

MCOP discussion paper: a specialist medical and mental health unit for older people

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Development of a specialist medical and mental health unit for older people in an acute general hospital

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Abstract

We describe the rationale for developing a specialist ward to manage older people admitted as emergencies to an acute general hospital, who have concurrent delirium or dementia.

The model of care was shaped by professional opinion, literature review, the findings of an observational and interview study, and emerging practical experience. This was based around the philosophies of comprehensive geriatric assessment and person centred dementia care. In addition, ward staff were augmented with mental health specialists, and attention was directed to provision of purposeful activity, engagement with family carers, and optimising the ward environment.

We describe our experiences in implementing this model, including an education programme, the recruitment and integration of mental health staff, and efforts to make the environment more sympathetic to the needs of people with cognitive impairment. We reflect on successes and difficulties.

This paper is intended both to define the 'intervention' that is being evaluated in a controlled clinical trial, and to enable others to replicate or draw from our model in hospitals elsewhere.





Background

The size of the problem

Many older people managed in acute general hospitals have concurrent mental health problems. Two thirds of UK National Health Service (NHS) hospital beds are occupied by people over 65. Up to 60% of this age group have, or will develop, a mental health problem including dementia, delirium or depression. About 10% of elderly people admitted to acute medical wards will have significant behavioural disturbance ¹.

The presence of any of these diagnoses is associated with adverse outcomes (e.g. mortality, care home placement) and increased length of hospital stay. For example, amongst people who suffered a hip fracture, the 15% with delirium and 40% with dementia were nearly 3 times more likely to die as those with no psychiatric diagnosis, and median length of hospital stay was 28 days compared with 17 days. 38% of people with dementia previously living in their own home were discharged to a care home compared with 2% for the mentally well ². Similar findings have been reported amongst elderly general medical admissions: 40% had dementia; compared to those without dementia mortality was 18% versus 8%, and median length of stay 11 versus 7 days ³.

Clinical mental health expertise is often lacking in general hospitals. At the severe end of the spectrum, staff struggle to manage behavioural disturbances (agitation, combativeness, pacing, exit-seeking, repetitive vocalisation, withdrawal, interfering with equipment or other patients). Delirium is poorly understood and difficult to diagnose and manage. Lack of experience in planning for people with mental health needs, and poor liaison with families and community services, can lead to unnecessary care home placement. Families often find the process of hospital admission and discharge very distressing. There are many reports of families perceiving poor care, and believing that abilities have been lost during hospital admissions because of the care received rather than the underlying diseases progressing ⁴.





Current services

General hospital multidisciplinary teams despite have responsibility for people with delirium or dementia through their contribution to general medicine, when delirium or dementia complicate a specialist condition, or when delirium is a post-operative complication. However they often lack the skill to manage these patients well. Geriatric medical wards often take the most difficult problems, and some geriatricians and ward teams have considerable expertise in their management, but this is inconsistent, and the pressures to concentrate solely on medical problems and minimise length of stay are intense.

General old age mental health services have neither the capacity nor the expertise to manage physical problems in people with dementia or mental health problems complicating significant physical disease or disability. Instead they usually offer a consultation service but, with constrained resources, this can be slow, with limited capacity to educate or support general hospital staff with education or interventions other than drug therapies. Older people fall outside the remit of existing working age liaison services.

The dominant current acute general hospital philosophy in the UK is bio-medical in a narrow sense. The assumption is that patients will be treated for acute medical or surgical problems, and that length of stay will be short (typically less than a week). There is an assumption (promoted by UK governments and health care commissioners) that non-acute problems will be managed elsewhere (as an out-patient, by mental health services, primary care or adult social care). Families and carers report frustration at being told that management of dementia-related problems (or other non-acute problems, such as incontinence or cataract) is not the purpose of the acute general hospital admission, and that help for these problems should be sought elsewhere. In recent years, in the UK, the main provision for rehabilitation has been through intermediate care, at home, or in care homes, with some reluctance to accept patients with cognitive impairment ⁵.

Another assumption is that provision of activities for the purposes of therapy or occupation are unnecessary, a distraction from core activity, and may even encourage





people to want to stay longer than is necessary. The lack of stimulation contributes to boredom, distress and difficult behaviours, including night time disturbance, and loss of everyday skills and abilities (such as cooking or dressing). People with dementia can lose abilities fast, even during relatively short admissions. Moreover, a significant minority of patients have prolonged lengths of stay (due to complexity, complications, or delays). Identifying appropriate rehabilitation facilities or care homes can be difficult for the most cognitively impaired and behaviourally disturbed, meaning that the acute hospital becomes a facility of last resort.

People with delirium and dementia constitute a large patient group in general hospitals, who are difficult to manage and plan for, who may therefore spend unnecessary time in hospital, and who may suffer poor experiences and outcomes.

The case for specialisation

National reports

Several recent reports ^{1,6,7,8,9} have highlighted this problem and advocate the development of specialist old age mental health liaison services, whilst conceding that the evidence supporting this advice is incomplete. These have developed in some parts of the UK, sometimes with nurses and other disciplines, under the leadership of a consultant psychiatrist. They provide assessment, advice, and interface with in-patient and community mental health services, as well as education and training. Several different models exist, and although services are appreciated and are generally thought helpful, hard evidence for effectiveness is lacking ¹⁰.

Another care model is the joint medical-mental health ward, with both physical and mental health professional staffing. This may complement a peripatetic liaison service. This is advocated in some reports ⁷. Nationally there are a few examples of successful units.

Special needs of people with delirium and dementia

The main evidence supporting provision of specialist services is professional opinion and analogy with similar problems and settings ^{1,8,10}.





Confused older people in the general hospital form a distinct and fairly easily identifiable group, with particular health care needs. These include:

- Recognition and diagnosis of multiple physical and mental health problems
- Sympathetic and expert multidisciplinary assessment and therapy (medicine, nursing, occupational therapy, physiotherapy, speech and language therapy, dietetics and social work)
- Understanding the difficulties people with dementia may have in expressing their needs and understanding instructions
- Identifying, understanding and managing distress, manifesting as disturbed or difficult behaviours
- Awareness of the propensity to malnutrition, falls, deconditioning and loss of abilities
- Assessment of functional abilities and adopting a rehabilitation approach
- Expertise in the understanding and assessment of mental capacity and best interests
- A particular need to involve family and other carers as informants, advocates, assistants in giving hands-on care, potential proxy decision makers and as key stakeholders in discharge and future care planning
- Assessing and managing risk, especially where insight and safety awareness are compromised
- Planning, including end of life care, informed by expert knowledge of the natural history of delirium and dementia, and within the context of all co-morbidities
- A systematic approach, defined by appropriate policies, procedures and guidelines, in order to deliver consistent care.

People with dementia in general hospitals differ from those living at home or in care homes. Two-thirds have superimposed delirium, and the predominant dementia subtype is vascular, not Alzheimer's disease. Both the course of disease (characterised by sudden deteriorations) and associated problems (immobility, propensity to fall and incontinence) differ. On average, patients with dementia are more severely ill (on the basis of physiological scores) than those without dementia³. They may be unstable (prone to rapid deterioration), and often medically complex (multiple different problems and diagnoses). One commentator stated 'this is difficult hospital medicine, not misplaced psychiatry'.





Delirium causes particular problems:

- It is poorly understood and recognised – physicians are unused to assessing attention, and arousal; speed of onset and prior cognitive abilities requires careful collateral cognitive history taking, a task often omitted or undertaken poorly.
- Fluctuation of attention, arousal and ability cannot be assessed by a typical medical snapshot assessment; family or nursing reports are needed, but need to be perceptive (to realise that fluctuation is being seen), and, of necessity, requiring sufficient continuity of care.
- It may be associated with hyperactivity, agitation, anxiety, aggression, psychotic features, night time disturbance
- But it may also be associated with hypoactive, retarded or depressive features, which are poorly recognised, may be misdiagnosed as affective disorder, and are associated with particularly poor outcomes.
- The time course of recovery may be very prolonged (3 to 6 months), leading to premature decision making, especially on care home placement
- A proportion of cases (often stated as 15-20%, probably more) do not yield an underlying physical medical explanation
- Specific management (e.g. low dose anti-psychotic drugs) is uncertain and controversial.

The case for specialist joint medical mental health wards

There is good evidence that mental health problems are under-diagnosed and poorly managed on general wards (summarised in ¹). However, there is little trial evidence supporting specialist joint medical-psychiatric units ¹¹. A few pioneer units have been set up, mainly by enthusiasts, but they are relatively few, not least because physical and mental health services are usually provided by different NHS organisations, and because clinical responsibility for this group in the NHS is ambiguous. We know that structured intervention for in-patients at risk of developing delirium reduces its incidence in hospital ¹².

There is a precedent for geographically-defined, specialist, multi-disciplinary units improving health outcomes in related clinical fields. The current situation for confused





older people is analogous to that in stroke medicine in the 1980s. There was a good theoretical case for specialised stroke care, support from enthusiastic professionals, and a few pioneer units. But widespread implementation had to await meta-analysis of 23 randomised controlled trials, which demonstrated unequivocal benefit, compared with standard care on general medical wards. A stroke unit, like a medical and mental health unit, is a complex 'black box' intervention, and the exact mechanism of action, which leads to improved outcomes, still defies precise explanation. However, stroke units reduce mortality by 20%, and death or dependency by 32% compared with general medical wards. Length of stay has been longer than standard care in some cases, shorter in others ^{13,14}.

Similarly in-patient geriatric evaluation and management units improve outcomes (odds ratio for mortality at six months 0.65, 95% CI 0.5-0.9; odds ratio for living at home was 1.8, 95% CI 1.3-2.5; odds ratio for functional improvement was 1.7, 95% CI 1.0-2.6 compared with standard general medical services) ¹⁵. This included some people with cognitive impairment. A more recent trial described better functional outcomes, and fewer institutional discharges, a shorter mean length of stay by one day, and about 20% less cost to the hospital ¹⁶.

Support for geographically-defined units contrasts with a general lack of evidence for the effectiveness of peripatetic mental health liaison teams, although the evidence base is not good ^{10,17,18,19,20}. This also holds for analogous situations such as stroke and general geriatric medicine, even when the extent of involvement of the teams has gone beyond simple consultation (e.g. multidisciplinary assessments, discussions with relatives, direct discharge planning) ^{21, 22,23}. In a meta-analysis, odds ratio for living at home after 6 months for in-patient geriatric consultation services was 0.97 (95% CI 0.75-1.25)¹⁶.

However, we must note that most standard UK provision for frail, older, people is on specialist geriatric medical wards, with multidisciplinary staffing, using a framework of multi-dimensional assessment, and that evidence from stroke unit trials was that there was no clear benefit of specialist stroke wards over mixed rehabilitation wards, including those for older people ^{13, 14}. We must therefore hypothesise that for a specialist joint medical and mental health ward to be effective at improving experience and outcomes,





such a ward must function differently, through training, approach, familiarity, attitudes, and confidence in dealing with problems.

National Institute for Health Research programme

In July 2008 a team from Nottingham University Hospitals NHS Trust and Nottingham University were awarded a programme grant by the National Institute for Health Research (NIHR), entitled Medical Crises in Older People ²⁴.

The programme comprises three work streams, concerning older people:

- in care homes
- admitted as emergencies to the acute medical unit
- admitted as emergencies to the hospital, but with mental health problems complicating their presentation.

Each work stream has three parts, the first two running concurrently:

- Observational study, establishing a register or cohort of patients, describing and measuring them, and following them up for outcomes and resource use, using a common core dataset.
- Developing an intervention, in this case a dedicated Medical and Mental Health Unit
- Evaluating the intervention for two years by controlled clinical trial (after a maturation period of 12-18 months to establish the unit's working practices).

Medical and Mental Health Unit development

This paper describes the process and experience of development of a specialist medical and mental health unit (MMHU). The process was guided by:

- Discussions held with acute hospital Trust nursing, therapy and medical management about likely problems, and how these could be met in terms of additional staffing, and training needs.
- Discussions held with the local Mental Health Trust, about practical plans for





implementation (environment, bed numbers, safety), and employment of specialist mental health staff.

- Negotiations with the Trust Research and Development department and the two local commissioning Primary Care Trusts, about the provision of 'Excess Treatment Costs', A detailed business case was drawn up. Excess Treatment Costs are defined by the UK Department of Health as costs of clinical services over the standard cost of care required in support of externally funded research²⁵. Additional funding for staff of £280 000 per year for 3.5 years was granted.
- Advice from two existing units (Drs Sandeep Kesevan and Lance Middleton at York District Hospital, Dr Jim George at Cumberland Royal Infirmary, Carlisle), and from Professor Gordon Wilcocks (Bristol/Oxford). Professor Harwood spent a week working on the York Unit and interviewing medical, nursing and therapy staff about operation.
- A review of the relevant literature²⁶.
- The findings from a case series/cohort of 250 people with mental health problems over 70 recruited from the general hospital.
- A book on dementia (and delirium) care was written and published²⁷.
- A multidisciplinary development group was convened, which met monthly, with representation of senior nursing, medical and general management, mental health trust management, allied health professionals, and ward staff. This was initially intended as a 'task and finish' group, but developed into an operational management group, as development was more prolonged than initially intended.

We report how the MMHU has developed in practice, what appears to have worked and what does not work. The MMHU continues to develop, and this paper will be updated in due course.

The specialist medical and mental health unit (MMHU) commenced development work on 1st February 2009, and 'opened for business' on 1st June 2009. The ward was formerly a 28-bed acute geriatric medical ward, and was therefore familiar with the problems of people with combined medical and mental health needs, who comprised about 75% of its previous case load.





Staffing was that of a standard acute medical ward, with:

- Registered general nurses including the ward manager (Agenda for Change pay band 7), three deputies (band 6) and 15.5 staff nurses (band 5), supported by 5.5 health care assistants (band 2), three rehabilitation support workers (band 3), a discharge co-ordinator (band 3) and a receptionist (band 2)*. Typically this allowed for 7 nursing staff on duty in the morning, 6 in the afternoon, and 4 at night.
- 0.5 whole time equivalent physiotherapist and slightly less than 1 whole time equivalent occupational therapist (band 6).
- Two consultant geriatricians, each of whom had a total of 10 hours per week scheduled for clinical, administrative and family consultation work, with a further 2 hours as prospective cross-cover for absences.
- Medical support included a geriatric medical trainee (registrar), and 2 or 3 more junior doctors, all of who also had other duties off the ward (such as acute medical admissions, out-patients and night duty).
- A sector-based old-age psychiatric consultation service was available on request.
- Speech and language therapy, dietetics and social work available on request.

The purpose of developing a MMHU was to create a specialist unit for older people admitted as emergencies, who were found to be 'confused'. Admission criteria were kept broad, ('confused and over 65') allowing for:

- Easy case identification and transfer from the acute medical unit with minimal need for additional assessment or delay (the hospital has very tight bed capacity and intense government pressure to ensure that admissions from the Emergency Department occur within 4 hours of arrival).
- The exercise of discretion in particular cases where the MMHU was likely to provide the best location for care of a particular patient, including those referred following admission to another hospital ward, or those with learning disabilities, paraphrenia or mania.
- Integration with other clinical pathways, and maximum usefulness to the acute NHS Trust.





Exclusions include:

- Those requiring detention under the Mental Health Act (in order to distinguish the MMHU from a regular mental health ward, although recent changes to mental health legislation now allow for 'sectioning' to general wards, and this criterion is probably not necessary).
- Acute intoxication, or the immediate management of patients with overdose.
- Overriding clinical need for alternative ward facilities, such as intensive or high dependency units, non-invasive ventilation, stroke, renal, or oncology services, surgery or orthopaedics.
- Patients with depression or anxiety in the absence of cognitive impairment (following an initial exploratory period during which it became evident that neither the setting nor the available therapies were appropriate for this group).

Model of Care

The predominant philosophy is that of comprehensive geriatric assessment (CGA), a multidisciplinary process designed to assess and treat specific syndromes associated with older adulthood, both physical and mental^{28, 29}. Extensive research evidence suggests that this approach to the management of frail, older people improves health outcomes¹⁵. It identifies five dimensions:

- Diagnosis
- Function
- Cognitive and mental health assessment
- Social history and support
- Environment.

To enhance the care of people with delirium and dementia additional aspects have been developed. The change in staffing and skill mix is described first only because some of the more important changes in process exploited this resource. Tables describe what worked in practice, and what was more difficult. In the latter case these are issues that we are still working on, so would better read 'what hasn't worked yet'.





1. Review of staffing numbers and skill mix

Ill, confused, frail, older people in acute general hospitals are very dependent, require much help and supervision, and can be difficult to manage, including the need, at times, for one-to-one nursing care. It is reasonable to presume that standard ward staffing is likely to be insufficient to provide best practice care.

There are no norms or standards for staffing a specialist MMHU. A 'wish list' was drawn up based on discussions with medical, nursing and mental health colleagues. During early 2009 negotiations were held to seek funding to cover the 'excess treatment costs' of the MMHU, under provisions to support the service costs of externally funded trials²⁵. Funding was agreed in August 2009, although in advance of this the Trust Research and Development department had agreed to underwrite costs in order to allow appointments to be made.

The additional staff, and their intended roles, were:

- A clinical specialist mental health nurse (AfC band 7)
 - Lead clinical mental health assessment
 - Advise on clinical management plans
 - Teaching and on the job training of other ward staff
 - Develop policies and procedures
 - Relatives' communication
 - Provide a link with mental health service
 - Development and advocacy for service.
- A senior mental health nurses (AfC band 6). This post was subsequently converted to two AfC band 2 health care assistant posts to allow increased night time staffing.
- Two basic grade mental health nurses (AfC band 5):
 - undertaking mental health assessments
 - engagement in activities, communication with family carers
 - Co-working, teaching and coaching other staff.
- Two health care assistants (AfC band 2)
 - recognition of the need for increased personal care and supervision
 - additional one-to-one care





- engagement in activities (one was given a specific remit as an activities co-ordinator).
- Additional mental health specialist occupational therapist (AfC band 7)
 - Increase capacity to provide therapy as well as assessment
 - Risk managing difficult discharges
 - Development and supervision of purposeful activity.
- Additional 0.5 whole time equivalent (WTE) physiotherapist (AfC band 6)
 - Recognising the key role of mobility disability in enabling discharge.
- Additional 0.2 WTE speech and language therapist (AfC band 7) primarily to work on development and education, in both communication and swallowing.
- 0.2 WTE additional consultant geriatrician time
 - additional time for assessment, communication with families and primary care, and consultation and advice on patients referred from other wards.
 - teaching, development, advocacy and dissemination.
- 0.1 WTE consultant psychiatrist time
 - Specialist mental health assessment, advice and care planning.
 - Provide a link with mental health service.





Table 1. What worked: skill mix

<i>What worked</i>
<p>Strong nursing leadership and vision from existing ward manager</p> <p>Mental health nurses employed by specialist mental health trust and seconded to general trust, providing for ongoing professional mentoring and supervision</p> <p>New staff embedded successfully over about 3-6 months</p> <p>Specialist staff had freedom to discover what problems were and how to address them</p> <p>Introduction of routine nursing mental health assessment and care planning</p> <p>Introduction of new OT approaches, including occupational profiling</p> <p>Specialist speech and language therapy education and support</p> <p>Effective physiotherapy</p> <p>Re-introduction of ward multidisciplinary meetings</p> <p>Retention and commitment of existing staff</p>
<i>What was difficult or didn't work</i>
<p>Recruiting to full establishment</p> <p>Getting seniority skill mix of mental health nurses right</p> <p>Negotiations between the acute trust and the mental health trust about employment of MH staff were very protracted, delaying staff appointment</p> <p>Reluctance of allied health professional departments to employ staff without guaranteed long-term funding</p> <p>Dependent case-mix needs a lot of basic personal care, limiting scope for additional activities</p> <p>Difficulty freeing general nurses to attend multidisciplinary team meetings</p> <p>Pressure to relocate staff to areas of shortage elsewhere (mostly successfully resisted)</p>





2. *The philosophy of person-centred dementia care (PCC).*

This is an approach to the care of older people with dementia, particularly associated with the Bradford School of dementia care^{30, 31}. It is central to the difference in management approach introduced on the MMHU. PCC focuses on respect for 'personhood', the recognition that a person with dementia is an individual with identity, history, dignity and agency (the right to make choices). It aims to promote constructive relationships between patients and staff, and feelings of identity, inclusion, attachment, activity and comfort. It describes the effect of a 'malignant social psychology', operating between people with dementia and those they interact with, which can impede communication and exacerbate distress and disturbed behaviour. The goals of introducing the PCC approach were to:

- minimise distress and its expression through disturbed or difficult behaviours
- reframe attitudes to 'challenging behaviours' and recognising them instead as attempts at communication, or 'distress responses' indicating an underlying need
- enable the maintenance and rehabilitation of skills
- enhance quality and enjoyment of life.





Table 2. What worked: person-centred care

<i>What worked</i>
<p>General approach of non-confrontation, diversion, activity</p> <p>Introduction of personal profile ('About Me') documentation</p> <p>Mental health care planning (including night care plans)</p> <p>Observation and documentation of behaviours both day and night</p> <p>Successful prevention and defusing of severe distress behaviour</p> <p>Reduced use of sedative drugs</p> <p>Rarely needing transfer off ward to specialist mental health wards for behaviour control</p>
<i>Still working on it</i>
<p>Reducing night time disturbance</p> <p>High incidence of falls</p> <p>Applying PCC principles to physically ill patients</p>
<i>What was difficult or didn't work</i>
<p>Dementia Care Mapping (despite staff training, there was never sufficient time to do it)</p> <p>Competing Trust priorities (infection control, bed management) not conducive to PCC</p> <p>'Long days' (nurses working three 13h shifts per week): (arguably) tiredness, lack of continuity</p>





There is a developing body of knowledge in this area mainly from care homes. Its use in acute hospitals has been explored ³², and the approach is implicit in much best practice guidance ³³. Dementia Care Mapping, a non-participant observer quality improvement tool, can be used to audit and develop person centred care ³⁴.

3. Education programme for general nursing and therapy staff

Specific didactic education was provided in mental health problems (dementia and delirium), symptoms, diagnosis and care (in collaboration with the University of Nottingham School of Nursing). Three time-out days for all staff (from November 2009) introduced the philosophy of person centred care. Work books on dementia care and recognising delirium were distributed to all staff ³³. Other topics included communication and feeding problems.

A series of ward based topic teaching sessions was instituted, on different types of dementia, use of medication, mental capacity and Deprivation of Liberty safeguards, and occupational profiling in order to grade interventions to a person's level of functioning ³⁵.



Table 3: What worked: education and training

<i>What worked</i>
<p>Basic level training, for all staff (including unregistered nursing staff, receptionists, discharge co-ordinator)</p> <p>Advanced level training for some</p> <p>On the ward experience of working with other professional disciplines</p> <p>Staff enthusiastic to learn, developing pride in new knowledge and skills</p> <p>Patient separation and breakaway training</p> <p>Delivery of training sessions to other Trust staff</p> <p>Access to learning resources, including books and DVDs</p>
<i>What was difficult or didn't work</i>
<p>Freeing staff to attend more advanced PCC training</p> <p>Ward based topic teaching was difficult to organise and inconsistently attended (due to staff availability)</p>

On-the-job training, including shadowing, co-working and case discussions was led by the senior mental health nurses and allied health professions.

Four members of ward staff attended the Bradford three-day person centred care course, and three have been trained in Dementia Care Mapping.

Ward staff also attended specific dementia training organised as part of a Trust strategy to improve dementia care. They also contributed to this training, including doing workshops and presentations at a Trust 'internal conference' on dementia (mainly aimed at nurses).



Rotating junior medical staff were all given training on assessing confusion, and received written guidance on assessing older patients, including the taking of collateral cognitive and functional histories ³⁶. The opportunity for gaining and demonstrating Foundation Programme competencies ³⁷ was emphasised (including mental state examination, communication in difficult circumstances, assessing mental capacity and decision making).

4. Emphasis on purposeful activity

We introduced therapeutic and diversionary activity to help prevent to boredom, distress behaviours, night time disturbance, and loss of skills.

The Occupational Therapist introduced occupational profiling using the Pool Activity Level instrument ³⁵, which was consistent with a person-centred care approach. This aims to identify the level of function for a patient on admission, and the development of care plans for personal care and other activities. As a result staff could engage patients in activities at a level where they could be successful, helping patients avoid the distressing experience of repeated failure.

A health care assistant took specific responsibility for developing a programme of activities matched to ability using the occupational profile levels. She made contact with activities co-ordinators in the Mental Health Trust and kept a log of what she had done. This included games (bowling, giant noughts and crosses, dominoes, ludo), quizzes, drawing and crafts, music, reminiscence, and exploration of senses. A sink was fitted in the day room to enable cooking or baking, using a portable oven.

For people with dementia activities need to be completed regularly in order to maintain skills and reduce behaviours associated with distress. Every 'task' (washing, dressing, eating) becomes an 'activity'. Emphasis is on doing the activity rather than achieving a set outcome ('it's process not product that counts'). Families were encouraged to provide day clothing for patients and nurses were encouraged to get patients up and dressed. Occasionally staff or families took patients off the ward for a walk, or in a wheelchair. Able patients were encouraged to sit at a table for meals. The programme of activities





encourages patient to maintain a daytime routine, enables them to participate in familiar activities and encourages social interaction with staff and peers. This has contributed to a decrease in disturbed behaviour on the ward.

The specialist physiotherapist addressed both physical problems commonly associated with ageing, and those more specific to dementia (such as parkinsonism and dyspraxia). Person-centred approaches were used, including adjusted verbal and enhanced non-verbal communication, and an emphasis on functional tasks. Motivation and positive reinforcement were emphasised during treatment especially where internal drive is diminished. Insight and safety awareness were assessed during functional tasks.



Table 4. What worked: purposeful activity

<i>What worked</i>
<p>Introduction of occupational profiling using Pool Activity Level instrument</p> <p>Activities co-ordinator facilitating group work for patients who were able</p> <p>Provision of resources for activities, some designed specifically for this client group</p> <p>Getting able patients up and dressed</p> <p>Some patients sitting at table for meals</p> <p>Reduction in night time disturbance for some patients</p>
<i>What was difficult or didn't work</i>
<p>Slow to get access to kitchen equipment</p> <p>Activity for physically ill patients</p> <p>Mixed severities of impairment and abilities</p> <p>Activities co-ordinator not on duty every day; activities otherwise dependent on ward staffing levels</p> <p>Short lengths of stay prohibits continuity</p> <p>Lack of laundry facilities or staff to wash clothes (if incontinent, clothes were only rinsed)</p> <p>No activities in the early evening</p>



5. Environmental change

General hospital wards are crowded, noisy, alerting, distracting and provocative. Different wards look the same, and different bays within each ward are difficult to distinguish. The close proximity of disoriented, bewildered, and possibly disinhibited, agitated or noisy patients in 6-bedded bays inevitably leads to conflict: patients 'set each other off'.

People with dementia are sensitive to the physical environment in which they find themselves, not least as familiar routines are disrupted and ability to learn information is compromised (such as the location of your bed or the toilet).

Ensuring that the environment is suitable for this patient group has been a challenge, and required a change in ward location, nine months in to the development programme. A further six months elapsed before significant work to distinguish different bays and bed areas was completed.

The initial ward was relatively short, had an open alcove for a day and dining area, a small and poorly lit day room, no private interview room, and inadequate office space. The floor was yellow with black and red specks, often giving the illusion of bugs or blood splatters, which some patients tried to pick up or clean. Following negotiation we moved the ward to one which was 12m longer, with an enclosed day and dining area, a separate relatives/interview room, and more office space. The floor was a subtly-patterned blue.

Further environmental changes with the aim of improving patient orientation and independence have been made or are planned. For example:

- signage of appropriate colour, height and size;
- coloured vinyl wall covering, and bed number plaques, used to make the bays more identifiable
- new secure bedside lockers to reduce loss of personal possessions and to enable personalisation of bed spaces
- small clear-fronted memory boxes fitted by beds for photographs or other mementos





- equipment such as black toilet seats, a male urinal, and hand rails, to help those with visuo-perceptual problems (visual impairment or agnosia)
- large, clear faced clocks and date boards to help with orientation.

The ward has been made safer by boxing off fire extinguishers, locking no-go areas using digilocks, fitting a 'hatch' to close off the nurse's station, and concealing medical equipment as far as possible.

Advice from other units and local mental health clinical management was that a unit smaller than 28 beds would have been optimal. NUH Trust felt unable to accommodate this desire due to ongoing pressures on medical beds.

Two single and one double side rooms were available for isolation as part of infection control, but they were also used for end of life care. On occasion, we felt it necessary to use side rooms to mitigate the effects on other patients of intractable vocalising. In general, priority was given to infection control needs.

Some patients need room to wander without having to be constantly turned away from doors or off-limits areas. Meals and activities need to take place away from distraction, preferably behind closed doors. Quiet areas are required to settle distressed patients, and to interview families. Wards are typically extremely noisy (telephones, patient call buzzers, alarms on infusion pumps, pressure relieving mattresses, bed brakes, or fire alarm tests). These become annoying if left unattended. Typically, local pop radio stations play an alerting and stimulating genre of music, punctuated by attention-grabbing DJs or announcers. A noise reduction strategy was introduced.



Table 5. What worked: environment

<i>What worked</i>
<p>A ward with plenty of walking space, and some private or secluded areas</p> <p>Reducing noise</p> <p>Boxing of fire extinguishers</p> <p>Large face clock and orientation boards</p> <p>Controlled access doors (pre-existing swipe card entry system, digilocks elsewhere)</p> <p>Use of day and dining room, and multidisciplinary office</p> <p>Bays decorated in different colours</p> <p>Black toilet seats</p>
<i>Still working on it</i>
<p>Personalising bed spaces</p> <p>Good use of memory boxes</p> <p>Noise reduction and minimising clutter require constant vigilance on a busy ward</p>
<i>What didn't work</i>
<p>Initial ward structurally unsuitable (we had to move wards after nine months)</p> <p>Initial ward had a floor pattern that gave the illusion of bugs or blood on it.</p> <p>No access to outdoors</p> <p>Estates department very slow (many months) response to requests for decoration and structural alternations</p>



Six-bedded bays promote night disturbance if one patient is noisy

Hiding or masking medical equipment (infusion pumps, physiological observations machines)

Fish tank

The ward complied with NHS single sex accommodation requirements, entailing two single sex male bays at one end, and separated by the nurses' station, two single sex female bays. Each had separate toilet and washing facilities. Four side room beds beyond the female area were used flexibly. Given the propensity of patients to walk constantly, and the clear desire by some patients (of both sexes) to socialise with the opposite sex, there was no absolute separation of patients of different sexes.

Disorientated and forgetful people need points of visual interest: pictures, including some designed to stimulate reminiscence and familiarity, light boxes, or fish tanks. A local art photographer was commissioned to make a series of photographs of patients and staff for use in the ward. Maintenance of a fish tank was considered too labour intensive, but a fish tank screen saver was used on a large flat screen television that was installed.

Increased staff numbers need adequate office and writing space, or else they migrate into areas intended for patients. A common working area also enhances multi-disciplinary team communication.

6. Greater family and carer involvement and communication

Some family carers express frustration at lack of consultation, information giving, involvement in decision making, and the opportunity to engage in some hands on care ⁴.



The involvement of family carers is essential given the need for collateral information for assessment, diagnosis and discharge planning purposes, and the statutory obligation to consult when making decisions on behalf of a patient lacking capacity ³⁸.

At the time of a medical crisis of a person with dementia family carers are often tired and stressed. The desire to take part in hands-on care tasks varies – some want to continue a caring role, others want to step back and take a rest. Moreover, the closeness and degree of involvement in care was very variable between different carers, and this had to be accounted for, and respected in individualising care plans.

Historically, hospital visiting arrangements had been very liberal, but in recent years had been made much more restrictive. We adopted a more relaxed attitude towards visiting, especially when a family member wanted to help with sitting with anxious, agitated or restless patients, or helping with feeding. This was encouraged, and enabled relatives who wished to continue their carer's role, an opportunity to do so.

A consequence of more proactive family communication was a tendency for family carers to be asked the same questions several times over (often by different professional disciplines). Sometimes this was because of different information needs, or in the process of regular updating, and mostly was avoided by regular close communication between the team. However, we introduced a 'contact log' to try to make this more systematic. The 'About Me' personal profile document engages relatives, values their insights, and affirms staff interest in the patient.

We wrote a series of information leaflets (in Z-fold format) on:

- the ward
- person-centred care
- delirium
- dementia
- discharge arrangements
- end of life care.

These were printed on the ward to allow flexibility in making changes.



Table 6. What worked: family and carer involvement

<i>What worked</i>
<p>Philosophy of proactive communication</p> <p>Information leaflets on the ward, person centred care, delirium, discharge, and OT</p> <p>Engagement of family carers in hands on care where they wanted to</p> <p>Relatively few complaints</p> <p>Regular input from Alzheimer's Society support worker</p>
<i>What was difficult or didn't work</i>
<p>Tendency to repeat information gathering by different disciplines</p> <p>Different relatives asking the same information of staff</p> <p>Relatives sometime intolerant of other patients behaviours</p> <p>Concern about lost or misplaced property</p> <p>Maintaining privacy and dignity for all patients when some relatives stay overnight</p> <p>Carers support group - short length of stay limits opportunities</p> <p>Carers' clinic</p> <p>Strategic or advisory role</p>

As further support for family cares the Alzheimer's Society offer regular attendance on the ward for one hour per week to give advice.



Ideas about a carers' support group, carers' clinic and a strategic planning and advisory role have proven difficult to operationalise, and have not yet been developed further.

7. Interfaces with other agencies

Many of the delays and frustrations around care of people with dementia in general hospitals are around discharge planning, follow up arrangements and adult social care support.

The current UK health service model includes:

- primary care based services, acting as gatekeepers, and providers of basic medical services, including to care homes
- mental health services with geographically sector-based community mental health teams and 'memory clinics' with primarily a diagnostic role
- the provision of post-acute care rehabilitation by 'intermediate care' teams, either working in people's homes, or in care homes staffed for the purpose (the latter aimed at people with 24-hour supervision or care needs)
- limited hospital-based, consultant-led rehabilitation, in an off-acute site community hospital
- means tested adult social care, commissioned by local authority social services departments, largely delivered by commercial agencies, but including some dementia-specialist home care ³⁹
- responsibility for finding care homes being given to families, who are also responsible for funding care where assets exceed statutory limits, or where 'top up' of social services funding is required for a particular home.

Mental health services are provided by different NHS organisations ('Trusts') from acute care. This leads to problems with information sharing, lack of co-ordination over discharge plans, and delays in asking for specialist opinions. Patients who may need transfer to mental health wards can be difficult to agree on. There have been examples of good practice, but sometimes operational difficulties (if a bed is unavailable), or of professional differences (if opinions differ) on the best environment for a particular





patient.

Intermediate care was initially limited to a time frame of 4-6 weeks, and was very reluctant to consider patients with cognitive impairment, citing 'lack of rehabilitation potential', fearing long lengths of stay, and difficulties in arranging eventual discharge. Subsequent development of intermediate care ⁵ has included specialist mental health provision, but this is fragmented and varies greatly with local geographical areas.

Adult social care is the responsibility of local authorities, of which two (Nottingham City, Nottinghamshire County) cover 90% of patients, and a further three or four the rest. There is ongoing tension between health and social care organisations over responsibilities for delays in discharge. We had hoped that specialised provision would enable the development of 'special relationships', increasing confidence in our assessments, and expediting provision of care. Meetings were held with all these parties to discuss working arrangements. These have been mostly good, but more through making standard arrangements work better, rather than negotiating privileged access.

Table 7. What worked: interfaces

<i>What worked</i>
Mental health nurses and psychiatrist facilitate referrals to mental health services, including Community Mental Health Teams and care home dementia outreach services
OT and physiotherapist negotiating access to intermediate care
Access to mental health trust computer system and documentation
<i>What was difficult or didn't work</i>
Unable to negotiate special relationship with adult social care
Transfer to specialist mental health wards can be slow



8. Maintaining staff morale: introduction of clinical supervision

The needs of patients and carers with delirium or dementia are complex and often physically and emotionally demanding for staff. This is an aspect of care that has been under-appreciated in the past in acute general hospitals. Patients receive care and treatment in an unfamiliar environment with unfamiliar caregivers, and may struggle to communicate needs. This can cause anxiety and distress, which may be reflected in behaviour on the ward. Exhausted, worried, or angry family caregivers also require attention, and ultimately preparation for discharge. Dealing with these demands can take its toll on staff.

An early finding was that staff felt unappreciated, and believed that family carers, in particular, underestimated the difficulties of working on acute care wards with older people. Another observation was that general nursing staff could feel unsure about the best approach to a problem, even when they were actually delivering best practice care. Opportunities were taken to compliment good care, and, with the help of specialist mental health staff, to foster 'confidence in competence'. Activities, including the time out training days and various events on the ward, incorporated acknowledgement of the work and achievements made by the staff.

Mental health professionals routinely undergo professional 'supervision', for debriefing and support. The hospital was developing a scheme to introduce this for general nurses and ward staff were encouraged to volunteer for it.



Table 8. What worked: maintaining staff morale

<i>What worked</i>
<p><i>Espirit de corps</i> developed and became established</p> <p>'Confidence in competence': recognition of special skills</p> <p>Adoption of new ideas and approaches</p> <p>Some staff found individual supervision helpful</p>
<i>What was difficult or didn't work</i>
<p>Some general nursing staff were not keen on individual supervision, some would prefer group supervision</p> <p>Occasional re-emergence of defensiveness</p>

9. Policies and procedures

The aim is to ensure systematic and consistent care.

Some hospital-wide policies are of particular relevance to people with delirium and dementia, such as consent, nutrition, falls, vulnerable adults and restraint.

Table 9. What worked: policies and procedures

<i>What worked</i>
Documentation review Emphasising links with other hospital policies (nutrition, end of life care) Routine nursing mental health assessment and completion of MMSE Most difficult problems are approached systematically
<i>What was difficult or didn't work</i>
Heterogeneity of patient casemix limited the usefulness of specific policies Implementation of hospital-wide policies conflicting with best practice dementia care Developing specific policies for the unit

Some policies conflict with best practice dementia care. For example, relocating a patient to another bed space, or into side a room, for infection control purposes, can increase disorientation and feelings of isolation. Indeed, infection control was something of a problem with wandering patients, and whilst in some cases isolation remained an imperative (e.g. infectious diarrhoea), for patients colonised with MRSA, it was hard to argue that isolation represented patient-centred care. This was discussed at a high level in the Trust and modest concessions gained allowing some discretion to be exercised on individual clinical grounds.

A specific policy on delirium for the MMHU was developed but proved of limited usefulness. More useful were implicit pathways of care, for example for patients with swallowing difficulties, or night time disturbance. A nursing documentation group reviewed all the paperwork being used by the MDT and designed a checklist outlining different pathway assessments required.



10. Medical management

The acute care pathway for emergency medical admissions impacts on medical care, but in general terms a standard geriatric medical approach was taken. Particular emphases were placed on:

- rigorously making (and reviewing) accurate diagnoses
- detection of delirium
- assessment of cognitive history and symptoms, allowing (or refuting) the diagnosis of dementia (where this was not established previously)
- identification of psychosis and other mental health problems
- awareness of functional problem and rehabilitation needs
- use of problem lists to document and classify multiple and complex problems
- careful, critical, attention to prescribing, including drugs liable to cause delirium, all psychotropic medication, and consideration of likely compliance and medicine management issues
- communicating diagnostic information to families and other ward team members
- identifying patients who were dying, and institution of appropriate end of life care protocols.

Patients may have been referred by their GP, the Emergency department (following a self referral or ambulance call), or following referral from another ward. Thus, all had prior information gathered, which was reviewed. The need for collateral information from families, other carers or care home staff was emphasised (a task shared with other ward professionals). The goal was to allow a full understanding of problems, avoiding presumption and misperception, and treatment of treatable conditions.

The two consultants each did two ward rounds a week, but worked flexibly enabling cross consultation where this was needed. Most days patients were seen by a doctor of at least registrar grade. Junior medical staffing was often very thin, sometimes comprising only one F1 or F2 doctor (first two years after qualification) for the 28 patients on the





ward.

Two half sessions per week (2 hours per time) of consultant psychiatrist time were arranged, providing consultation and advice. This was useful in the assessment and diagnosis of difficult or contentious cases, arranging the management of some patients with functional psychoses who had come to the ward as 'confused', advice on drug management where first line therapy had failed, and in educating ward staff (including physicians and mental health nurses). Ultimate clinical responsibility remained with the consultant geriatricians.

Table 10. What worked: medical management

<i>What worked</i>
Thorough and systematic diagnostic assessment and decision making
Minimisation of psychotropic drug use
Specialist psychiatric support
<i>What was difficult or didn't work</i>
Frequent rotation of junior medical staff
Systematic medical use of standardised scales (such as MMSE and delirium rating scale; mental health nurses took on these assessments)

Discharge communication was a problem. Given complex cases, and the need to convey considerable diagnostic, behavioural, social and decision making information, one consultant prioritised full typed discharge summaries. The other, with less time allocated to ward work, relied on brief electronic proformas, which was in line with Trust policy to reduce demands for secretarial time and expedite discharge communication.





11. Informing change through research and culture of continual development.

The ward is intended to operationalise, develop and mature in the light of experience, data from a literature review ²⁶, the findings of the NIHR/SDO cohort, qualitative and workforce studies, as this data emerged, and discussions and experience during maturation phases (the first two years of the NIHR programme). Dramatic changes in ward culture and practice have undoubtedly occurred, and development appears to be continuing, although the precise contribution of the linked research programme is uncertain.

Table 11. What worked: culture of continual development

<i>What worked</i>
Incorporating ideas of specialist nurses and allied health professions
Continual development
<i>What was difficult or didn't work</i>
Difficult to make links with research overt
No easy forum for dissemination and discussion
Time line for analysing research findings too slow for ward development purposes

12. Leadership and management structure

The idea of a medical and mental health unit had been discussed for some years (and Nottingham University was well known for its joint medical and psychiatric academic department of Health Care of the Elderly).

The drive to develop the unit came from the award of an NIHR programme grant, and was conceived and overseen by the medical and nursing clinical academic investigators. This was supported by the Trust Chief Executive, director of strategy and director of research and development, but operational management (clinical director, general and





nursing management) was only involved afterwards (Trust management was being re-configured at the time following the merger of two Trusts).

A ward was identified by the Head of the Health Care of Older People Service. This ward was willing, had stable nursing staff, and was reckoned to be good at managing confused patients. The vision for the ward was relatively undeveloped at this stage (other than to specialise, draw on the experiences of stroke units, and to augment staffing with mental health nursing expertise). Development was managed by the formation of a multidisciplinary operational group by the acute medical directorate management, which negotiated the employment of new staff, supported the education programme, and facilitated environmental changes.

It was important that there was close support and collaboration from the Mental Health Services for Older People Directorate of the Mental Health Trust, especially its clinical director and general manager. Sharing of expertise was helpful with many aspects, ranging from constructing policies, through ward design improvements and the recruitment of specialist mental health staff. The MMHU was 'badged' under both Trusts.



Table 12. What worked: leadership

<i>What worked</i>
<p>Strong ward management and stable ward team</p> <p>Multidisciplinary operational development group</p> <p>Initial vision delivered</p> <p>Negotiation of funding, staffing and operation across multiple organisations and departments</p> <p>Support of Trust research and development department and PCTs</p> <p>Joint service and academic endeavour</p>
<i>What was difficult or didn't work</i>
<p>Maintaining 'executive sponsor' engagement</p> <p>Competing Trust priorities</p>

Primary Care Trusts were engaged via their Mental Health Services for Older People Strategy Groups, and their Research and Development departments.

In February 2009 the National Dementia Strategy was published, following which there was considerable attention drawn to the standards of care for people with dementia in general hospitals. The Trust committed to developing a Dementia Strategy, in particular a widespread uplift in education and training for all staff. The MMHU fitted well into this strategy, which demonstrated a tangible commitment to improved services.

Assessment of progress in development

The MMHU continues to develop and is by no means perfect. However, we believe that the current standard of care is substantially different from on other Medical and Health



Care of Older People wards, and sufficiently different to have a reasonable chance of demonstrating differences in a trial.

The politics of development, involving explicit support but lack of priority given to service development not aligned to government targets, the effects of competing pressures and demands, the need to develop relationships with others working under pressure, and the need to accommodate a research evaluation, have caused difficulties for the development of the service. Hospital working practices are often tightly constrained, limiting the flexibility that might be best when working with cognitively impaired patients. Some universal policies (such as infection control, or venous thrombo-embolism prevention) can be difficult to accommodate, or appear to be poorly prioritised.

Some aspects have been disappointing, such as the slowness in the procurement of specialist equipment and furniture, of redecoration, and of minor and more major structural alterations required. However, we were much supported by the Trust when we decided we needed to move ward to one with a more suitable layout.

There have been a few 'disaster weeks' with episodes of patient-on-patient aggression, or huge increases in the incidence of falls, but these have been relatively few, and difficult or distress behaviours have been largely avoided or contained. The approach of patient communication and repeated explanation, non-confrontation and non-admonition, and sympathetic understanding of the problems and plight of patients has become well-embedded. Evolution continues. Some apparently intractable problems (such as night time disturbance) have become progressively less troublesome over time.

Other wards have come to look on the MMHU as a centre of expertise.

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References

1. Royal College of Psychiatrists. *Who cares wins*. London, 2005.
2. Homes J, House A. Psychiatric illness predicts poor outcome after surgery for hip fracture : a prospective cohort study. *Psychological Medicine* 2000; 30: 921-929.
3. Sampson EL, Blanchard MR, Jones L, Tookman A, King M. Dementia in the acute hospital: prospective cohort study of prevalence and mortality. *British Journal of Psychiatry* 2009; 195: 61-66.
4. Alzheimer's Society. *Counting the Cost*. London, 2009
5. Department of Health. Intermediate Care – Halfway Home. Updated Guidance for the NHS and Local Authorities. Department of Health, London, 2009.
http://www.dementia.dh.gov.uk/_library/downloads/Objectives_resources/objective9/Intermediate_Care_-_Halfway_Home.pdf
6. Royal College of Psychiatrists *Raising the standard*. Royal College of psychiatrists, London, 2006. <http://www.rcpsych.ac.uk/PDF/RaisingtheStandardOAPwebsite.pdf>
7. Department of Health. *Everybody's Business*, Department of Health, London, 2006.
8. National Institute for Health and Clinical Excellence; Social Care Institute for Excellence. Guideline on supporting people with dementia and their carers in health and social care. National Clinical Practice Guideline Number 42. London, British Psychological Society/Gaskell, 2006
9. Department of Health. *National Dementia Strategy*. Department of Health, London, 2009.
10. Holmes J, Montaña C, Powell G, Hewison J, House A, Mason J, Farrin A, McShane P, McParland L, Gilbody S, Young J, Keen J, Baldwin R, Burns A, Pratt H, Anderson D. *Liaison Mental Health Services for Older People: A Literature review, service mapping and in-depth evaluation of service models*. Research Report Produced





for the National Institute for Health Research Service Delivery and Organisation programme SDO Project (08/1504/100). London, 2010.

<http://www.sdo.nihr.ac.uk/files/project/100-final-report.pdf>.

11. Slaets JP, Kaufmann RH, Duivenvoorden HJ, Pelemans W, Schudel WJ. A randomised trial of geriatric liaison intervention in elderly medical inpatients. *Psychosomatic Medicine* 1997; 59: 585-591.
12. Inouye SK, Bogardus ST, Charpentier PA, Leo-Summers L, Acampora D, Holford TR, Cooney LM. A multicomponent intervention to prevent delirium in hospitalized older patients. *N Engl J Med*. 1999; 340: 669-76.
13. Stroke Unit Trialists' Collaboration. Collaborative systematic review of the randomised trials of organised inpatient (stroke unit) care after stroke. *BMJ* 1997; 314: 1151-9.
14. Stroke Unit Trialists' Collaboration. Organised inpatient (stroke unit) care for stroke. *Cochrane Database of Systematic Reviews* 2001, Issue 3. Art. No.: CD000197. DOI: 10.1002/14651858.CD000197. Available at <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD000197/frame.html>
15. Stuck AE, Siu AL, Wieland GD, Adams J, Rubenstein LZ. Comprehensive geriatric assessment: a meta-analysis of controlled trials. *Lancet* 1993; 342:1032-6.
16. Landefeld CS. Palmer RM. Kresevic DM. Fortinsky RH. Kowal J. A randomized trial of care in a hospital medical unit especially designed to improve the functional outcomes of acutely ill older patients. *New England Journal of Medicine* 1995; 332:1338-44.
17. Cole MG et al. Systematic intervention for elderly inpatients with delirium: a randomized trial. *CMAJ* 1994; 151, 965-70.
18. Cole MG et al. Systematic detection and multidisciplinary care of delirium in older medical inpatients: a randomized trial. *CMAJ* 2002 167; 753-9.





19. Pitkälä KH, Laurila JV, Strandberg TE, Tilvis RS. Multicomponent Geriatric Intervention for Elderly Inpatients with Delirium: A Randomized, Controlled Trial. *Journals of Gerontology: Series A* 2006; 61: 176-181
20. Baldwin R et al. Does a nurse-led mental health liaison service for older people reduce psychiatric morbidity in acute general medical wards? A randomised controlled trial. *Age Ageing*. 2004 ;33:472-8.
21. Reuben DB, Borok GM, Wolde-Tsadik G, Ershoff DH, Fishman LK, Ambrosini VL, Liu Y, Rubenstein LZ, Beck JC. A randomized trial of comprehensive geriatric assessment in the care of hospitalized patients. *New England Journal of Medicine* 1995; 332:1345-50
22. Kalra L et al. Alternative strategies for stroke care: a prospective randomised controlled trial. *Lancet* 2000; 356: 894-9.
23. Kircher TTJ, Wormstall H, Müller PH, Schwärzler F, Buchkremer G, Wild K, Hahn J-M, Meisner C. A randomised trial of a geriatric evaluation and management consultation services in frail hospitalised patients. *Age and Ageing* 2007; 36: 36–42.
24. Medical Crises in Older People website, University of Nottingham. <http://nottingham.ac.uk/chs/research/projects/mcop.aspx>
25. Department of Health. Attributing revenue costs of externally-funded non-commercial research in the NHS (ARCO). Department of Health, London, 2005.
26. Gladman JRF, Jurgens F, Harwood R, Goldberg S, Logan P. Better Mental Health in general hospitals. Medical Crises in Older People. Discussion paper series ISSN 2044 4230. Issue 3 September 2010. <http://nottingham.ac.uk/mcop/index.aspx>
27. Waite J, Harwood RH, Morton IR, Connelly DJ. *Dementia Care; a practical manual*, Oxford University Press, Oxford, 2008.





28. Reuben DB, Rosen S. Principals of Geriatric Assessment. In Halter JB et al (eds), Hazzard's Geriatric medicine and Gerontology 6th edition, New York, McGraw Hill Medical, 2009, pp 141-52.
29. Morris J for the British Geriatrics Society policy Committee. Comprehensive Assessment for the Older Frail patient in hospital. British geriatrics Society, London, 2005. <http://www.bgs.org.uk/Publications>
30. Kitwood T. Dementia reconsidered. The Person Comes First. Buckingham: Open University Press, 1997.
31. Brooker D. Person Centred Dementia Care: Making Services Better (Bradford Dementia Group Good Practice Guides). London, Jessica Kingsley, 2006.
32. Woolley RJ, Young JB, Green JR, Brooker DJ. The feasibility of care mapping to improve care for physically ill older people in hospital. *Age and Ageing* 2008; 37: 390-395.
33. Archibald C. Managing patients with dementia in acute hospitals workbook. Stirling Dementia Services Development Centre 1998.
34. British Standards Institute. Guide to the use of Dementia Care Mapping for improved person-centred care in a care provider organization (PAS 800). British Standards Institute, London 2010.
35. Pool J, The Pool Activity level (PAL) instrument for occupational profiling: a practical resource for people with cognitive impairments: 3rd ed. Jessica King Publishers, London, 2008.
36. Harwood RH. Older People. In Gray D and Houghton A, *Chamberlain's Signs and Symptoms in Clinical Medicine* London, Hodder Arnold 2010.
37. Foundation Programme curriculum.
<http://www.foundationprogramme.nhs.uk/pages/home/key-documents>





38. Mental Capacity Act 2005. <http://www.legislation.gov.uk/ukpga/2005/9/contents>.
39. Rothera I, Jones R, Harwood RH, Avery A, Fisher K, James V, Shaw I, Waite J. An evaluation of a specialist multiagency home support service for older people with dementia using qualitative methods. *International Journal of Geriatric Psychiatry*. 2008; 23: 65-72
40. Folstein SE, McHugh PR. 'Mini-mental state'. A practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research* 1975; 12: 189-98.
41. Trzepacz PT, Mittal D., Torres R, Canary K, Norton J, Jimerson N. Validation of the Delirium Rating Scale-Revised-98 Comparison With the Delirium Rating Scale and the Cognitive Test for Delirium. *J Neuropsychiatry Clin Neurosci* 2001; 13:229-242.

