

DEMENTIA CARE ON MEDICAL AND MEDICINE FOR THE ELDERLY WARDS

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SUMMARY

Dementia is associated with increased health care resource utilisation and greater co-morbidity burden. Due to the psychophysiological and social demands of dementia, specific approaches to care, communication, environment and clinical treatment are needed. Timely diagnosis can greatly improve quality of life. Dementia is often not coded in hospitals as it is not considered the primary reason for admission. These missed opportunities have potential to serve as important checkpoints for proper diagnostic assessment. Upon discharge, adjustments can be made to manage these patients better.

In April 2012, the dementia CQUIN was introduced with goals for early diagnosis of dementia at point of hospital admission. This study aims to investigate if the raised profile of dementia care has been generalised across the whole system, the impact on management and whether there is a difference in dementia care between geriatric and medical wards.

There was excellent performance across the board for review of medication, prescription of anti-psychotics, ordering of routine bloods and neurological examinations. . Increased awareness is needed for dementia-specific blood tests, namely: thyroid function test, B12 and folate. Geriatric wards performed consistently better than medical wards for all aspects of clinical care examined. For medical wards, incorporating multi-disciplinary care would be useful in managing these patients more holistically.

Key words: dementia – screening - blood tests - neurological examination - MDT care - elderly medicine - medical wards

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INTRODUCTION

Dementia is a syndrome, usually chronic or progressive, characterised by cognitive deterioration beyond that of normal. This cognitive impairment is commonly accompanied by decline in emotional control, social behaviour, or motivation. Notably, consciousness is not affected (WHO 2012). In England, 25% of acute beds are occupied by people with dementia, and presence of this condition is associated with longer lengths of stay, delayed discharges and re-admissions (DoH UK 2012). Worryingly, these numbers are set to rise (Ferriet al. 2005).

Due to the psychophysiological and social demands of dementia, specific approaches to care, communication, environment and clinical treatment are needed. Timely diagnosis can greatly improve quality of life by preventing crises, subsequent care home and hospital admissions, and provide carer support. Furthermore, dementia is a risk factor for reversible problems such as delirium. Recognition of dementia can thus prevent development of these issues.

Despite the pressing need for early recognition, only 42% of people with dementia in England have a formal diagnosis (DoH UK 2013). In hospitals, dementia is often not coded as it is not considered the primary reason for admission, leading to significant underestimation. There is sufficient evidence that screening can rectify this failure of current diagnostic practices (Borson et al. (in press), Boustaniet et al. 2005), and hospitalisation can serve as a window to increase rates of detection and diagnosis of dementia.

In April 2012, the Department of Health introduced the national dementia CQUIN, with goals for early diagnosis of dementia and support to prevent deterioration. This plan incentivises the identification of patients with dementia and other causes of cognitive impairment alongside their other medical conditions and prompts appropriate referral and follow-up after discharge. Components of dementia risk assessment are split into 3 parts: find (to be completed within 72 hours of admission), assessment and investigation, and refer (FAIR). The population of interest are patients with previously undiagnosed dementia. The algorithm can be found in Figure 1.

For Addenbrooke's Hospital (Cambridge University Hospitals NHS Foundation Trust), a shortened version of the abbreviated mental test asking for age, date of birth, place and year (AMT4) was adopted as a quick screening tool. In cases where concern is raised, further screening with the GP-COG, which comprises a cognitive screen and informant questionnaire is employed. Using the Trust's dementia case finding tool (see figure 2), for all patients aged 75 and older, there are several ways 'concern' can be flagged up. The patient has to have no previous medical history of dementia, and a score of less than 4 on the AMT4; or a score of 4 on AMT4 but the tester has concern from history taking, and a positive response from an informant to the question 'has this person been more forgetful over the past year such that it significantly interferes with daily life?'

Patients are then assessed with the GP Cognitive test, examining for recall, time orientation, clock

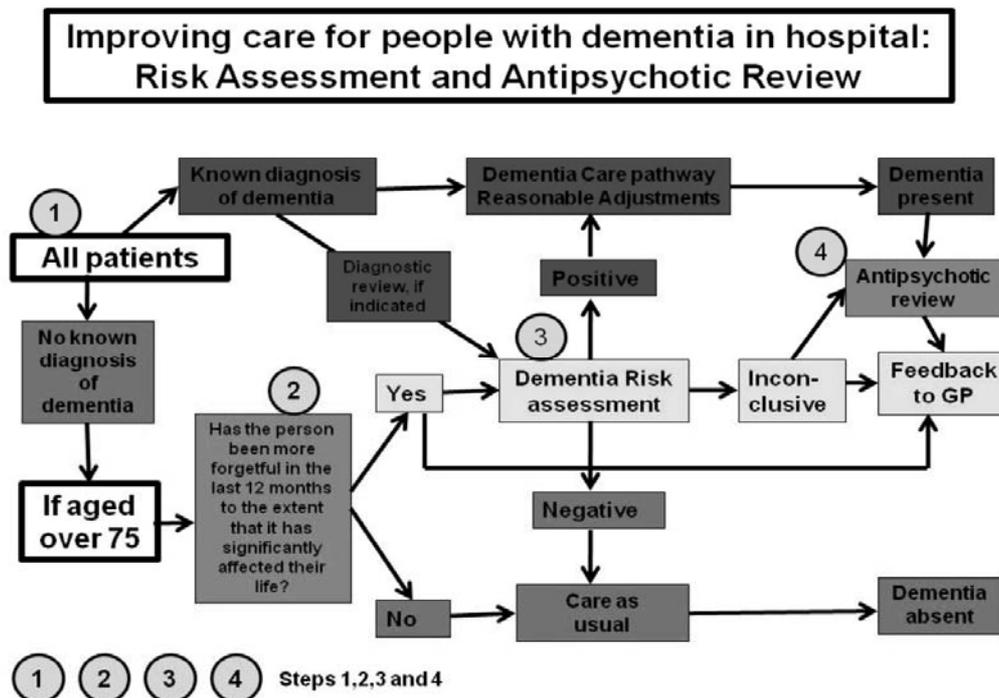


Figure 1. Dementia CQUIN Algorithm

drawing and information in recent news. A GP-COG score is calculated out of 9. For scores of 0–4, impaired function is indicated and clinical evaluation is needed. For scores of 5–8, borderline cognitive impairment is indicated. Informant and clinical evaluation are needed. For score of 9, the GP is informed that there is ‘no major concern’ about cognition.

The informant questionnaire involves comparing the patient’s function a few years ago or in the last year with current status for 6 aspects specified. The informant score is out of 6. For scores 0–3, or if there is concern about how patient copes on the ward, clinical evaluation is needed. For scores 4–6, the GP is informed that there is ‘no major concern’ about cognition.

For clinical evaluation, clinicians need to complete the following:

- Evaluate if the patient is likely to have dementia, delirium or depression;
- Complete a physical examination including basic neurology;
- Check blood tests: full blood count (FBC), urea, creatinine and electrolytes, CRP, liver (LFTs) and thyroid function tests (TSH), calcium, folate and B12 levels;
- Review all medication, especially anti-psychotic drugs;
- Refer to Older People’s Mental Health (OPMH) team if needed;
- Organise an appropriate discharge plan.

This study examines the quality of dementia care according to these requirements.

For continuity of care, the GP should be informed about the patient’s cognitive state on discharge. We do not consider that it is appropriate to make a new diagnosis of dementia on the basis of such a brief assessment, so the GP is informed that the patient has known dementia, that there is no major concern about cognition or that there is concern about cognition with reassessment advised. If there has been an assessment by OPMH or further testing eg. by a geriatrician the results are given and the patient may be given a new diagnosis of dementia.

With implementation of the dementia CQUIN to raise national awareness, this study seeks to compare care between specialised geriatric and medical wards. Ideally, use of a universal form should standardise care across the hospital. As elderly patients form the majority of hospital admissions, it is only prudent for all wards to be adept at managing common conditions of old age such as dementia.

RATIONALE

It has been approximately a year since the initiation of dementia CQUIN, which aims to improve care of older people with dementia by using risk assessment in acute hospital setting to boost awareness and detection. This project aims to investigate if the raised profile of dementia care has been generalised across the whole system. The objectives are:

- To identify how the hospital performs against Trust guidelines for dementia CQUIN in terms of clinical standards of care.

| | | | |
|---|-------------------------------------|-----------------------------|--|
| Patient No.: | | Initials: | |
| Sex | M | F | Ward |
| | | | Geriatric Other: |
| Age | | | |
| Type of Accommodation | | | |
| Own Home | Warden- Assisted | Extra-care | Residential Nursing |
| <i>If residential or nursing homes:</i> | | | |
| Dementia care | | Non-dementia care | |
| Markers of Care | | | |
| Likely that the patient has | Dementia | | <input type="checkbox"/> Yes |
| | Delirium | | <input type="checkbox"/> Yes |
| | Depression | | <input type="checkbox"/> Yes |
| Neurological examination | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| | <i>If yes:</i> | | |
| | Comment on cranial nerves | | <input type="checkbox"/> Yes |
| | Assessment of gait | | <input type="checkbox"/> Yes |
| | Power : Upper limbs | | <input type="checkbox"/> Yes |
| | Lower limbs | | <input type="checkbox"/> Yes |
| | Reflexes: Upper limbs | | <input type="checkbox"/> Yes |
| | Lower limbs | | <input type="checkbox"/> Yes |
| Bloods done | Full blood count | | <input type="checkbox"/> Yes |
| | Electrolytes & Creatinine | | <input type="checkbox"/> Yes |
| | CRP | | <input type="checkbox"/> Yes |
| | Liver function tests | | <input type="checkbox"/> Yes |
| | Calcium (including from VBG) | | <input type="checkbox"/> Yes |
| | Thyroid function tests | | <input type="checkbox"/> Yes |
| | Folate | | <input type="checkbox"/> Yes |
| | B12 | | <input type="checkbox"/> Yes |
| Review of medication | Comment in notes | | <input type="checkbox"/> Yes |
| | Antipsychotics | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | <i>If yes:</i> | | |
| | Reason stated in notes | | <input type="checkbox"/> Yes |
| Referral to OPMH | | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | <i>If yes:</i> | | |
| | Referral mentioned in summary to GP | | <input type="checkbox"/> Yes |
| Discharge plan | GP notified | | <input type="checkbox"/> Yes |
| | Physiotherapy | | <input type="checkbox"/> Yes |
| | Occupational therapy | | <input type="checkbox"/> Yes |
| | Dietician | | <input type="checkbox"/> Yes |
| | Social services | | <input type="checkbox"/> Yes |

Figure 2. Audit Proforma

- To investigate if increased awareness of dementia, delirium or depression using the dementia risk assessment is an effective foundation for appropriate management.
- To investigate whether there is a difference in adherence to Trust guidelines for dementia care between geriatric and medical wards. If differences exist, areas of disparity should be identified.

SAMPLE

50 records of patients in whom concern about cognition was highlighted from the case-finding section of the dementia CQUIN were included in the audit sample.

EXCLUSIONS

The exclusions were the same as that of dementia CQUIN, namely:

- Day cases, patients with length of stay below 72 hours, transfers and elective admissions.
- Case finding question cannot be completed within 72 hours of admission for reasons of coma, critical illness, severe speech and language difficulties, sensory impairment, lack of translator, family or professional care giver; without known diagnosis of dementia.
- Patients discharged with palliative care needs or significant loss of function in which specialist referral for memory problems is inappropriate.

- Re-admissions and frequent attenders without diagnosis of dementia provided there is evidence of patients having been through the FAIR process within the last 6 months.

METHODOLOGY

Audit standards were established upon discussion with CN, a geriatrician and the Trust co-lead for dementia services. Proforma questions were based on the clinical evaluation section of the Trust's 'Dementia Case Finding Tool' (see figure 2), and approved by DME consultants. The patient sample was drawn from the HISS database.

STANDARDS

Where concern has been expressed regarding cognition, the audit standards are:

- 1.) 100% of patients should have reflection in the notes as to whether the problem is likely to be dementia, delirium and/or depression.
- 2.) 100% of patients should have had a brief neurological examination documented in the notes, to include: comment on the cranial nerves, assessment of gait, power and reflexes in the upper and lower limbs.
- 3.) 100% of patients should have blood tests done, including but not limited to: FBC, electrolytes and creatinine, CRP, LFTs, calcium, TSH, folate and B12.
- 4.) 100% of patients should have a comment in the medical notes that drugs have been reviewed during ward rounds.
 - a. If antipsychotics are prescribed, the reason should be clearly explained.
- 5.) If patient has been referred and seen by OPMH, this information should be in the summary to the GP.
- 6.) There should be evidence of multi-disciplinary discharge planning.

Standards 1 – 4 and 6 were evaluated by reviewing patients' notes during admission. Standard 5 required the discharge summary to be checked after discharge of the patient. By the end of the audit on 24/5/2013, only 16 out of the 50 patients in the audit had been discharged.

RESULTS

7 patients were excluded from the study as:

- 4 patients had a previous diagnosis of dementia and should not have been flagged as concern about cognition. 2 of these patients had a past medical history of dementia written on the Emergency admission form but was not noticed, the other 2 patients had a past diagnosis of dementia on

previous discharge summaries but this information was not successfully transmitted in the emergency department.

- 3 patients had an incomplete GP-COG and no informant history provided. 1 patient was in the neurology critical care unit during the period this study was conducted and so unable to complete the GP-COG; the other 2 patients had no reason stated.

Therefore, 43 out of the data set of 50 were analysed. There were more cases on geriatric wards (N=27) than medical wards (N=16). Percentages were used for analysis. Distribution of sexes was similar (23 females, 20 males) (Figure 3).

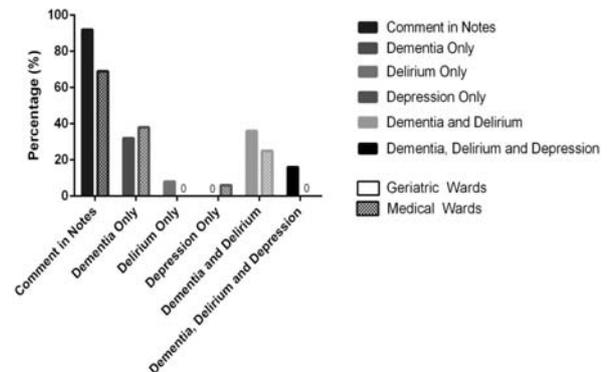


Figure 3. Likely Cause of Cognitive Impairment

Geriatric wards performed better in commenting on the cognitive impairment, labelling as dementia, delirium, or both (Figure 4).

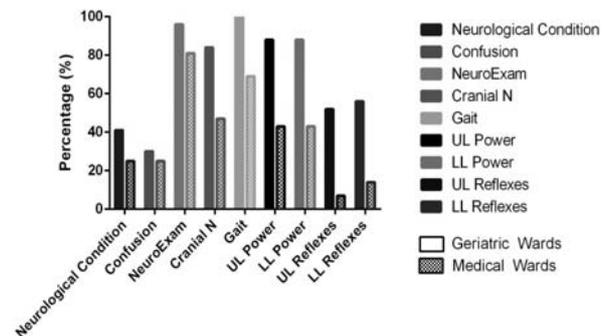


Figure 4. Neurological Examination

- Neurological conditions include: hemiparesis, Parkinson's disease, blindness, visual hallucinations, headache, head trauma, change in speech, seizure and intracranial bleeds.
- When 'moving all 4 limbs' was documented in the notes, it was assumed that UL and LL power had been assessed. Assessment of gait was considered if documentation by physiotherapists was evident.
- Notes with vague terms without specification of neurological examination performed (eg. 'no focal neurology') were excluded (N=5) as information provided was unhelpful in determining which part of the neurological system had been examined.

Despite patients being admitted for reasons not related to neurological conditions or general confusion, neurological examinations were performed across geriatric and medical wards. Geriatric wards performed consistently better than medical wards in all aspects of neurological assessment. However, improvements can be made for both geriatric and medical wards, especially regarding documentation of reflexes.

Out of all the aspects of neurological examinations that should be performed, gait was most frequently assessed, meeting the audit standard on geriatric wards. This observation can be attributed to the dedicated team of physiotherapists, which corresponds to the more frequent inclusion of physiotherapy on geriatric wards compared to medical ones (see MDT Input).

For medication, both geriatric and medical wards performed to audit standard, with 100% review of medication. Anti-psychotics were only prescribed on geriatric wards in this study, and reasons were clearly stated in all cases (Figure 5).

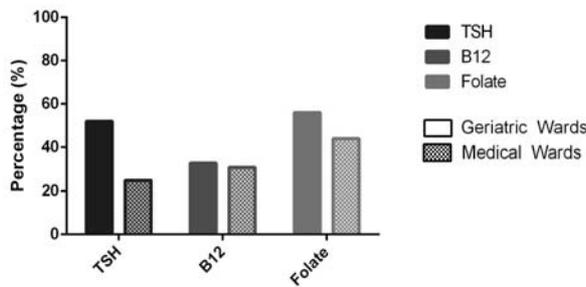


Figure 5. Blood Tests

Ordering of routine blood tests (FBC, electrolytes and creatinine, CRP, LFTs and calcium) were performed to standard of the audit, with 100% across geriatric and medical wards. However, both geriatric and medical wards performed poorly in ordering blood tests specific for dementia screening. Geriatric wards performed better across these tests, especially for TSH (Figure 6).

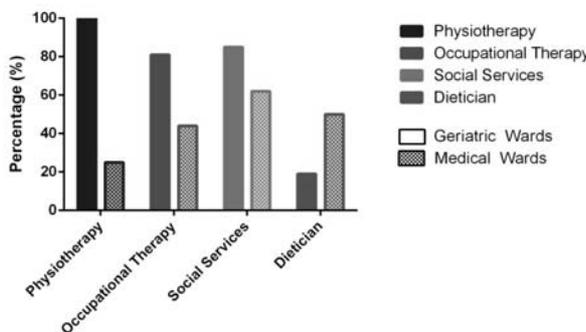


Figure 6. MDT Input. I would add

Multi-disciplinary care was generally more successfully achieved on geriatric wards compared to medical wards, especially for physiotherapy which met audit standard. However, more dieticians were involved in the care of patients on medical wards.

Of the 43 patients included in the audit, 37 cases (16%) of patients were discharged when the audit was completed. 100% of these patients had their GP notified regarding their concern about cognition. Notification was well facilitated with a section in the discharge summary ‘GP-COG score’. However, only 12 cases (30%) were referred to the OPMH service during admission, possibly because it was felt that upon discharge, GPs would be able to refer on those patients where the degree of cognitive impairment warranted this.

DISCUSSION

Recognition of dementia, delirium or depression has to be increased on both geriatric and medical wards. While the dementia screening tool detects patients with cognitive concern, this information is insufficient to guide management further and requires clinical assessment. Inadequate understanding of the impact of cognitive impairments contributes to adverse events in elderly patients (Watkin et al. 2012). By improving education on their specific condition, medical management on the wards can be modified to reduce these negative consequences.

Not all patients had a basic neurological examination. Assessments of reflexes, power and cranial nerves need to be performed routinely. The former two aspects can also be assessed by physiotherapists, so enhanced utilisation and communication with the MDT team would be helpful. Also, poor availability of tendon hammers may be a limitation and should be placed in a visible area (eg. reception desk) on every ward. Use of vague terms such as ‘no focal neurology’ should be avoided as they do not inform subsequent teams the area of neurology previously examined.

There is excellent performance from both geriatric and medical wards for reviewing medication and reducing the risk of polypharmacy, prescribing anti-psychotics and ordering routine bloods. However, increased awareness is needed for ordering of bloods specific to dementia screening, namely TSH, B12 and folate.

In terms of multi-disciplinary involvement in care for the elderly with cognitive concern, both medical and geriatric wards should aim for involvement of social services in all patients, with clear documentation if services are not needed. As these patients are more vulnerable and likely to be of a higher care burden, both quality of life of in the community and welfare of carers have to be considered. Occupational therapy is also fundamental for assessing function and suitable home adaptations, especially since progression of dementia is often associated with diminishing ability to self-care (Tierney et al. 2004). Early recognition of these changes and appropriate support will preserve the dignity of the patient and prevent premature escalation of care into homes. Particularly for medical wards, assigning physiotherapists to wards could be helpful for involving them in patient care. Physiotherapy provides valuable input for gait and balance assessments, which are important to

reduce falls risk and aid return to community. These assessments also have diagnostic value for dementia (Allan et al. 2005) and can be in detecting cognitive concern.

This study has found that GPs were notified about concern regarding cognition on all discharges under the 'GP-COG score' in the discharge summary. This continuation of care in the community is important for both the patient and carer, and GPs should contact the OPMH if needed.

Limitations of Study

The results of this study should be interpreted with caution due to several limitations. Firstly, sample size of this study was small. In addition, differences in management among hospitals render it difficult to generalise results. However, recommendations are still valid learning points for other Trusts. Also, cross-over of patient care due to ward transfers made it challenging to determine teams responsible for care. In these cases, the location where the assessments were performed was recorded.

Future Work

As there is a firm association between delirium and dementia, with dementia being a known risk factor for delirium (Elie et al. 1998), future work could include management of delirium.

CONCLUDING REMARKS

Dementia is associated with increased health care resource utilisation and greater co-morbidity burden (Suehset al. 2013). With raised awareness and appropriate support, it is hoped that costs to the patient, caregiver and the healthcare system will be mitigated. The overall performance of the hospital against our audit standards for clinical management of possible dementia was reasonably good but more emphasis should be placed on neurological assessments and ordering of dementia-specific blood tests. Geriatric wards performed consistently better than medical wards in all aspects of clinical care examined. Medical wards should endeavour to incorporate multi-disciplinary care for holistic patient management.

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Conflict of interest: None to declare.

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