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## **Dementia in acute hospital inpatients: the role of the geriatrician**

Dementia remains grossly underdiagnosed in the UK. Between 40% and 64% of those affected are not formally diagnosed.[1-3] Patients with dementia have high rates of hospital admission: around 6% of people with dementia are inpatients in general hospitals at a given time-point, compared with approximately 0.6% of over-65s without dementia.\* A recent study found that 42% of acute medical admissions of over-70s had dementia but only half had been diagnosed.[2]

Patients with dementia in hospital are highly vulnerable. Prospective studies show higher mortality in people with dementia compared to those without[4] and mortality increases with dementia severity.[5, 6] For example, one study found that 24% of individuals with severe cognitive impairment died during their admission compared to 7.5% of individuals scoring over 23 on the Mini-mental state examination.[2] There are also increased rates of other adverse outcomes including delirium, incontinence, longer hospital stays and increased rates of new institutionalisation.[7]

Every individual admitted to hospital receives an admission assessment including documentation of past medical history, a systems enquiry and physical examination to ensure relevant and co-existing pathology is not missed. Cognitive screening, analogous to the physical examination, is particularly important in *de novo* detection of dementia and indeed is universally recommended for all inpatients aged over 65.[8] Yet the 2011 National Audit of Dementia Care in General Hospitals showed that having a relevant policy did not correlate with actual practice, for example 75% of hospitals advised mental state assessments but only 43% of casenotes examined had evidence of this being carried out.[9] This means that in the UK alone tens of thousands of

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\* These proportions were calculated from the following UK estimates: 140 000 hospital beds, approximately two thirds occupied by older adults, 10 million adults over 65, 600 000 individuals with dementia and a hospital prevalence of dementia of approximately 25%.

people with undiagnosed dementia are admitted to and discharged from general hospitals without any cognitive testing or other cognition-specific assessments, with the consequence that their dementia remains undetected and untreated. Policymakers increasingly recognise the importance of detecting and effectively managing dementia in hospital inpatients.[9-12] More generally, there is consensus that appropriate diagnosis of dementia benefits patients.[7] The advantages of diagnosis and subsequent treatment include access to drug treatments, appropriate multidisciplinary care, and allowing patients and carers to plan for the future. Indeed, patients generally welcome the idea of knowing the diagnosis.[13]

Because hospital patients with dementia are relatively more likely to have contact with a geriatrician, undiagnosed dementia is present in a large proportion of patients under their care in both acute and rehabilitation settings. Why then do geriatricians not routinely aim to detect previously undiagnosed dementia in their inpatients? Obstacles to dementia diagnosis in primary care are well-recognised[14] but less is known about secondary care. Many clinicians, including geriatricians, hesitate to diagnose dementia[15] because of the possibility of an incorrect diagnosis causing unnecessary anxiety and social withdrawal, concerns about paternalism, stigma, medication side-effects, further strain on families and, perhaps, greater demands on services.[14] Others hesitate because of fears it will complicate the process of discharge and appropriate placement.[16] Additionally the current structure of training in medicine of the elderly (MoE) in the UK does not universally include training in the assessment and diagnosis of cognitive disorders, therefore professional under-confidence in this domain will also hamper recognition and diagnosis. These are all important considerations, but with care and adequate training, most can be overcome or mitigated. Ethical guidance also highlights the interests of carers—who may be keen for a diagnosis to be made.[17].

What practical steps might be taken? With respect to dementia detection in the general hospital there are two main challenges. The first is identifying individuals already diagnosed with dementia and ensuring they receive appropriately tailored care including delirium prevention and close liaison with family. Establishing the presence or absence of a prior formal diagnosis of dementia in general hospitals can be time-consuming. Terms such as ‘confusion’ or ‘cognitive impairment’ often appear in general hospital notes or letters from general practitioners, but it is unclear how these labels have been arrived at. Prior cognitive testing results may be present in the notes but it is often not known if the patient had delirium at the time of testing. The separation of psychiatric and general medical records in many hospitals impedes simple transcription of clinical information. Thus often further information from the GP or psychiatry services is required.

The second major challenge is in detecting dementia in those who have not had it diagnosed previously. This can be challenging in acutely unwell people. Delirium or subsyndromal delirium is extremely common among inpatients with dementia, and delirium virtually always causes deficits on standard cognitive tests. Drugs, particularly those with anti-cholinergic effects, can also have acute and chronic effects on cognition. The effects of uncontrolled comorbid disease, for example diabetes, can further complicate the picture. Thus, any history of functional and cognitive decline should be routinely obtained from informants, perhaps with the aid of structured instruments like the Informant Questionnaire on Cognitive Decline in the Elderly.[18] The standard MoE multidisciplinary assessment can provide much of this crucial background information. Indeed this process is very similar to the standard multidisciplinary assessment in old age psychiatry, though the latter is more focused on eliciting evidence of cognitive decline.

Reduced cognitive test scores, though less useful in acutely unwell patients, can be very informative in patients who do not have delirium or other acute causes of cognitive decline, for

example, patients undergoing a period of inpatient rehabilitation who become very well known to the multidisciplinary team. Significant impairments detected with cognitive screening tools combined with a clear history of functional and cognitive in the preceding months or years should prompt more detailed cognitive testing, delirium assessment, and collateral history.[8, 19] Despite these challenges, a need for further diagnostic workup, at least, can often be identified during a hospital admission with necessary follow-up arrangements established prior to discharge.

MoE teams are often very concerned about what happens after someone receives a diagnosis of dementia[11] because, though making a diagnosis of dementia is often seen as feasible, these multidisciplinary teams are often unfamiliar with the specific processes involved in breaking the news, planning discharge and liaising with specialist community teams. Here, there is a clear need for clarity of referral pathway to those appropriately trained to deliver this support. Older people's liaison mental health teams are ideally placed in this regard.[7]

In conclusion, dementia affects approximately half the patients in MoE departments and profoundly affects inpatient care, discharge, and longer-term planning. Detection of dementia, allied to specific care planning, improves care during a hospital admission. Detection also paves the way for longer-term benefits, such as extending the time that a person can live at home. Yet large numbers of patients with dementia are being admitted to and discharged from MoE wards without their dementia being detected. The prevailing view in the UK is that old age psychiatrists have primary responsibility for the diagnosis and management of dementia. But for patients in MoE wards the scale of the problem, the importance of knowing about an individual's diagnosis during their admission, and the high level of comorbidities means that this is no longer tenable. In these settings geriatricians must take the lead, supported by psychiatrists as necessary. This means that geriatricians should have adequate expertise in the diagnosis and management of

dementia, particularly with respect to inpatient care and discharge planning. This is a step-change and will require increased training. An expansion of in the number of geriatricians with a subspeciality interest in dementia would also contribute significantly. Though perhaps as important as any of these practical steps is a change in perspective in the profession as a whole such that all geriatricians truly regard this original geriatric giant as being core business.

[1297 words]

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