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Patient-reported outcome and experience measures in geriatric emergency medicine

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Abstract:	Older people with frailty and health crises have complex physical and social needs. Modern emergency care systems are fast-flowing, using protocols optimised for single-problem presentations. Systems must incorporate individualised care in order to best-serve people with multiple problems. Healthcare quality is typically appraised with service metrics such as department length of stay and mortality. Worldwide, Patient-Reported Outcome Measures (PROMs) and Experience Measures (PREMs) are increasingly used in research, service development and performance evaluation, paving the ground for their use to support individual clinical decision-making. PROMs and PREMs are person-centred metrics which at individual level inform healthcare decisions and which at strategic level drive improvement through inter-provider effectiveness comparison. To date, there is no PROM or PREM specifically developed for older people with frailty and emergency care needs.
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Introduction
Older people living with frailty have poorer health outcomes after even short hospital stays [15]. Emergency Departments (ED) in most countries have observed annual increases in attendances; around one fifth of people attending German departments are aged over 80 [26]. In the UK, approximately three million annual ED attendances are by people living with frailty. Co-ordinated efforts are underway to improve healthcare outcomes for older people with frailty and emergency care needs, including through specialised training and focussed research [9].

Traditional fast-flowing, protocol-driven emergency care systems are well-suited for people with single problems, but may underserve people with atypical presentations or complex co-morbidities [2, 21]. Systems tend to require multi-disciplinary, holistic, person-centred care in order to best-serve people living with frailty [19]. The geriatric emergency medicine sections of the European Society for Emergency Medicine (EUSEM) and the European Union Geriatric Medicine Society (EUGMS) have a shared objective to inform service delivery programmes and research agendas in order to tailor current emergency medicine services for this group [11].

Quality of emergency care for older people is typically reported using service metrics such as length of stay and readmission rate [5]. However, people living with frailty consider additional metrics related to health outcomes and preferences for care to also be important and meaningful. Accordingly, the degree to which the provision of care supports patients in

reaching their goals as defined around these outcomes and preferences is important for capturing high quality care.

Outcomes and preferences for healthcare

Older people with frailty have additional, and perhaps unique needs when they attend the ED [21, 26]. Patient needs can be defined in terms of selected health outcomes or aspects of health status. For older people living with frailty these outcomes include symptoms (mood, pain), functional status (autonomy, activities of daily living, loneliness), survival, quality of life, and carer burden [1, 30].

Individuals' preferences vary for specific processes and outcomes of health care [18]. Healthcare preferences incorporate the processes or procedures someone is willing to undergo in order to achieve their health outcome goals. Experience of these processes can be determined by individualised care, clinical communication, emotional and personal care, and the physical environment [12, 24]. In the emergency care context, adults of all age groups consider prompt waiting time, understandable information, and getting a diagnosis to be important aspects of experience [10]. People's experience of processes within a healthcare system are measurable using Patient-Reported Experience Measures (PREMs), usually in the form of questionnaires [7].

Many outcomes relevant to frail patients, including pain, daily function, and quality of life are not available in current automated quality metrics, but are measurable using Patient-Reported Outcome Measures (PROMs). PROMs are questionnaires that capture people's perceptions of their current health state and of their overall health outcomes. Person-centred measurement of health outcomes and experiences can be simultaneous using a combined instrument. The instruments can therefore measure care effectiveness and contribute to its improvement.

Applications of person-reported outcomes and experience measures

Patient-reported outcomes are increasingly recognised as valid approaches to measure the quality and impact of care by clinical practitioners and those involved in health service administration, planning and purchasing. When the data is considered at the 'macro' level on a wide scale [23], PROM and PREM metrics stimulate service improvement and redesign initiatives through measurement and comparison before, during, and after healthcare interventions [4, 25]. PROMs and PREMs are used routinely in trial research and some clinical settings [17], for instance to measure treatment effectiveness in elective hip surgery and asthma.

At the 'micro' level - the clinician-patient interface - routine use of these instruments has been demonstrated to improve process and outcomes of care. Use of PROM instruments can afford people the freedom to reflect on their health conditions and priorities and can enable self-management to some extent [3, 29]. Use of PROMs during clinical consultations prompts patients and clinicians to raise and discuss issues, and thereby can facilitate communication of those important perspectives and health outcome goals by informing an agenda for clinical conversations [14]. Elicitation of individuals' perspectives and health outcome goals reinforces perceptions of self-efficacy and improves patient activation [22]. These concepts are related to individuals' confidence and ability to manage their health

state. Self-efficacy and activation are measurable and are independently associated with better health outcomes [13].

Following over two decades of interest in person-centred outcome measurement among psychometric academics, there has been a slow but progressive translation of instruments into routine clinical practice. The impact of PROMs and PREMs on patients themselves has been studied in systematic reviews and randomised controlled trials. Identifying mechanisms to best feedback PROM and PREM data to clinicians is a topic of ongoing enquiry [22]. The feasibility and impact of PROM and PREM implementation in emergency care settings, particularly with people who are frail, have not yet been investigated in depth.

PROMs and PREMs for older people with frailty and emergency care needs

There is no validated PROM or PREM specific for older people with frailty and emergency care needs. Instrument questions are developed and tested for validity to evidence-based domains of care [6, 8]. Responses are typically scaled. Analysis could produce not only a numerical score for research and quality improvement applications, but also an individualised overview of the user's health outcome goals.

Enabling individualised, person-centred geriatric emergency care through empowered communication might improve that currently delivered through existing single-problem pathways. Clinicians could offer better person-centred healthcare if armed earlier with greater awareness of their patients' preferences and priorities [20]. Availability of data at the time people access ED care could inform clinical conversations and enhance shared decision-making. Data could be rapidly abstracted and presented at the clinician-patient interface if collected electronically. Older people have been shown to find electronic instruments acceptable provided their accessibility needs have been considered during development [16]. Clinicians could be further empowered with knowledge of people's perspectives through users' supported communication using individualised instruments [28] such as the Patient-Generated Index [27].

There is clear potential benefit from the early routine collection of PROMs and PREMs in relation to emergency care episodes. However, the ED environment poses an inherent challenge due to the rapid pace and people's unwell health states. Investigation is required to determine the feasibility of data collection in emergency care settings. While older people living with frailty may have greater potential benefit from the earlier individualised care enabled with person-centred measures, research and innovation is required to overcome communication, cognitive, and sensory barriers which they frequently live with. The effectiveness and impact of PROMs applied as communication support tools is as yet unproven in this population but has the potential to inspire a step change in how care is designed and delivered.

Compliance with ethics guidelines

Ethical approval was not required for this topic review.

Conflicts of interest

The authors have no conflicts of interest to declare.

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