

Can comprehensive geriatric assessment be delivered without the need for geriatricians? A formative evaluation in two perioperative surgical settings

DAVID KOCMAN¹, EMMA REGEN¹, KAY PHELPS¹, GRAHAM MARTIN², STUART PARKER³, THOMAS GILBERT⁴, SIMON CONROY¹

¹Department of Health Sciences, College of Life Sciences, University of Leicester, Centre for Medicine, Leicester, LE1 7RH, UK

²THIS Institute (The Healthcare Improvement Studies Institute), University of Cambridge, Cambridge Biomedical Campus, Clifford Allbutt Building, Cambridge CB2 0AH, UK

³Newcastle University, Institute for Health and Society, National Innovation Centre for Ageing, Level 4 Time Central, Gallowgate, Newcastle upon Tyne, NE1 4BF, UK

⁴Department of Geriatric Medicine, Lyon Teaching Hospital, Lyon, France

Address correspondence to: Simon Conroy, Department of Health Sciences, College of Life Sciences, University of Leicester, Centre for Medicine, Leicester, LE1 7RH, UK. Email: spc3@le.ac.uk

Abstract

Introduction: the aim of this study was to design an approach to improving care for frail older patients in hospital services where comprehensive geriatric assessment (CGA) was not part of the clinical tradition.

Methods: the intervention was based on the principles of CGA, using quality improvement methodology to embed care processes. Qualitative methods and coproduction were used to inform development of the intervention, which was directed towards the health care professionals involved in peri-operative/surgical cancer care pathways in two large UK teaching hospitals. A formative, qualitative evaluation was undertaken; data collection and analysis were guided by normalisation process theory.

Results: the clinicians involved agreed to use the toolkit, identifying potential benefits including improved surgical decision making and delivery of interventions pre-operatively. However, sites concluded that pre-operative assessment was not the best place for CGA, and at the end of the 12-month trial, implementation was still nascent. Efforts competed against the dominance of national time-limited targets, and concerns relating to patients' immediate treatment and recovery. Some participants involved in the peri-operative pathway felt that CGA required ongoing specialist input from geriatricians, but it was not clear that this was sustainable.

Conclusions: clinical toolkits designed to empower non-geriatric teams to deliver CGA were received with initial enthusiasm, but did not fully achieve their stated aims due to the need for an extended period of service development with geriatrician support, competing priorities, and divergent views about appropriate professional domains.

Keywords

frailty, acute care, comprehensive , geriatric assessment, qualitative research, quality improvement, older people

Key points

- No interventions have successfully delivered comprehensive geriatric assessment (CGA) in acute hospitals without the support of geriatricians.

- This study attempted to deliver CGA in non-geriatrician led services using improvement methodology alongside geriatric training and support.
- The intervention received with enthusiasm, but achieved only limited impact.
- Extended time for service development with geriatrician support and addressing competing priorities are critical.
- It is possible that effective CGA can only be delivered through involving clinicians with a high degree of geriatric competence.

Introduction

Older people are major users of urgent care in Western countries; [1, 2] those with frailty [3–5] are especially vulnerable [6–9].

There is evidence that frail older patients in acute hospitals benefit from comprehensive geriatric assessment (CGA) [10, 11], which reduces institutionalisation and mortality. CGA is ‘a multidimensional, multidisciplinary process which identifies medical, social and functional needs, and the development of an integrated/co-ordinated care plan to meet those needs’ [11]. The evidence for CGA is stronger for discrete ward-based care than for peripatetic services [10, 12]. Yet frail older people are increasingly present in a wide range of services [13].

The aim of this study was to design, pilot and formatively evaluate an approach to improving care for frail older patients in areas of the hospital where CGA is not part of the clinical tradition.

Methods

Qualitative methods and coproduction were used, supported by a literature review [11], to develop the complex intervention [14].

A qualitative, formative evaluation was then undertaken in two acute hospitals. Data collection and analysis were guided in part by normalisation process theory (NPT) [15].

Toolkit development

The CGA evidence base [11] underpinned the toolkit’s design. The focus was on generic CGA care processes and competencies. Other sources of information used included:

- published case studies on implementing CGA in non-geriatric settings
- ‘best practice’ informed by a national stakeholder group (Appendix 1, available at *Age and Ageing* online) and
- interviews and focus groups with stakeholders.

Several cycles of consensus-building involving stakeholder workshops occurred between January 2016 and October 2017. Patients and the public were involved as part of the stakeholder group and through bespoke patient and public fora.

Toolkit formative evaluation

The toolkit was piloted in acute, non-geriatric services; site selection was partly purposive and partly opportunistic. The evaluation focused on the processes, challenges and opportunities involved in developing and delivering more holistic care for older people, and how the toolkit fitted into those aspirations. It focused on how the intervention, and concomitant changes in processes and systems, were negotiated, and the extent to which clinicians saw their own priorities aligning with the changes proposed in the toolkit (in NPT’s terms, their ‘cognitive participation’).

Data in the sites comprised interviews (19 in site 1, 22 in site 2) and ethnographic observations (12 in site 1, 14 in site 2). Interviews included lead clinicians and their collaborators from multiple clinical specialisms. Three rounds of interviews were undertaken. Observations covered meetings where care improvements were discussed.

The interview guide for the evaluation (Appendix 2, available at *Age and Ageing* online) was developed iteratively, drawing upon NPT and toolkit development work, adapted to incorporate emerging themes. Data were analysed in NVivo using the constant comparative method [16].

Ethical approval was provided by Essex NRES Committee (East of England), reference: 15/EE/024.

Results

Toolkit development

Workshops confirmed and built on evidence from literature. For example, participants indicated that in their experience, providing advice on a peripatetic basis (‘geriatric liaison’) was less effective in delivering CGA than shared-care arrangements. Participants suggested focusing on identifying potentially frail patients most likely to benefit from CGA, highlighting the benefits of CGA for services, and listing actions and skills needed at each stage. Participants further suggested a multi-layered, whole-system approach to change, described in more detail in [INSERT HoW-CGA final report link].

The service-level tool was identified as the key intervention to be tested in acute settings. The service-level tool (Appendix 3, available at *Age and Ageing* online) combined clinical and implementation knowledge with practical examples, structured in five sections:

- Using data to identify problems and convince others about the solution

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- Service self-assessment
- Team approach to change
- Barriers to implementation
- Review, expansion and sustainability.

Toolkit formative evaluation

Key issues were identified through analysis of the data collected during the formative evaluation. For brevity, we cover these issues under two headings below: 'Factors supporting change' and 'Key challenges in delivering CGA'.

Factors supporting change

In both sites, change was instigated by clinicians in peri-operative care. In Site 1, the lead clinician was a colorectal surgeon cooperating with an anaesthetist. In Site 2, it was an anaesthetist; surgeons were absent from the improvement effort. In both, leads had already engaged in extensive thinking about how to prepare patients for surgery through pre-operative assessment clinics. For the leads, CGA and the toolkit represented a way of extending this thinking and ensuring that pre-operative assessment accounted for the patient more holistically, rather than focusing primarily on whether surgery should take place. To this extent, using the conceptual framework of NPT, CGA appeared to have strong 'coherence': it was differentiated from existing practices, and seemed to offer obvious value to clinicians.

Factors supporting drives for change included awareness among clinicians of the high proportion of frail older people in the inpatient population, and regional and trust level drivers. In site 2, for example, the lead had an existing interest in frailty and dementia, and in improving surgical outcomes through better pre-operative care. The lead nurse was also keen to implement change and try out new ways of working. Both sites also had access to a geriatrician who dedicated time to the project.

With this synergy between pre-operative assessment and its objectives and the idea of CGA, leads and their colleagues needed little convincing of the worth of CGA: norms of patient-centred care and multi-disciplinary working were well established in both sites.

However, both also faced challenges in terms of constrained resources; there was no prospect of sustained new resource to support CGA in either site. In both sites, initial efforts focused on using frailty screening to triage patients for potential access to CGA. Both ran joint clinics between geriatricians and anaesthetists. Eventually, clinicians in site 1 concluded that the pre-operative assessment was not the right place for CGA: it was deemed too late in the patient journey. Staff in site 2, meanwhile, struggled to put in place appropriate processes to identify frailty consistently. Consequently, at the end of the 12-month pilot period, both sites remained at the start of implementation. They returned to the question of how best to approach the mainstreaming of CGA in their services.

The frailty screen on its own is a bit damp. I think what it would do if we just say 'these patients are frail, can you see them', would be very open to a lot of false positives and a lot of wasted time. Clinic appointments are important and you've got to get a benefit out of making appointments, and if 50% of those are false positives then that's inefficient. (Lead, Site 2)

Key challenges in delivering CGA

Four key challenges to improving care along the lines articulated in the toolkit were identified.

First, despite enthusiasm for improvement and recognition of the (growing) importance of older people as a patient group, leads acknowledged that frailty was not a priority. In part this seemed to stem from the lack of a 'burning platform': an obvious and immediate set of negative consequences of failing to implement CGA. Care could be improved, but sub-optimal care would not directly affect key outcomes such as mortality. Lacking a 'burning platform' could also be framed in positive terms: it was seen by some participants as permitting care improvement that was unrushed, and could be afforded several rounds of iteration and testing. Either way, however, there was little urgency across sites to implement CGA.

People are left with no service and languishing on a surgical ward, just getting through. And they do go home and there's no harm done. It's just it could be better: better for them, better for the GP, better for the family, better for my ward because they don't take up the bed for longer than they need. (Lead, Site 1)

It's not as powerful. It's not as palpable and powerful as in some of the contexts that I work in. I think the burning platform is more of a smouldering candle. (Geriatrician, Site 1)

A second challenge was that, despite the apparent synergy between existing improvement efforts in the sites and the objectives of this project, differences in the detail were crucial. For site leads, the primary objective remained better assessment of patients to inform immediate decisions about whether to operate, rather than longer-term outcomes post-discharge.

That whole how your body will be, how you'll be, how it might affect you from a cognitive, depression, dealing with pain—I think there's so many elements and I would love to be able to have an hour or two hours. But we're just focused on getting these patients through and hitting cancer targets and it's the real detriment of sometimes the patients who end up in HDU and ITU and turn round and say, 'Well I wish I'd known it would be like this and I wouldn't have had the operation in the first place' (Pre-assessment Sister, Site 2)

Thirdly, there were challenges in integrating frailty assessment into time-pressured preoperative pathways. The 6-week target for cancer intervention made it difficult to fit a further node into a pathway, regardless of perceived value. Despite CGA's coherence as an intervention, obtaining cognitive participation in the activities involved in CGA was more challenging, both

for practical reasons, and because of a challenge of what NPT labels ‘legitimation’: of finding ‘agreement about who [...] should participate in such encounters, and why’ to create ‘a shared view that they offer a legitimate mode of clinical interaction’ [17].

They're assessed and possibly frail, they see the physio who says, 'You need this and this stuff to be done'. And I say how long do you need? They say be needs four weeks, but we've got three. Do we give them four to make it a better outcome for recovery, or do we make it three to hit the target? [...] The difference with a patient may be small. The difference for the Trust hitting the target may be better. You know, it's weighing up those completely incongruous goals. [...] Can we spend that extra time? Bugger the breach targets, but spend the time and get the patient ready, so their operation recovery are better. Or do we do it as quick as we can, and hit the targets, bugger the patient? (Lead, Site 1)

These issues meant that the toolkit was used to a relatively limited extent in both sites. In Site 1, beyond the lead, clinicians in the team had little knowledge of the CGA toolkit. Most of their improvement work focused on setting up a one-stop clinic for pre-operative assessment. Clinicians in site 2 made more active use of the CGA toolkit, particularly for the purpose of self-assessment, comparing the processes involved in CGA with existing nursing pre-surgery documentation and processes. The team here identified that the pre-surgery clinic was already undertaking some assessments relevant to CGA, albeit in a relatively superficial way and with limited actions or follow-up. In response, the lead sought to implement further aspects of CGA, but with a focus on those seen as ‘most relevant’ or most likely to work in the pre-surgery clinic.

It needs to be filtered. [...] If I went through the toolkit and said, 'This is what the toolkit's all about' – each section, et cetera, and I went through it, I think it would shut people off. So what we need to do is to cut it down in – someone needs to go in, read it, say, 'That's irrelevant, that's irrelevant, that's relevant, that's irrelevant', and then focus on the relevant bits. So I think picking at the toolkit's good, in various places, for various people, but it's going right across the spectrum, so someone has got to go in, a bit like me, and say, 'These are the bits we have to pick out of that toolkit. The rest, you know, you can use it somewhere else, but it won't work here.' (Lead, Site 2)

Similarly, the lead nurse emphasised the importance of making the toolkit work within their environment, mainly driven by the existing pre-operative pathway.

It's got to be able to work in the environment that we're in. Clinicians don't always understand that concept. They'll often come along going, 'oh we want to do this; this is great'. And I have to think, 'well, yeah, but the pathways won't allow that to happen and we can't just change things.' So I think the toolkit's fine. I think the ideas we've had around implementation, we'll give it a bash. (Pre-assessment Sister, Site 2)

Competing priorities, a sense that some components of CGA were more relevant than others, and the need to

comply with standards and targets for the surgical cancer pathway, deterred the lead from a more thoroughgoing approach to implementation. Consequently, it floundered in the domains of cognitive participation and collective action, as clinicians in both sites struggled to reconcile the priorities of CGA with their own more pressing objectives, and thus found it difficult to achieve contextual integration in a setting where existing pathways made achieving more holistic care challenging.

The fourth key challenge related to the differing views on the role of the geriatrician and delivering CGA. Through time it became apparent that geriatricians and leads differed on the question of how CGA might best be delivered on an ongoing basis. Geriatricians tended to see their involvement as transitional: help with teething troubles, and with developing new competencies within existing teams. For others, geriatric expertise was not so easily replaceable: the expectation was ongoing involvement from a geriatrician for at least a portion of cases. Geriatricians were also seen by other clinicians as gatekeepers to other services, specialist assessments and pathways. Across sites, therefore, they saw the optimal model for CGA as a form of liaison arrangement whereby a dedicated geriatrician would remain available to accept referrals as part of the pathway.

It may be that [as an anaesthetist] I can never learn [geriatric] expertise. I've got too much to do. I think about echocardiograms and hearts and lungs or whatever, and I have no idea about how to look at the patient in a holistic way and a sort of 'older-patients way'. So it may be that, long term, we have to have geriatric support [or at least] some kind of link. It might be that he's sitting there, we'd meet in the same clinic, or he might be on the end of the telephone. (Lead, Site 2)

This conflicted with geriatricians' views of the main objective of CGA: to bring these considerations to the heart of the multidisciplinary team in an integrated way. In geriatricians' views, this was best achieved by mainstreaming key skills within the multidisciplinary team, such that expert geriatric input would rarely be needed.

Surgeons, ideally, would like to have a geriatrician at every clinic and, [where] they've got a frail patient, to hand over to a geriatrician. [Whereas] the CGA project has much been about trying to develop a toolkit and to give them the tools to provide CGA for the older patients [because] it's very unlikely a geriatrician can be there every time. (Geriatrician 2, Site 1)

Overall, clinicians in surgery, anaesthesia and nursing asserted that because their training did not focus on the needs of older people, and because their priorities lay elsewhere, they lacked confidence, time and expertise to manage older people. They were unconvinced that delivering the service without the ongoing input of geriatricians would be viable.

Discussion

This study used extensive stakeholder engagement, including patient and public inputs, to develop an evidence-based

clinical toolkit to enable ‘non-geriatric services’ to embed frailty-attuned care processes.

The evaluation of pilots’ efforts to incorporate CGA into their work showed only limited progress during the study period. In part, this was because of the sheer volume of work involved in such an important change, as well as the interaction with existing processes such as the cancer pathway and associated timelines. It is noteworthy, however, that these seemingly receptive contexts, where clinicians subscribed to the aim to incorporate CGA, did not guarantee smooth incorporation of the principles of CGA into routine practice. While the toolkit had coherence at the level of clinicians’ sense-making, the cognitive participation and collective action required to initiate and normalise its use among non-geriatric clinicians proved challenging. Competing understandings of the role of geriatricians indicated that more than one viable vision of what ‘successful implementation’ might look like existed. The issue of whether it was feasible to deliver CGA without the process being *led* by a geriatrician was therefore never fully resolved.

Strengths of the study include the incorporation of a robust evidence base and strong co-production in the toolkit’s design, supported by implementation guidance for the clinical teams. The developmental work indicated that a multi-layered approach to embedding CGA might be more successful; in this study we performed evaluation of the service-level component only. In this developmental and exploratory project we did not use a formal implementation vehicle (such as a Breakthrough Series Collaborative) to enhance the intervention’s impact [18].

Evidence increasingly suggests that geriatric liaison services are not effective, and alternative models to deliver CGA across the whole hospital are needed [10, 12]. The finding that teams felt a strong need for ongoing geriatrician input into direct clinical care (as well as service development) is important. The findings of this study, together with those of others looking into geriatric co-management (for example in orthopaedics [19]), suggest that geriatricians (or clinicians with substantial geriatric expertise) are preferred over embedding CGA into care pathways. Given that there are insufficient geriatricians to manage all frail older inpatients now, and that this gap will widen as population ageing continues [20], this has important implications for educational bodies, workforce planners and regulators.

Further efforts are required to determine how non-geriatric services can be supported in delivering frailty-attuned care. This might involve greater geriatric education and training, support using a quality improvement collaborative, and policy changes that highlight the important individual (reduced mortality) and societal (reduced institutionalisation) benefits that CGA can offer.

Supplementary data mentioned in the text are available to subscribers in *Age and Ageing* online.

Declaration of Conflict of Interest: None.

Declaration of Sources of Funding: Funding for this project was provided by National Institute for Health research (NIHR) (HSDR 12/5003/02) (all authors). Collaboration for Leadership in Applied Health Research and Care (CLAHRC) East Midlands (Graham Martin). The funder had no role in data collection, analysis, interpretation, writing of the manuscript or the decision to submit.

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Received 2 September 2018; editorial decision 19 February 2019

Age and Ageing 2019; **48**: 648–655
doi: 10.1093/ageing/afz074
Published electronically 17 June 2019

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Effectiveness of sensor monitoring in a rehabilitation programme for older patients after hip fracture: a three-arm stepped wedge randomised trial

MARGRIET C. POL¹, GERBEN TER RIET², MARGO VAN HARTINGSVELDT¹, BEN KRÖSE^{3,4}, BIANCA M. BUURMAN^{1,5}

¹ACHIEVE, Centre of Applied Research, Faculty of Health, Amsterdam University of Applied Sciences, Amsterdam, The Netherlands

²Department General Practice, Amsterdam UMC, University of Amsterdam, The Netherlands

³Research Group Digital Life, Amsterdam University of Applied Sciences, University of Amsterdam, Amsterdam, The Netherlands

⁴Informatics Institute, University of Amsterdam, Amsterdam, The Netherlands

⁵Section of Geriatric Medicine, Department of Internal Medicine, Amsterdam UMC, University of Amsterdam, Amsterdam, The Netherlands

Address correspondence to Margriet C. Pol, MSc, University of Applied Sciences Amsterdam, Room B 122, Tafelbergweg 51, PO Box 2557 1000CN Amsterdam, The Netherlands. Tel: +31621156542; E-mail: m.c.pol@hva.nl

Abstract

Objectives: to test the effects of an intervention involving sensor monitoring-informed occupational therapy on top of a cognitive behavioural treatment (CBT)-based coaching therapy on daily functioning in older patients after hip fracture.

Design, setting and patients: three-armed randomised stepped wedge trial in six skilled nursing facilities, with assessments at baseline (during admission) and after 1, 4 and 6 months (at home). Eligible participants were hip fracture patients ≥ 65 years old.

Interventions: patients received care as usual, CBT-based occupational therapy or CBT-based occupational therapy with sensor monitoring. Interventions comprised a weekly session during institutionalisation, followed by four home visits and four telephone consultations over three months.

Main outcomes and measures: the primary outcome was patient-reported daily functioning at 6 months, assessed with the Canadian Occupational Performance Measure.

Results: a total of 240 patients (mean[SD] age, 83.8[6.9] years) were enrolled. At baseline, the mean Canadian Occupational Performance Measure scores (range 1–10) were 2.92 (SE 0.20) and 3.09 (SE 0.21) for the care as usual and CBT-based occupational therapy with sensor monitoring groups, respectively. At six months, these values were 6.42 (SE 0.47) and 7.59