

COMPREHENSIVE GERIATRIC ASSESSMENT OF A PATIENT WITH COMPLEX NEEDS

In the third of a series of articles, Deborah Birch offers a case study involving the assessment of a frail older woman who appeared to have dementia and a urinary tract infection

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Abstract

This is the third in a short series that presents case study examples of the application of comprehensive geriatric assessment (CGA) in different clinical settings. CGA is a holistic assessment model, which is designed to determine a frail older person's medical and mental health status, as well as functional, social and environmental issues. When undertaken by nurses, it can enable individualised care planning.

The case study presented explores the application of CGA with an 89-year-old patient with complex health and social care needs. It demonstrates how a hospital admission was avoided and the patient's health outcomes improved, by using a nurse-led systematic approach to assessment and by careful consideration of CGA domains.

Keywords

acute care, comprehensive geriatric assessment, delirium, frailty, older people, polypharmacy

MANAGING OLDER adults with multiple health and social care problems can be complicated and requires a methodical approach. Comprehensive geriatric assessment (CGA), now considered the gold standard, is a systematic method that ensures a multidisciplinary, holistic approach to illness and its subsequent management (British Geriatrics Society 2014). Ramani *et al* (2014) described CGA as an 'evidence-based solution to an emergent

epidemiological burden'. Ellis *et al*'s (2011) meta-analysis of randomised controlled trials demonstrates that, when undertaken in secondary care, CGA can, for example, increase the likelihood of patients being alive 12 months after admission, decrease their cognitive decline, decrease their lengths of inpatient stay and reduce their need for 24-hour care. CGA has therefore become a routine part of practice in managing frail older adults in medical inpatient units.

CGA captures the medical, cognitive, psychological, functional and social components of an older individual's situation. The case study presented in this article describes a nurse-led CGA by an older people's clinical nurse specialist of an inpatient hospital unit. It illustrates how CGA can lead to effective treatment and positive patient outcomes. It also illustrates how nurses' conventional empathic and intuitive knowledge enhances the CGA process and keeps the patient at the centre of the assessment and care planning process.

For the purposes of this article, care has been taken to avoid inclusion of information that could lead to patient identification.

Case study

Background Mrs P, aged 89, was admitted to the medical emergency assessment unit (MEAU) via the emergency department (ED), having being found by her carers that morning on the living room floor.



On the MEAU, Mrs P was reviewed by a junior doctor and was awaiting senior review. Provisional diagnosis in the ED was urinary tract infection (UTI) secondary to dementia. The management plan included a prescription for the antibiotic trimethoprim to treat the UTI and admission to a general ward for monitoring, referral to the mental health liaison service for further investigation of likely dementia and, finally, referral to the older people's nurse specialist to monitor the patient.

Mental capacity CGA was commenced by the older people's nurse specialist on the MEAU. Central to any assessment is how to optimise the environment where the assessment is to be conducted, taking into account any aids to communication the patient may require. Although the environment was a busy assessment unit, distractions were minimised and privacy maintained by drawing the curtains around Mrs P's bed space (Department for Constitutional Affairs (DCA) 2007). After discussion, staff confirmed that Mrs P was wearing a hearing aid and general introductions confirmed Mrs P's ability to communicate clearly.

Initial assessment of capacity to consent to assessment and treatment is fundamental to any consultation (Lovatt 2010). Although Mrs P was described in the notes as confused and agitated, staff identified after further assessment that she had mental capacity to consent to consultation and treatment (DCA 2007). She was orientated to time and, although she did not know the name of the ward, she was aware that she was in hospital. She was vague about the events leading up to her admission. During the consultation her main focus was her cat as she was concerned that it had been left alone. As the consultation continued it became obvious that she was distractible and easily lost her train of thought, although with prompts she could be encouraged to re-engage. As a result of Mrs P's impaired concentration and attention, and with her consent, staff contacted her daughter and asked her to assist with collateral history.

Medical history Mrs P's medical history suggested that she had multiple comorbidities, including a stroke sustained ten years ago, hypertension, osteoarthritis in her knees and hands, ischaemic heart disease, atrial fibrillation and was prone to constipation. She was a non-smoker with infrequent alcohol intake. Initial diagnosis by the ED doctor was UTI, but during subsequent history taking as part of the CGA Mrs P reported no urinary symptoms, such as a burning pain when passing urine. Her bloods demonstrated no raised inflammatory

markers to indicate infection. In older women, a dipstick test that proves positive for leucocytes and nitrites does not indicate a high probability of infection so asymptomatic bacteriuria should not be routinely treated (Banerjee and Conroy 2012).

Physical examination On general examination, Mrs P's vital signs were found to be normal. Her chest was clear, abdomen was soft and non-tender, she had no raised jugular venous pressure and no obvious sacral oedema. She had significant leg oedema with the classic features of hyperpigmentation, which is often associated with stasis dermatitis (Flugman and Clark 2016) and is usually a result of venous insufficiency. She had no acute changes on electrocardiogram or chest X-ray.

As her admission was caused by collapse, a falls assessment was conducted and demonstrated that Mrs P had significant orthostatic hypotension with symptomatic associated dizziness.

Cognition Mrs P initially presented as confused and agitated. Initial diagnosis in the ED was 'probably dementia'. CGA addresses cognition to verify the person's level of function and support correct diagnosis. In Mrs P's case, full assessment suggested that, apart from poor concentration and agitation about her cat, there was no clear evidence that hers was a dementing process. There was no previous dementia diagnosis or history of concern about dementia in her previous admissions. Mrs P's daughter confirmed that her mother's cognition had become a problem only during the previous week, with the onset of confusion and hallucinations.

On this admission, it was difficult to complete a full cognitive assessment using the Montreal Cognitive Assessment (Nasreddine *et al* 2005) because Mrs P's attention was poor, but following National Institute for Health and Care Excellence (NICE) (2010) guidance, an assessment for delirium was made using the Confusion Assessment Method (Inouye *et al* 1990). The characteristic signs of delirium-clouded consciousness, poor attention and concentration, and a fluctuating pattern of symptoms were all apparent (Banerjee and Conroy 2012), which suggests that acute and potentially reversible factors were responsible for her cognitive presentation.

Social history Mrs P lived alone with her cat. She had a close relationship with her daughter, who visited her most days and who had recently stayed a number of nights because Mrs P had been experiencing hallucinations, which were distressing

for both of them. Mrs P had also had a care package four times a day for the past two years. Until a week previously, Mrs P's daughter thought that the arrangement had worked well and was keen that her mother should be allowed to remain as independent as her disabilities allowed.

Medication review Mrs P was taking eight different medications prescribed by her GP, therefore polypharmacy was a potential problem. To identify potential culprit medications in older people with suspected polypharmacy, nurse prescribers can use two tools, the Screening Tool of Older Person's Prescriptions (STOPP) and the Screening Tool to Alert doctors to Right Treatment (START) (Gallagher *et al* 2008). The tools are often used to identify potential culprit medications, for example, loperamide being given to treat diarrhoea of unknown cause or non-steroidal anti-inflammatory drugs being given to someone with a history of peptic ulcer. In Mrs P's case, use of the two tools indicated that a medication review was needed.

On questioning Mrs P's daughter, staff confirmed that her mother's confusion had started about four or five days after she had started taking the drug oxybutynin, which she had been prescribed for bladder instability. This information suggested that oxybutynin was the likely cause of delirium and so was crucial to Mrs P's diagnosis. NICE (2013) suggests that the prescription of oxybutynin as a drug therapy for overactive bladder in frail, older women is inappropriate.

Further investigation of Mrs P's drug regimen revealed that, about two months previously, her GP had prescribed the diuretic furosemide 20mg daily for her chronic leg oedema, which had not noticeably improved as a result. Furosemide is a recognised cause of postural hypotension and the most likely cause of Mrs P's original admission. Evidence demonstrates that diuretics are the second most frequent drug-related cause of acute admissions in the UK, surpassed only by non-steroidal anti-inflammatory drugs (Howard *et al* 2007). Clinical examination revealed no evidence of heart failure, for which furosemide may have been beneficial. The STOPP recommends discontinuing loop diuretics for patients with dependent ankle oedema and no clinical signs of heart failure (Gallagher *et al* 2008).

Management plan

After the nurse-led CGA the following problems were identified:

■ Delirium.

- Incontinence.
- Orthostatic hypotension.
- Medication management.
- Falls risk.
- Social/safety issues.
- Discharge planning.

Mrs P's furosemide was discontinued to reduce the risk of falls, while trospium was substituted for oxybutynin to manage her drug-induced delirium.

Discharge planning was discussed with Mrs P and her daughter, who understood the rationale for the management decisions and were confident they would manage back at home. Mrs P's daughter was happy to collect her mother that day and stay with her until the delirium settled. A follow-up appointment with a visiting community geriatrician was arranged for later in the week, while liaison with social care ensured that the previous care package was reinstated.

The GP was notified of the medication changes made via the electronic discharge document and a further referral was made to the community neighbourhood team to continue to proactively add to the CGA. The neighbourhood team provides interprofessional healthcare expertise in the community, comprising community geriatricians, nurses, occupational therapists and physiotherapists. By working in conjunction with GPs, the team can provide proactive support to frail older adults. The team's involvement ensured that Mrs P's continence issues could be optimally managed and environmental assessments could be conducted to prevent further falls.

At follow up four weeks later, the neighbourhood team identified that Mrs P was recovering well. Her daughter had stayed with her for about a week until the delirium had settled and then left her mother alone, but with ongoing carer support. Cognition was reported as normal and there had been no further reported falls. The neighbourhood team had continued the CGA process, and had referred to the community occupational therapist for review of home safety and equipment needs.

Discussion

In terms of medical management, Mrs P was not the most complex patient, but her case demonstrated the complexity of issues that can manifest if frail older adults are not treated or managed appropriately. Banerjee and Conroy (2012) recommend that CGA should commence within four hours of access to hospital, including the ED. Once admitted to the MEAU, Mrs P had received an appropriate nurse-led CGA, but earlier

access to expertise in managing older people in the ED may have reduced the amount of time she spent in the system becoming increasingly confused and agitated.

Older people's specialist nurses are often ideally placed to conduct CGA, which historically has resided in the medical domain. They can provide holistic assessments while treating patients with compassion and dignity, and offering them health education.

This case demonstrates the importance of collateral histories and getting to know the person behind the patient. It is not always possible to obtain all the information required during one consultation with frail older adults because cognition and fatigue can impede assessments. However, with patients' consent, talking to those who know them best can often provide all the information required.

Finally, the iatrogenic effects of medications on frail older adults, especially where there is polypharmacy, cannot be over-emphasised, and should always be at the forefront of any practitioner's assessment process.

Conclusion

The case study presented in this article demonstrates the importance of conducting a CGA to manage the care of frail older adults admitted to acute hospitals. It illustrates how this process can be led by nurses who work interprofessionally with colleagues across hospital and community settings. Although it is not always appropriate to conduct a full comprehensive assessment at once, practitioners who adopt a systematic approach can assess what is required during the acute phase of admission and then refer their findings to colleagues in the community, who can continue proactive support.

Find out more

The articles in this series are:

James J (2016) Comprehensive geriatric assessment during emergency admission. *Nursing Older People*. 28, 2, 16-22.

Rodgers G (2016) Applying comprehensive geriatric assessment to investigate falls. *Nursing Older People*. 28, 3, 27-31.



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Conflict of interest
None declared

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