

## Delirious about dementia

### Towards better services for patients with cognitive impairment by Geriatricians

As a result of the growing number of patients that have dementia, an increased emphasis is currently being placed on satisfactory evaluation, appropriate referral and effective treatment in secondary care.

In response to this need, the British Geriatrics Society (BGS) and the Faculty of Old Age Psychiatry have formed a consensus group. Due to the clear requirement for the integration of clinicians, the consensus group represents a diverse range of specialties, including old age psychiatry, geriatric medicine, general medical care and liaison nursing care.

The group's expertise crosses the primary–secondary care boundary and also represents many years'

combined experience of working with dementia sufferers. Despite the group's diversity, all members are united by a common desire to see improvements in the way that patients with dementia are managed.

The objectives of the consensus group have been to clearly define how Geriatricians can play a more integral role in the recognition, diagnosis and management of patients with dementia.

This consensus statement presents a model for the care of patients with dementia that focuses on the pivotal role that Geriatricians have to play in the fully integrated care pathway. Furthermore, it demonstrates how this ideal may be achieved through small changes that can be effected locally.

#### The consensus group



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# 1. Introduction

## The current situation

Dementia represents a significant and under-recognised health burden. It currently affects more than 750,000 people in the UK, over 18,000 of which are under 65 years of age.<sup>1</sup> It is estimated that by 2010 there will be about 870,000 people with dementia in the UK, rising to over 1.8 million people by 2050.<sup>1</sup> Alzheimer's disease (AD) is the most common form of dementia (Table 1).<sup>1</sup>

Table 1. Causes of dementia<sup>1</sup>

Disease	%
Alzheimer's disease	55
Vascular dementia	20
Dementia with Lewy bodies	15
Fronto-temporal dementia, including Pick's disease	5
Other dementias	5

The cost of mental health treatment to the NHS is high and dementia makes up the largest proportion of this cost (Figure 1).<sup>2</sup> It is important to note that the money spent on adult mental health increases every year and approximately two-thirds of this cost in England is for in-patient care.<sup>2</sup> The percentage spent in each area of mental health in recent years has remained almost the same.<sup>2</sup>

The inexorable advance of cognitive, functional and behavioural decline in patients with dementia often leads to heavy dependence on caregivers. As long ago as 1995, the General Household Survey showed that around 13% of adults provided informal care and that 17% of households contained a caregiver.<sup>3</sup> Some 3.3 million women

and 2.4 million men acted as caregivers<sup>3</sup> – around 10% of the population.<sup>4</sup> As people are living longer than ever before, demand for informal care like this is rising rapidly. In recognition of this role, the Government has promised more support.<sup>5</sup>

## Identifying patients with dementia

As shown in a recent audit of admissions in Cambridge (Box 1), one of the main challenges continues to be the detection and recognition of cognitive impairment, which is the first step in the effective treatment of this patient population. This will continue to be of increasing importance as the number of older people attending acute general hospitals continues to rise.<sup>6</sup>

### Box 1. Dementia management case study – Cambridge audit

A recent audit of over 150 medical admissions carried out in Cambridge has revealed more about the diagnosis of patients with suspected dementia. The results show that junior doctors were as likely to record Mini Mental State Examination (MMSE) scores in individuals who were cognitively intact as in those who showed evidence of abnormal cognition. This audit seems to demonstrate that in Cambridge at least, recording of cognitive ability – MMSE, Mini Mental Test Scores, or a simple statement such as 'patient orientated' – is not targeted, but quite random.

Without a doubt, a major political shift will be required to implement long-term improvement in dementia patient management on a national level. Geriatricians see patients with a wide variety of illnesses who frequently have concomitant dementia. The presentation could be either as an inpatient, day patient or outpatient. If the physical medical problems are addressed without dealing with the cognitive or behavioural issues of the concomitant dementia, it is relatively easy for a patient experiencing dementia to slip through the process without receiving appropriate help and advice. In such circumstances, these patients could therefore present at a later date with dementia that may well have progressed because it was not identified and addressed in the first instance. It is all too easy for the system to fail to identify and treat those patients experiencing the early and moderate stages of dementia.

## MENTAL HEALTH COSTS TO THE NHS

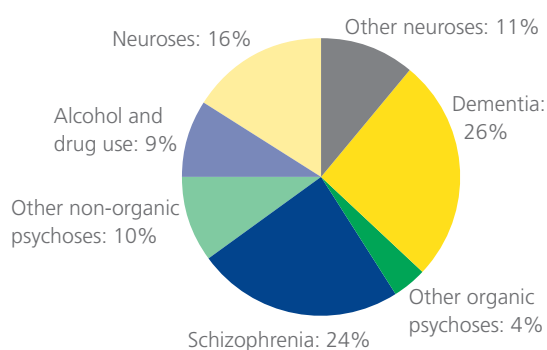


Figure 1. NHS spend on mental health in 1996<sup>2</sup>

## 2. The need for consensus

There is no such thing as the average patient pathway. Rather than being a 'one size fits all' solution, different geographical areas adopt varied practices, largely dependent on the level of pre-existing local resources and the enthusiasm of local champions. However, one aspect of dementia care is consistent across the board – a large and multidisciplinary team is involved in patient management. The involvement of Geriatricians within these teams is variable.

### Government agenda

The management of long-term conditions, such as cognitive impairment, should be central to geriatric medicine and is currently high on the agendas of both the Department of Health and primary care organisations (PCOs). As an example of this, dementia care is encompassed within the National Service Framework (NSF) for Older People. It is enshrined not just in Standard 7, but is also relevant to Standards 2, 4, 5 and 6.<sup>6</sup> Now is the time to capitalise on the Government's interest in the geriatric giants. It is essential that the importance of dementia to the management of long-term conditions, the frequency of hospital admissions and the number of care home placements is adequately emphasised to achieve the necessary political shift needed to change current practice.

### Challenges to be overcome

Dementia care faces a number of challenges. Firstly, patients tend to present at many different points – such as specialist clinics or in the acute medical/surgical/orthopaedic setting (where the focus is often on immediate treatment and discharge). Secondly, patients with dementia often present with concomitant medical conditions. This complicates diagnosis and treatment priorities, making discharge planning very difficult. Thirdly, a patient's caregiver(s) may present in primary or secondary care with symptoms of strain. In addition, there are often overlaps and gaps in dementia service provision, with sufferers sometimes excluded from rehabilitation and intermediate care facilities. Failure to recognise dementia and plan for the needs of both the dementia sufferer and their caregiver(s) can result in the following:

- unnecessary hospital admission
- increased incidence of delirium

- delayed discharge
- unnecessary re-admissions
- unnecessary institutionalisation
- increased morbidity and mortality.

A re-evaluation of dementia care is needed to improve service provision.

### Sectorisation of services

Most patients that have dementia are cared for on a long-term basis in the community. Accordingly, contact with Geriatricians, who work mainly in a secondary care environment designed for short-term, temporary care, is often lost. Instead, the Old Age Psychiatrist, being more community-based, is more typically involved in dementia management. Separation can lead to sectorisation of services – bringing with it the risks of poor coordination and communication, service gaps and lack of ownership. These difficulties could be overcome by appointing a lead service with agreed protocols for shared care between secondary and primary care, as well as between old age psychiatry and geriatric medicine.

### Communication flow

The management of mental health information is also a hurdle to be overcome, with such records often kept separately and not easily accessible by other specialties. Communication and information flow is frequently poor between geographical areas and between trusts (both between two mental health trusts and between mental health trust and acute trust). This practice can make it difficult to know why care decisions were made, who made them and what follow-up is planned. Many (not all) are optimistic that these problems will be overcome by the rollout of the single, electronic patient record.

### Roles and responsibilities

As we re-assess the roles and responsibilities of healthcare professionals working within geriatric medicine, the need for shared care protocols is apparent. Greater skills training would lead to patient benefit. A successful approach should include the involvement of social support, carers and community assessment teams, and the increased training of junior clinical staff. Increased awareness and cooperation would lead to clearer patient pathways, more effective referrals, and both earlier diagnosis and treatment.

### **Changing attitudes**

Patients with dementia are often reliant on carers as well as over-burdened social and healthcare services. Whilst it is important to recognise that dementia is a progressive, incurable and fatal disease of the brain resulting in end-organ failure, much can be done to support the sufferer and

their carer(s) through this journey. Geriatricians, in collaboration with primary care and old age psychiatry colleagues, have the ability to ensure patients with this chronic condition are treated quickly and effectively. The challenge is an important one – and changing attitudes and expectations is key.



### 3. Recognition of dementia by Geriatricians

At least one-third of in-patients that are in geriatric medical units have functionally significant cognitive impairment. This is mostly dementia or delirium. Detecting, characterising and managing cognitive impairment is crucial because it leads to better outcomes for patients.

People with dementia may benefit from specific drug treatments. In a broader context, making the diagnosis improves the outcome for both the patient and their caregiver(s).

Delirium frequently has modifiable predisposing, precipitating or sustaining factors. A diagnosis prompts appropriate investigations and suitable management. Additionally, a formal record of an episode of delirium matters because of the associated high risk of long-term cognitive decline.

Clinical experience and multiple studies indicate that detection and management of cognitive impairment in geriatric medical units is patchy.<sup>6</sup> Although the functional needs of cognitively impaired patients are generally identified and managed as part of routine geriatric care, there

appear to be significant gaps in practice with respect to making formal diagnoses and referring patients on to specialist clinics. This means that, for example, many patients with dementia who might benefit from anti-dementia drugs never receive specialist assessment to determine which drug they should be prescribed.

In order to fill these gaps, a more formal assessment and classification of cognitive impairments will need to become a standard part of the medical care of older people. This requires:

- a general shift in attitudes such that cognitive disorders are approached with the same rigour as other common conditions in geriatric medicine
- an improvement in the skills acquired by Geriatricians.

To help address the lack of skills, a basic cognitive screening algorithm is proposed by the consensus group (Figure 2). This algorithm has been designed for routine use by any medical professional. It allows a uniform system of screening for suspected cognitive impairment and gives set diagnostic criteria for dementia and delirium.

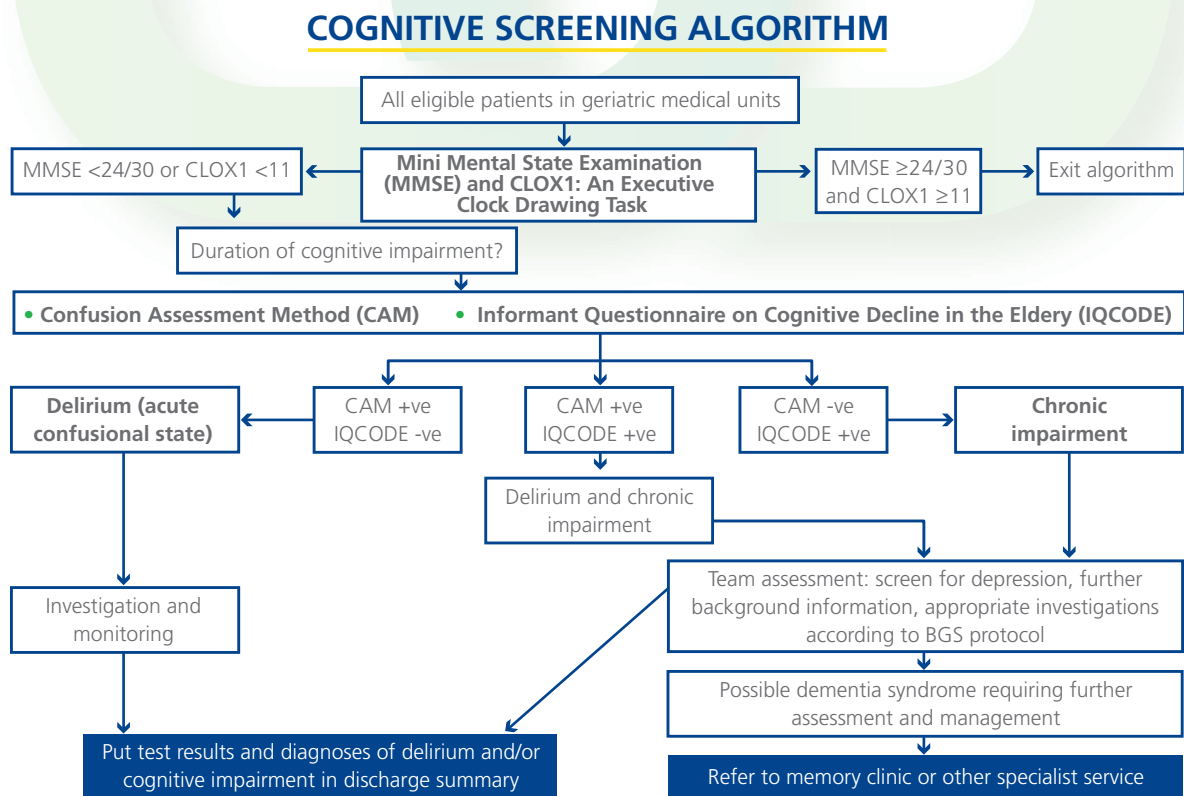


Figure 2. Cognitive screening algorithm to be used by any medical professional

The proposed algorithm is as brief as possible, whilst allowing acceptable sensitivity and specificity as well as ease of use by staff without specialist skills. The MMSE<sup>7</sup> and CLOX1<sup>8</sup> tests together take a total of 12 minutes. If the scores meet the cut-off points shown on the flowchart (MMSE = 24 or CLOX1 = 11), the algorithm is complete. This should be the case for at least 50% of inpatients. It is worth noting that the CLOX1 test may lead to false positive results in patients who are bed-ridden. The two other cognitive tests detailed in the algorithm (Confusion Assessment Method [CAM]<sup>9</sup> and Informant Questionnaire on Cognitive Decline in the Elderly [IQCODE]<sup>10</sup>) will take an additional 10–15 minutes to complete. This may involve an investment of time beyond the norm. However, reaching an acceptable standard in the care of patients with cognitive impairment requires this additional investment. Patients with heart failure, analogous to cognitive impairment in its impact, routinely receive clinical assessments, electrocardiograms, echocardiograms and chest X-rays. The consensus group aims to introduce this level of care for patients with cognitive impairment.

Finally, one potential thing to be aware of is that it is possible that patients with delirium may score

above the cut-off points for both the MMSE and CLOX1 tests. They may therefore exit the algorithm without undergoing a CAM test. However, the primary aim of the algorithm is to screen for dementia and most patients with delirium will not score above the cut-off points.

Completion of the algorithm will have two main outcomes for each patient:

1. determination of whether the patient is cognitively impaired
2. classification of any cognitive impairment so that, for example, patients with probable dementia are considered for referral to specialist services and enter a more formal system of patient management.

The consensus group proposes that the algorithm is packaged as part of a 'toolkit' that will also include:

- a short introduction containing an outline of the nature of dementia and delirium and a brief description of the four cognitive tests
- the four cognitive tests (MMSE, CLOX1, CAM [short version] and IQCODE [short version]) with a brief guide
- a record form for filing the case notes.

## 4. Case register system

Once a diagnosis and classification of dementia has been reached, there needs to be a formal, systemised approach to ensure coherent care of the patient. There should be a procedure in place to define distinct roles for the many different healthcare professionals that are likely to be involved. This must be robust and have the capacity to be able to deal with all of the patients diagnosed.

As the population within the UK is becoming older, the number of people with dementia is increasing. There are therefore more people with dementia in need of community services. However, these services are not growing at the same rate. While health, social and independent sectors provide a range of services, they are haphazard and disconnected. Responsibility for patients typically shifts between older peoples' mental health services, social services, independent care providers, general hospitals and the GP, creating unnecessary barriers to care.

This lack of consistency in care is difficult for a person with dementia and their carer(s). A very real need exists for a single access point to health and social care that can provide specialist services and the essential continuity of care that is required.

The case register system proposed by the consensus group allows for the integrated care of people with dementia, coordinating the care of those who move within the health and social care system. It provides a way of organising and integrating existing services. The aim is to:

1. create a well coordinated, community-based service available to all people with dementia
2. provide better organised care from specialist services regardless of the severity of the person's condition. Being registered means that a dementia sufferer and their carer(s) would have a right to receive specialist care.

### A model for the whole community

The case register system shown in Figure 3 places old age psychiatry at the heart of the system, with the Old Age Psychiatrist as the diagnostic

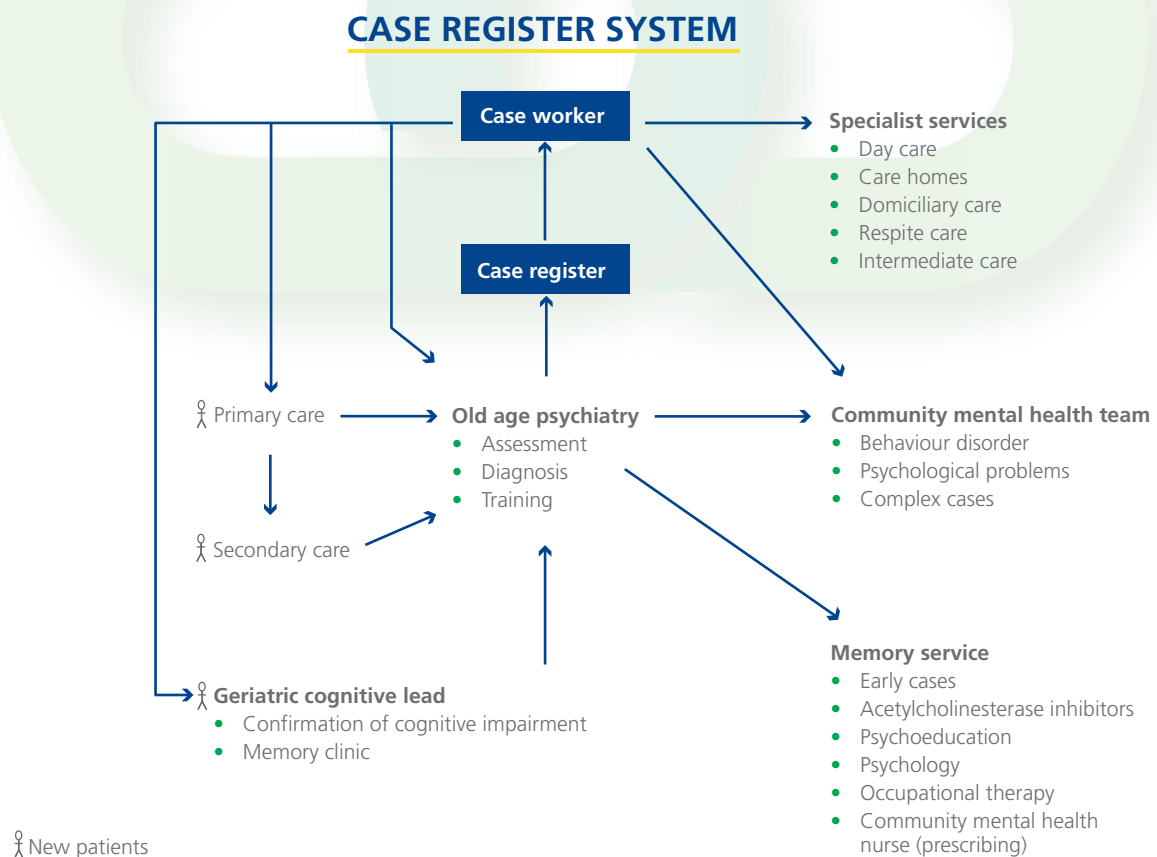


Figure 3. Case register system for patients diagnosed with dementia

gatekeeper. Everyone would receive a specialist assessment and the diagnosis of dementia would be confirmed by the Old Age Psychiatrist. This would ensure that each person that entered the case register had been thoroughly assessed. A reliable diagnosis is essential to the effectiveness of the system. Some of these patients would have been referred from geriatric medical inpatient units having been identified by the cognitive screening algorithm detailed previously (Figure 2).

All information on people included in the register would be recorded, tracked and collated through a single electronic database. The register would have controlled access, allowing specified health and social care professionals access to limited, but key, information each time that a person came into contact with health or social services. For most, this access would confirm that a person was known to the register and that their case was managed by a particular case worker. This has tremendous benefit if a confused elderly person arrives at a hospital casualty department, for example. It enables easy identification of a responsible case worker and access to a reliable diagnosis.

Once registered, the person with dementia would be recognised as being the responsibility of the system, facilitating direct access to specialist services and removing barriers to care. This approach means the care of the patient is at the centre of the system. Their care becomes, and remains, the responsibility of the system, even as the person moves between different areas of care. The register would be routinely reviewed to ensure the individual needs of all patients were continually being met.

## **Involvement of individuals**

### *Old Age Psychiatrists*

As dementia and cognitive disorders are a core part of old age psychiatry training and services, it is logical to place Old Age Psychiatrists at the centre of the case register system. While most patients seen by Geriatricians do not have a healthcare professional assigned to them, all people under the care of mental health services have a dedicated case worker.

Old Age Psychiatrists are already primarily located in the community. The case register system focuses on bringing the service to people where they need it within the community, not taking people to

services in a fixed location. This is important as dementia can prevent people attending a regular hospital-based clinic, for example.

Access to the case register would be under the control of Old Age Psychiatrists. Diagnosis or confirmation of diagnosis would always utilise their specialist knowledge. This would then ensure that the system was effective.

The gatekeeper role would encourage an individual to take overall administration and leadership responsibilities. The gatekeeper would not necessarily deal directly with all patients.

### *Geriatricians*

The cognitive screening algorithm proposed by the consensus group (Figure 2) would identify people with suspected dementia and would prompt Geriatricians to undertake the relevant investigations needed to make a diagnosis. This would be the minimum involvement expected of the Geriatrician, who at the point of diagnosis would then either refer on to the Old Age Psychiatrist or continue to monitor and manage the patient. In either scenario, the patient's details would be passed on to the Old Age Psychiatrist to confirm diagnosis so that the patient could enter the case register system. It is proposed that each geriatric medical unit would have a designated cognitive lead for mental health who would be responsible for the following:

- raising awareness of cognitive problems (dementia and delirium) within their hospital
- training
- service development
- communication.

### *Memory services*

Memory services represent an opportunity to provide a specific service for people with early dementia. Large numbers of people with early dementia have come to attention since the availability of acetylcholinesterase inhibitors and much can be done to help them at this early stage of their condition.

Core to the service is the memory team, who would concentrate on psychoeducation for sufferers and carers, and adjustment to the diagnosis of dementia. The emphasis would be on a service that reaches out to its patients in the community. This should not just be a clinic in a set

location where patients simply go to pick up the next prescription. However, initiating and monitoring medications like acetylcholinesterase inhibitors would be an important function of the service. People with mild and moderate disease may be coping very well with day-to-day life, but could benefit from advice on topics such as:

- occupational therapy
- memory aids
- mental stimulation
- healthy living
- life planning
- advanced directives
- financial arrangements.

Occupational therapists and psychologists are key to the effective running of a memory service. The role of the community mental health nurse is also critical – nurses should be able to prescribe. After initial diagnosis by a doctor and the first prescription, the intervention nurses should then provide repeat prescriptions. This is particularly relevant to the prescribing of acetylcholinesterase inhibitors.

#### *Community mental health team and specialist services*

Community mental health teams have an important role to play in dealing with patients when the behavioural, psychological and more complex issues of dementia develop. They need access to a variety of specialist services essential to effective dementia care.

The team should provide access to specialist domiciliary, respite and intermediate care or care homes where people with dementia can receive

appropriate care. It is crucial that these community-based services develop as specialist resources with the expertise to manage the problems affecting the dementia sufferer. While people with dementia are typically excluded from intermediate care, under the case register system the team should be able to improve access to all services. The case register would also facilitate the audit of service use and unmet need.

#### *Case workers*

The case worker is a key member of the dementia care team because they manage significant numbers of people who are not under the direct care of specific mental health teams. They review people and their carer(s) regularly and are also their point of contact for direct access to other parts of the dementia care service.

The case worker could come from either the NHS or social services and would manage a needs-determined budget. They would be able to deal directly with the older people's mental health service, the cognitive lead in the geriatric medical unit, primary care and specialist community services. This would remove barriers to care.

#### **Implementation**

The concept of having a central case register system that is accessible by a number of health and social care professionals sits comfortably with the Government's National Programme for IT (NPfIT). At the middle of the Government's proposal is the concept of a central medical record for every NHS patient, with essential information available where appropriate to provide 'the right care at the right time'.

## 5. Champion-led memory services

At the moment, the challenge of improving the care that patients with dementia receive from Geriatricians is often left to the 'enthusiastic few'. There is no formal process or line of responsibility to ensure dementia is properly identified and treated. A solution to this would be to foster enthusiasm where it is expressed – using this motivated minority to instigate the necessary change. It makes sense to capture and encourage those individuals who will provide the driving force and become local champions for change.

Geriatricians who have the enthusiasm to do more for these patients may find instigating change difficult and will need appropriate guidance made available to them. One way of doing this would be by working as the geriatric cognitive lead within the proposed case register system (Figure 3). Geriatricians can further utilise their enthusiasm by setting up a memory clinic. A suggested generic process for how to set up a champion-led memory service is shown in Figure 4. It is hoped that by following this process, Geriatricians can become local champions – and become active participants in changing the existing system to revolutionise local dementia care.

To ensure adequate support for potential local champions, senior colleagues and previous champions of successful projects should undertake a mentoring role. Those within the field of old age psychiatry should also be prepared to teach specialist skills to Geriatricians who do not have them, but are willing to learn more.

Working with local Old Age Psychiatrists is crucial. This will help to raise the profile of the service and aid communication between healthcare professionals. In addition, the joint development of prescribing protocols can help to align the services provided by the two disciplines and enable patients to be treated at an early stage in the progression of dementia.

One example of a successful champion-led memory service is the one-stop memory clinic that has been running in the day hospital of University Hospital Lewisham, London for the last 6 years (Figure 5). The clinic initially ran once a month, but has responded to need by opening at least five times a month. By April 2005, there had been

## HOW TO DEVELOP A CHAMPION-LED MEMORY SERVICE

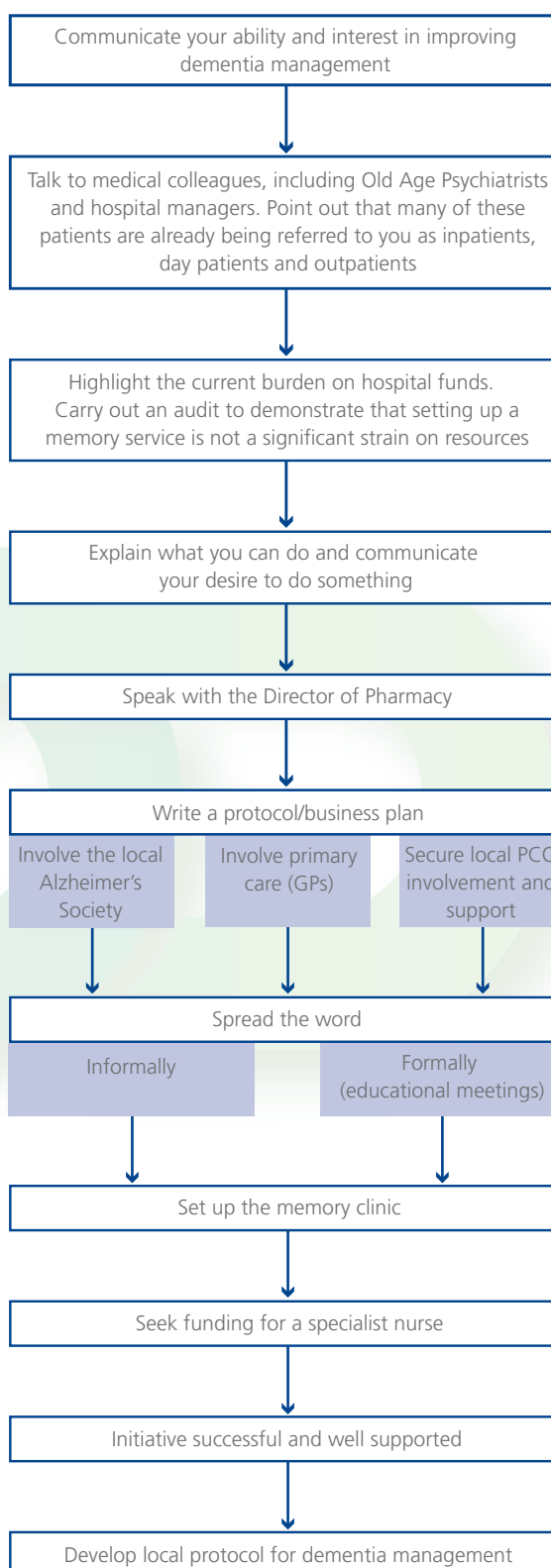


Figure 4. A generic process for the development of a champion-led memory service

450 new referrals to the clinic and the team had successfully improved the continuity of patient care in the Lewisham area.

Patients visiting the clinic were able to receive the specialist assessment needed to determine which anti-dementia drug they should be prescribed. Funding for the anti-dementia medication was obtained through negotiation

with the acute trust and the pharmacy, and by involving patients, carers, the Alzheimer's Society and other interested parties. In particular, the pharmacy was very supportive.

While not unique, the memory service created in the Lewisham Hospital NHS Trust demonstrates what can be achieved when enthusiasts work to implement change.

## STRUCTURE OF A ONE-STOP MEMORY CLINIC

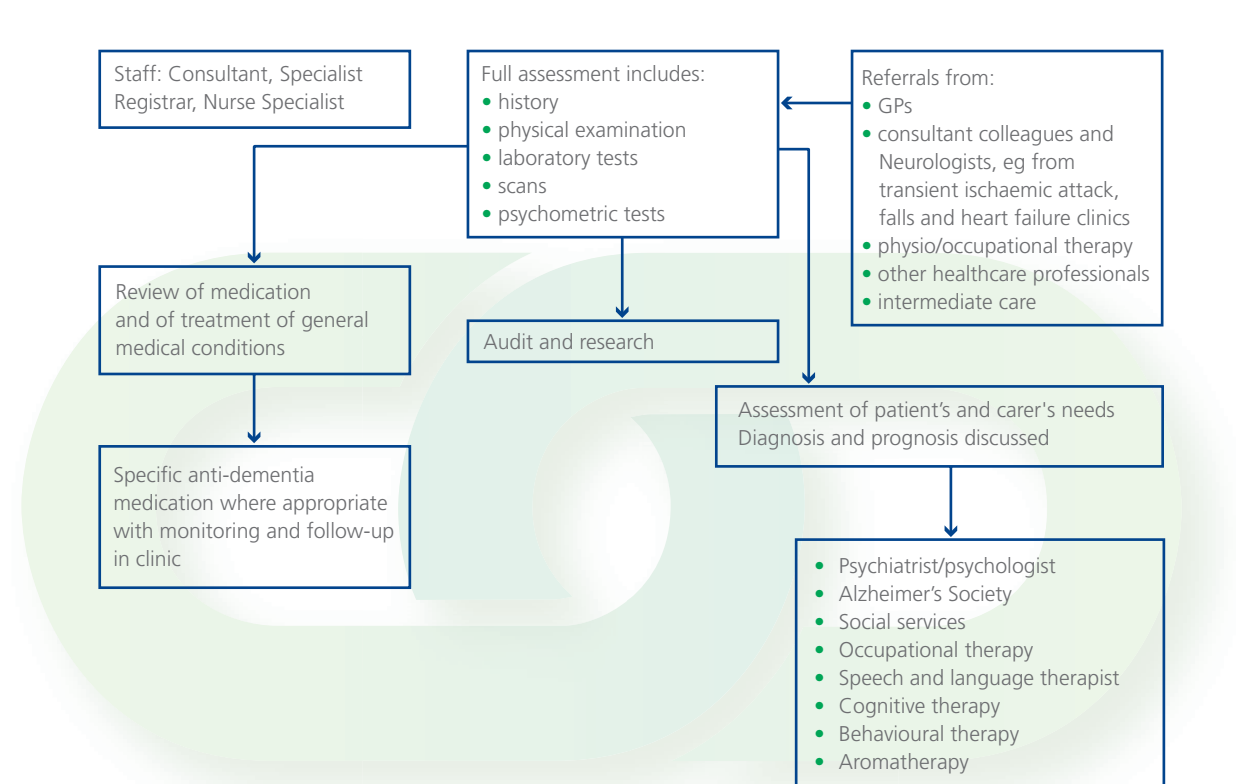


Figure 5. Case study of a memory clinic at University Hospital Lewisham, London

## 6. The pharmacological treatments in AD

Since 1997, four treatments have become available for the treatment of AD. Three of these are the acetylcholinesterase inhibitors galantamine, rivastigmine and donepezil; the fourth is the glutamate receptor antagonist memantine (Table 2). In 2001, the National Institute for Clinical Excellence (NICE) appraised the acetylcholinesterase inhibitors for use in the treatment of mild to moderately severe AD. They recommended their use by Old Age Psychiatrists, Geriatricians and Neurologists<sup>11</sup> – though in reality the majority of prescribing has fallen on the former for various historical reasons. Memantine was licensed for moderately severe to severe AD after the NICE guidance was published.

In practice, many patients in the UK are on an acetylcholinesterase inhibitor by the time they progress to a moderate stage of the disease – sometimes memantine is also added to an acetylcholinesterase inhibitor. However, for some

patients with severe dementia, memantine has usefully helped stabilise symptoms.

While the three acetylcholinesterase inhibitors are classed together, they have different overall modes of action. NICE recommends that if there is no positive response to early treatment (2–4 months after reaching the maintenance dose of the drug), a drug should be discontinued.<sup>11</sup> If this is the case, another acetylcholinesterase inhibitor could then be usefully commenced. This is because a lack of efficacy or a high incidence of side effects on one acetylcholinesterase inhibitor does not necessarily predict that this will be the case with either of the others – although there is still limited evidence for this effect.

In the clinical scenario, most of the prescribing of the dementia drugs occurs in memory clinics using agreed protocols, often including primary care. Many patients are seen by Geriatricians and increasingly by Neurologists – this should continue to be encouraged, with no barriers to their involvement in prescribing.

Table 2. A profiling of currently available anti-dementia drugs

	Galantamine	Rivastigmine	Donepezil	Memantine
Efficacy	Cochrane positive in cognition, function, behavioural and global outcomes <sup>12</sup>	Cochrane positive in cognition, function and global outcomes <sup>16</sup>	Cochrane positive in cognition, function, behavioural and global outcomes <sup>20</sup>	Cochrane positive in cognition, mood and behaviour <sup>24</sup>
Tolerability	Mild gastrointestinal side effects <sup>13</sup>	Gastrointestinal side effects <sup>17</sup>	Mild gastrointestinal side effects <sup>21</sup>	Mild to moderate side effects – most commonly hallucinations, confusions and dizziness <sup>25</sup>
Inhibits	Acetylcholinesterase <sup>13</sup>	Acetylcholinesterase <sup>17</sup> Butyrylcholinesterase <sup>17,18</sup>	Acetylcholinesterase <sup>21</sup>	Glutamate <sup>25</sup>
Nicotinic modulation	Yes <sup>14</sup>	No	No	No
Dosage	8, 16 and 24mg daily <sup>13</sup>	3, 6, 9 and 12mg daily <sup>17</sup>	5 and 10mg daily <sup>21</sup>	5, 10, 15 and 20mg daily <sup>25</sup>
Ease of use	Once daily or twice daily One titration to effective dosage Second titration to maximum dose <sup>13</sup>	Twice daily One titration to effective dosage Two more possible titration steps to higher doses <sup>17</sup>	Once daily Initial dose is effective One titration to maximum dose <sup>21</sup>	Twice daily Three titrations to the recommended maintenance dose <sup>25</sup>
Half life	8–10 hours <sup>13</sup>	1 hour <sup>17</sup>	70 hours <sup>21</sup>	60–100 hours <sup>25</sup>
Long-term data	4-year, open label <sup>15</sup>	5-year, open label <sup>19</sup>	3-year, open label <sup>22</sup> 2-year, randomised, placebo-controlled trial <sup>23</sup>	2-year, randomised, placebo-controlled trial <sup>26</sup>

## 7. Managing risk factors

There is an extensive knowledge of the important cardiovascular risk factors that link to the development of target organ damage – for example myocardial infarction, cardiac failure, renal failure and stroke. The main risk factors are age, obesity, cigarette smoking, hypertension, hypercholesterolaemia and diabetes mellitus.<sup>27</sup> These vascular factors are indicated as causes of cerebrovascular damage and can produce a vascular dementia (Table 3).<sup>28–31</sup> Recent epidemiological evidence has indicated that the same risk factors are important in the development of AD.<sup>32</sup> It is hypothesised that atherosclerotic processes are convergent with processes that produce AD and that the two processes combine to manifest earlier clinically as a dementia.<sup>32–35</sup>

There is as yet limited evidence that intervention in these conditions will reduce dementia. For example, treatment of systolic hypertension with a dihydropyridine has been shown to reduce the incidence of vascular dementia and AD.<sup>36</sup> Reduction of blood pressure after a cerebrovascular event using a thiazide/angiotensin converting enzyme inhibitor-based regimen also reduced the risk of dementia and cognitive decline when subsequent strokes were prevented.<sup>37</sup> The prospective evidence for cholesterol reduction is so far disappointing, although cross-sectional studies do indicate lower levels of dementia in patients receiving statins.<sup>38</sup>

The reasons for this may lie in the underlying pathophysiology of dementia, particularly AD. If cerebrovascular events can be prevented, dementia should be reduced. This can be effected in a hypertension trial of short duration, but would take much longer in a trial of purely lipid lowering since stroke is mostly a pressor effect.

The application of clinical guidelines in terms of cardiovascular risk interventions, particularly hypertension, will be important to the reduction of primary and secondary cerebrovascular events and should impact on clinical development of all types of dementia. For patients presenting with early cognitive decline, clinical assessment should incorporate a full assessment and management of cardiovascular risk as for any other patient. This will be particularly important if neuroimaging shows focal lesions or white matter changes.

Table 3. Common risk factors for dementia

Alzheimer's disease	Vascular dementia
Age <sup>28,29</sup>	Age <sup>28</sup>
Female gender <sup>30</sup>	Male gender <sup>30</sup>
Atherosclerosis <sup>30</sup>	Atherosclerosis <sup>30</sup>
Smoking <sup>28</sup>	Smoking <sup>28</sup>
Hypertension <sup>28,30</sup>	Hypertension <sup>28,30</sup>
Hyperlipidaemia <sup>28</sup>	Hyperlipidaemia <sup>28</sup>
Diabetes <sup>28,30</sup>	Diabetes <sup>28,30</sup>
Atrial fibrillation <sup>31</sup>	Atrial fibrillation <sup>31</sup>
Ischaemic white matter changes or cerebral microvascular disease <sup>28</sup>	Ischaemic white matter changes or cerebral microvascular disease <sup>28</sup>
Homocysteine <sup>28</sup>	Homocysteine <sup>31</sup>
Genetic factors <sup>28</sup>	Genetic factors <sup>31</sup>

## 8. Education and training

The key role education plays in improving the management of patients with dementia cannot be over-emphasised. Educational activities should seek to involve the following:

- geriatric medicine
- old age psychiatry (including liaison psychiatry)
- primary care teams
- nursing and other allied healthcare professionals
- community mental health teams
- those involved in the social care of dementia sufferers.

A truly multidisciplinary approach to education should facilitate improvements in dementia care at a fundamental level by enthusing all healthcare professionals who intentionally or by happenstance work with dementia sufferers.

The consensus group see the key objectives of educational activities as being:

- to underline the importance of integrated working between different disciplines involved in the care of dementia sufferers
- to stress the importance of good communication between all those involved
- to highlight the magnitude of the current challenges facing dementia care
- to provide a way of changing attitudes and removing existing barriers to care – bringing

about a positive change in the way dementia is managed, ie to help develop and support champions, and thereby services

- to provide professionals with the confidence, skills and tools to effectively manage dementia care for themselves in the future.

The BGS Parkinson's Academy has provided a cohesive and comprehensive system of national training and continuing education for physicians interested in improving the management of patients with Parkinson's disease. It provides a possible model for delivering the training, mentoring and ongoing support to enthusiasts in dementia care.<sup>39</sup> The education and training involved in providing memory service clinics could be run in a similar way so that participants understand how to:

- recognise dementia
- manage the condition
- utilise current treatments
- provide further support.

The 'Dementia Academy' could be further supported by other local and national initiatives to provide practical help and advice on recognising dementia, distinguishing dementia from delirium, recognising and managing co-existent depression in dementia, and managing dementia. These training days could also deal with the cognitive aspects of physical disease in dementia – such as falls and stroke.

## 9. Summary

Dementia is a devastating and debilitating disorder with psychosocial and economic repercussions for patients, their caregivers and society at large. In recognition of this, care provision needs to reflect the needs of this patient group. The importance of early diagnosis and treatment cannot be over-emphasised as it can help to slow the progression of dementia.

With the aim of improving and coordinating the provision of care for this patient population, the consensus group has proposed:

- an algorithm that can be followed by all Geriatricians involved in the care of patients with dementia that will lead to a thorough and more uniform diagnosis of cognitive impairment
- a case register system that can be used to ensure that there is a consistent pathway for the management of patients with dementia
- the provision of greater opportunities to foster the enthusiasm expressed by Geriatricians who have a growing role to play in service provision as shown by the success of champion-led memory clinics
- the development of a geriatric cognitive lead in every geriatric medical unit.

Together, implementation of these proposals will introduce minimum standards for both the

diagnosis and management of this complex patient group. This will in turn increase the quality of life for both patients and their caregivers alike.

It is important that as more is learnt about the risk factors involved in the progression of dementia, this information is used to give greater patient support. For example, advice on diet and exercise can be given where there is evidence that this is able to reverse the development of dementia.

As the number of people presenting with dementia increases over the coming years, an increasing emphasis will be placed on the involvement of other healthcare professionals. Perhaps the most affected will be Geriatricians as they will need to take on a greater role in the management of these patients. Education and training within the healthcare community will help to create an awareness of the need for early diagnosis and treatment, and will result in the development of more dedicated services for this patient group.

In order to ensure that dementia sufferers experience continuity of care, it is important that information crosses the boundaries between the different professional groups involved. A nominated case worker can ensure that this level of care is sustained and provides a named individual with whom a patient can establish and maintain a therapeutic relationship.

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