

## PROCESS AND SYSTEMS Including the voice of older people in the co-design of perioperative pathways of care

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### ABSTRACT

Older people constitute the majority of high-risk surgical patients. Despite this, they are often excluded from patient and public involvement and engagement (PPIE) and research in the perioperative setting. Comprehensive Geriatric Assessment (CGA)-based perioperative services demonstrate clinical and cost effectiveness for older patients but are not delivered at all hospitals. Scaling up such services across the NHS requires PPIE to deliver quality, patient-centred care with fidelity to existing evidence. We describe the process of, and outputs from, PPIE in older patients to inform future implementation and evaluation of CGA-based perioperative services at scale. Results show older patients value CGA-based perioperative care and support widespread implementation to deliver streamlined perioperative care, coordinated specialist input and clear communication between clinicians and with patients. This case study illustrates how to champion the voice of older people to develop pathways of care aligned to needs of service users.

**KEYWORDS:** Comprehensive Geriatric Assessment-based perioperative services, implementation science, surgery for older people

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### Introduction

Patient and public involvement and engagement (PPIE) is essential to the delivery of patient-centred, quality research informing health service development. A partnership between researchers, patients, carers and the public can help identify and prioritise research questions; empower those directly affected by research; strengthen research design and quality through considering wider perspectives; and ensure the focus is patient centred throughout.<sup>1–3</sup> For these reasons, PPIE is now an inherent part of research, from defining the question, designing the study, securing ethical approval and funding to conducting the study and disseminating the findings.

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Despite being among the highest users of healthcare resources, older patients are frequently excluded from participation in both research and PPIE.<sup>4</sup> Exclusion from research has resulted from the heterogeneity of an age-based cohort, practicalities of including those with sensory, physical or cognitive impairments, concern about capacity to consent and complexity of including those who are frequently living with multimorbidity. Similarly, PPIE has traditionally been conducted using written questionnaires, telephone consultations or one-off group meetings, formats that present accessibility challenges.<sup>5</sup> In the age of virtual meetings, the issue of digital poverty could compound the exclusion of this cohort.<sup>6</sup>

Although the inclusion of older people in research and PPIE can present challenges, the importance of proactive involvement of this cohort is apparent. Acknowledging that one in five of those over 75-years old are predicted to undergo surgery annually by 2030, this is particularly the case for research examining innovative models of perioperative care.<sup>7</sup> The Perioperative Medicine for Older People Undergoing Surgery (POPS) service established at Guy's and St Thomas' Trust (GSTT) provides geriatric medicine-led, multidisciplinary Comprehensive Geriatric Assessment (CGA) and optimisation of surgical patients throughout the perioperative pathway. This model improves patient-reported outcomes through a reduction in complications, length of hospital stay and healthcare utilisation costs.<sup>8–11</sup> To date, research into CGA-based perioperative services has demonstrated clinical and cost effectiveness at single centres in both elective and emergency surgical settings. The next step in this research programme is to scale up such services across the NHS, ensuring that the needs and priorities of older people are addressed with the same clinical and economic benefits demonstrated at scale. Earlier PPIE carried out during the development of POPS at GSTT has itself informed work around scale-up and forms an essential part of this research.

This case study describes the process and outputs from conducting PPIE in an older surgical population to support the development of a research study examining the implementation and clinical and cost effectiveness of POPS services across the NHS.

### Methods

Patients undergoing surgery from a range of specialities at four NHS hospitals in England and Wales were asked by their usual clinician to consider participation in PPIE. Twenty-two patients who expressed interest were invited to participate. Of these, nine patients offered to participate, six declined because of their own or family member's ill health, two withdrew, and five did not respond or were uncontactable.

Ultimately because of participant availability on proposed dates, six patients participated. Three had access to skills and technology required to access email and video calling, and joined a 50-min group Microsoft Teams call. The remaining half did not and, therefore, were contacted via 30-min individual telephone calls. The group had attended hospitals in London, Cardiff and Liverpool, with one female and five male participants between the ages of 68 and 88. In terms of ethnic group, five were White British, and one Black British.

Questions for discussion were agreed between study leads and a patient representative from the Centre for Perioperative Care (CPOC), who acted as peer facilitator for the sessions. Participants received a briefing pack including the questions detailed below, a description of POPS services and the lay summary of the proposed study. To reduce bias, the study leads were not present during the discussions. Following the meeting, qualitative analysis was undertaken and key themes presented.

### Outcome

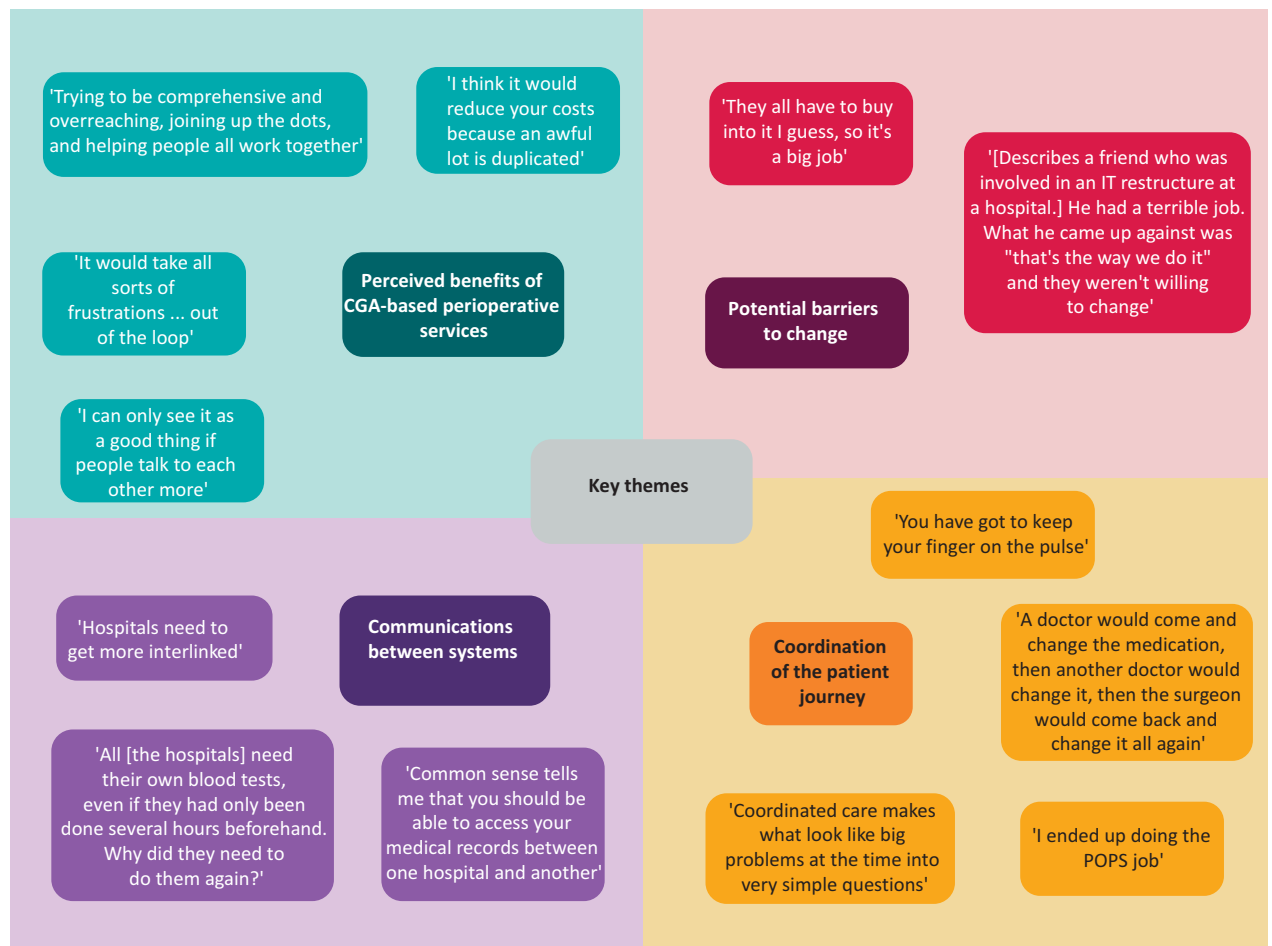
These PPIE discussions provided insights into patients' experience of traditional perioperative pathways and POPS-led services, including their perspective on the aims, potential impact of the

research and barriers to change. This is summarised according to the interview questions.

1. *Do you think this is worth investigating? Why?*
2. *What do you see as the benefits to patients from this project?*

Universally, participants agreed with the research aims and felt the project was worth pursuing. Patients described issues with standard perioperative care pathways, namely poor communication between specialists, hospitals and community services; duplication of investigations and discharge delays (Fig 1). Patients felt the need to act as coordinators for their care, bringing about challenges around weighing up conflicting advice from multiple teams and navigating complex systems. There was an appetite for novel solutions to these issues and agreement that the research, through creation of a UK-wide standardised perioperative pathway for older people, could effect benefits for patients, clinicians and the wider healthcare system.

The benefits were summarised as occurring through better interlinked systems and a more streamlined patient journey. A POPS approach was seen to better coordinate specialties in co-managed patient care, each bringing their own expertise, with improved communication both between clinicians and with patients and their families. It was felt this approach could improve



**Fig 1.** Key themes from patient and public involvement and engagement (PPIE) discussion, with quotes from the interview transcript. CGA = Comprehensive Geriatric Assessment.

clinicians' understanding of issues and complications affecting older surgical patients (eg delirium). In terms of healthcare systems, POPS was seen to deliver cost savings through avoiding unnecessary duplication (eg blood tests); investigations being carried out by multiple teams; and avoiding discharge delays through a better coordinated pathway.

3. *Do you feel that the research question is clear to patients and the public? What could improve it?*

4. *Could you give a brief summary of what the project is about?*

Question 3 prompted discussion around the research methods and potential obstacles to changing established systems and organisational culture (Fig 1). Participants felt ensuring buy-in of all necessary stakeholders could prove challenging, and perceived a resistance to change within the NHS with an attitude of 'this is just how things are done'. Patients understood that the project involves expansion of the POPS model across NHS hospitals. Several mentioned that the project would connect services, interlink hospitals and improve continuity of care. There was a universally positive response to what participants perceived to be the core values of the 'comprehensive and overreaching' POPS model, with patients seeing value in this becoming nationwide practice.

5. *Are any panel members interested in being part of the project steering group?*

The study design promotes dissemination of research findings through academic and non-academic publications, national organisations and networking with clinical, patient and public stakeholders (Table 1). To ensure dissemination in this latter group,

four participants agreed to join a steering group. This will involve further meetings and monthly updates for ongoing research coproduction and dissemination of results.

## Conclusion and next steps

PPIE in health services research is crucial for developing services that address the needs of those who use them. In this study, we described the process and outputs of involving an under-represented group in the co-design of research aiming to assess whether perioperative services for older people can be implemented at scale and at pace in the NHS. The results show:

- > we can engage an under-represented group
- > older people value fluent services, which provide 'joined up' care and clinicians who are able to take responsibility for holistic management and coordinate specialist input
- > older people want to avoid delays to treatment and hospital discharge and navigating multiple services, which have the potential for providing conflicting advice and duplication of investigations.

The NIHR promotes inclusion of the public affected by, and interested in, research from the earliest stages of study design and this is enshrined in the UK Standards for Public Involvement in Research.<sup>1,12</sup> Older adults are a diverse group ranging from healthy individuals living independently to those with significant frailty, multimorbidity and cognitive impairment, making meaningful engagement in PPIE a particular challenge. Common barriers to PPIE involvement for older people include time constraints, inflexible methods of engagement, lack of accessibility for

**Table 1. Summary of proposed research study design**

<b>Aims</b>	To evaluate clinical and cost effectiveness of implementing POPS services for older patients undergoing elective and urgent surgery throughout the NHS
<b>Methods</b>	A hybrid effectiveness-implementation study, introducing CGA-based perioperative services across 18 NHS Trusts
<b>Dissemination</b>	<p><b>Through existing roles of research team:</b></p> <ul style="list-style-type: none"> <li>&gt; NIHR evidence team</li> <li>&gt; NICE committees</li> <li>&gt; National organisations</li> </ul> <p><b>Publications:</b></p> <ul style="list-style-type: none"> <li>&gt; Open-access academic publications</li> <li>&gt; Canadian knowledge mobilisation toolkit to share with policymakers and public</li> <li>&gt; Non-academic publications eg blogs, policy briefings</li> <li>&gt; Public summaries, graphics and videos prepared with our public partners</li> </ul> <p><b>Others:</b></p> <ul style="list-style-type: none"> <li>&gt; National hybrid networking days for public, clinicians, stakeholders and policymakers</li> <li>&gt; Social media (Twitter, YouTube and Facebook)</li> </ul>
<b>Impact</b>	<p><b>Patient:</b> improved clinical outcomes; better experience; patient facing materials; empowered decision making</p> <p><b>Clinician:</b> freely available clinical resources (eg toolkit), network to support sustainable implementation, workforce trained to meet needs of older surgical patients</p> <p><b>NHS:</b> cost-effective perioperative services for older people, reduced variation in access to, and quality of, care, implementation strategy that can be used to deliver other complex interventions into healthcare settings (eg community services for children with complex needs)</p>

CGA = Comprehensive Geriatric Assessment; NICE = National Institute for Health and Care Excellence; NIHR = National Institute for Health and Care Research; POPS = Perioperative medicine for Older People undergoing Surgery.

those with mobility impairments, poor health or perception that participation will not affect outcomes of the research process.<sup>13–15</sup> Although older patients form an increasing majority of the surgical population, this cohort also faces reduced digital access and digital literacy.<sup>6</sup>

Involvement in this PPIE session required volunteering 50 min during working hours, access to a phone or computer, a good level of spoken English and reasonable health literacy to understand the nature of CGA and the study. These factors combined might lead to a panel in which participants of lower socioeconomic status, lower health literacy and from underserved communities are under-represented. However, many barriers to participants can be overcome if recognised and addressed. We mitigated impact by:

- > offering a variety of dates and times for participation
- > offering two modalities of participation through group video conference or individual telephone calls
- > providing written information on the proposed study and interview questions in plain English ahead of time
- > being flexible in the discussion structure, allowing for deviation from the proposed questions to facilitate patient-focused feedback.

Our involvement of patients with lived experience of both POPS services and standard perioperative pathways yielded useful feedback and patients clearly saw benefits to the widespread implementation of CGA-based perioperative care. Their perspective gives weight to future efforts to study the implementation, clinical and cost effectiveness of POPS services for older patients undergoing surgery. Moving forward, the formation of a PPIE steering group for the study will enable the views of older surgical patients to be championed, with consultation throughout the span of the project. ■

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