PERSPECTIVE

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Editor's Choice

Comprehensive geriatric assessment – a guide for the non-specialist

Comprehensive Geriatric Assessment

Comprehensive geriatric assessment (CGA) is the most comprehensively researched model for healthcare delivery to frail older patients. It has been shown, through a series of high-quality research studies and subsequent meta-analyses, to deliver measurable health improvements for frail older people. Although it is well understood by specialists in care of older people, it remains unrecognised by many non-specialists. Because it is a multifaceted complex intervention, whose title and acronym do not convey its full meaning, it may be misunderstood by those unfamiliar with it.

Given the demonstrated benefits from CGA for frail older patients – who now increasingly represent 'core business' to healthcare professionals of all types, across all developed healthcare economies – it is important that this model of healthcare delivery is more widely understood.

The purpose of this article is to explain, for a non-specialist clinical readership, what CGA is and how it works.

What is comprehensive geriatric assessment?

Comprehensive geriatric assessment is not a term which is widely used outside of specialist circles despite being in existence for over 20 years. It is often taken to be synonymous with 'geriatric medicine'. This is not the case. CGA is a process which is used to manage frail or vulnerable older people. It is interdisciplinary – meaning that it takes account of inputs not only from doctors but also nurses and allied health professionals. It is multidimensional – meaning that it takes account not just of medical diagnoses but also functional impairments and the environmental and social issues which affect patient wellbeing. It produces problem lists and develops goal-driven interventions to tackle these. Ultimately, it provides and coordinates an integrated plan for treatment, rehabilitation, support and long-term care. Recognising that CGA is more than an assessment process, some people prefer the term geriatric evaluation and management (GEM). In this article, we use the term CGA simply because this is most commonly used in the evidence base.

Domains

A comprehensive assessment involves looking not only at disease states as a standard medical assessment would do, or at disability, as a standard rehabilitation assessment might do, but at a range of domains as described in the accompanying Table 1 (1).

By assessing each of these domains of health, a comprehensive assessment can be made and the full bio-psycho-social nature of the individual's problems can be identified. Some clinicians formalise this process by the use of standardised scales and tools, or full formal assessment batteries such as the Inter RAI assessments. Using standardised scales can encourage consistent practice, help to ensure safety (e.g., pressure sore risk screening) and enable detection of serial changes, but they can also be time consuming and clinically constraining. Clinicians delivering CGA should consider the extent to which standardised approaches are helpful in their particular setting.

Where does the assessment occur?

When people think about CGA, it is often assumed that it can only occur on a geriatric ward. However, this is not the case. Hospital-based CGA can start on admission. Studies have been conducted evaluating its impact in emergency departments, medical admissions units and trauma/orthopaedic wards. Community-based CGA has been evaluated in patients own homes, long-term care facilities, community hospitals and residential intermediate care facilities (2,3).

Table 1 Domains of health

Physical medical conditions	Comorbid conditions and disease severity
	Medication Review
	Nutritional status
	Problem list
Mental health conditions	Cognition
	Mood and anxiety
	Fears
Functioning	Core functions such as mobility and balance
	Activities of daily living
	Life roles that are important to the patient
Social circumstances	Social networks: informal support available from family, the wider network of friends and contacts, and statutory care
	Poverty
Environment	Housing: comfort, facilities and safety
	Use or potential use of 'telehealth' technology
	Transport facilities
	Accessibility to local resources

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Clearly, CGA faces different challenges in different settings (Boxes 1 and 2).

Box 1 *Example 1. Community*

- Who needs CGA?
- Virtual team for each patient? Or same team for all. Virtual ward?
- Team meetings
- Agreed care plan
- Efficient communication within team
- Evidence of review

Box 2 *Example 2. Medical Admissions*

- Short stay, triaging process: the CGA process may be started, but will not be completed there
- Who needs CGA? Assess for suitability for CGA, the discharge for CGA
- Identifying the team(s): hospital and community
- Transfer of information, safety, timeliness

Given that CGA is a process rather than an event, it is important that wherever it starts, the outputs of CGA are subjected to regular review against stated goals and iteration of the management plan. Where patients receive care across multiple venues, this places importance on effective transfer of care documentation taking account of the inputs of multiple professions and assessment across multiple domains.

The team

CGA is, by necessity, multidisciplinary. It cannot be practiced by a geriatrician, nurse or therapist in isolation. The team may vary in its composition depending on the setting, however most studies report the core team to involve: a doctor (not necessarily a geriatrician) to ensure that medical treatments are given safely; a nurse covering all aspects of care; an occupational therapist for activities, aids and appliances; a physiotherapist to focus on transfers and mobility; and a social worker to consider social support mechanisms and interventions for these. In a hospital setting, this team will commonly meet face-to-face, whereas in the community setting such meetings are less common. Regardless of the setting, it is important to identify which team member is in charge of coordinating the various interventions from the multiple professions and logical that they should act as team leader for that patient.

A multi-speciality team

Not only is CGA multidisciplinary, but each person in the team must bring specialist knowledge. For example, let us consider a patient with Parkinson's disease, incontinence and recurrent falls. The doctor will need to have sufficient expertise to consider the wide array of pharmacological treatments available and when they should – and should not – be applied. The nurse will have to understand how to assess incontinence in frail older patients and have sufficient understanding of the impact of cognition and mobility upon continence to hold constructive discussions with the multidisciplinary team. The physiotherapist and occupational therapist will have to understand the specific disturbances of postural instability, gait initiation and maintenance manifest in Parkinson's disease and the increasingly specialised array of physical interventions for these.

Case management

A case manager ensures that a care plan, based upon the multidisciplinary assessment, is produced. The care plan must state explicitly what goals are being aimed for, who is responsible for achieving them and a timeline for review of progress.

Iteration

CGA is not a one off event, it is an iterative process. It is essential that progress is reviewed and if necessary further assessments carried out. This review may well take the form of further multidisciplinary meetings, but however it happens, on-going communication between all members of the team is essential.

Does comprehensive geriatric assessment really make a difference to patients?

Yes. Studies have compared CGA to usual or standard models of medical care as employed for less complex patients, typified by focus on single conditions (rather than as a result of a broad assessment), often by a single clinician (rather than involving a team), and without an iterative, case-managed plan based on the assessment and involving a team. In these studies, CGA showed significant benefits both in terms of increased independence and a reduction in mortality. Stuck and colleagues demonstrated reduced mortality from inpatient CGA at 6 months OR 0.73 (CI: 0.61–0.88) (4). Similarly, the 2011 Cochrane review conducted by Ellis and colleagues demonstrated a significant reduction in death or functional decline OR 0.76 (CI: 0.64–0.90) at 6 months. The review also found that those who underwent CGA on a ward had a higher chance of being alive and being in their own home at 6 months OR 1.31 (CI: 1.15–1.49) this equates to a number needed to treat of 13 to avoid one death or admission to residential care (5).

Accurate assessment is the first step to appropriate management and to avoiding over and under-prescribing. Multimorbidity rises with age, resulting in complex clinical pictures which require a thorough response to avoid causing more harm. Polypharmacy, prescribing errors, adverse drug events, hospital acquired infections, venous thromboembolism, pressure ulceration – all associated with medical intervention – all become more common the older that patients get. However, medication appropriateness indices remind us that harm comes not only from the prescription of unnecessary medications but also the omission of those which evidence-based practice would support (6–8). The 2009 RCP national continence audit suggested significant failures in both asking about and attaching a diagnosis to incontinent elders. The 2011 RCP inpatient falls audit suggested that 47% of high-risk patients could have had their bone heath assessed but did not. CGA ensures that a thorough medication review is carried out and patients' regimens are tailored to their needs.

Future challenges

CGA is not a panacea and further work is needed to explore its applicability in different settings. Although the evidence for its use in hospitals remains strong, with Baztan and colleagues' review (9) suggesting that older people treated on an acute geriatric unit improved functional outcome, the evidence for its use in other settings is not so clear cut. One would imagine that a technique like this, with demonstrable benefits in hospital, would be equally efficacious regardless of the environment in which it is conducted. However, in community settings there may be difficulties in selecting suitable patients, and difficulties in coordinating multidisciplinary team working, and so the benefits of CGA may be difficult to realise in community settings. Conroy and colleagues' (10) latest review of CGA at the interface between community and acute care showed no clear benefit, although the number of studies available for the review was limited and their quality was poor. Research challenges therefore remain to evaluate the use of CGA in the community and at the interface between community and hospital care.

Conclusion

It is well recognised that frail older patients present a considerable clinical challenge as a consequence of polypharmacy, multimorbidity and presentations which have functional, psychological, social and environmental dimensions such that they confound straightforward mono-disciplinary management (11). Comprehensive Geriatric Assessment provides a contrasting model of care to traditional approaches focussed on single problems by single clinicians, being multidimensional and multidisciplinary. It generates problem lists, as well as diagnoses. It establishes goal-oriented management plans and ensures that they are reviewed. Done well, it delivers effective healthcare to vulnerable groups who otherwise would have received an ineffective, inefficient and potentially unsafe response. It is evidence based and works to improve patient wellbeing and reduce hospital re-admissions. If enshrined into service models and clinical pathways it could go some considerable way to minimising harm and ensuring that the right healthcare gets practiced, at the right time.

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Disclosers

None

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