activity, diet, alcohol and tobacco use. Intervention group were less likely to have seen a doctor >=7 times (21.7% vs 26.2%, p=0.02).

**Conclusions**

A computer-based health promotion system delivering individualised feedback to participants failed to influence health risk behaviours or preventative care uptake (other than pneumococcal vaccination), despite training GPs and enrolling electronic clinical records. Additional direct reinforcement from health professionals may be required for effective multi-domain health promotion in older people.

**Introduction**

Several inpatient geriatric services have proven positive effects in frail older persons. The efficacy of community intervention models such as preventative home visits is controversial in this group. We compared the effects of a multidisciplinary community intervention (Dutch Geriatric Intervention Programme; DGIP) with regular care.

**Methods**

General Practitioners (GP) referred older persons to DGIP for cognitive, mood, behavioural, mobility, and nutritional problems. Geriatric nurses made visits for geriatric assessment and management in co-operation with GP and geriatrician. 151 participants (mean age 82.2 years, 74.8% female) were included in an observer blinded randomised trial. 85 participants received DGIP, 66 received regular care. Primary outcomes were functional abilities (Groningen Activities Restriction Scale-3; GARS-3) and mental well-being (subscale mental health MOS-20; MOS-20MH). GARS-3 runs from 18 to 54 and MOS-20MH from 0 to 100. Intention-to-treat analyses focussed on differences between treatment arms in changes in GARS-3 and MOS-20MH over time.

**Results**

After three months we found significant treatment arm differences in changes from baseline. These beneficial effects were on GARS-3 -2.23 [95% confidence interval -4.18;-0.27] and on MOS-20MH 5.76 points [0.12;11.4]. After six months favorable effects still existed (GARS -1.58 [-3.90;0.73]; MOS-20MH 9.12 [2.37;15.86]), although on GARS-3 no longer significant.

**Conclusion**

DGIP has beneficial effects on functional abilities and mental well-being. Problem-based interventions that complement regular care can improve the effectiveness of primary care for frail elderly persons.
UNDIAGNOSED DIABETES: A PARTICULAR PROBLEM IN EMI CARE HOMES

T J Aspray1,2, K Nesbit2, E N Farrow1, T P Cassidy1, G Hawthorne2

1. Institute for Ageing and Health, Newcastle University, Newcastle upon Tyne NE4 6BE 2. Diabetes Centre, Newcastle Primary Care Trust, Newcastle upon Tyne

Introduction
Diabetes is common in care homes. However, screening residents presents real challenges, particularly when focusing on the burden of diabetes on older people with dementia.

Methods
All residents in Newcastle-upon Tyne were offered screening for diabetes, including those from residential care, nursing homes and specialist homes for older adults with dementia (EMI residential and nursing).

Whole blood fasting capillary glucose (FG) and 2-hour post-prandial glucose (PPG) were measured precisely (Hemocue, UK) and diabetes or impaired fasting glucose (IFG) diagnosed (WHO 1999).

Results
Diabetes had been previously diagnosed in 186 cases. On screening 1275 subjects, 105 had diabetes and 118 had IFG. The prevalence of diabetes was 19.9%.

Newly diagnosed diabetes/IFG was found in 5.8%/10.5% of subjects in residential care, nursing homes and specialist homes for older adults with dementia (EMI residential and nursing).

At screening, subjects with diabetes were 3.7kg (95% c.i.0.4-7.0, p=0.03) heavier than subjects without diabetes but those screening positive on PPG alone were 12kg lighter (95% c.i.0.4-24.0, p=0.04) than those positive with FG and PPG.

Conclusions
Undiagnosed diabetes and IFG are common, especially in EMI care homes. We believe that screening with FG alone will miss cases and should be augmented by PPG, at least.

NATURE AND PRECIPITANTS OF PERCEPTUAL DISTURBANCES IN DELIRIUM

P E Cotter, S T O’Keeffe

Department of Geriatric Medicine, Unit 4, Merlin Park Regional Hospital, Galway, Republic of Ireland

Introduction
Delirium is a common complication of acute medical illness in older people. Perceptual disturbances are a frequent cause of distress in delirious patients. We prospectively examined the nature of delusions and hallucinations in delirium.

Methods
721 admissions to an acute geriatric ward were screened with the Confusion Assessment Method. Delirious patients were assessed in a standardised manner, including informant-interview, testing for sensory impairment and daily assessment for perceptual disturbances and severity of delirium.

Results
268 patients with delirium were identified; median (range) age was 84 years (65-99).163 (61%) had prior cognitive impairment. Hallucinations (chiefly visual) or delusions (mainly persecutory) occurred in 4% of patients without a prior history of dementia, and 16% of patients with a history of dementia (p<0.001). The complexity of perceptual disturbances was greater in patients without prior cognitive impairment, and recall of experiences after resolution of delirium was greater in this group. Patients with a prior history of anxiety or depression and with visual disturbance were most likely to have frightening disturbances. There was a strong correlation between patient distress during delirium and the occurrence of perceptual disturbance.

Conclusions
Unpleasant perceptual disturbances are common in delirium and are more common with prior psychiatric history and visual impairment.
### POSTER PRESENTATIONS

<table>
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<td>79-83</td>
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<td>Work in Progress and Planned Research</td>
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C Hood, J Davis, S Louw, G Ford

Newcastle Acute Stroke Unit, Newcastle Upon Tyne

Background
Increasing numbers of institutional care residents with suspected acute stroke are referred to acute stroke units (ASU). We studied the outcome of institutional care residents referred with suspected acute stroke.

Methods
Institutional care residents referred with suspected acute stroke to an acute medical service serving a population of 300,000 were prospectively studied for a 6 month period. Demographic details, final diagnosis and outcomes were recorded.

Results
42 patients (31 female, mean age 82 yrs) were referred (21 residential care, 18 nursing, 2 respite care, 1 rehabilitation ward) via primary care physician (18), rapid ambulance protocol (12), emergency room (10) other (2). These accounted for 8% of total suspected stroke referrals (509, mean age 72 yrs). Prior status included dementia (71%), previous stroke (19%), and pre stroke Rankin score 4 (3-5) [median(range)]. Patients were on an average of 6 medications (range 2-13). The acute stroke team assessed 33 referrals and managed all confirmed stroke and TIA patients on ASU. Diagnoses in 24 non-stroke patients (57% referrals compared to respectively 13 and 10 days for all patients with LOS>50 days. Process and outcomes in consecutively admitted pre- and post-OPAL patients identified as being at-risk using the CGA tool, were compared using linear regression for confounding variables.

Conclusions
Initial diagnosis of acute stroke in patients in institutionalised care is frequently incorrect. These patients have more severe strokes, longer length of stay and worse outcomes. Most stroke mimics required in-hospital care. Referral of institutionalised patients with suspected acute stroke to ASUs is indicated to confirm diagnosis, manage dysphagia and initiate other appropriate management.

A Hopper, F C Martin, A Buttery, S O’Neill, R McGovern, P Shillo, D Harari

Department of Ageing and Health, Guys and St Thomas’ NHS Foundation Trust

Introduction
We evaluated a novel CGA delivery system with the aim of reducing length of stay (LOS) for older medical inpatients through early targeted geriatric intervention. The Older Persons Assessment and Liaison Team (‘OPAL’) [specialist nurse, therapist, half-time geriatrician] screened all acute medical patients aged 70+ within 24 hours of admission to an urban teaching hospital, using a CGA tool to identify moderate-high clinical risk. Depending on clinical need, actions included:(1) rapid transfer to elderly care unit (ECU) (2) case management on general medicine wards (3) referrals to specialist geriatric clinics (e.g. falls, continence).

Methods
Prospective ‘before-OPAL’ (August 2004) and ‘after-OPAL’ (August 2005) evaluation with blinded data abstraction from hospital notes/database, excluding patients with LOS>50 days. Process and outcomes in consecutively admitted pre- and post-OPAL patients identified as being at-risk using the CGA tool, were compared using linear regression for confounding comorbidities.

Results

<table>
<thead>
<tr>
<th></th>
<th>Pre-OPAL</th>
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</tr>
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<tbody>
<tr>
<td>n</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td>Mean age</td>
<td>80</td>
<td>79</td>
</tr>
<tr>
<td>Mean LOS</td>
<td>13.1±11.7 days</td>
<td>9.0±8.2 days</td>
</tr>
<tr>
<td>Pre-valve ECU transfer</td>
<td>2.4±1.8 (p&lt;0.0001)</td>
<td>9.0±7.7 (p&lt;0.018)</td>
</tr>
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</table>

Prevalence of problems addressed/problem identified

<table>
<thead>
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<th>Problem identified</th>
<th>Pre-OPAL</th>
<th>Post-OPAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional dependency</td>
<td>12/39</td>
<td>22/25</td>
</tr>
<tr>
<td>Falls</td>
<td>0/27</td>
<td>21/23</td>
</tr>
<tr>
<td>Delirium</td>
<td>1/11</td>
<td>12/12</td>
</tr>
<tr>
<td>Depression</td>
<td>1/21</td>
<td>10/17</td>
</tr>
<tr>
<td>Visual/hearing impairment</td>
<td>2/30</td>
<td>32/33</td>
</tr>
<tr>
<td>Urinary Incontinence</td>
<td>2/30</td>
<td>13/16</td>
</tr>
<tr>
<td>Constipation</td>
<td>1/20</td>
<td>22/26</td>
</tr>
</tbody>
</table>

Conclusion
CGA screening of acute medical inpatients by a specialist team leading to early intervention (ward-based case management, care pathways implementation, appropriate transfer to elderly care wards), improved clinical effectiveness and general hospital performance.
**Introduction**

11.5% of Ireland’s population is over 65, but receives 47% of prescription medications. Research using evidence-based explicit prescribing indicators has established that poor prescribing can be identified. The cost implications of these additional prescriptions have not been quantified.

**Methods**

The novel S.T.A.R.T. tool identifies 22 evidence-based, systems related, prescribing indicators. A prospective cohort of 600 patients with acute illness was screened on admission to hospital and had the tool applied.

**Results**

Mean age was 77.9 (±6.8) years. Average number of medications was 5.4. Number of medications prescribed was 3234 for all patients. 347 patients had 1 or more appropriate medications omitted. Detailed costing of omitted medications was performed using manufacturing costs (with generic medications). The most commonly omitted medications were statins for vascular disease (156) warfarin for atrial fibrillation (57) and ACE inhibitors for congestive cardiac failure (48). The cost of omitted medications was €9395.42/month (~£6,600). The top costs were - statins for vascular disease (€3926.52), bisphosphonates with long term corticosteroid treatment (€1057.80), ACE inhibitors in congestive cardiac failure (€738.24).

**Conclusions**

57.9% of elderly patients had one appropriate medication omitted. The prescription of medications omitted in the above group doesn’t represent a major financial cost. Prospective research using S.T.A.R.T. may identify if its application results in changes in morbidity, mortality and quality of life.

MANAGEMENT OF HYPERNATRAEMIA

R Tota, K N Ganeshram, M Giles
Glan Clwyd Hospital, Rhyl, Denbighshire

Introduction
Hypernatraemia is common in elderly patients. An audit of the management of hypernatraemia at Glan Clwyd Hospital was done in the year 2000. Following this, guidelines were published in trust medicines guide (Junior Doctors Handbook). We re-audited the management in 2005.

Methods
The list of patients with hypernatraemia was provided by the biochemistry department. Case notes were randomly selected from this list. 60 casenotes in year 2000 and 61 in year 2005 were audited. We used a questionnaire to collect data for 2000 and similar one with minor modifications for 2005.

Results
We are presenting the audit results for 2000 in parentheses.

1) Mean age 82.8 (85) years, 45% (25%) male.

2) 36% (16.66%) of the patients were weighed, 60% (38.33%) received the correct fluid therapy and in 55% (16.66%) hypernatraemia resolved within 5 days of treatment

3) 47% (50%) died during the index admission

4) The decision not to treat actively was made in 19.67% (43.33%)

Conclusions
1) Hypernatraemia is a common and serious occurrence in the elderly.
2) The audit cycle confirmed significant improvement in the process of care.
3) There is clear evidence that trust medicines guide is appropriately used.
4) Hypernatraemia was part of terminal illness in approximately 50% of patients.

Reference
AUDIT AND RE-AUDIT OF MANAGEMENT OF ATRIAL FIBRILLATION IN THE ELDERLY

C K Maity, V Lakshmi

Department of Integrated Medicine, Leighton Hospital, Crewe

Introduction
Atrial fibrillation (AF) is common and an important risk factor for ischaemic stroke in the elderly. Adequate anticoagulation reduces the risk of stroke significantly. Anticoagulation therapy for AF remains under-prescribed universally and various approaches have been tried worldwide to improve this practice. We wanted to evaluate our own practice and then re-evaluate after using a novel approach to improve it.

Methods
We performed retrospective case-note reviews of patients with a diagnosis of new onset AF, over six months in the initial audit which included 112 patients and over three months a year later in the re-audit which included 53 patients. We adopted a novel approach after initial audit: i) use of a prescribing indicator with involvement of the ward nurses and pharmacists to improve finding eligible patients and ii) use of a specially designed stamp in case notes of all eligible patients for better documentation.

Results
Age, sex and percentage distributions of different types of AF were similar in both studies. More than 65% cases with persistent / permanent AF were > 75, whereas < 30% with paroxysmal AF were > 75.

<table>
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<th>Parameters</th>
<th>Audit findings</th>
<th>Re-audit findings</th>
<th>% changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate control</td>
<td>97.5% (83 / 85)</td>
<td>100% (43 / 43)</td>
<td>+ 2.5</td>
</tr>
<tr>
<td>Cardio-version</td>
<td>35% (39 / 112)</td>
<td>36% (19 / 53)</td>
<td>+ 1</td>
</tr>
<tr>
<td>Anticoagulation</td>
<td>45% (39 / 86)</td>
<td>73.5% (25 / 34)</td>
<td>+ 28.5 (P &lt; 0.001)</td>
</tr>
</tbody>
</table>

Conclusion
This novel approach significantly improved the rate of prescribing anticoagulation and clear documentation of various aspects of complex management of AF.

HEALTH EQUITY AUDIT: DIABETES MELLITUS IN CARE HOMES

K Nesbit1, T J Aspray1,2, T P Cassidy2, G Hawthorne1

1. Diabetes Centre, Newcastle PCT, Newcastle upon Tyne; 2. Institute for Ageing and Health, Newcastle University

Introduction
In the Department of Health's Programme to Tackle Health Inequalities, Primary Care Trusts (PCTs) must carry out health equity audit (HEA). We applied this method to review standards of diabetes care in nursing and residential homes.

Methods
Standard for diabetes care were developed from national and local sources. All 68 care homes in Newcastle upon Tyne were visited to assess the quality of care for 185 residents found with diabetes.

Results
Care home residents are under-represented on the PCT diabetes register. Applying Diabetes UK standards: there was no individualised diabetes care planning; nor were there protocols for diabetes care/screening and no diabetes specialist nurse for older adults.

Twelve percent of residential care and 24% of nursing care patients had no evidence of coordinated diabetes review. Annual weight and podiatry assessments were generally recorded but BP was absent in 55% of residential care and 35% nursing care. Primary care review was infrequent (12-35%) but glucose monitoring was inappropriately frequent (64-79%) including its use in patients taking no medications. Eye screening was poorly documented. There was a lack of appropriate equipment and poor staff knowledge. However, training needs for diabetes care were recognized.

Conclusions
Data and recommendations from this HEA were presented to the PCT. The tools can now be used to monitor progress. Thus, we recommend the use of HEA in highlighting the needs of older patients to PCTs.
Introduction
Long-term management of secondary prevention for stroke takes place in primary care. Concordance with secondary prevention guidelines has not previously been examined.

Methods
Data from patients' records in an urban GP practice were used to compare current community practice to guidelines (including Quality and Outcomes Framework [QOF] targets before their adoption in the practice).

Results
67 patients (54% female, average 71.5 years). 31% managed entirely in primary care. 71% stroke & 33% TIA patients had brain imaging. Only 57% had carotid scanning where indicated.

Blood pressure: 77% within QOF targets (150/90), but 40% above Royal College Physicians (RCP) targets. Above PROGRESS inclusion threshold (Lancet 2001;358: 1033-41), 47%/61% were not prescribed Angiotensin Converting Enzyme inhibitor /thiazide respectively.

96% were on antithrombotics unless contraindicated. 18% were in atrial fibrillation (33% warfarinised). Cardiac rhythm was not documented in >15%.

Cholesterol: 60% were on a statin and 50% were within QOF targets for cholesterol (5mmol/l). However, 40% have either no test or inadequate treatment according to RCP. 25% were diabetic, but 30% were inadequately tested.

Smoking advice was near universal.

6 out of 8 QOF targets examined were fully met even before adoption.

Conclusions
The variable adherence in primary care to national stroke guidelines and evidence-based medicine has many contributing factors. Current QOF targets may not improve performance significantly. Improving care for all will need a collaborative approach to guidelines.

Introduction
Clostridium difficile is the commonest bacterial cause of nosocomial diarrhoea, and is an important cause of morbidity and deaths on geriatric wards. Reported infection rates are rising, associated with new, more virulent strains. Infection control measures and probiotics have been suggested to reduce incidence of C. difficile infection. Following concern regarding incidence of C. difficile within our hospital, an initial audit was undertaken to establish incidence, which was followed by a second cycle to determine whether interdisciplinary intervention would reduce incidence.

Methods
Records of all new admissions to a teaching hospital developing C. difficile during a 3-month period were audited, to document incidence. One acute geriatric ward comprised 40% of all cases during this period, with an incidence of 8% (n=18/234). In order to reduce incidence, an interdisciplinary approach was formulated and implemented upon this case ward. This involved several infection control measures, including education of all staff working on the ward and offering twice-daily probiotic drink to patients during their admission (75% uptake). The audit was subsequently repeated (n=225).

Results
C. difficile infection was associated with prolonged admission and increased mortality in both audits. Following institution of an interdisciplinary approach, a relative risk reduction in cases of C. difficile on the intervention ward of 48% was achieved.

Conclusion
Incidence of C. difficile infection on geriatric wards can be reduced following institution of an interdisciplinary approach.
Introduction
Inappropriate prescribing in the older person is well recognised and incidence of drug interactions increases with age. To optimise prescribing it follows that an accurate drug history must be known before changes to therapy are implemented.

Aims
This audit aimed to determine the availability of accurate drug histories, to identify any associated patient characteristics, to implement intervention to improve histories if necessary and to complete the audit cycle.

Methods
A questionnaire was completed on 74 subsequent patients recording demographic details, cognitive status and availability of history. The effect on management was recorded. Post data analysis an intervention (change in appointment card and a posted reminder to bring medications to DH) was implemented. The audit cycle was then repeated.

Results
The studied groups had no significant demographic differences. Pre-intervention 37% of patients could provide a drug history. This increased to 82% in the post-intervention group. The number of visits where lack of drug history adversely affected management reduced from 30% to 13%. There was a trend for patients who brought medications to be less cognitively impaired (26% vs. 47%) on multivariate analysis (p=0.06)

Conclusion
A simple intervention can improve drug histories and improve effectiveness of DH visits. No predictors of the likelihood to bring medications or list of medications were identified. Repeating the study with a larger sample size may show significance as a trend towards significance was seen.

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WHO GOES TO NATIONAL HEALTH SERVICE (NHS) CONTINUING CARE? - AN AUDIT OF ADHERENCE TO ADMISSION CRITERIA

J Murtagh, E Burleigh
Department of Medicine for the Elderly, Southern General Hospital

Introduction
Guidance for placement in NHS continuing care is limited. In 1999, Scottish Health Utilisation Groups (SHRUGS) published a report detailing the health needs of such patients, helping to establish entry criteria to these units. Given the increasing pressure to reduce the number of NHS continuing care beds, it is important to utilise beds appropriately. We aimed to determine whether patients being transferred from geriatric wards to continuing care facilities met SHRUGS criteria and had clear documentation of these needs.

Methods
Standards were >75% adherence with SHRUGS criteria and 100% documentation at both time of decision for entry into, and transfer to, continuing care. Setting was two geriatric units, A and B, which used different methods of documentation. Following loop 1 a formal referral tool was introduced as the main intervention.

Results
111 patients were included. Cerebrovascular disease and dementia were the commonest primary diagnoses. There was inter-consultant variation in numbers of admissions.

<table>
<thead>
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<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Adherence to SHRUGS</td>
<td>58</td>
<td>93</td>
<td>83</td>
</tr>
<tr>
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<tr>
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<tr>
<td>time of decision</td>
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<tr>
<td>Documentation on</td>
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<td>63</td>
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<tr>
<td>transfer</td>
<td></td>
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<tr>
<td>(database/letter)</td>
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</table>

In the majority of cases full detail concerning adherence to SHRUGS criteria was only available from multiple casenote entries.

Conclusions
By loop 2, both units achieved >75% adherence with SHRUGS criteria indicating appropriate patient selection for entry into NHS continuing care. However, documentation of these care needs remains incomplete, despite the introduction of a formal referral tool.
AVAILABILITY OF ORAL FLUIDS TO OLDER PATIENTS IN THE ACUTE HOSPITAL SETTING

C Quinn, M Murray and S T O'Keeffe
Department of Geriatric Medicine, Merlin Park Regional Hospital, Galway, Ireland

Introduction
Dehydration is a significant contributor to morbidity and mortality in older hospital patients. The aim of this study was to assess how readily available oral fluids were to older patients when asked simply to "take a drink". This was defined as the ability to reach their cup, lift it, move it to the mouth and swallow safely.

Methods
Prospective study of 142 patients aged 65 or older on acute medical and surgical wards in regional teaching hospital. Patients were deemed safe to swallow unless written instructions above the bed indicated otherwise. Ability to take a "take a drink" was assessed and reasons why they were unable to do so were evaluated.

Results
Mean age was 79.9 years. 51.4% (73) were male and 48.6% (69) female. Of the 126 patients deemed safe to swallow, 52.3% (66/126) were able to take a drink safely. The most common reason was the cup being out of reach in 34.9% (44). Absence of fluid was recorded in 19.5% (16/82) of those who could reach their cup. Of the 42% (53/126) confined to bed, 41% (22/53) of these were able to take a drink, while 60.3% (44/73) of patients sitting in a chair drank successfully.

Conclusion
Simple measures such as ensuring close proximity of cup to patient and presence of fluid may help to encourage adequate oral hydration and prevent dehydration and it's associated complications.

WHAT REASONS DO OLDER PEOPLE GIVE FOR NOT EATING WHILST IN HOSPITAL?

M Gosney1, A Walczak2
1. Institute Of Health Sciences, University Of Reading 2. School Of Food Biosciences, University Of Reading

Introduction
Poor nutrition in hospital continues to be an everyday occurrence and any factor that improves the calories delivered or the proportion consumed will go towards addressing this almost universal problem.

Waste occurs in all areas but particularly on Elderly Care wards. Previous studies have found patients stating a variety of reasons for not eating but face to face validation has not occurred.

Methods
402 face to face interviews were carried out with 122 hospitalised elderly care patients (81 females, mean age 85 years, range 68 to 102 years) who didn't eat the whole of their chosen lunch.

Results

<table>
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<th>Hunger or readiness to eat</th>
<th>n =</th>
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<tr>
<td>No</td>
<td>184</td>
</tr>
<tr>
<td>Yes</td>
<td>143</td>
</tr>
<tr>
<td>Slightly hungry</td>
<td>36</td>
</tr>
<tr>
<td>Sick or vomiting</td>
<td>7</td>
</tr>
</tbody>
</table>

On 23 occasions (0.2%) other difficulties including hand co-ordination and movement (8), teeth/dentures (6), coughing (2), sore mouth/tongue (3), impaired vision (1), breathlessness (1) were stated.

Conclusion
Despite all efforts made to protect meal times, provide nutritional support and perform nutritional assessments the commonest reasons that elderly patients give for not eating in hospital is lack of appetite. Strategies must be adopted to provide the maximum number of calories in the smallest volume of palatable and desired food to ensure adequate calorie intake.

The timing of meals may need to be considered to increase the time between breakfast and lunch in order to increase hunger and hopefully the quantity of food consumed.
PARKINSON’S DISEASE PATIENTS WHO SUSTAIN A FRACTURE OF THE FEMORAL NECK: HOW DO THEY FARE?

V Clubb, S Clubb, S Buckley, J Roberts
Northern General Hospital, Sheffield

Introduction
Parkinson’s disease (PD) sufferers are at increased risk of falls and osteoporosis, a combination that may increase risk of fracture neck of femur (NOF).

Some studies suggest PD patients have worse outcome following fracture NOF. Complications, particularly respiratory infections have high prevalence. Dislocations may be higher.

Methods
An audit of patients having fracture NOF and PD was performed to assess outcome and to identify any potential modifiable aspects of their care. The results were compared to an audit of non-selected fracture NOF patients to see if outcome differed.

Results
25 PD patients were assessed versus 184 unselected, with a greater male predominance (32% to 24%). PD patients had greater length of stay (median 30 to 21 days) and more had complications (60.8% to 48%), including dislocation and respiratory infection.

Less returned to live independently (25% to 45.6%). More required nursing placement (37.5% to 20%). Mobility declined greatly (48% became immobile).

Only 36% saw a PD specialist during admission. Disease severity was not assessed, however surgical intervention differed from non-selected patients, possibly due to diagnosis of PD only.

70% PD patients missed PD drugs pre-operatively and 24% post-operatively. 20% received drugs with Parkinsonial side effects.

Conclusion
Fracture NOF may be more common in PD and outcome is poor with greater loss of function and independence.

Improved drug management and increased utilization of PD specialists may improve their outcome.

AUDIT OF EXTERNAL HIP PROTECTOR PRESCRIBING & COMPLIANCE

West of Scotland Trainees in Geriatric Medicine
Glasgow University Hospitals

Introduction
External hip protectors (EHP) have been in use across Glasgow since 2002 as part of a city-wide falls policy. Patients are eligible for consideration of EHP if the Cannard Falls Risk Assessment score >13. Policy has been driven in part by evidence-based guidelines including SIGN 56 and Cochrane reviews. However, both groups have raised concerns over the true effectiveness of EHP given the recognised problem of poor compliance. As a result we conducted a full audit cycle looking at this and EHP prescribing policy.

Methods
Standards were set at >95% inpatients having fully completed Cannard and EHP request forms as appropriate, and >65% compliance with wearing EHP. Setting was geriatric assessment, rehabilitation and NHS continuing care wards in 5 city hospitals. Loop 1 was conducted in late 2003 after which 15 recommendations were made to improve practices. Loop 2 followed in June 2005.

Results
912 inpatients were included.

<table>
<thead>
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<th>n/N (%)</th>
<th>Loop 2</th>
</tr>
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<tr>
<td>Cannard recorded</td>
<td>418/500</td>
<td>(84)</td>
<td>328/412</td>
</tr>
<tr>
<td>Cannard &gt;13</td>
<td>268/418</td>
<td>(64)</td>
<td>197/328</td>
</tr>
<tr>
<td>Eligible for EHP</td>
<td>244/268</td>
<td>(91)</td>
<td>150/197</td>
</tr>
<tr>
<td>Request form completed</td>
<td>192/244</td>
<td>(79)</td>
<td>140/150</td>
</tr>
<tr>
<td>Wearing EHP</td>
<td>153/244</td>
<td>(63)</td>
<td>65/150</td>
</tr>
<tr>
<td>Non-compliance</td>
<td>40/91</td>
<td>(44)</td>
<td>64/85</td>
</tr>
</tbody>
</table>

In loop 2 some of the recommendations had been widely implemented. These included naming policies, written information and case note alert stickers. The latter showed no significant association with EHP compliance (Chi 1.7, p=0.2). Use of other interventions (eg. ward records of EHP wearers and dedicated nurses) did not improve greatly.

Conclusions
Compliance with wearing EHP has deteriorated despite use of adherence strategies, although documentation of reasons for non-compliance has increased. Completion of EHP paperwork still remains sub-optimal. This has significant cost and policy implications.
Y Shanshal, P Coy
Queen Elizabeth Hospital, Gateshead

Background
High doses of inhaled steroid are associated with increased risk of osteoporosis.

Aim
To assess whether elderly patients on high doses of inhaled steroid are considered for bone protection?

Standard
RCP guideline on steroid induced osteoporosis highlights that patients on high doses of inhaled steroid could be at increased risk of osteoporosis.

Sample and Method
35 elderly patients with COAD on high dose steroid inhaler attending medical outpatients clinic between May and November 2004 were assessed for:

1) Have they been considered for osteoporosis treatment?
2) Have they been considered for bone mineral density study?

Results
Average age was 82
6/35 (17.5%) were on oral steroid as well.
13/35 (37%) had previous fragility fracture.
5/35 (14%) only on bone protection.
3/35 (8.5%) only considered for DEXA scan.

Conclusion and Recommendation
Majority of elderly patients on high dose steroid inhaler are at increased risk of osteoporosis. Few of which been considered for further assessment.
DEXA scan should be considered to stratify their risk.

E H Iveson¹, A L South¹, J Miles², J Harbison³
1. St James’ University Hospital, Leeds, 2. University of York, 3. York District Hospital

Introduction
Thromboprophylaxis using subcutaneous low molecular weight heparin (LMWH) reduces morbidity and mortality from thromboembolism in immobilized medical patients by >50%. Prescribing of thromboprophylaxis is under used on general medical wards. In elderly inpatients the risk of thromboembolism is higher and the benefit of treatment is greater.

Methods
All inpatients >75 years on 30 wards were audited by Specialist Registrars in 10 Yorkshire hospitals, using National guidelines as the standard. Medical records were reviewed; data from proforma sheets was collated centrally and analysed by a Statistician.

Results
601 patients, mean age 84.6 years (64% female). 258 patients excluded, 93 had contraindications or were anticoagulated and 165 had no indication for thromboprophylaxis. 343 patients had one or more indications and no contraindications and 99 (29%) were receiving treatment (mean age 83.7 years). Of the remaining untreated group (mean age 85.5 years), 111 (46%) had two or more indications for thromboprophylaxis. SpRs were aware of guidelines in 5 hospitals, with guidelines readily available on wards in 2 trusts. Information for patients regarding thromboprophylaxis was not available on any ward.

Conclusion
The use of thromboprophylaxis in elderly inpatients is inadequate. Only one third of our patients received treatment, despite often having multiple indications and being at higher risk of thromboembolism. Awareness needs to be raised amongst staff and patients by the dissemination and implementation of guidelines and information provision across our region.
**COLLES' FRACTURE IN MEN AND BONE MINERAL DENSITY**

J P Renton, Y Shanshal  
Queen Elizabeth Hospital, Gateshead

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**Introduction**  
Colles' fracture in men has been shown to be associated with increased risk of hip fracture in later life and is thought to reflect an underlying reduction in bone density.

Male osteoporosis is commonly associated with exogenous risk factors and is associated with significant cost, morbidity and mortality.

Alendronate use has been shown to significantly increase lumbar spine and femoral neck bone mineral density.

We have assessed the association between colles' fracture and bone mineral density in a male population.

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**Sample and Method**  
Retrospective study of 40 males who sustained colles' fracture between 2002-2005. Bone mineral density was measured using forearm DEXA scanning and information regarding risk factors was collected via proforma.

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**Results**  
Mean age was 79 (range 70-97)

75% of patients had a T score <2.5

37.5% of patients had a previous fragility fracture

50% of patients had an underlying risk factor (65% alcohol, 35% steroids, 5% other)

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**Conclusion/ Recommendations**  
Colles' fracture appears to be associated with low bone mineral density in this male population.

A large proportion of cases of colles' fracture were associated with modifiable risk factors.

Therefore, by modifying risk factors and using bisphosphonates to increase bone mineral density, it may be possible to prevent subsequent fracture in males who present with colles' fracture. These steps could also prevent initial fracture.

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**THE DELIRIUM CARD: IMPROVING THE ASSESSMENT OF PATIENTS WITH ACUTE CONFUSIONAL STATES**

V J Henstridge, J Davies, R Colthrust, W Fitzroy-Smith  
Countess of Chester NHS Foundation Trust, Chester

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**Introduction**  
Acute confusional states occur commonly in elderly patients, often precipitating hospital admission. However, they are commonly missed, and assessment rarely follows published guidelines. We examined improvements in patient assessment following the introduction of a ‘Delirium Card’, based on British Geriatrics Society guidelines and designed following previous audits; which includes the abbreviated mental test and recommended investigations for delirium.

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**Methods**  
We undertook a case-note audit of patients over 65yrs on four wards; examining the proportion of patients undergoing mental state assessment, and investigations undertaken where delirium was identified. Data were collected at baseline, following an education program, after introduction of the ‘Delirium Card’, and following the August staff changeover. Our audit standard was that all patients over 75 years of age should have an AMT recorded and that investigation of acutely confused patients should follow BGS guidelines.

---

**Results**

<table>
<thead>
<tr>
<th>Cycle</th>
<th>One</th>
<th>Two</th>
<th>Three</th>
<th>Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of Patients</td>
<td>89</td>
<td>88</td>
<td>78</td>
<td>85</td>
</tr>
<tr>
<td>Mean Age</td>
<td>83.0</td>
<td>82.1</td>
<td>81.0</td>
<td>80.8</td>
</tr>
<tr>
<td>AMT performed: No. (%)</td>
<td>10 (11.2)</td>
<td>16 (18.2)</td>
<td>23 (29.5)</td>
<td>26 (30.6)</td>
</tr>
<tr>
<td>Selected Investigations in delirium (%):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bone profile</td>
<td>45</td>
<td>51</td>
<td>48</td>
<td>58</td>
</tr>
<tr>
<td>Serum glucose</td>
<td>86</td>
<td>75</td>
<td>95</td>
<td>94</td>
</tr>
<tr>
<td>TFT</td>
<td>43.2</td>
<td>47.1</td>
<td>76.2</td>
<td>61.1</td>
</tr>
<tr>
<td>Blood Cultures</td>
<td>11</td>
<td>31</td>
<td>43</td>
<td>47</td>
</tr>
<tr>
<td>Mid-stream urine</td>
<td>23</td>
<td>25</td>
<td>48</td>
<td>36</td>
</tr>
</tbody>
</table>

---

**Conclusion**  
Introduction of the ‘Delirium Card’ led to a sustained increase in the numbers of patients in whom mental state assessment was undertaken, with some improvement in investigations undertaken.
IMPROVING THE AWARENESS AND RECOGNITION OF DEPRESSIVE SYMPTOMS IN OLDER PATIENTS ON REHABILITATION WARDS: FEEDBACK FROM 2 AUDIT CYCLES

A C Harper1 R F Logan2 J N Croft-Baker3
1. Brighton and Sussex University Hospitals 2. Portsmouth Hospitals 3. Royal Hampshire Hospital, Winchester

Introduction
30% elderly patients on rehabilitation wards have depressive symptoms, which non-psychiatrists recognise just 20% of cases. A pilot survey confirmed this needed addressing locally.

Methods
The audit process and evidence-based screening methods were developed and supported through multidisciplinary working. Casenotes were retrospectively assessed for use of the Geriatric Depression Scale (GDS) or clinical assessment of mood.

Barriers to screening (after first data set): Time; Incorrect marking; Separate form for screening tool; GDS seemingly used for diagnosis, not as screening tool; Some unsuitable for GDS

Changes: Use of 4-question GDS, in lieu of 15-question GDS; Clearer guidance on marking GDS; GDS incorporated into nursing documentation

Table: Results from 2 cycles of data

<table>
<thead>
<tr>
<th>Number</th>
<th>2000</th>
<th>2003</th>
<th>Absolute percentage improvement (Fisher’s Exact Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Of casenotes</td>
<td>43</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>- Eligible for GDS*</td>
<td>28</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>- Number meeting agreed standard</td>
<td>7/28</td>
<td>14/22</td>
<td>39% (p 0.009)</td>
</tr>
<tr>
<td>(%) (Expected standard 100%)</td>
<td>(25%)</td>
<td>(64%)</td>
<td></td>
</tr>
</tbody>
</table>

[*: ineligible if Mental Test Score < 7/10 or dysphasia; no very abbreviated tools identified for these patients]

Conclusions
No published data were identified to compare the results with elsewhere. Through local evaluation of the processes involved, and continuation of the audit cycle, focussed changes improved screening practices and patient care. Using the shortened GDS has improved manner of use and accuracy of marking, with little change in validity (from literature review.)

DO ELDERLY COPD PATIENTS RECEIVE OPTIMUM CARE AS OUTLINED BY NICE GUIDELINES?

E I Pigolkina, H M May

Medicine for the Elderly Department, Norfolk and Norwich University Hospital

Introduction
The profile of COPD was raised in 2004 by the publication of a Royal College of Physicians (RCP)/British Thoracic Society (BTS) audit and NICE guidelines (NICE guideline 12. Thorax 2004; 59, supp 1). This audit aims to compare our clinical results with the RCP/BTS audit to assess compliance with NICE guidelines and to address any inequalities in care of an older population.

Method
A random sample of 40 patients was taken from the total number of medicine for the elderly (MFE) patients discharged with a primary diagnosis of COPD during 2004 (n=197). 30 cases met inclusion criteria and were studied retrospectively.

Results
MFE patients were older, frailer and had higher acute mortality (mean age 84, 12% of patients bed bound, 23% died) compared to RCP/BTS results (mean age 71, 3% bed bound, 7.5% died). 27% of MFE patients were current smokers compared to 39% in the National audit. In the smoking group only 1 patient (12%) had documented smoking cessation advice, 29% in RCP/BTS audit. 14% of those using inhalers had their technique tested before discharge, 33% in RCP/BTS.

Conclusion
To address challenges in meeting COPD NICE guidelines an educational programme to the MFE multidisciplinary team has been instituted. Respiratory nurses facilitate this initiative. This aims to promote equal access to specialist skills for elderly patients. A reaudit will occur in February 2006.
EVALUATING THE CARE OF ELDERLY PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN PRIMARY CARE

B Dyer¹, L Palmer¹, P J Turnbull
1. Medical students, University of Birmingham
2. University of Birmingham NHS Foundation Trust

Introduction
Chronic obstructive pulmonary disease (COPD) is a major cause of hospitalisation and disability. The proportion of people > 75 years with this condition is expected to rise dramatically. The British Thoracic Society (BTS) suggests spirometry, chest X-ray (CXR), and smoking cessation advice at diagnosis. Repeat spirometry and medication review is also recommended. Are we meeting the BTS guidelines for managing older people with COPD?

Methodology
A primary care based audit examined case notes of 52 patients >75 years (range 75 - 90, 35% male) with a provisional diagnosis of COPD. The following data was collected: whether a CXR and spirometry were documented as done at diagnosis and at follow-up, smoking status recorded and, if appropriate, cessation advice given. If under secondary care, in the recent correspondence was inhaler technique, medication review, repeat spirometry, smoking status and a management plan recorded?

Results
71% of secondary care letters contained all the required information. 33% of patients were still under secondary care. 69% had had a medication review recently.

<table>
<thead>
<tr>
<th>Primary Care Documentation</th>
<th>At Diagnosis</th>
<th>Subsequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>CXR</td>
<td>2%</td>
<td>46%</td>
</tr>
<tr>
<td>Spirometry</td>
<td>21%</td>
<td>63%</td>
</tr>
<tr>
<td>Smoking status</td>
<td>94%</td>
<td>50% stopped</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2/3 continued to smoke, despite advice</td>
</tr>
</tbody>
</table>

J Kwan¹, S Allen²
1. University of Southampton 2. Royal Bournemouth Hospital

Objectives
Death certificates should contain accurate information about the cause(s) of death. In the UK, pneumonia is reported as the primary cause of death (PCoD) in 10% of patients >85 years old, and as a contributory cause of death in 25%. We explored the accuracy of documenting pneumonia as the PCoD.

Methods
First audit: we examined the case notes of 100 randomly-selected medical inpatients who died in hospital during 2003, and whose PCoD was stated as "pneumonia" or "bronchopneumonia" on their death certificates. We determined whether each patient died of an illness that satisfied a locally-agreed definition for pneumonia, and if not, whether there was a better alternative PCoD. Intervention after first audit: a) improved education of junior doctors, and b) posters encouraging accurate documentation and discussion with senior colleagues. Completing the audit cycle: we repeated the audit for patients who died during 2004.

Results
In this audit cycle, the proportion of patients who did not satisfy the criteria for pneumonia was similar between the first audit (31%) and second audit (26%, statistically non-significant). Better alternative PCoDs were found for all but one patient; the commonest alternative PCoDs included heart failure, pulmonary embolism, and lung cancer.

Conclusion
Almost 1/3 of death certificates stating pneumonia as the PCoD appeared to be incorrect; this has potentially serious implication. Our simple local intervention appeared to be ineffective at tackling inaccurate documentation.
AUDIT OF APPROPRIATENESS AND OUTCOME OF CAROTID DOPPLER SCANNING (CDS) AND CAROTID ENDARTERECTOMY (CEA)

C K Maity¹, V Lakshmi¹, M E Hanafy², A J Guy²

¹ Department of Integrated Medicine and 2 Department of Surgery, Leighton Hospital, Crewe

Introduction

The use of CEA is on the rise, (for secondary as well as primary prevention of ischaemic strokes), and so the demand for CDS. We studied appropriateness and outcome of CDS and CEA in our hospital in the light of National Clinical Guidelines for Stroke 2004.

Methodology

We conducted a retrospective case-notes review of patients having CDS and CEA between July 2003 and December 2004 (total CDS = 1051 and total CEA = 62). We wanted > 100 cases CDS in the initial unselective sampling and then selective sampling of most cases of CEA in the final sample. Primary and secondary outcome measures were decided as in the table below.

Results

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Parameters</th>
<th>Initial sample N = 126</th>
<th>Final sample N = 179</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Appropriate referral for CDS</td>
<td>77% (97 / 126)</td>
<td>79% (142 / 179)</td>
</tr>
<tr>
<td></td>
<td>Appropriate referral for CEA</td>
<td>82% (14 / 17)</td>
<td>96% (67 / 70)</td>
</tr>
<tr>
<td></td>
<td>Peri-operative stroke rate 0% (0 / 10)</td>
<td>0% (1 / 62)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Peri-operative mortality 0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Secondary: delay (days) [mean (range)]</td>
<td>Request to CDS (in-patient) (n = 39)</td>
<td>7.5 (0-41)</td>
<td>7.5 (0-41)</td>
</tr>
<tr>
<td></td>
<td>Request to CDS (out-patient) (n = 94)</td>
<td>71 (3-318)</td>
<td>71 (3-318)</td>
</tr>
<tr>
<td></td>
<td>Referral to TIA clinic to CDS (n = 46)</td>
<td>25 (3-68)</td>
<td>25 (3-68)</td>
</tr>
<tr>
<td></td>
<td>CDS to CEA</td>
<td>66 (13 - 154)</td>
<td>67 (7 - 172)</td>
</tr>
</tbody>
</table>

Conclusion

Although overall performance was satisfactory, there was significant delay at different levels. Increasing sessions of TIA clinics and CDS, strict adherence to guidelines and closer links with primary care, imaging and vascular surgery are required for further improvement of service.

CAN THE INTRODUCTION OF ESTIMATED DATE OF DISCHARGE REDUCE LENGTH OF STAY?

A Lockwood, K Tozer, E Cox, F Thomson

Department of Medicine for the Elderly, Hull and East Yorkshire Hospitals NHS Trust

Introduction

The DoH document Achieving Timely ‘Simple’ Discharge indicates that the use of Estimated Date of Discharge (EDD) is a key step that geriatricians and their teams can implement. This audit examines the accuracy of the EDD and its impact on length of stay (LOS).

Methods

For 6 months all patients admitted to an acute/rehabilitation DME ward were provided with an EDD on first contact with the ward consultant or SpR. Admitting arrangements remained constant. Data was analysed post discharge to measure successful prediction of EDD and to compare mean LOS with the previous year.

Results

255 patients were discharged in the study period. 120 (47%) case notes were randomly selected for further analysis. 33(28%) patients achieved the initial EDD including 7 who were discharged earlier than predicted. 72(60%) patients required more than one EDD with a further 42(35%) achieving the 2nd EDD. 15(15%) were not given an EDD, 8 of whom died. Commonest causes of delay were: ongoing illness 22(31%), diagnostics 14(19%), social 16(22%) and D&V outbreak 12(17%).

Mean LOS for the 6 months fell from 18.2 days in 2004 to 14.5 days in 2005, resulting in 87 extra discharges from the ward.

Conclusion

Despite the apparent inaccuracy of the initial EDD, it appears to provide the multi-disciplinary team with a focus for discharge planning and can improve efficiency and reduce LOS.
Introduction
The value of complex interventions - combinations of inter-disciplinary teamwork for health and social problems - in enabling older people to live at home is uncertain. Depending on inclusion criteria and outcomes, results of previous meta-analyses are equivocal. A recent large trial of universal geriatric assessment found limited benefit. Systematic review including all complex interventions and targeted groups is indicated.

Methods
Systematic review using Cochrane methods. Search of CENTRAL, MEDLINE, EMBASE, CINAHL, PsychLit. Inclusion criteria: age ≥ 65 years, community based multifactorial intervention, randomised controlled trial. Random effects meta-analysis.

Results
Searches identified 5326 articles. 86 interventions fitted inclusion criteria. "Living at home" was recorded for 43 interventions. Compared with those with incomplete information these were more likely to be studies of people discharged from hospital and not of fall prevention. About two thirds of those with and without outcome information were home-based geriatric assessment. Overall there was modest evidence of benefit for intervention with a relative risk of death or nursing home admission of 0.87 (95% CI 0.79, 0.94). This was equivalent to an absolute increase of 2.6% in the proportion of older people living at home following intervention compared with usual care.

Conclusions
Systematic review identified numerous trials of complex interventions in older people. Overall these were associated with improved prospects of living at home. Examination of sources of heterogeneity may identify interventions of value in specific groups.

Introduction
Isolated Systolic blood pressure (ISH) is associated with increased risk of cerebrovascular events and affects more than 15% of all people over 60 years. Many studies have been published about optimal control of ISH. We aimed to find out if the available knowledge from published trials and studies has changed the 'medical practitioners' management of ISH.

Methods
A previously 'piloted questionnaire' was sent to all General Practitioners (GP), GP trainees, and hospital doctors, excluding house officers in the North Wales region. The questionnaire was based on the one used in a similar study carried out in 1991 (Ekpo et al; Gerontology 1993).

Results
560 medical practitioners were included in the study. Of this 197 responded (35.2%). In Ekpo’s study, the decision to treat with drugs was dependent on the age of the patient. In this study, almost all respondents (99.5%) indicated that they would treat ISH in the elderly. Compliance to drug therapy was identified as a problem in the elderly by 32.8% but only 4.6% sited this as a reason not to prescribe medication.

Conclusions
It is evident from our study that new evidence is being used to patients' benefit and the practitioners' attitude has changed in the last ten years. Practitioners seem to be far more informed and confident than a decade ago in managing ISH in the elderly.
LOWER "NORMAL" FASTING PLASMA GLUCOSE IN GLUCOSE TOLERANCE TESTS

S C M Croxson1, S K Wensley1, S A Mostafa2, A C Burden2, P Thomas1

1: United Bristol Healthcare NHS Trust, Bristol
2: Heart of Birmingham Primary Care Trust, Birmingham

Introduction

Method
Anonymised standard Glucose Tolerance Tests using venous plasma glucose performed on subjects aged 60 years or more at Bristol Royal Infirmary from 5/4/95 to 30/12/97 were studied by WHO criteria (diabetes if FPG =7.0 or post-challenge plasma glucose =11.1 mmol/l) and the different FPG cut-offs.

Results
Contingency table of 265 GTT results.

<table>
<thead>
<tr>
<th>FPG (mmol/l)</th>
<th>2 hr post challenge plasma glucose (mmol/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;5.6</td>
</tr>
<tr>
<td>&lt;7.8</td>
<td>40</td>
</tr>
<tr>
<td>7.8 - 11.0</td>
<td>22</td>
</tr>
<tr>
<td>11.1+</td>
<td>10</td>
</tr>
<tr>
<td>% DM</td>
<td>14%</td>
</tr>
</tbody>
</table>

Of 151 diabetic subjects, 10 (7%) had FPG <5.6 mmol/L and 19 (13%) had FPG under 6.1 mmol/L.

Conclusion
Even reducing plasma glucose level regarded as normal, the FPG still misses undiagnosed DM in elderly.

DO ELDERLY INPATIENTS PREFER SINGLE OR SHARED ROOMS?

K J C Richards1, P Pearce2, A Brown3


Introduction
The Department of Health reviewed their recommendations for newly built hospital wards in 2003, suggesting that the proportion of single rooms be significantly increased. This has huge implications on staffing, patient safety and health economics. Patient choice is one reason cited for the recommendation, but do elderly inpatients actually want to be in single rooms? We interviewed elderly inpatients to ascertain their preferences.

Methods
Following a pilot study (n=30), we interviewed 100 randomly selected, consenting elderly inpatients (>74 years) at Bradford Royal Infirmary. Patients were asked which type of room they would prefer and why. We also documented whether the patient felt they had visual, auditory or mobility impairments.

Results
Out of 130 patients (84 female, 46 male), 20 (15.4%) would prefer a single room, 95 (73.1%) would prefer a 2-6 bedded bay, 9 (6.9%) would prefer a larger ward and 6 (4.6%) had no preference. There was no relationship between patients’ gender, pre-admission living situation, existing physical impairments and a preference for a single room although there was a tendency for patients to prefer the type of room they were already sleeping in.

Conclusions
Elderly patients prefer to be in small rooms of 2-6 patients during their hospital stay, many feeling that company was an essential part of the healing process. These opinions however may reflect a general satisfaction with the patients’ existing sleeping arrangements.
NUTRITIONAL RISK ASSESSMENT: A COMPARISON OF SCREENING TOOLS IN A GERIATRIC ASSESSMENT UNIT

A W Byrne, E B Burnett, J M A Burns, D J Stott
Department Of Geriatric Medicine, Glasgow Royal Infirmary, Glasgow

Introduction
Under-nutrition amongst elderly hospital in-patients is a well-recognized problem. Despite recommendations that all patients admitted to hospital undergo nutritional risk assessment, there is no universally agreed method of identifying malnutrition and many screening tools exist. We compared practicability and accuracy of different screening tools.

Methods
Consecutive Geriatric Assessment Unit admissions at Glasgow Royal Infirmary were assessed using the Nutritional Risk Index (NRI), Malnutrition Universal Screening Tool (MUST) and Glasgow Geriatric Nutrition Screening Tool (G-NST). Patient demographics and physician's first-impression were also recorded.

Results
100 patients were assessed with mean age 82.3 years, AMT 5.8, Barthel index 9.0, and BMI 21.9. Physical frailty prevented 19 patients from being weighed. Physician's first-impression graded 50% as underweight or severely-malnourished. The screening tools identified the following proportions of patients as "high-risk": NRI 7.8%, MUST 47.5% and G-NST 28.0%. Unobtainable data prevented scoring of 36 patients with NRI and 20 with MUST. Using BMI<20 as a standard for under-nutrition, the following sensitivities and specificities were calculated; physician's first-impression 88.4% and 78.9%, NRI 17.4% and 97.6%, MUST 85.3% and 80.4% and G-NST 44.2% and 84.2%.

Conclusion
The number of patients identified as "high-risk" varied greatly between the screening tools. Cognitive impairment and physical frailty prevented scoring with NRI and MUST in a significant minority of patients. Physician's first-impression of the patient performed as well as the MUST and better than the NRI and G-NST.

A PROSPECTIVE INVESTIGATION OF FACTORS AFFECTING MORTALITY IN ELDERLY PATIENTS FOLLOWING FRACTURED NECK OF FEMUR

J E Edmondson, S Waters and Y Shanshal
Department of Elderly Care, Queen Elizabeth Hospital, Gateshead

Introduction
Hip fracture mortality is common and associated with a one year mortality of up to 35% and a 30 day mortality between 8-15%. Mortality is affected by a number of factors and we have investigated how these putative factors affect mortality rates in our patient group in an attempt to channel resources and reduce overall mortality.

Methods
Prospective data on 426 patients aged 70 and over with a fractured neck of femur were collected over a two year period. Data were collected in relation to the guidelines set out by the Scottish Intercollegiate Guideline Network for the management of hip fractures. Our figures were then compared to other published data.

Results
Mortality in our population was 13.5% which was comparable with other published series. It was affected by age, sex, impaired MMSE and pre fracture activities of daily living, comorbidities, surgical delay and low social class as shown in other studies.

Conclusion
Hip fracture mortality is affected by a number of factors which, although not mutually exclusive, may be used to identify high risk patients.

Prospective collection of such data, which is stratified by risk factor, allows accurate targeting of resources, in an attempt to reduce mortality. It also provides a baseline upon which to measure the effectiveness of such interventions.
C Dowding1, S Salek1, D Sastry2, S Raha3, E Morgan2, L Ebenezer3, A J Bater4, A Bayer5

1. Centre for Socioeconomic Research, Cardiff University 2. University Hospital, Cardiff 3. Princess of Wales Hospital, Bridgend 4. Velindre Hospital, Cardiff 5. Cardiff University, Cardiff

Introduction
The WMDen is an innovative electronic, web-based database, hosted by Information Systems for Clinical Organisations (ISCO) at Velindre Hospital, Cardiff, allowing patient consultation details to be recorded at the point of care. Established in 2001, it is a cross-Wales project, the only one of its kind for Movement Disorders in Europe. Two clinics have been actively using the database since 2001 and a third has recently joined. 1100 patients are registered.

Methods
The WMDen is a relational database accessed by authorised users over a secure internet connection. Data entered by users is stored on ISCO secure servers. Users access and enter patient data through multiple linked screens, such as the 'annotation' and 'treatment' screens.

Results
In total, 680 patients from Cardiff and 388 from Bridgend are registered, 982 (91.9%) have Parkinson's disease (PD), 714 (66.8%) 70-89 years old. The WMDen incorporates the functionality of recording quality of life data, drug treatments and complications. The administrative workload has been reduced, and the time period in which clinic letters are sent to GPs greatly improved, reducing from two weeks to 24 hours.

Conclusion
The WMDen has proved to be a valuable tool for the management of PD patients, providing up to date clinical management, data for epidemiological and pharmacoepidemiological research, a data analysis facility and reduction of administrative workload.

A Jackson, K Warren

Care of the Elderly, Department Newham University Hospital, London

Introduction
Newham University Hospital runs an age-related service with all medical patients, 75 years and over, being cared for by the geriatricians. However, there is an integrated medical on-call system with 3 geriatricians and 9 physicians on the consultant rota. Audit of medical admissions in 2002 found a shorter median length of stay (MLOS) for elderly patients if they were seen on the PTWR by geriatricians rather than physicians. New funding, available in July 2003, allowed a consultant geriatrician to carry out a PTWR Monday to Friday in addition to the integrated on-call.

Methods
All medical patients, 75 years and over, admitted during two 9 week periods were included. First loop from 01/01/02. Second loop from 01/01/04, following the introduction of consultant geriatrician PTWRs. Patients' MLOS were calculated, until discharge home or transfer to a separate rehabilitation hospital. Deaths excluded.

Results
Loop 1 (2002). N=316. All discharges from acute hospital - MLOS = 7 days. Geriatrician PTWR - MLOS = 5 days. Physician PTWR - MLOS = 7 days.

Loop 2 (2004). N=383. Discharges from acute hospital - MLOS = 5 days

Conclusion
Length of stay may be reduced if elderly patients are reviewed by consultant geriatricians on PTWRs. We propose that this may be due to specialist assessment of patients' needs at the point of admission, appropriate investigation and earlier initiation of discharge planning.
COPYING DISCHARGE SUMMARIES TO PRACTICE PHARMACISTS: DOES THIS HELP IMPLEMENT TREATMENT PLANS?

M Urwin¹, S Gray², S Woolfrey¹


Introduction
Medicines-related issues and polypharmacy are recognised problems in elderly patients. Traditionally, when patients are discharged from hospital, the consultant sends letters to the patient’s general practitioner (GP). Anecdotal evidence suggested that changes in treatment recommended by the Care of the Elderly Consultant were not always being implemented in primary care. Non-implementation of proposed changes could lead to deterioration of the patient’s condition(s) and further admissions or outpatient referrals. It potentially wastes time and money. We investigated whether involving practice-based pharmacists after discharge would improve implementation of treatment plans after discharge from hospital.

Method
The consultant’s practice changed in March 2005 and copies of letters were also sent to practice-based pharmacists. The effect of this change was audited by reviewing the letters and examining the rate of non-implementation of medicines-related issues (one month period).

Results
Prior to the change in practice 29% (n=45) of the recommendations were not implemented. When the pharmacists were involved only 7% (n=41) of the consultant’s recommendations were not implemented. Thus the absolute risk reduction is 22% - ie for every 9 patients discharged from hospital, two required a medication-related intervention by a pharmacist in order to implement their treatment plan.

Conclusion
Involving the pharmacists reduced the number of treatment plans which were not implemented. If replicated across Northumberland Healthcare Trust’s Elderly Care Directorate (for discharges and outpatients), serving a population of 0.5 million, 220 patients each month would not receive medicines as their treatment plan recommends. This has implications for the workload in primary care, as not all GP practices have pharmacists working in them.

STROKE UNITS IN THEIR NATURAL HABITAT: A SYSTEMATIC REVIEW OF OBSERVATIONAL STUDIES

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Introduction
Randomised trials and systematic reviews have shown that stroke patients managed in stroke units are more likely to survive and regain independence. However, there are concerns that benefits seen in trials are not replicated in routine practice. We carried out a systematic review of stroke unit implementation.

Methods
We searched Medline, Embase, Cinahl, DARE, British Nursing Index, Cochrane Stroke Group register and recent conference abstracts for observational studies, comparing stroke unit outcomes with non stroke unit care. We excluded studies which did not describe matching for prognostic factors or casemix adjustment. Two independent reviewers screened abstracts for selection.

Data analysis used the Generic Inverse Variance method in Revman 4.2. Where raw data were provided, effect size and variance were calculated accordingly. We used a random effects model, exploring for sources of heterogeneity.

Results
We identified 73 papers on stroke unit outcomes. 24 were eligible for review, 14 provided data on case fatality or poor outcome (death/institutionalisation or death/dependency). Stroke unit care was significantly associated with reduced odds of death within one year (odds ratio 0.78; 95% confidence interval 0.71-0.86; p<0.00001), and of poor outcome (0.87; 0.78-0.96; p=0.008). Results were complicated by significant heterogeneity (p<0.01), mainly in single centre studies.

Conclusions
Although these results are complicated by potential selection bias and heterogeneity, the observed benefit of stroke unit care in routine practice is comparable to that in clinical trials.
RESPONSIVENESS OF GAIT MEASURES IN GERIATRIC PATIENTS

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1. Department of Geriatrics 2. Department of Neurology 3. Department of Physiotherapy Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands 4. Department of Old Age Psychiatry Maria McKenzie, Nijmegen, The Netherlands

Introduction
Gait and mobility problems are prevalent in elderly people and associated with falls and loss of independence. Early detection of gait and mobility changes can probably prevent further adverse outcomes or enforce current treatment. Quantitative gait measures are often used, but their responsiveness is unknown.

Methods
We assessed gait and mobility of geriatric inpatients with the Timed Up and Go-test (TUG) and an electronic walkway (Gaitrite®) at admission and two weeks later. Three experts decided from video if patients had a clinically relevant change in gait. We used the responsiveness index (RI: >1.96 indicates good responsiveness) and ROC curves as responsiveness statistics. Outcomes were expressed as coefficients of variation: (change in gait value/baseline gait value) x 100%.

Results
85 patients (mean age 75.8, 46 female) participated. Experts judged 59 patients stable and 26 patients as being relevantly changed in gait. At group level, RI for gait velocity was 4.6, for TUG 2.6. Area under the ROC curve for gait velocity was 0.80 and for TUG 0.77. In individual patients clinically relevant changes were detected best with a 5.1% change in gait velocity (sensitivity 92%) and an 8.7% change in TUG (sensitivity 93%). However, false positive rates were high, 73% and 66%.

Conclusion
On group level, gait velocity and TUG are responsive. However, high intra-individual variability in stable patients limits the suitability of these instruments as screening instruments for relevant gait changes.

THE EARLY EFFECTS OF RECOMBINANT PTH THERAPY ON URINARY CALCIUM AND ITS RELATIONSHIP TO BASELINE BONE BIOCHEMISTRY

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Falls and Osteoporosis Department, St James's Hospital, Dublin, Republic of Ireland

Introduction
Recombinant PTH therapy has become available for severe osteoporosis. It may be associated with hypercalciuria but the effects of changes in bone-turnover and prior bisphosphonate therapy on urinary calcium (UCa) post PTH is unclear.

Methods
42 females (mean age=75yrs (SD10)) with severe osteoporosis had serum PTH, 25(OH)D, osteocalcin (OS) and C-telopeptide (CTx) measurements prior to PTH-therapy. 24hour UCa was performed at 0 and 3months post PTH. Three groups were compared depending on the baseline UCa: group 1= in the normal range of 2.5-6.25mmol/24hrs, group 2=below 2.5mmol/24hrs, and group 3=above 6.25mmol/24hrs. Biochemical bone parameters and prior bisphosphonate usage were compared between groups.

Results
The table indicates baseline mean(SD) of biochemical markers in each group. No significant differences were noted in biochemical parameters between the 3 groups. However, mean OC, CTx and UCa were significantly lower in patients treated with bisphosphonates. Five patients(12%) developed new hypercalciuria on PTH.

Conclusions
UCa increased post PTH but this was not significant. Prior bisphosphonate usage is associated with a significantly lower baseline bone turnover and UCa. Surprisingly baseline 25(OH)D was not related to baseline or 3/12 UCa. This may reflect a small study size or assay variability.

<table>
<thead>
<tr>
<th></th>
<th>Normal-UCA(N=22)</th>
<th>High-UCA(N=5)</th>
<th>Low-UCA(N=15)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTH</td>
<td>33.44 (14.61)</td>
<td>31.9 (12.0)</td>
<td>40.71 (16.18)</td>
<td>0.23</td>
</tr>
<tr>
<td>25(OH)D</td>
<td>30.64 (11.77)</td>
<td>29.24 (13.97)</td>
<td>36.58 (19.72)</td>
<td>0.49</td>
</tr>
<tr>
<td>OS</td>
<td>23.12 (16.63)</td>
<td>32.14 (22.05)</td>
<td>19.18 (17.50)</td>
<td>0.19</td>
</tr>
<tr>
<td>CTx</td>
<td>0.31 (0.24)</td>
<td>0.40 (0.21)</td>
<td>0.36 (0.24)</td>
<td>0.54</td>
</tr>
</tbody>
</table>
H Cronin, M C Casey, C Fan, N Fallon, J B Walsh

Falls and Osteoporosis Department, St. James’s Hospital, Dublin, Republic of Ireland

Introduction
Recombinant PTH (rh-PTH) is the first anabolic bone agent for Osteoporosis treatment. It increases bone mineral density (BMD) by 9% at lumbar spine and reduces vertebral fractures by up to 90%. Adverse effects reported in 9% of patients include dizziness and orthostatic hypotension (OH), the causes of which are unclear. We conducted cardiovascular homeostatic investigations on osteoporotic patients pre and post treatment with PTH.

Methods
24 consecutive patients, mean age 63.3 ± 9.4 were investigated using digital arterial photoplethysmography (Finometer) before and within 12 days ± 8 of commencing PTH therapy. This measured systolic blood pressure (SBP), mean arterial resistance (MAP) and total peripheral resistance (TPR), supine and within 2 minutes of standing.

Results
Detailed as mean ± SD

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Pre PTH</th>
<th>Post PTH</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP</td>
<td>130.75 ± 18.79</td>
<td>133.68 ± 16.98</td>
<td>0.57</td>
</tr>
<tr>
<td>MAP</td>
<td>96.988 ± 13.55</td>
<td>99.20 ± 10.84</td>
<td>0.569</td>
</tr>
<tr>
<td>TPR</td>
<td>1.877 ± 0.903</td>
<td>1.962 ± 1.052</td>
<td>0.544</td>
</tr>
</tbody>
</table>

No significant differences were noted following treatment with PTH.

Pre-treatment, 19/24 patients (79.1%) had a drop of >20mmHg in SBP, of these 6 patients had dizziness. 3 patients with asymptomatic OH pre PTH subsequently complained of dizziness post PTH.

Conclusion
In this small study, treatment with PTH was not associated with a significant degree of OH. In particular there was no evidence of PTH induced vasodilation. OH did become symptomatic in a number of patients and requires further investigation.

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Norfolk & Norwich University Hospital, University of Cambridge

Introduction
Cardiac Troponin I (cTnI) is a sensitive and specific marker of acute cardiac damage. As older patients with cardiac events can present with non-specific symptoms, the measurement of cTnI in this population has increased. We examined the prevalence and importance of incidental cTnI rise in older patients by clinical criteria.

Methods
Over one calendar month, 187 patients aged >=65 years with a raised cTnI on admission at least 8 hours after symptom onset were identified and followed up at 30 and 90 days. Based on history, examination and investigations, the patients were clinically classified as: (1) ST elevation myocardial infarction (2) other acute coronary syndromes (3) other cause of troponin I rise and (4) incidental finding.

Results
Age range = 65-98 years. Male = 55.6 %. 54 % had non coronary cause of cTnI rise (category 3&4). It was an incidental finding in 18% and was associated with older age and significantly lower level of cTnI rise (U=1718.5, p=0.002). At day 30, 17.6% of patients in category 4 were readmitted compared to 15.2% (category 1&2) and 11.9% (category 3). 26.5% of them died compared to 19.8% (category 1&2) and 20.9 % (category 3). At day 90, total readmission and deaths were 23.5% and 35.3% for category 4 compared to 23.3% and 22.1% for category 1 &2 and 23.9% and 26.9% for category 3, respectively.

Conclusions
Incidental cTnI rise is common in acutely unwell older patients. Our findings also suggest that they have a poorer prognosis compared to those who had an identifiable cause of raised cTnI.
DEFINING THE NUTRITIONAL STATUS AND DIETARY INTAKE OF OLDER, HEART FAILURE PATIENTS

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Introduction
Little information exists about diet in the management of heart failure. The purpose of this study was to describe the nutritional, biochemical status, and dietary intake of older heart failure patients which may inform the design of a future dietetic intervention for typical heart failure patients.

Methods
Stable outpatients and patients with a recent hospitalisation for decompensated heart failure were recruited. Anthropometric measurements, biochemical values and echocardiography were recorded. Patients kept 7-day food diaries and completed questionnaires concerning food provision.

Results
Forty-five patients with a mean (sd) age of 80.8 (6.8) years were studied with 28/45 (62%) in New York Heart Association (NYHA) class III. Mean (sd) body mass index (BMI) was 27.1 (5.4) kg/m2 with 7% of patients having a BMI < 20 kg/m2 and 27% with a BMI above 30 kg/m2. 64% of participants failed to achieve the estimated average requirements for energy intake; 82% took more than 2 g of sodium daily; and 18% had a potassium intake above 3500mg/day. Vitamin D intakes were well below the recommended intake of 10µg/day. Only 29% of individuals did not need assistance with food shopping, whilst 58% required assistance with meal preparation.

Conclusion
There are a number of potential targets for dietetic intervention in chronic heart failure patients. Further intervention studies involving carers are needed if they are to be successful in changing eating habits.

THE EFFICACY OF PRE-THICKENED FLUIDS ON TOTAL FLUID AND NUTRITION CONSUMPTION AMONG EXTENDED CARE RESIDENTS REQUIRING THICKENED FLUIDS DUE TO RISK OF ASPIRATION

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Background
Dysphagia is common among nursing home residents. Powdered fluid thickeners are prescribed in this setting but may adversely affect flavour. Resulting fluid viscosities vary, influenced by several factors including the experience of those adding the thickener. Consequently, patient fluid and nutrient consumption may be further compromised. Our aim was to compare standard fluid thickening practice with the use of novel commercially produced, pre-thickened preparations of fruit juices and milk.

Methods
An unblinded, prospective, case-control, crossover study comparing bedside addition of fluid thickener to pre-thickened fluids was performed on 11 dysphagic extended care residents for a period of 12 weeks. Constipation rates, fluid, protein, calorie, calcium and vitamin C intakes were determined at baseline and weeks 6 and 12.

Results
Eleven patients (73% female, mean age 76) were studied. A significant majority of patients on pre-thickened fluids showed an increase in fluid intake (8 vs 3 of 11). Nutrient intakes (energy, protein, calcium, vitamin C) were significantly greater when patients consumed pre-thickened drinks compared to normal thickener (mean 657.5 vs 272.5kCal (p<0.001), 14.3 vs 7.2g/day (p<0.002), 536.2 vs 30.9mg (p<0.0001), 183.2 vs 39.3mg (p<0.0001) respectively). Constipation rates were similar.

Conclusion
Pre-thickened fluids help to increase overall fluid intake and dramatically increase total calorie, protein, calcium and vitamin C intakes. The prescription of pre-thickened fluids should be considered a routine part in the management of all dysphagic patients.
I K Tailor, J Treml

Department of Geriatric Medicine, University Hospital Birmingham NHS Foundation Trust

Introduction
Palliative Care is an established part of cancer services. Most people die of non-malignant disease and less is known about their palliative care needs. We report an observational study describing the palliative care needs of medical inpatients.

Methods
The study was performed on all acute medical and geriatric wards of a teaching hospital. Patients were identified as having palliative care needs from review of hospital notes and direct questioning of each ward team. Palliative care needs were defined as one or more of the following criteria:

♦ Significant problems with symptom control
♦ End stage of any chronic disease
♦ Likely to die this admission
♦ Active diagnosis of cancer

Results
Of 257 patients, 60 (23%) had palliative care needs. 45 (75%) were over 70. Both sexes were fairly represented. 21 (35%) had cancer. There was an even distribution between the other criteria. Symptoms included pain, nausea, confusion, agitation, anorexia, breathlessness and respiratory secretions.

Conclusions
Many inpatients have palliative care needs and most of these do not have cancer. The predominance of non-cancer reflects previous community-based surveys of palliative care needs and the relative contributions of diseases to mortality.

The high prevalence of palliative care needs would overwhelm existing specialist Palliative Care services. Alternative strategies are needed, including care pathways, improved education and support for non-specialist teams. Palliative care should become a core skill for all clinical staff.

S Iliffe1, G Manthorpe2

1) Centre for Ageing Populations studies, Dept of Primary Care & Population Sciences, University College London 2) Social Care Workforce Research Unit, Kings College London

Introduction
In early 2005 the Healthcare Commission surveyed the views of older people in the community about their views and use of primary, secondary and social care and council services.

Methods
Six Primary Care Trusts provided a random sample of 2000 older people (over 50 years of age) stratified by age. The response rate was 35% (n=4170).

Results
Fifty four per cent of respondents answered questions about experiences of hospital care, 37% relating to themselves, 17% on behalf of a close relative. The majority felt that inpatient treatment could not have been avoided (91%); 9% felt avoidance could have been possible if community services had been better, or if doctors or nurses had acted earlier.

Seventy eight percent felt that their care and treatment was sensitive to their views, beliefs or preferences, 73% that their care was personalised, 75% that the care was designed to involve them in making decisions about future care and 77% that this care was designed to promote independence.

The majority of respondents felt that on leaving hospital that this was timely and well-organised (69%).

Conclusions
Most respondents with experience of using hospital services were satisfied with the quality of their care. Admission avoidance was not seen as practical or appropriate by many, whilst nearly one in three could identify problems with the process of discharge from hospital.
ASSOCIATION BETWEEN EXECUTIVE DYSFUNCTION AND TYPE TWO DIABETES MELLITUS IN PATIENTS WITH NORMAL COGNITIVE FUNCTION

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Introduction
It is unclear whether type 2 diabetes mellitus (T2DM) has an effect on cognition, independent of dementia. Executive cognitive dysfunction (ED) is associated with impairment of abstract reasoning, planning and goal directed behaviour. The aim of this study was to determine whether T2DM is a risk factor for the development of executive dysfunction.

Methods
This case control study included normal cognition (MMSE>27) patients with T2DM and age matched non-diabetic (fasting glucose<5.7 mmol/l) controls. HBA1C(%) was measured in T2DM patients. Frontal Assessment Battery (FAB), Lawton’s Index of Instrumental Activities of Daily Living, Barthel Index and Geriatric Depression Score, comorbidities and fasting lipid were measured. We recorded duration of diabetes and diabetic complications.

Results
48 T2DM and 41 controls were assessed. 41 (85%) T2DM patients and 34 (83%) controls had executive dysfunction (FAB<15). Among T2DM patients, ED was significantly associated with poor glycaemic control (HBA1C>7%). No other associations were found.

Conclusion
We found high prevalence of ED in T2DM patients and age matched controls with normal cognition. Among T2DM patients, ED was associated with poor glycaemic control.

As ED may negatively impact sequencing and goal directed behaviour needed for compliance with diet, medication administration and glucose monitoring, we recommend all T2DM patients be screened for its presence regardless of MMSE.

<table>
<thead>
<tr>
<th>Executive dysfunction, N=41</th>
<th>No Executive dysfunction, N= 7</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBA1C &gt;7%</td>
<td>22 (53%)</td>
<td>1 (7%)</td>
</tr>
</tbody>
</table>

RISK FACTORS FOR URINARY TRACT INFECTIONS (UTI) CAUSED BY EXTENDED-SPECTRUM BETA-LACTAMASE - PRODUCING (ESBL) ESCHERICHIA COLI (E COLI): A CASE-CONTROL STUDY IN HOSPITALISED PATIENTS

M Srinivasan, P O’Neill, N Mike, B Jose, H Iyer, G Clements, R R Campbell

Princess Royal Hospital, Telford

Introduction
Infections due to ESBL-producing organisms are an emerging problem. E coli is the commonest cause of UTI. Recognition of patients with strains that produce ESBL enzymes is important as they may be clinically resistant to therapy with common antibiotics.

Methods
The presence of potential risk factors for urinary infection was compared in hospitalised patients with UTI from ESBL E coli (cases) and from non-ESBL E coli (controls). Patients were identified retrospectively from microbiology records. Notes were examined for pre-specified demographic and clinical data and compared with at least one control patient, matched for age, sex and week of admission.

Results
Cases (n=41) were younger than controls (n=70) (mean age (SD), 75.2 (12.1) vs 79.6 (6.9), p<0.05). 53.7% cases were female, controls 77.1% (p=0.01). The number of comorbid conditions was higher in cases (mean (SD), 2.5 (1.03) vs 1.8 (0.98), p= 0.001). Number of hospital inpatient days in the previous year was higher in cases (median (range), 10 (0 - 300) vs 0 (0 - 36) days, p<0.001). Previous ITU admission was commoner in cases, 22% vs 4.2%, p< 0.01. Cases had lower Barthel scores (median (range), 17 (5 - 20) vs 20(3 - 20), p<0.01), were more commonly catheterised (46.3% vs 11.4%, p < 0.001) and previously received antibiotics (68.3% vs 12.9%, p < 0.001).

Conclusion
Patients with ESBL E-coli UTI had more comorbid conditions and poorer functional status. They were more likely to have a history of previous hospitalisation, antibiotic usage, ITU stay and urinary catheterisation.
**OUTCOME OF URINARY TRACT INFECTIONS (UTI) CAUSED BY EXTENDED-SPECTRUM BETA-LACTAMASE - PRODUCING (ESBL) ESCHERICHIA COLI (E COLI): A CASE-CONTROL STUDY IN HOSPITALISED PATIENTS**

M Srinivasan, P O'Neill, N Mike, B Jose, H Iyer, G Clements, R R Campbell

Princess Royal Hospital, Telford

**Introduction**
ESBL E. coli, an emerging and important cause of UTI, is resistant to therapy with common antibiotics. Its clinical significance is uncertain. In 2003 there was an outbreak of ESBL-producing E. coli UTI. We examined patient outcome after UTI with this organism.

**Methods**
Patients and controls were identified retrospectively from microbiology records. Cases were matched for age, sex and admission week with at least one control with UTI from non-ESBL E. coli. Notes were examined for pre-specified demographic, clinical and outcome data.

**Results**
Notes from 41 cases and 70 controls were compared. Cases were younger (mean age (SD), 75.2 (12.1) vs 79.6 (6.9), p < 0.05). 53.7% cases were female, controls 77.1% (p = 0.01). Similar numbers lived at home (cases 80.5%, controls 84.3%). Comorbid conditions were greater in cases (mean (SD), 2.5 (1.03) vs 1.8 (0.98), p = 0.001). Inpatient mortality was higher (34.1% vs 10%, p < 0.01) and length of stay longer for cases (Median (range), 30 (2 - 253) vs 12.5 (1 - 105) days, p < 0.001). White blood cell counts (mean (SD), 13.2 (5.9) vs 10 (4 x 10⁹/l, p < 0.001), C-reactive protein (median (range), 102 (5 - 600) vs 14.5 (4 - 370) mg/l, p < 0.001) were higher but serum albumin was lower (mean (SD), 31.8 (7.2) vs. 35.1 (5.4) g/l, p = 0.01) in cases compared with controls. UTI recurrence rate in cases was higher (33.3% vs 7.9%, p < 0.01).

**Conclusion**
Patients with ESBL-producing E. coli UTI have greater comorbidity, lower serum albumin levels, increased inflammatory indices and have a worse outcome.

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**EPIDEMIOLOGY**

**INCIDENCE OF HOSPITAL PRESENTATION FOLLOWING A FALL - DEVELOPMENT OF A FALLS SURVEILLANCE SYSTEM FOR THE ACCIDENT AND EMERGENCY UNIT**

J Dickens, A Johansen

Department of Geriatric Medicine, University Hospital of Wales, Cardiff

**Introduction**
Falls are a major public health issue in older people, and have been targeted for attention by both National Service Framework and NICE guidelines. However, reliable epidemiological data are not easily available, and it is difficult to monitor effects of public health innovations.

**Methods**
In work based in the Accident and Emergency (A&E) unit of our teaching hospital we introduced a system to routinely record whether presentation was the result of a fall. All 27,509 patients presenting to A&E over a 16 week period (March-July) were to be asked whether they had fallen. Their responses were linked to prospectively collected data identifying patients' age, sex, and postcode, circumstances surrounding any fall, and consequences in terms of injury and clinical care.

**Results**
2,983 patients (11% of all presentations) had suffered a fall. Falls became increasingly common in older age groups. Falls incidence in women aged over 65 years (58.6/1,000/year) was significantly higher than in men of this age (30.5/1,000/year). Oldest women were at highest risk of needing A&E care after falling: 109.2/1,000/year in over 80 year olds.

**Conclusion**
Extrapolating from these figures - 1.9 million people in the UK will need A&E care following a fall each year. Falls surveillance is practical in the A&E setting, and proved a valuable mechanism for monitoring the public health impact of falls within the population as a whole.
CLOSTRIDIUM DIFFICILE ELICITS A PRO-INFLAMMATORY HOST IMMUNE RESPONSE WHICH CAN BE MODULATED BY PROBIOTIC BACTERIA IN VITRO

J Ryan, A M O'Hara, A Fanning, B Sheil, L O'Mahony, F Shanahan

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Introduction

Clostridium difficile is an anaerobic organism that causes significant morbidity in elderly patients. Probiotics are commensal bacteria which may exert immunomodulatory effects on the intestinal epithelium and protect against infectious bacteria. The aim of this study was to assess the effect of C. difficile on an epithelial cell line and whether commensal bacterial strains modulate C. difficile-induced pro-inflammatory responses in vitro.

Methods

C. difficile was cultured under anaerobic condition. HT-29 human intestinal epithelial cells were pre-treated with commensal bacteria (Lactobacillus salivarius or Bifidobacterium infantis) two hours prior to inoculation with C. difficile. Supernatants were collected at various time points and levels of the proinflammatory chemokines interleukin(IL)-8 and CCL20 were measured using enzyme-linked immunosorbent assay.

Results

C. difficile induced a time-dependent secretion of IL-8 by HT-29 cells, maximal after 24hrs (1180 pg/ml +/- 382 vs untreated cells 41pg/ml +/-25; p<0.05, paired t-test). C. difficile also stimulated significant secretion of CCL20 (1044±233 pg/ml vs 106±23 pg/ml) by HT-29 cells. Pre-incubation with B. infantis or L. salivarius attenuated the C. difficile-induced IL-8 response, and B. infantis also limited C. difficile-induced CCL20 secretion.

Conclusion

C. difficile induced a pro-inflammatory IL-8 and CCL20 response by epithelial cells which was attenuated by pre-incubation with commensal strains. These results suggest that probiotic bacteria can modulate the host inflammatory responses to enteric pathogens.

EFFECTS OF PROTECTED MEALTIMES ON NUTRITION AND STRENGTH OF ELDERLY PATIENTS IN HOSPITAL - A PILOT STUDY

A K Das¹, T McDougall², J A J Smithson³, R M West⁴


Introduction

Older peoples’ nutrition can decline during hospitalisation due to lack of assistance while eating and interruption of meals by procedures and ward rounds. We performed a pilot study to find effects of Protected Mealtimes.

Methods

Patients of two Elderly Medical wards who were not undernourished, on normal diet, who could feed themselves and stayed in at least 2 weeks participated. During Protected Mealtimes(lunch-1215hr to 1315hr and evening meal-1700hr to 1800hr) ward staff concentrated only on helping patients to eat: other routine activities stopped. The following parameters were checked weekly: body weight, mid-arm circumference, hand grip, and protein and calories intake.

Results

First, data were collected on 17 patients: the controls. Four months later protected mealtimes were implemented in the same two wards and data were collected from 22 eligible patients: the intervention group. Results were similar in both the groups for daily calorie (1275 vs. 1121) and protein (50gm vs.44gm) intake. Overall weight losses (0.25kg/week vs. 0.19kg/week) were also similar. The control group lost an average mid-arm circumference of 0.2 cm/week compared to 0.03 cm/week gain in the intervention group (p=0.056), although both groups had similarly decreased grip strength (0.60 kg vs. 0.53kg).

Conclusions

Protected Mealtimes did not improve nutrition or strength in this pilot study. The protection of mealtimes has consequences for medical care. We have identified the parameters necessary to undertake a worthwhile equivalence trial.
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Introduction
The NHS Plan stated that letters should be copied to patients. There is scepticism about the practicalities of this policy, and older people may have particular difficulties. We wished to measure their acceptability to doctors and value to patients.

Method
During 6 weeks, consultants considered the suitability of patients attending geriatric clinics to receive the clinic letter sent to their GP. Patients were then asked if they wished to receive the letter, detailing their reasons from choice lists. The letter was accompanied by a further questionnaire, recording whether they were pleased to have had the letter.

Results
181 patients were seen, mean age 80 years, of whom 130 (72%) were considered suitable to receive their letter, but this varied greatly between consultants. Reasons for unsuitability included ‘potential harm or distress’ (28); ‘information not discussed’ (13). One hundred and sixteen (89%) accepted the offer of the letter with the principal reason "to remind me what was said". The principal reason for refusing was "I feel it is unnecessary". Sixty percent returned their second questionnaire, and 96% were positive about its value. Three "would rather not know" or "could not understand".

Conclusion
One third of elderly out-patients may be unsuitable to receive a copy of their clinic letter. Most accepted the offer of a letter, which was widely appreciated. This may prove an important way of improving chronic disease management.

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Introduction
The National Service Framework for Older people emphasizes avoidance of unnecessary admissions. We evaluated the decision to admit from multiple stakeholders’ perspectives.

Methods
Ten consenting patients aged 75 years + admitted to the medical admissions ward were recruited, representing different ages, living arrangements, admission timings and clinical categories of fall, immobility, confusion and diagnostics. All could have been managed in intermediate care (consultant opinion). 30 semi-structured audio-taped interviews (median 7 days after admission, range 1-60) with patients, formal / informal carers, GPs, social workers, care manager, warden, community psychiatric nurses and rapid response doctors, explored events prior to admission, involvement in the decision, alternatives considered and satisfaction with outcome. Transcripts were analysed using a grounded theory approach of sorting, organizing and indexing the data to highlight differences and similarities in the case studies.

Results
7 admitting clinicians unfamiliar with the patient cited nursing care as the main reason for admission; for patients’ own GPs (3 cases) medical input was important. Carer strain was a factor in all cases. Admission occurred after saturation / refusal of alternative services in 8 cases. Ambulance staff / formal carers infrequently involved patients / families in the decision (1: 4 cases) compared to doctors (5: 7 cases). All patients/relatives were satisfied with the decision.

Conclusions
Poor information on usual function and perceived lack of alternative services for immobile patients led to avoidable acute admissions.
SPECIALIST REGISTRAR TRAINING IN THE MANAGEMENT OF ELDER ABUSE

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Introduction

Elder Abuse is a prevalent and growing concern to society. Geriatricians should feel confident in being able to manage any cases they encounter. The objective of this study was to examine whether Specialist Registrars (SpRs) and newly appointed Consultants in Geriatric Medicine felt adequately prepared to deal with cases of Elder Abuse.

Methods

A postal questionnaire survey was sent to each of the 40 SpRs and 81 Consultants in Geriatric Medicine in the North-West Deanery. Year of Training or Length of Service was recorded for each respectively. Perceptions of Quantity and Quality of training were recorded on a 5-point scale (1 = Lowest). Both groups were asked whether they felt adequately prepared for dealing with cases of Elder Abuse as Consultants.

Results

37 SpRs (16 Year 4/5 SpRs) and 63 Consultants (22 <5 Years experience) returned completed questionnaires.

Mean rating scores for Quantity of training:
SpRs 1.32 (All Years), 1.37 (Years 4/5 only).
Consultants 1.65 (All Consultants), 2.00 (<5 Years Service).

Mean rating scores for Quality of Training:
SpRs 1.73 (All Years), 1.69 (Years 4/5 only).
Consultants 2.00 (All Consultants), 2.32 (<5 Years Service).

62.5% of Year 4/5 SpRs felt inadequately prepared to deal with cases of Elder Abuse as new Consultants. 23.8% (All Consultants) and 50.0% (<5 Years Service) felt similarly inadequately prepared.

Conclusion

Trainees and Consultants in Geriatric Medicine demonstrated low rating scores for both quantity and quality of training in managing cases of Elder Abuse. The majority of Specialist Registrars approaching the end of their training programme and half of the newly appointed Geriatric Consultants feel inadequately prepared to deal with such cases.

BALANCING RIGHTS AND RISKS:- THE CONFLICTING PERSPECTIVES OF LAY AND PROFESSIONAL CARERS IN THE MANAGEMENT OF WANDERING IN DEMENTIA

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Introduction

Perceptions of risk and risk awareness vary. In the context of dementia, the perspectives of people with dementia, their families, professional carers and society in general are all important. Wandering is a common problem in dementia. It may be beneficial but can result in physical harm, emotional distress and institutionalisation. The aim of this presentation is to explore the process of risk management in the elderly within the context of wandering in dementia.

Methods

Systematic review following national guidance and a qualitative study. Focus groups with relevant stakeholders; people with dementia (1 group); family carers (1 group); and professional carers (2 groups). Analysis via a thematic framework approach.

Results

A major theme for all carers, both professional and lay, was balancing the conflict between the person with dementia’s right to autonomy and the carer’s duty to prevent or reduce harm. Family carers exhibited greater risk tolerance. Professional carers however, favoured safety over the rights to freedom, with the threat of litigation impeding their ability to deliver patient-centred care.

Conclusion

Perceptions and management of risk differ between family and professional carers. Practical guidance is required e.g. a risk management framework to facilitate the negotiation of risk between relevant stakeholders in caring for older people.
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Introduction
Previous studies suggest that older people are no less likely to want to be involved in decisions regarding care than younger patients. However, most such studies have been conducted in stable outpatient populations, and the results may not be the same in acutely ill patients.

Methods
We examined the views of 102 consecutive acute medical inpatients. A standardized assessment included cognitive tests and assessment of the severity and nature of medical illness. We assessed patients’ desire for information using a 5-point Likert scale, and their desire for a role in medical decision making using the Degner Control of Preferences Scale.

Results
Patients aged 65 or more (N=69) seemed less likely than younger patients (N=33) to seek a lot of information about their condition (66% v. 88%; Yeats Chi Square 3.3, p=0.07). However, there was no difference in the proportion of older and younger subjects seeking to be the final arbiter for inpatient decisions regarding their care (63% v. 51%; Yeats Chi Squared 0.93, p=0.33). Presence of cognitive impairment and severity of underlying illness did not significantly influence patients’ preference.

Conclusions
In an acute setting, older patients are no less likely than younger patients to seek an active role in decision making regarding their care.

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Introduction
Cancer is age-related. However, oncology and palliative medicine services focus on the needs of younger and middle-aged adults. This study examined trends in cancer deaths across age in Wales over the last twenty years.

Method
All Wales death certificates from 1981-2001 were examined for total and cancer deaths. Place of death and age were noted.

Results
Total deaths decreased from 35,015 in 1981 to 32,966 in 2001 while cancer deaths increased from 7369 (21.1% of all deaths) to 8292 (25.2%). Deaths due to cancer increased in the over 85’s from 9.1% to 13.1%, 75-84 years (17.1% to 25.2%), 65-74 years (25% to 35.7%), 45-64 years (33.5% to 40.4%) and fell from 18.3% to 16.1% in those under 44 years. Cancer deaths over 75 years increased from 33.6% of cancer deaths in 1981 to 50.1% in 2001. Cancer deaths in the community decreased from 2713 in 1981 to 2153 in 2001 and increased in hospital from 4398 to 5185 and care homes from 258 to 954. The increase in hospital cancer deaths is mainly due to 75-84 year olds (1207 to 1840), and the over 85’s (294 to 740).

Conclusion
Half of all cancer deaths are now in those over 75 years. Cancer deaths have shifted from the community to hospital and care homes mainly due to cancer in older people. Services need to be developed to target this population.
AGE AND SEX DISCRIMINATION IN MEDICAL RESEARCH- US BASED AND UK BASED JOURNALS

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Introduction
Legislative action particularly in US has tried to combat exclusion of older people and women from medical research. This study examined discrimination in clinical research in last 3 decades to see if there are differences in publications from different areas (UK vs USA).

Methods
We examined all original research publications in BMJ, LANCET & HEART (UK) AND Circulation and NEJM (USA) for 1981, 1991 and 2001.

Results
Comparing 1981 and 2001, percentage research subjects female increased from 29% to 53% in NEJM, 16% to 47% in circulation, 21% to 47% in BMJ. However in Heart and Lancet percentage females remained about 28 % in last 3 decades.

There has been no significant change in the number of studies operating unjustifiable upper age cut offs. However the mean upper age limit being applied has increased from 50's and early 60's to late 60's in all the journals.

Mean age of study populations has increased slightly, in NEJM being 50.66, 49.05 and 55.69 years, in Circulation 50.49, 50.92 and 55.21 years, in Heart 51.15, 57.29 and 57.70 years, in Lancet 49.27, 52.81 and 54.01 years respectively in 1981, 1991 and 2001. There has been no significant change in BMJ (52.51, 49.74 & 53.86 years).

Conclusion
Significant ageism still exists in clinical research both sides of Atlantic. More progress has been made in US in reducing sexism.

THE MOST IMPORTANT INFLUENCING FACTOR IN “DO NOT ATTEMPT RESUSCITATION (DNAR)” DECISION MAKING IN CLINICAL PRACTICE OF SPECIALIST REGISTRARS (SPR) IN GERIATRIC MEDICINE (GM)

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Introduction
Trainees in GM have continual involvement in DNAR decisions. We explored what is the single most influencing factor for them in DNAR decision making.

Methodology
A questionnaire was sent to trainee members of British Geriatrics Society (n = 408) in November 2003. There were 235 SpR respondents (respondents = 251, 62.0% response rate) after second mailing. We examined the responses to one of the questions, “In your current clinical practice, what is the single most influencing factor in making DNAR decisions?”.

Responses were coded and analysed thematically.

Results
Almost a third (72, 30.6%) said that likelihood of success was a key influencing factor. In relation to this, futility was mentioned by 18 (7.7%) and the prognosis by 17 (7.2%). Quality of life (QoL) was a key factor in making DNAR decisions for 42 (17.9%). About third of these respondents did not provide further information, but one third referred to pre-morbid or pre-admission QoL, whereas for the remaining one third expected QoL post-resuscitation was the key factor. 43 (18.3%) mentioned that patient's wishes were important. 80 (34%) stated that medical condition was an influencing factor. 14 (6.0%) of these respondents stated that irreversibility of patient's condition was an appropriate reason for DNAR order, 18 (7.7%) said they would consider patient's pre-morbid condition, and 27 (11.5%) mentioned co-morbidity as an influencing factor.

Conclusions
Our findings clearly demonstrate the inconsistencies in decision making among trainee geriatricians. Further exploration of the factors influencing their practice would help to understand how to provide appropriate training regarding DNAR decision making for future geriatricians.
Introduction
Most depression measurement tools include assessments of somatic issues (e.g., sleep disturbance) which may overestimate the frequency of depression in PD. We assessed a tool without somatic elements (Edinburgh Postnatal Depression Scale - EPDS) in patients with PD.

Methods
A cross-sectional survey including demographics, disease stage, quality of life (QoL), and symptom load was undertaken using face-to-face interviews. PD was defined using the UK Brain Bank Criteria. Depression was assessed using the Beck Depression Inventory (BDI) and EPDS.

Results
123/161 (76.4%) of patients approached agreed to participate. Mean age 74.3 years (range 51-89), 52% female. Mean Hoehn and Yahr stage (H+Y) 2.7 (range 1-5). Mean BDI score 10.6 (range 0-45) and was predicted by QoL scores (Beta standardised coefficient = 0.25, p=0.03) and number of symptoms (0.27, p=0.01), using multiple regression analysis. Mean EPDS 8.24 (range 0-28) and was predicted by QoL scores (0.43, p<0.001) and shorter duration of disease (-0.27, p=0.003). Correlation between the 2 tools was strong and significant (0.68, p<0.001). The frequencies of depression using the BDI and EPDS were 16.3% and 9.8% respectively. There were peaks at H+Y stage I and III/IV with the EPDS but not the BDI.

Conclusions
The frequency of depression, measured with the EPDS, is lower than estimated by the BDI. Furthermore, the EPDS may be better at detecting the psychological changes which occur throughout the course of PD.

THE ASSESSMENT OF MOTOR ACTIVITY IN DELIRIUM WITH ACTIGRAPHY

Introduction
Delirium is a common problem in hospitalised patients. It is associated with disordered motor activity. The actigraph monitors frequency and amplitude of motor movements at the wrist.

The aim of this study is to use actigraphy to describe the natural history of motor restlessness in delirium. The relationship between motor activity, severity and sub-type of delirium will be explored.

Methods
Inpatients with a diagnosis of delirium who fulfilled criteria on screening (DSM-IV checklist) and rating assessment (DRS-R-98) were enrolled. Patients had continuous monitoring of motor activity using an actigraph for 7 days. They were also monitored using validated delirium (DRS-R-98) and psychiatric (BPRS) rating scales.

The delirium sub-type was defined by mean actigraph activity as either hyperactive (high) or hypoactive (low).

Results
17 participants (mean age 85.2yrs) were enrolled. From complete actigraph data on 16 patients, 5 were hyperactive. Actigraph activity in this group correlated with delirium severity (r= 0.35) and decreased as the delirium resolved.

12 patients were hypoactive on actigraphy. Motor activity remained low during delirium and recovery and did not correlate with delirium severity (r= -0.07).

There was no significant difference in delirium severity between hyperactive and hypoactive delirium at enrolment (p=0.9).

Conclusion
Delirium sub-types remain poorly understood but actigraphy supports the existence of distinct groups defined by motor activity. In hyperactive patients actigraphy may be a useful tool in the measurement of delirium severity.
**Introduction**
A significant minority of older people live in residential care. Although disability is a major contributory factor to admission, there is little comparative data comparing levels of disability between nursing homes and community. Adequate management of disability requires accurate information on its prevalence and nature. We sought to use census data to determine the prevalence of disability among both older nursing home residents and older people in the community.

**Methods**
Disability was measured using a six item questionnaire embedded in a census form of a nationwide census in 2002. Prevalence of disability was quantified among the general population and nursing homes residents over 65. Comparisons were made of the number and type of disabilities between nursing home residents and their age-matched peers in the community.

**Results**
Of the 14,764 nursing home residents (3.4% of the older population), 87.5% were recorded with at least one disability, compared with 29.2% of those living in the community. Nursing home residents had on average 4.5 disabilities ranging from hearing and visual problems to difficulties remembering and concentrating.

**Conclusion**
There is a very high level of physical, sensory and cognitive disability among nursing home residents. Strategic health and functional questions in national censuses may be helpful in planning appropriate services for older people in residential care, as well as tracking trends in disability.

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**SURVIVAL IN A COMMUNITY BASED COHORT OF PARKINSON'S DISEASE PATIENTS COMPARED TO AGE/SEX MATCHED CONTROLS**

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**Introduction**
The aim of this study was to compare survival in cases of Parkinson's disease (PD) without significant cognitive impairment at baseline, to an age sex matched control cohort in the general population.

**Methods**
A cohort of PD patients (n=86) aged 53-91 were drawn from a community based register and a control group (n =102) free from neurological illnesses were recruited from the general population over a 4-year period.

**Results**
The PD cohort were followed for a mean of 4.4 years during which period 26 died giving a cumulative mortality of 30%. The age and sex matched control group were followed for 3.96 years of which 5 died, giving a cumulative mortality of around 5%. We found that compared to survivors the deceased PD patients were older, more likely to be male, had worsening PD symptoms and health related quality of life (p < 0.05). PD patients had an increased risk of (RR: 3.4 95% CI's 1.4-9.6) death compared to the control cohort. Baseline characteristics of the PD cohort were used to predict survival using multivariate Cox proportional hazard models. The most predictive variables for survival were age (younger), less disease severity (UPDRS motor section) and better cognitive function (p < 0.05).

**Conclusions**
These findings suggest that despite treatment, mortality remains significantly increased in PD compared to the general population.
THE IMPACT OF PD TREATMENT COMPLICATIONS ON PATIENT HRQOL

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Introduction
The impact of drug complications on health-related quality of life (HRQoL) of patients with Parkinson’s disease (PD) is not widely reported. The aim of this study was to assess the impact of complications of therapy on HRQoL using self-administered generic and PD-specific measures, United Kingdom Sickness Impact Profile (UKSIP) and PDQ-39.

Methods
Patients with idiopathic PD were recruited into the study from two movement disorder clinics in South Wales. Patients were evaluated on the Hoehn and Yahr (H&Y) scale, and part IV ‘Complications of Therapy’, of the UPDRS by a clinician. Patients were asked to complete both the UKSIP and PDQ-39 in the outpatient clinic.

Results
Ninety patients took part in the study and completed the UKSIP and PDQ-39. Mean age was 71 years (median=72, range 41-92), 56 (62.2%) being male. Seventy-six (84.4%) patients were between H&Y stage 1.5 (mild) and 3 (moderate). Mean PDQ-39 and UKSIP scores were 28.3 (median=27.1) and 20.7 (median=17.7) respectively and 41 (45.6%) patients displayed no complications of therapy. There was a significant difference in PDQ-39 scores between patients with or without complications (p<0.05) but not for UKSIP. There was no significant difference between HRQoL scores for males and females and showed poor correlation with age. PDQ-39 scores were higher for patients with motor fluctuations (p=0.002).

Conclusion
Patients with treatment complications have significantly poorer HRQoL scores as measured by the PDQ-39.

PILOT STUDY OF PROGNOSTIC IMPLICATIONS OF HYPONATRAEMIA IN THE ELDERLY

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Introduction
Hyponatraemia (serum sodium <135mmol/litre) is the most common electrolyte imbalance in elderly inpatients. We hypothesised that hyponatraemia was independently associated with increased length of stay and loss of independence or death as measured by failure to return to previous residence.

Methods
Retrospective pilot study of the impact of hyponatraemia on loss of independence and length of stay in all patients admitted to two acute geriatric wards between 1st January 2005 and 31st March 2005. Basic demographic data and serum sodium results were included in multiple linear and logistic regression models for the end-points length of stay and return to previous residence respectively.

Results
Of 103 cases (mean age 82, 59% female), 19 (18%) were hyponatraemic on admission. Another 25 (24%) became hyponatraemic whilst in hospital. Median length of stay was 13 days. 66 (65%) cases returned to their previous residence on discharge. 8 (8%) patients died during their admission. Factors independently associated with longer length of stay were increasing age (p=0.016), lower admission serum sodium (p=0.012) and larger drop in serum sodium during the admission (p<0.001). Only larger drop in serum sodium was significantly associated with failure to return to previous residence (p<0.001).

Conclusion
Hyponatraemia in elderly in-patients is common. Drop in serum sodium during admission is strongly associated with increased length of stay and failure to return to previous residence.
SURVEY OF NEW MEDICAL STUDENTS’ ATTITUDES TOWARDS CARE OF THE ELDERLY

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Introduction
Some medical students have negative attitudes and pre-conceived ideas about the care of older patients. Whilst educational programs can increase awareness of geriatric medicine (GM) and comfort with older people, they may not alter career aspirations regarding geriatrics. Given predicted demographic changes, it is important to understand students’ attitudes to GM and explore possible modifiable traits that may influence career choices.

Methods
A modified, validated questionnaire evaluating attitudes towards the elderly [Reuben et al. JAGS 1998;46:1425-30] was administered to all Aberdeen University medical students at the beginning of their first year. Multiple linear regression analysis was performed to identify factors associated with willingness to consider a career in GM.

Results
99% (163) of 165 questionnaires were correctly completed. Mean attitudes score was 3.69, denoting mostly positive attitudes overall. 4% (7) had a score below 3 suggesting potentially ageist attitudes. 19% (34) would consider a career in GM. Regression analysis revealed a strong association between willingness to consider a career in GM and higher attitudes score (p<0.001). There was no significant association with student age, gender, ethnicity or previous experience with the elderly.

Conclusion
Only a fifth of first year students would consider a career in GM. A better attitude towards the elderly was associated with increased willingness to consider a career in GM. Further studies will be required to verify if students’ attitudes are modifiable.

ARE GERIATRICIANS GUILTY OF OMITTING TO TAKE A SEXUAL HISTORY?

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Introduction
Sexuality can be defined as a process of integrating emotional, somatic, intellectual and social aspects in ways that enhance one’s own self. Sexuality as related to older people is a topic that is generally not foremost in the minds of geriatricians.

With an increasing elderly population and further medical advances, patients are likely to have greater expectations for both performance and information about sexual activity to improve the overall quality of their lives.

Aim
To determine the current practice of geriatricians regarding obtaining a sexual history and the further management of older patients with sexual dysfunction.

Methods
A questionnaire survey regarding sexual history and the further management of older patients was distributed to practicing geriatricians of all grades.

Results
All 120 returned questionnaires were fully completed. 42.5% (51) of geriatricians admitted to never taking a sexual history or
57.5% (69) occasionally taking a sexual history.
96.7% were of the opinion that elderly patients with sexual problems should be managed further, although opinions differed and uncertainty existed especially among registrars about whom should manage such patients.

Conclusions
These findings suggest that a sexual history is generally omitted by geriatricians, despite agreeing that elderly people with sexual problems should receive appropriate referral and treatment. Aged sexuality is an area that requires more attention in geriatric medicine training and as part of continuing professional development.
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Introduction
Cancer is strongly age-related, yet cancer registry data show that older patients are under-treated and have poorer outcomes. Age related divergence between consensus recommendations and clinical practice suggest that health professionals (HP) may be too cautious or that the guidelines are too aggressive to apply across all ages. This study compared attitudes amongst HP and the general public (GP) towards chemotherapy in older patients.

Methods
A postal questionnaire was sent to 1000 members of the public in Bro-Taf and Dyfed and to 760 NHS health professionals working in Wales to assess whether respondents would offer chemotherapy in a variety of hypothetical scenarios where age, quality of life (QoL), gain in life expectancy and side effects varied.

Results
Response rates were low: 43% (HP) and 17% (GP), possibly because of the complexity and sensitivity of the issues raised. Whilst age modified the decision to offer chemotherapy it was the least considered factor compared with QoL, gain in life expectancy and side effects. The GP were less positive about offering treatment to the elderly than HP. Significant differences existed between HP groups with surgeons least inclined to offer the elderly chemotherapy and geriatricians most likely.

Conclusion
Age modified the decision to offer chemotherapy in the scenarios examined. Significant differences emerged between HP groups suggesting that conflicting advice may be given throughout the cancer patient’s journey.

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Introduction
Depression is common occurring in 13.5% of older people (>65 years) living in the community. Up to a third of older patients visiting their GP are reported to be depressed and the incidence is even higher amongst elderly hospital inpatients (up to 45%). This study examined the representation of older people in clinical trials of antidepressants.

Methods
MEDLINE (1966-2005), EMBASE (1980-2005) and PSYCHINFO (1972 to 2005) were searched to identify all randomized placebo controlled trials of serotonin reuptake inhibitors (SSRIs) in adults, study duration = 4 weeks.

Results
A total of 84 trials, combined sample size 18,128 (54.8% female) were identified. The population mean age of patients enrolled in these trials was only 46.5 years. 36 trials (43%) unjustifiably excluded older people, specifying upper age limits ranging from 65 to 85 years. 13 (15.5%) trials enrolling 2893 subjects, mean age 76.3 years (53.5% female), specifically studied older people (>60 yrs). These trials investigated fluoxetine (4 trials, population n = 886), paroxetine (4 trials, population n = 781), citalopram (3 trials, population n = 361) and sertraline (2 trials, population n = 865). Only 3 of these 13 trials reported functional status as an outcome.

Discussion
Despite the importance of depression in older adults, older people are underrepresented in trials of SSRIs. Risks and benefits in older people cannot be extrapolated from evidence in younger populations.
Background
Community acquired pneumonia (CAP) is a leading cause of mortality and hospitalization. Around 90% of patients are aged over 65 years. There is growing concern regarding antibiotic adverse effects and the emergence of super-bugs (MRSA and Clostridium Difficile) to which older people are susceptible. This study investigated the inclusion of older people in clinical trials of amoxicillin, moxifloxacin or levofloxacin, all British Thoracic Society guideline first-line treatments.

Methods
MEDLINE (1966-2005) and EMBASE (1980-2005) were searched for randomized controlled trials of moxifloxacin, levofloxacin, amoxicillin or ampicillin. Inclusion criteria were study duration = 3 days, community acquired pneumonia/lower respiratory tract infection and at least 1 clinical outcome – mortality, morbidity, clinical efficacy/symptom improvement.

Results
43 randomized controlled trials, combined study population 14,741 were identified. 24 trials examined amoxicillin/ampicillin with 6045 subjects randomized, mean age 50.9 years (40.8% female). 19 trials examined levofloxacin/moxifloxacin with 8696 randomized subjects, mean age 56.6 years (41.3% female). No trials specifically studied older people (>65 yrs) whereas 3 (7%) trials excluded older people, specifying an upper age limit ranging from 65 to 80 years. Despite quinolone trials being more recent (median year of publication 2002) there was no significant difference (P=0.98) in population mean age between quinolone and amoxicillin trials (median publication year 1992).

Conclusion
The average age of patients included in trials was found to be very low for a condition of older people.

Background
The median age for first presentation with heart failure in the United Kingdom is 76 years. This study examined ageism in heart failure clinical trials.

Methods
MEDLINE (1966-2005) and EMBASE (1980-2005) were searched to identify all published β blocker and ACE Inhibitor trials in chronic heart failure. Inclusion criteria were randomized placebo controlled trials, study duration = 4 weeks, at least 1 clinical outcome – mortality, hospitalization, function or exercise tolerance. Trials were compared with published studies of heart failure management in clinical practice.

Results
66 trials (30 β blocker and 36 ACE inhibitor), combined sample size 31,140, met our criteria. Population mean age in β blocker trials was 62.6 years (23% female) and 61 years in ACE inhibitor trials (19% female). 18 (27.27%) trials specified an upper age limit ranging from 65 to 85 years. This contrasts with the IMPROVEMENT study, a multicentre survey of heart failure management in clinical practice involving 11,062 patients, mean age 70 years (45% female), in 15 European countries. Only 60% of patients were taking ACE inhibitors, 34% β blockers and 20% both. Patients >75 years were significantly less likely to be prescribed ACE inhibitors and β blockers than younger patients (OR 0.4).

Discussion
There is clear underrepresentation of elderly patients in clinical trials together with under prescription of key drugs in clinical practice. Ageism in clinical trials needs to be addressed.
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Introduction
60% of the world's elderly live in developing countries. Dementia and depression in later life are emerging as major public health problems in India, which has 76 million elderly people.

Objectives
1) To assess the prevalence of cognitive impairment and depressive symptoms in elderly people.
2) To examine their associations with age, gender and literacy.

Methods
Study design: cross-sectional study.

Setting: Curative and Preventive General Practice (CPGP) OPD in SSG Hospital
Participants: 153 patients (age 60 yrs and above) attended the CPGP OPD (March-05 to April-05).

Results
Of the entire sample, 82 were male, 41.2% were illiterate and 14.4% had education beyond 10th standard.
39.2% were cognitively impaired, prevalence increased with age: 30.8% (60-69years), 53.8 % (70-80years) 85.7 % (>80years) (p=0.0086). 47.9% female, 31.7% male were cognitive impaired (p=0.01). Education was positively associated with the HMSE score (p=0.004).

Education was significantly associated with depression: 68.3% (illiterate), 42.5 % (up to 5th std.)41 % (> 10th standard) had GDS scores >5 (p=0.0003). 47.6% male, 52.1% female were depressed (p=0.57).

80% of those with cognitive impairment also had depressive symptoms.

Conclusion
Age, gender and literacy significantly associated with cognitive impairment and depression.

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Introduction
The exact patho-physiological links between acute illness and delirium remain unclear. Cytokines used therapeutically can induce delirium. We hypothesized a causal relationship between cytokine production during illness and delirium. Further, since APOE is associated with amyloid deposition and increased susceptibility to exogenous neurotoxins, we speculated that patients' genetically determined APOE status might influence their rate of recovery from delirium.

Methods
A cohort of 164 acutely ill patients, 70 years plus, admitted acutely to an elderly medical unit were studied within 3 days and thence twice weekly until discharge, to identify and follow the clinical course of delirium, based on the Confusion Assessment Method. The APOE genotype and levels of circulating cytokines were determined for 116 and 60 patients respectively.

Results
Prevalent delirium was significantly (p<0.05) associated with a previous history of dementia, age, illness severity, disability and low circulating IGF-I levels. Recovery was significantly associated (p<0.05) with lack of APOE epsilon-4 allele and higher initial Interferon-gamma (IFN-γ). A model incorporating gender, APOE epsilon-4 status and IGF-I levels predicted recovery or not from delirium in 76.5% of cases (sensitivity 0.77: specificity 0.75).

Conclusions
This study shows a relationship between delirium with APOE genotype, IFN-γ, and the neuro-protective factor IGF-I, but not with the other cytokines Interleukin-6 (IL-6), IL-1, TNF-α, and Leucocyte Inhibitory Factor. These findings merit further exploration of biological factors which promote or perpetuate delirium.
CAUSAL ATTRIBUTIONS AND TREATMENT-SEEKING FOR STROKE IN TANZANIA: PARADOXICAL FINDINGS

G Mshana¹, C Panter-Brick¹, K Hampshire¹, R Walker²

¹. Department of Anthropology, Durham University ². North Tyneside Hospital, Newcastle

Introduction
Stroke is a significant problem in developing countries. This study, part of a large community-based project on stroke incidence, explores local understanding and treatment-seeking behaviours in urban (Dar-es-Salaam) and rural (Hai) areas.

Methods
Semi-structured interviews were conducted with 20 stroke patients, 20 friends/relatives, 10 traditional healers, and 30 other local residents.

Results
In Dar-es-Salaam, stroke is widely believed to be caused by demons and witchcraft. Other attributions are "God's will", eating oil-rich food, hypertension and stress. In rural Hai, people cite hypertension, eating fatty foods, stress, and to a lesser extent, the supernatural. In Dar-es-Salaam, stroke was treated mainly with traditional medicine - hospital came second - while a combination of traditional and hospital treatments was common. In Hai, most people sought hospital treatment first, and faith-based healing second, with serial or simultaneous treatments involving hospital visits, faith-based treatment and traditional medicine.

Conclusions
Unexpectedly, witchcraft beliefs are less prominent in urban sites, and hospital treatment came first in the rural area. Local beliefs are certainly important in influencing people's decisions regarding stroke management. Additionally, treatment-seeking behaviours in the rural area were influenced by people's interaction with health providers, Christianity, education and exposure to outside life. There is an opportunity for developing an intervention package, which includes hospital treatment and collaboration with traditional and faith-based healers, but the challenge is the design and delivery of such an intervention.
Introduction
Preventing further brain damage is a key aim of acute stroke care. The position a patient is nursed in may affect cerebral oxygenation. We studied the effect of position on cerebral oxygenation in patients who have suffered an ischaemic stroke using near-infrared spectroscopy (NIRS).

Methods
A series of observational case experiments were performed upon patients who had suffered a recent (<7 days) cortical ischaemic stroke. The parameters studied were changes in the relative concentration of deoxygenated haemoglobin ([Hb]) and oxygenated haemoglobin [HbO₂] and the absolute Total Oxygenation Index (TOI) of both cerebral hemispheres. Patients were moved into two postural sitting challenges from the lying flat position (45° legs up and 90° legs down).

Results
Seven patients had complete data. In all patients changes in cerebral oxygenation were noted with orthostatic sitting challenges. Two patients demonstrated distinct unilateral hemispheric changes in cerebral oxygenation with changes in sitting posture. Previous findings of the effect of systemic blood pressure instability upon cerebral oxygenation, and the significant role of the intra cerebral venous compartment to the NIRS signal were demonstrated.

Conclusion
Impaired cerebral autoregulation occurs after ischaemic stroke and NIRS has the power to detect such alterations. This study confirms the possibility that NIRS may have a role in the care of patients who have suffered an ischaemic stroke; aiding the decision on when and how to position patients.
STROKE WORK IN PROGRESS

83 BILATERAL INTERNAL CAROTID ARTERY STENOSIS STUDY; STROKE RATES AND MORTALITY

L Bartram1, C Roffe1, M Jones2
1. Stroke Group, Institute of Life Course Studies, Keele University and Department of Elderly Care University Hospital of North Staffordshire 2. Department of Mathematics, Keele University

Introduction
Stroke is an important cause of death and disability. Internal carotid artery stenosis caused by atherosclerosis is a major cause of stroke. Much is known about unilateral internal carotid artery stenosis, but there have been few studies of bilateral carotid disease. It is important to know more about the natural history of bilateral disease in order to optimise its management.

Methods
A questionnaire survey was sent to subjects still alive with bilateral internal carotid artery stenosis, diagnosed by carotid Doppler. Case notes of deceased subjects and non-responders were also examined. Primary outcomes of stroke rates and mortality following Doppler scanning were noted, as were secondary outcomes of carotid endarterectomy and medication usage.

Results
Complete data were available on 67 of the 77 subjects included. Not all subjects were symptomatic of cerebrovascular disease. A stroke rate of 27% and mortality of 31% was found at two years. Unilateral carotid endarterectomy was undertaken in 21% of subjects and bilateral carotid endarterectomy in 6%. Warfarin was associated with a significantly higher stroke rate.

Conclusion
The stroke risk is comparable to that of subjects with purely symptomatic unilateral disease of 25-26% at two years and significantly higher than those with asymptomatic unilateral disease of 1-3% at one year. Given that not all subjects in this study were symptomatic, the stroke rate is of concern. The high level of ischaemic heart disease amongst participants may explain the mortality in this study. Although the numbers of participants are small, it is one of the largest studies done so far in this area. Further work is needed to confirm stroke rates and mortality and determine the best treatments.

84 THE ROLE OF MANNOSE AS AN ANTI-ADHESIVE IN THE ORAL CAVITY

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Introduction
Following a stroke the incidence of aspiration pneumonia in dysphagic patients is significantly high. In a normal adult buccal cavity, the majority of organisms are anaerobes and Gram positive aerobes with few Gram negative bacteria. After stroke aerobic Gram negative bacilli (AGNB) colonise the oral cavity and if aspirated may lead to pneumonia and increased mortality.

Previous research has shown that adhesion of several gastrointestinal pathogens to the colonic epithelial cells can be inhibited by readily available carbohydrates. However, the anti-adhesive property of such substances using a model with buccal epithelial cells is unknown.

Methods
In order to study at risk groups a working model using healthy volunteer was developed. Buccal epithelial cells from a healthy 30 year old male were incubated with Klebsiella (K44) in two situations either with the addition or in the absence of 1ml of 1% mannose.

Results
The results are reported in colony forming units (CFUs)

<table>
<thead>
<tr>
<th></th>
<th>rep 1</th>
<th>rep 2</th>
<th>rep 3</th>
<th>rep 4</th>
<th>rep 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klebsiella + buccal cells</td>
<td>148</td>
<td>154</td>
<td>310</td>
<td>246</td>
<td>186</td>
</tr>
<tr>
<td>Klebsiella + buccal cells + mannose</td>
<td>98</td>
<td>127</td>
<td>154</td>
<td>191</td>
<td>43</td>
</tr>
</tbody>
</table>

Conclusion
Mannose appears to reduce the adhesion of Klebsiella to healthy buccal epithelial cells. In addition, the model is easy to develop and may have relevance in other clinical situations where oral flora is altered.
Introduction
Estimates of the prevalence of Parkinson's disease (PD) worldwide have varied from 100-405 per 100,000, with suggestions that indigenous black African populations have the lowest rates, but few data exist. We are therefore conducting a door-to-door study to determine the prevalence of PD in the Hai district project area (population 150,000) of the Adult Morbidity and Mortality Project (AMMP).

Methods
Following a workshop to demonstrate typical features of PD, a survey was completed by highly experienced AMMP enumerators in July/August 2005, with six questions asked to identify potential cases of PD. Anyone answering positively is invited to participate. A detailed history and examination is performed to determine whether positive responders have PD.

Results
320 people answered positively to one or more questions. Currently, 57 have been assessed. Of the 15 positive PD cases, 3 were previously diagnosed (2 on treatment). Of the false positives, the alternative diagnoses were: 21 essential tremor, 1 drug induced Parkinsonism, 1 Lewy body dementia, 2 strokes, and 17 other.

Conclusions
From this preliminary data it appears that the questions, which were deliberately designed to be sensitive rather than specific, have been able to identify previously undiagnosed patients. Many remain undiagnosed and untreated. Treatment is available but is prohibitively expensive. We aim to complete the assessments by April 2006. The subsequent challenge is to provide affordable and sustainable treatment and supervision of people identified.
PLANNED RESEARCH

CARRY ON MATRON! ARE THE ARRANGEMENTS FOR PROVIDING MEDICAL CARE TO FRAIL NURSING HOME RESIDENTS FARCICAL?

C Tandy, A South, R Watt, O Corrado

Department of Medicine for the Elderly, Leeds General Infirmary

Introduction
Residents of nursing homes are often frail and dependent with multiple medical problems. Good continuity of care, communication and documentation may aid their medical management.

Methods
Matrons of the 6 nursing homes in South Leeds Primary Care Trust agreed to be interviewed to determine the provision of medical cover to their 312 residents. We identified how cover for residents was provided, what medical information was available within the home and how decisions were communicated.

Results
During the day, nursing homes had between 1 and 11 GP practices looking after their residents. Medical cover varied from a GP session every fortnight to no regular routine review and troubleshooting only. Out of hours cover was always provided by the GP deputising service. In 5 homes the only medical information kept about residents in the home were nursing records maintained by nursing staff. All six matrons felt that medical cover provided out of hours could be improved on.

Conclusions
In this survey medical care to frail elderly nursing home residents was provided exclusively by GPs. Routine review of patients was variable and out of hours cover was entirely from GP deputising services. Matrons felt that out of hours cover, documentation and communication could be significantly improved.

HEALTH RECORDS OF NURSING HOME RESIDENTS - IS THERE ROOM FOR IMPROVEMENT?

C Tandy, A South, R Watt, O Corrado

Department of Medicine for the Elderly, Leeds General Infirmary

Introduction
Nursing home residents are generally frail with multiple medical problems. They rely on General Practitioners for routine medical care. Out of hours care may be provided by a GP who has never met the patient, and accurate background information is of paramount importance.

Methods
The 91 GPs in South Leeds PCT were sent a questionnaire. This determined whether they were responsible for the management of nursing home residents in and/or out of hours, what information was available to them when assessing residents, and if this was adequate or could be improved.

Results
69 (76%) GPs responded, 3 were excluded. 67% looked after residents in more than one home in office hours and 18% looked after them out of hours. During the day 98% GPs obtained information about residents from surgery records. This information was unavailable out of hours. During the day GPs had enough information on current medical problems (92%) and past medical history (77%), but not out of hours (41% and 8% respectively). 75% had no access to a recent hospital discharge summary. 93% felt a relevant medical and nursing record held in the nursing home would improve patient care.

Conclusion
Out of hours medical care to nursing home residents is generally provided by GPs who do not know the patient. The available medical information about residents is often inadequate and significant improvements could be made.
Introduction
Older people’s mental health has attracted increasing policy interest recently with the publication of the Department of Health document Everybody’s Business (www.everybodysbusiness.co.uk) which sets out what a service should aim to provide. Moving services forward presents a considerable challenge for health and social care provider and commissioning organisations. The West Midlands is launching a collaborative, employing similar Methods to the Northern Dementia Collaborative, but aiming to cover the whole of older people’s mental health.

Hypothesis to be tested
That collaborative Methods can be applied across older people’s mental health services to bring about small cumulative changes towards agreed objectives with resulting measurable improvements.

Planned Methods
The first stage is to engage health and social care organisations in the collaborative and to agree broad aims. The project will then involve regular data collection, including general practice survey, carers questionnaire, users questionnaire, and audit of secondary care case notes.

Questions to the BGS membership
1. Would it be helpful and feasible to try to include the care of older people with mental health needs who are within the acute sector in the collaborative?

2. Could we ask geriatric medical services to sign up to the collaborative and employ the same Methods to try to improve services to people with mental health needs in their care?
# Platform Presentations

**Session I - Musculoskeletal/ falls**  
14:00 - 16:00  
**Session H - Vascular update**  

**Abstract Book Nos**  
90-96  
98-101
Introduction
Vitamin D deficiency is common in older people and may increase risk of falls and fracture. Recent publications recommend routine supplementation with vitamin D and calcium for all older housebound, sunlight deprived or institutionalised people. Hospital inpatients are generally excluded, despite their high falls risk. We wished to assess whether vitamin D prescription could influence falls in this group.

Methods
A randomised, double blind, controlled trial of acute admissions to a geriatric medical unit. Intervention group received vitamin D 800 IU plus calcium 1200mg, versus 1200mg calcium alone in the control group. The intervention was continued until hospital discharge or death. Outcomes used for power calculations were numbers of fallers and falls.

Results
203 participants with median age 84 years. Median length of stay =30 days (IQR 14.75-71.00). In a pre-selected sub-group, median admission vitamin D level =22.00nmol/l (IQR 15.00-30.50). Median study drug adherence =88%, with no significant difference between study groups (Mann-Whitney p=0.71). Although there were fewer fallers in the vitamin D cohort, this did not reach statistical significance (vitamin D:calcium =37:45 fallers; Chi2 p=0.33). Neither the mean number of falls (vitamin D:calcium =1.04:1.16; Mann-Whitney p=0.44) or time to first fall (Log-Rank test p=0.38) differed between groups.

Conclusions
In a population of geriatric hospital inpatients, vitamin D did not reduce the number of fallers. Routine supplementation cannot be recommended to reduce falls in this group.
A Johansen1,2, R A Lyons2, M Stone1, S Brophy2, R G Newcombe3, C J Phillips4, B Lervy5, R Evans3, B McLernon4, K Wareham4

1. Bone Research Unit, Department of Geriatric Medicine, Cardiff University, 2. Department of Public Health, University of Swansea, 3. Cardiff University, 4. Swansea University

Introduction
We set out to determine the effect of four-monthly vitamin D supplementation on risk of fracture among people living in institutional care.

Method
Randomised double-blind, placebo-controlled trial of 100,000IU oral vitamin D2 (ergocalciferol) supplementation four-monthly over 3 years, in 3,440 people aged 62 - 107 years living in residential homes, nursing homes or sheltered accommodation.

Results
There were 205 first fractures in the intervention group during 2,846 person years of follow-up (annual fracture incidence of 7.15%), and 218 first fractures in controls over 2,860 person years of follow-up (annual incidence of 7.6%). The hazard ratio of 0.95 (95% CI: 0.8-1.2) for intervention compared to control was not statistically significant. Nor was it on a per protocol analysis, or if analysis was confined to osteoporotic fractures, hip fractures, or subgroups stratified by mobility, mental state or visual acuity. Serum 25(OH) vitamin D and parathyroid hormone (PTH) levels were measured in 102 people who had taken >5 doses. Mean serum 25(OH)D was 80nmol/l in the intervention group and 54nmo/l in controls; a statistically significant difference of 26nmol/l (95%CI: 16.5-35.5nmol/l). Mean PTH levels were 5.0pmol/l in the intervention group and 6.9pmol/l in controls; a statistically significant difference of 1.9pmol/l (95% CI: 0.3-3.5pmol/l).

Conclusions
Supplementation with four-monthly 100,000 IU of oral vitamin D2 is not sufficient to affect fracture incidence among older people living in institutional care.

D Thyagarajan, D Sunderamoorthy, S Haridas, P Praveen, S Beck, H Mahoney, S Thomas, A Johansen

Trauma Unit, University Hospital of Wales, Cardiff

Introduction
We set out to identify clinical predictors of MRSA colonisation in patients admitted with hip fracture, and to show how these might be used to prevent surgical site infection.

Methods
In a prospective study we assessed 440 patients, sequentially admitted to the trauma unit with hip fracture. We documented pre-fracture residence, admissions to hospital during the previous year, type of surgery performed, and antibiotic prophylaxis given at the time of surgery. We screened patients for MRSA on admission.

Results
Mean age was 80.2 years. 5.2% (21/403) were colonised with MRSA; usually (61.9 %) nasally. 3.6 % of patients from home, 10.9 % from residential homes, and 17.4 % from nursing homes were colonised with MRSA. 80.9% of colonised patients had been admitted to the hospital within the previous year. The high prevalence of previous hospitalisation among people from care homes explained their higher rates of MRSA carriage. 'Hospital admission in the previous year' had a sensitivity of 81% for prediction of MRSA carriage, compared to just 48% for 'admission from a care home', and 85% for people with either one of these predictors.

Conclusions
Where a patient gives a history of hospitalisation within the previous year it is clearly sensible to consider the use of teicoplanin for perioperative prophylaxis. A similar approach to prophylaxis may be justified in people admitted from institutional care.
USING DIETETIC ASSISTANTS TO IMPROVE THE OUTCOME OF HIP FRACTURE - A RANDOMISED CONTROLLED TRIAL OF NUTRITIONAL SUPPORT IN AN ACUTE TRAUMA WARD

D G Duncan, S J Beck, K Hood, A Johansen

Introduction
70,000 older people suffer a hip fracture in the UK each year. Reasons for poor recovery are complex but poor nutrition is an important factor. In this trial we assess the effectiveness of nutrition support provided by Dietetic Assistants (DA).

Methods
318 women aged 65+ with non-pathological hip fracture agreed to inclusion. Participants were randomised either to conventional care, or additional personal attention from DA. The primary outcome measure was postoperative mortality in the acute trauma ward. Secondary outcome measures included postoperative mortality at four-months, dietary intake (day 3 post-op.), biochemical/anthropometric measurements and satisfaction questionnaires.

Results
DA supported participants were less likely to die in the acute ward (4.1% v 10.1%, p=0.048). This effect was still apparent at four months (13.1% v 22.9%, p=0.036). During their inpatient stay DA supported subjects had significantly better mean daily energy intake (1105 kcal cf. 756kcal/24hrs, 95% CI 259-440kcal/24 hours, p<0.001), significantly smaller reduction in mid-arm circumference (0.39cm, p=0.002), non-significantly favourable results for other measurements and significantly higher satisfaction (median (inter-quartile range) satisfaction score 6.5 (2.0) cf. 3 (4) p=0.0001) compared to conventional care.

Conclusion
Dietetic or nutrition assistants are being introduced in units across the UK. This trial demonstrated that their employment significantly reduced patients’ risk of dying during, and following, care in the acute trauma unit.

THE SIT-TO-WALK MOVEMENT AS A TEST OF MOBILITY

A Kerr¹, B Durward¹, D Rafferty¹, I McFarlane², K M Kerr³

1. Glasgow Caledonian University 2. Lightburn Hospital, Glasgow 3. University of Nottingham

Introduction
As an indicator of mobility the sit-to-stand movement has been assessed clinically but has limitations. The sit-to-walk (STW) movement is a more challenging everyday movement that may reveal early changes in mobility. This study aimed to test the validity of a clinical tool to measure time events in the STW movement.

Methods
Fifty six subjects were recruited from three populations, Young, (n=20, mean age 33.2+/- 8), Elderly (n=18, mean age 70.3+/-5.4) and Elderly at risk of falling (EARF), (n=18, mean age 79.6+/-7.5). Ethical approval was granted from North Glasgow University Hospitals NHS Trust local research ethics committee.

Duration of three phases of movement were recorded simultaneously from a three dimensional motion analysis system (which acted as the "gold standard") and four switches located on the seat and ground during the STW movement for each subject. There were few constraints placed on the movement.

Results
The EARF were significantly (p<0.001) slower in all phases of the movement, the elderly were significantly slower than the young in the single stance phase (p=0.049). The measurement techniques were very similar (ICC scores ranged from 0.94 to 1.00).

Conclusions
Differences between the groups suggest a possible role for this movement in mobility tests. The difference between young and elderly subjects indicate subtle age related changes which could be used to detect early mobility problems. A clinical method to measure temporal variables was validated.
OSTEOPOROSIS IN CARE HOMES—HIGH FRACTURE RISK WITH LOW BONE MINERAL DENSITY MEASUREMENTS IN EMI CARE

T J Aspray¹², S Abdy², P Stevenson¹, D Rawlings², R M Francis¹²

1. Institute for Ageing and Health, Newcastle University 2. Bone Clinic, Freeman Hospital, Newcastle upon Tyne

Introduction
Fracture risk is believed to be high in care homes but little is known about the characteristics of residents of homes for elderly people with dementia (EMI).

Methods
Subjects were recruited from residential care (87), nursing homes (105), EMI residential (124) and EMI nursing (76) in Newcastle-upon-Tyne, UK.

Main outcome measures comprised dual-energy x-ray absorptiometry bone mineral density (BMD) at calcaneum; functional assessments, including Mini Mental State Examination (MMSE), Clifton Assessment Procedure for the Elderly-Behaviour (CAPE-BRS), Functional Assessment Staging Test (FAST); and current drug prescription.

Results
Mean BMD T-Score was -2.29 (95% CI -2.48 to -2.09) and Z-Score -0.96 (95% CI -1.16 to -0.76) with osteoporosis (T-Score <-1.6) seen in 69.2%. In EMI residential care alone, T-Score decreased by 0.6 (95% CI 0.15 to 1.1) per 5 points of CAPE score.

In EMI care, MMSE, CAPE, FAST (ANOVA p<0.001), and weight (ANOVA p<0.02) were lower; sedative drugs (Chi²: p<0.0001) were more likely but calcium/vitamin D (CaD) supplementation (Chi²: p<0.02) less likely. For residential (OR=2.13 (95% CI 1.11 to 4.06) but not nursing homes, sedative drugs were commoner in EMI. CaD was less common in EMI Nursing OR=0.19 (95% CI 0.05 to 0.72) and EMI Residential 0.38 (NS 95% CI 0.12 to 1.27).

Conclusions
CaD supplementation was lowest in EMI care, where fracture risk was greatest. Thus targeted education and treatment are warranted in these homes, where CAPE score may predict low BMD.

THE UTILITY OF THE WEIGL COLOUR FORM SORTING TEST, AS A COGNITIVE SCREEN IN STROKE SURVIVORS

C Taylor, R J Meara, J P Hobson

Academic Unit (North Wales), Cardiff University

Introduction
The need for a quick and reliable cognitive screen is paramount, in view of the considerable burden of cognitive impairments post-stroke. However, the vast majority of existing bedside cognitive screens are heavily language dependent. The Weigl Colour Form Sorting Test (WCFST) has been considered a useful non-verbal assessment of cognition, in particular executive function. This study assessed the sensitivity, specificity of the WCFST, in a group of stroke survivors and an age sex matched control group.

Methods
A total of 105 survivors and a control group of healthy elderly individuals (n=91) consented to participate in the study. The sensitivity and specificity of the WCFST to detect significant cognitive impairment was based upon psychiatric interview, cognitive assessment and application of DSMIV criteria.

Results
We established that the optimal cut-point to confirm cases of cognitive impairment was 2/4 in the stroke and control population. The sensitivity and specificity of the WCFST at a cut point of 2 in the stroke population was 77.8% and 78.3% respectively; and, in the control group 83.3% and 96.5%.

Conclusion
In the present study, the WCFST was able to demonstrate good sensitivity and specificity at detecting cognitive impairments in stroke survivors and in a general population. It is argued that the WCSFT, would be a useful adjunct to existing cognitive screens in clinical practice, due to its’ psychometric properties, and lack of language reliance.
### ADENOSINE TESTING AND UNEXPLAINED SYNCOPE

**S Nath¹, J P Bourke¹, R S Bexton¹, M Tynan¹, T J Chadwick², S W Parry¹,²**

1. Department of Cardiology, Freeman Hospital, Newcastle upon Tyne 2. University of Newcastle upon Tyne

**Introduction**

The adenosine test has recently been used in the diagnosis of unexplained syncope, without clear understanding of what the test is unmasking. Sick sinus syndrome [SSS], atrioventricular block [AVB], carotid sinus syndrome [CSS] and vasovagal syncope [VVS] have all been implicated. We aimed to study the responses to adenosine injection of patients with these definitive diagnoses compared to controls.

**Methods**

Patients 1. Consecutive patients with SSS, AVB, CSS undergoing permanent pacing; and tilt-positive VVS.
2. Controls: electrophysiology (EP) patients undergoing accessory pathway ablation [EPC]. Investigations Pacing groups/EPC subjects only: EP tests (corrected sinus node recovery time, AV-Wenkebach point) to confirm original diagnoses and exclude others. All: head-up tilt-table testing, carotid sinus massage. Intervention 20mg bolus intravenous adenosine with continuous ECG monitoring. Positivity (per European Society of Cardiology guidelines): ventricular asystole >6 seconds, and/or 2nd/3rd degree AVB >10 seconds.

**Results**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>N</th>
<th>Mean Age (SD)</th>
<th>Adenosine positive (asystole) [n]</th>
<th>Sensitivity</th>
<th>Adenosine positive (AVB) [n]</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSS</td>
<td>5(4F)</td>
<td>77(5.7)</td>
<td>5</td>
<td>100%</td>
<td>1</td>
</tr>
<tr>
<td>AVB</td>
<td>7(1F)</td>
<td>69(15.0)</td>
<td>7</td>
<td>100%</td>
<td>0</td>
</tr>
<tr>
<td>CSS</td>
<td>7(4F)</td>
<td>75(4.9)</td>
<td>6</td>
<td>85.7%</td>
<td>0</td>
</tr>
<tr>
<td>VVS</td>
<td>10(8F)</td>
<td>57(19.0)</td>
<td>5</td>
<td>50%</td>
<td>1</td>
</tr>
<tr>
<td>EPC</td>
<td>8(7F)</td>
<td>37(14.6)</td>
<td>1</td>
<td>-</td>
<td>0</td>
</tr>
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</table>

Overall specificity 81.8%, sensitivity per table. There were no complications of adenosine administration.

SD=standard deviation; F=female

**Conclusions**

The adenosine test is highly sensitive in diagnosing bradycardic disorders, but does not differentiate individual aetiologies. Further work is needed to explore the possible role of the test in the diagnosis of bradycardic disorders before its widespread adoption.

### AETIOLOGY OF STROKE IN AN INCIDENT STROKE POPULATION IN TANZANIA: FIRST 2 YEAR DATA FOR THE TANZANIAN STROKE INCIDENCE PROJECT IN THE HAI DISTRICT

**R Walker, G Kabadi, M Swai, A Jusabani**

North Tyneside General Hospital, Tyne and Wear, NE29 8NH, UK AMMP Tanzania - On behalf of the Tanzanian Stroke Incidence Project

**Introduction**

There has been no previous community-based stroke incidence study in sub-Saharan Africa (SSA). Based on hospital acquired series haemorrhagic stroke appears proportionately more common than in “the West”. Our previous work in Tanzania has demonstrated a higher age-standardised mortality from stroke in 15 - 65 year olds compared to the UK.

**Methods**

All new stroke cases occurring in the Hai (N = 150,000) and Dar-es-Salaam (N = 60,000) Adult Mortality and Morbidity Project (AMMP) study populations from 15.6.03 to 15.6.06 are identified via an established network of enumerators/key informants. Confirmed cases, if they consent, are then admitted to hospital for investigations (including CT head scan) and treatment paid for by the project.

**Results**

In the first 2 years in Hai 101 patients, mean age 68, median 70 (range 23 - 100 years) were recruited to the study, of whom 50 (50%) were female. 41 (41%) were admitted on the same day as their stroke. Of the 84 (84%) who underwent CT head scan 10 (12%) had evidence of intracerebral bleed.

**Conclusions**

Previous hospital based stroke studies from SSA have reported much younger mean ages and have generally included a higher proportion of men than women which may be due to differential access to hospital. Our initial results suggest that haemorrhagic stroke in an incident population may not be significantly commoner than in Western populations.
MORTALITY RISK OF OLDER PEOPLE WITH DIABETES USING THE MRC ASSESSMENT TRIAL

J Hewitt¹, L Smeeth¹, C Higgins¹, C Bulpitt², A Fletcher
1. London School of Hygiene and Tropical Medicine 2. Imperial College London

Introduction
Studies investigating mortality risks in older people with diabetes have suggested that the risks are less than in younger ages. Studies have generally been small and underpowered to investigate associations, especially for sub-groups such as older age (over 85) and gender.

Methods
15095 individuals aged 75 years and over, participating in the MRC assessment trial, underwent a health assessment. 1177 people with diabetes were identified. Participants were followed up for mortality. Proportional hazards models estimated the age and sex adjusted mortality risks associated with diabetes and assessed risks by gender, and by specific age groups.

Results
The risk associated with diabetes was 1.50 (95% CI, 1.38-1.65, p<0.001). For the age group 75-79 years the hazard ratios were 1.55 (1.27-1.89, p<0.001) for men and 1.70 (1.33-2.17, p<0.001) for women. In the 80-84 year age group the hazard ratios were 1.47 (1.16-1.86, p=0.002) for men and 1.42 (1.14-1.78, p=0.002) for women. In the 85-89 year age group the hazard ratios were 1.62 (1.25-2.11, p<0.001) for men and 1.52 (1.17-1.97, p=0.002) for women. In people aged over 90 years the hazard ratios were 1.19 (0.66-2.15, p=0.56) for men and 1.27 (0.91-1.78, p=0.17) for women. There was no evidence of interaction by age group or gender (p=0.35 and p=0.72, respectively).

Conclusions
Diabetes contributes to death up to the age of 90 years. Its affect did not decrease with age or differ between the sexes.

3 YEARS ON: - DOES BEHAVIOUR MODIFICATION AFFECT POST STROKE RISK FACTOR CONTROL?

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Introduction
A previous randomised controlled trial evaluated the effects of nurse-led health education and counselling on risk factor control, satisfaction, mood and perceived health status, in post stroke patients. In the initial study, blood pressure control and satisfaction were significantly improved in the intervention group. The aim of this follow-up study was to determine if these benefits were maintained 3 years after the initial intervention.

Methods
The survivors of the original cohort were contacted and asked to attend for repeat interview. Details of risk factor control, medication compliance and recurrent events were documented. Questionnaires used in the initial study were repeated, including, Geriatric Depression score, Euroqol perceived health status and stroke services satisfaction questionnaire.

Results
Mean length of follow-up was 3.6 years (SD 0.43). Of the 205 patients enrolled in the initial study, 25 were dead (11 experiment/14 control, p=0.39). 102 patients attended for repeat interview (49 experiment/53 control). There were no significant differences in the percentage of controlled risk factors between groups (Experiment 51.7% vs Control 55.9%, p=0.528). No overall difference was seen between groups in Euroqol percent score (Experiment 61.8% vs Control 60.3%, p=0.725), Depression score (Experiment 3.59 vs Control 4.29, p=0.355), satisfaction scores or recurrent events.

Conclusion
Initial benefits from a 3-month intervention of behaviour modification appear not to be maintained long-term. These results must be cautiously interpreted in light of the small study numbers.