Policy and Practice Note / Note de politique et practique

Characteristics of Patients Described as Sub-acute in an Acute Care Hospital

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RÉSUMÉ

Les patients frêles et âgés souffrent de multiples besoins complexes qui souvent passent non-traitées dans un établissement de soins actifs. Ne pas reconnaître les géants gériatriques au sein de ces aînés frêles provoque des erreurs de classement de cette population. Cette étude a examiné des aînés malades "sub-aiguë" hospitalisés dans un hôpital de soins tertiaires. Bien qu'ils aient été identifiés comme n'étant plus gravement malades, tous les participants avaient besoin des soins medicaux actifs et/ou de soins infirmiers. Lorsque l'acuité de leur maladie est passée inaperçue, les patients âgés et fragiles ont été classés par erreur comme sub-aiguë. La majorité des participants ont souhaité être soignés chez eux ou à proximité. L'absence, dans notre système de soins de santé, des soins post-aigus, ainsi que l'aversion au risque de la part du personnel de l'hôpital, a abouti aux hospitalisations prolongées ou/et les patients étaient rélégués* dans les services existants (maisons de soins infirmiers) contre leur désir de rentrer chez eux.

ABSTRACT

Frail older patients suffer from multiple, complex needs that often go unmet in an acute care setting. Failure to recognize the geriatric giants in frail older adults is resulting in the misclassification of this population. This study investigated "sub-acute" frail, older-adult in-patients in a tertiary care teaching hospital. Although identified as being no longer acutely ill, all participants (n = 62) required active medical and/or nursing care. Frail older patients, often acutely ill, were being misclassified as sub-acute when the acuity of their illness went unrecognized which resulted in equally unrecognized disease presentations. The majority of participants wished to be cared for at or closer to home. The lack of post-acute-care service within our health care system and risk aversion on the part of hospital staff resulted in lengthy hospital stays and/or in patients being funneled into existing services (nursing homes) against their desire to go home.

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Population aging is challenging the ways in which traditional health care has been provided (Rueben & Tinetti, 2012). With advancing age, people accumulate multiple, interacting medical and social problems that can make them frail. The resulting complexity of needs often does not mesh well with modern health care systems, which have evolved to focus largely on single problems, in patients otherwise well enough to fend for themselves. Health system design, funding, resources, and training disproportionately favour patients with single-system illness (Golden, Silverman, & Mintzer, 2012; Kovner, Mezey, & Harrington, 2002; Theou & Rockwood, 2012). As such, we do less well with frail patients, who – by virtue of their complex, interacting health and social problems – can be seen to obstruct service flow to acutely ill patients.

At one tertiary care teaching hospital in Atlantic Canada, it was proposed that patients who were no longer acutely ill, yet remained hospitalized in an acute care bed, be classified as “sub-acute”. Given that the determination of acute illness in frail older adults can be challenging (Fried, Storer, King, & Lodder, 1991; Jarrett, Rockwood, Carver, Stolee, & Cosway, 1995; Kansagara et al., 2011), we wondered exactly which patients were so classified. For this reason, a prospective, descriptive quality assurance study was undertaken. We aimed to address three questions: (1) What are the demographic, diagnostic, and functional characteristics of patients who have been deemed sub-acute by staff? (2) What care do they need? (3) Are their needs being met?

Methods

Participants and Study Design

We used consecutive purposeful sampling over a five-month period (September 2011–February 2012). Of a potential 77 patients identified by hospital staff, 62 (86%) were included. Exclusions were mainly related to delirium or severe dementia (resulting in patients who could not consent and who had no caregiver) and to the patient actively in the process of being discharged. All 62 participants were identified by staff (nursing and/or medical) as sub-acute. All had been admitted to one of seven medical/surgical units, or were referred for consultation to the internal medicine service in the Emergency Department. Caregivers of cognitively impaired patients were asked to participate as their proxy and/or collaborator.

Implementing a mixed-methods, concurrent triangulation design, in-depth qualitative and quantitative data collection techniques were incorporated to explore the sub-acute patient. Evidence was gathered from three sources: (1) a quality assurance survey with patients (and/or their caregivers) that was conducted on the basis of items collected in a comprehensive geriatric assessment (e.g., cognition, affect, mobility, nutrition, function, co-morbidity, and medications) (Jones, Song, & Rockwood, 2005); (2) health record reviews; and (3) semi-structured interviews with staff. A face-to-face survey was completed with each patient (or caregiver) ($n = 62$) by one of two researchers (HE, KH). The survey questions focused on understanding the experience of the sub-acute patient’s journey within an acute care setting. Collaborating laboratory, demographic, and diagnostic data were gathered from the participants’ health records ($n = 62$). We believed nursing staff would be crucial to providing background information on the sub-acute patient’s hospital journey. As such, semi-structured interviews were also undertaken with 11 charge nurses, who were familiar with the participating patients on their unit.

Analysis

Investigating a contemporary phenomenon within its real-life context when multiple sources of evidence are used can generate a considerable amount of data, which can modify the course of inquiry, especially (and appropriately) in exploratory studies (Gomm, Needham, & Bullman, 2000; Yin, 2003). As the study progressed, the breadth of the inquiry was systematically reduced and concentrated attention was given to the emerging themes (Mason & Dale, 2011). Patient survey data underwent inductive thematic analysis to understand the participants’ interpretation of the experience of being labeled *sub-acute* in an acute care setting. To assess the quantitative data and provide the necessary information to describe this category of patient, descriptive analyses were carried out on all key baseline characteristics. The contemporaneous use of other data (e.g., staff interviews, health record reviews) allowed for an understanding of the emerging themes in context. To understand how medical problems were approached, health record reviews noted the terms *delirium* or *dementia* without a formal diagnosis of the cause, and the presence of active medical problems (e.g., ongoing fluid and electrolyte problems, progressive anemia, medication adjustments) without notes that might reflect a treatment plan.

Ethics

This study was approved by the Research Ethics Committee of the Capital District Health Authority (CDHA). All patients/families provided informed consent. The study was sponsored by the CDHA and by the Fountain Innovation Fund of the Queen Elizabeth II Health Sciences Foundation. All the data are maintained by the authors, and the sponsors did not decide on the write-up for the data or selection of the journal in which the data would be published.

Results

The mean age of the participant sample was 77 years (range: 33–99 years); most (87%) were aged 65 or older. Almost all (98%) came from the community, and most (62%) were women. Presenting diagnoses were (a) active treatment of recurrent chronic conditions such as congestive heart failure or chronic obstructive pulmonary disease (33%); (b) falls prompting a long stay or institutionalization (25%); (c) chronic active care, including chronic pancreatitis, unstable peripheral vascular disease, and pressure ulcer (13%); (d) non-cancer palliative care (11%); (e) uncontrolled pain (7%); (f) behavioral problems in relation to dementia (5%); and (g) other (5%).

Although all participants expected their hospitalization would bring about resolution of their medical issue and that they would return home, this was not the case for nearly half (48%). Thematic analysis of health record notes and treatment plans suggests that some patients were apparently misclassified as sub-acute; our analysis determined that they presented with acute illnesses (e.g., functional impairment in the face of profound electrolyte abnormalities, delirium, falls) that were not recognized by staff as signs of acute disease.

Within the hospital's Emergency Department, the sub-acute designation was predominantly used for patients who were seen to have "placement" issues, even though many were acutely ill. On the medical unit, most patients required care that recognized their chronic illness and episodic changes in their health state. This care typically involved low-technology treatment; other patients required social care assistance to return home, and still others required palliative care, beginning by recognition of the terminal nature of their illness. On the surgery service, staff tended to define sub-acute patients as those post-surgery patients who now either were slow in rehabilitation, had no social support available in the community, or who had active medical problems. These categories were not mutually exclusive, and patients often had more than one type of problem; the unifying theme was that the problem did not require surgical repair.

The median length of stay was 76.5 days (average: 106, range: 8–261 days). By the six-month follow-up, just over half (52%) had returned home. Those who did not return home had few alternatives to hospital care for receiving the ongoing active medical and nursing care and rehabilitation that they required. This, coupled with risk aversion by staff who saw 24-hour supervision as the most appropriate option for frail older adults, commonly resulted in their being obliged to (a) occupy acute care beds even when their level of acuity was perceived to no longer necessitate this level of care; and (b) be funneled into existing services (e.g., nursing homes). No other viable options were provided to them.

Discussion

Research on the appropriate use of acute care resources has historically relied on professional opinion and quantifiable outcomes. This has often come at the expense of individual patient preferences and, in any case, is most problematic where the problems with which patients present do not conform to how acute care is provided (McElhaney et al., 2012). This situation is not new. A century ago, the playwright George Bernard Shaw's patient character said to his physician, "I hope you treat what I have", only to hear as a reply, "I hope you have what I treat". In using a mixed-methods approach, our findings provide qualitative data that account for the patients' preferences and quantitative data that put these perspectives into context.

This investigation revealed a number of findings: (a) many acutely ill, frail, older in-patients were being misclassified as sub-acute; (b) many of those who were not acutely ill still suffered from multiple, complex needs that went unmet; (c) sub-acute patients expected to receive services which would allow them to return home even though such services were not available; and (d) variable risk tolerance on the part of health care staff was common and typically defaulted to the most risk-averse option (i.e., the need for 24-hour care). These multifaceted findings highlight gaps in health care education, service delivery, and problems of multidisciplinary care that often go unaddressed.

In Canada, much like in the United States, but in contrast to the United Kingdom, geriatric medicine is not well-established. Clinical services most often are found in teaching institutes. In Halifax, Nova Scotia, although geriatricians take part in acute care through general medicine teaching units and provide their own consultation services, many nursing units have not yet fully embraced as legitimate the care of frail older adults, especially when the most acute stage of their illness appears to have passed. This description would likely sound familiar in many Canadian hospitals.

Difficulties in diagnosing illness in frail older adults can lead to adverse outcomes (Parker, Fadayevatan, & Simon, 2006; Russ et al., 2012). Although not always recognized as such, this situation appears to conform to the criteria for being a patient safety issue and seems to be related to the lack of geriatric skills and training for health professions (Parker et al., 2012). Despite the disproportionate prevalence of older, frail in-patients, most hospital-based nursing and medical staff do not have the knowledge and skills needed to adequately treat and care for them (Bridges, Flatley, & Meyer, 2009; Samaras, Chevalley, Samaras, & Gold, 2010; Wald, Huddleston, & Kramer, 2006). The rapid pace, technological focus of modern medicine, ageism, polypharmacy, and clinician skill mix have all been implicated in impeding the early detection and the appropriate care of common problems, such as delirium, presented by frail older patients (Andrew, Freter, & Rockwood, 2005; Kakuma et al., 2003).

The median length of stay for the study sample was 76.5 days (range: 8–261 days, mean: 106 days). Despite the well-documented negative effects of hospitalization for frail older adults (Boyd et al., 2008; Cole, Ciampi, Belzile, & Zhong, 2009; Covinsky, Eng, Lui, Sands, & Yaffe, 2003; Ferrucci, Guralnik, Pahor, Corti, & Havlik, 1997; Inouye, Schlesinger, & Lydon, 1999; Jarrett et al., 1995), we were struck by how often hospital staff saw the need for 24-hour care in a hospital-like environment as key to patient safety, even when patients did not. To have patients remain in an acute care hospital when no longer acutely ill was not perceived by staff as a patient safety issue.

Hospitals everywhere are trying to come to grips with how to provide person-centered care. The challenge is non-trivial: in such a framework, dignity and the human right to choice are fundamental building blocks. How does this square with the hospital routine of health care teams first conferring among themselves – usually deciding on the patient's progress and prognosis – and then meeting with the patient and or family to give their recommendations? Typically, the patients and families to whom we spoke felt as though they were expected to treat the team recommendations as final. From their point of view, health care teams emphasized safety aspects of patient care over patient autonomy. For example, some health care teams' default position appeared to be that to minimize risk of falls (most often at night), the patient required 24-hour care. This is not a new experience: in other contexts, persuasion and even coercion sometimes have been used to gain patient consent to proceed with discharge plans that reduce their risk of physical harm (Moat & Doable, 2006). Hospital-induced dependency can arise when patient/caregiver confidence is undermined.

Many sub-acute patients were notably distressed by their not being able to make choices that hospital staff deemed to be too risky or because viable care options were lacking. One patient told us that a drug overdose would be preferable to spending the rest of their life in a nursing home, the only option offered. Another patient, for whom a nursing home was also the only option, voiced grave concerns that the nearest such facility was almost 100 km away from his house. This meant, in all likelihood, he would only see his wife and son once or twice a year for the rest of his life. These narratives are representative of the stories recounted during this study.

Building on the evidence, local experience, and experience elsewhere, three factors must be considered to improve the care of frail older adults. Each is feasible, offers a high probability for success, and lays a foundation to continuously improve care. They are as follows.

Alternatives to Hospitalization. For patients who present to the Emergency Department, we need to have a more consistent way to follow up those who are discharged, so that more people can be sent home. At present, the incentives favor admitting people, not discharging them; consequently, that is what occurs. The chief benefit to accrue from a comprehensive geriatric assessment in the Emergency Department appears to be the development, rather than delivery, of a care plan in an acute care hospital (Evans et al., 2011). Ensuring better availability of enhanced home care provided on a short-term basis would appear to have high yield in safely avoiding discharges, but local context is always important.

Better Routine Care in Hospital. For patients admitted through the Emergency Department, we must improve our routine care. At a minimum, staff should be trained to assess mobility and balance in these patients and ensure that this is done every day, as it is a very sensitive sign of illness and recovery and, thereby, can help guide treatment decisions (Hubbard et al., 2011). Putting such assessment in place would build the capacity for subsequently introducing the "48/5" system (McElhaney et al., 2012). This system requires that five things be done in the first 48 hours including ensuring that patients are (a) fed, (b) mobilized, (c) have pain treated, (d) have a medication review aimed at reducing polypharmacy, and (e) have care goals set in collaboration with their families.

Standardized Assessment for Patient-Centred Care. Comprehensive geriatric assessment, done collaboratively, enables rational treatment plans to be developed. With these come more focused interventions. This can form the basis for a new initiative on inter-professional collaborative practice (McElhaney et al., 2012).

Our data must be interpreted with caution. This study's participant sample was able to manifest the sub-acute phenomenon intensely and allowed for an understanding of the sub-acute patients' journey with regards to context and complexity within this tertiary hospital. Nevertheless, small sample size is a limitation of this study.

Conclusion

In a systematic assessment of patients deemed to be sub-acute, many such patients in fact were acutely ill: staff education about illness presentation and other basic aspects of the care of frail older adults is needed. We also found that variable risk tolerance, and the tendency to default to the most risk-adverse person in a multidisciplinary team, is an obstacle to discharge patients home for older adults admitted to acute care: the underlying cause and steps to rectify this barrier to independent living must be addressed. Further research is also needed to explore whether the right mix of post-discharge services is available.

Older adults are the largest consumers of health care and often present with multiple interacting problems that go unrecognized as acute illness. Despite this reality, single-system problems continue to be the focus in education of health care professionals and in funding opportunities for evidence-based practice. Canadian health care must change to meet the needs of our aging population in settings that recognize and address their complex needs by professionals with geriatric knowledge and skill. The rhetoric of patient-centered care must result in specific ways that hospitals listen and respond to what our patients want and need.

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