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EDITORIAL

How do we optimise care transition of frail older people?

Demographic change continues to challenge health systems across the world, with older people accounting for the largest increase in hospital admissions [1]. Older people often have multifactorial health and social care needs that contribute to longer hospital stays that then expose them to iatrogenic complications, including medication errors, falls, pressure ulcers and delirium, contributing further to functional decline. An added problem is an increase in risk of being re-hospitalised, with 15% of patients ≥65 years readmitted within 28 days [2]. Each of these factors contribute to the importance of carefully coordinated discharge planning with supported hospital to home transitional care. Transitional care is defined as 'a set of actions designed to ensure the coordination and continuity of healthcare as patients transfer between different locations or different levels of care within the same location' [3].

So, what are the goals of care transition? Clearly from a health system and patient flow perspective, reducing hospital length of stay (LOS) and unplanned re-admissions are important objectives. Additionally and importantly, are the patient-centred objectives of healthcare regarding quality of life, and restoration or maintenance of physical function such that patients are able to remain at home with or without support, for as long as possible. Both objectives should be achievable if there is a smooth transition from hospital to home. Provision of seamless integration of supportive care and services aims to optimise post-hospitalisation outcomes and reduce risk of adverse events including unplanned re-admission.

However, one of the challenges faced by hospital clinicians is coordination and integration of care across the acute community interface. Transitional care models are complex interventions encompassing multiple components. Success or failure is usually determined by the nature of the intervention, population and setting involved, and the outcomes measured to indicate effectiveness [4].

The potential obstacles of coordinating ongoing care were paramount in the development of the highly plausible comprehensive Community In-reach Rehabilitation and Care Transition (CIRACT) strategy reported on by Sahota *et al.* [5] in this issue. This multicomponent intervention provided inpatient rehabilitation, pre-discharge home assessment with relevant modifications, followed by seamless transfer to ongoing home-based care. The novelty of CIRACT was that all therapy services during and following hospitalisation were delivered by the same community team. Surprisingly, when compared with usual care, there were no differences in any of the hospital or patient-centred outcomes, with LOS as the primary outcome. This was in contrast to the pilot study that realised a shorter LOS in the intervention group (median difference −3 days) [6].

This raises a number of questions about how we can optimise the care transition of older, and over time, increasingly frail patients—which patients should we target, what goals should be achieved during hospitalisation to support safe discharge, what are the essential components of successful transition, what are the important outcomes, and when should they be measured to ascertain effectiveness?

Which patients?

The CIRACT cohort typify older hospitalised medical patients (median age 84 years) who are acutely unwell and increasingly frail, as evidenced by underlying multi-morbidity (median co-morbidity score 7), baseline levels of functional dependency (median Barthel 11/20) and cognitive impairment (median MMSE 22/30). During hospitalisation, many older people experience deconditioning and functional decline that affects future independence and quality of life [7]. Therefore, it is only common sense that discharge planning should commence for 'all' older patients as soon as they are admitted, to optimise timely and safe care transition.

What are the goals of an inpatient stay?

Inpatient goals are typically determined by the hospital team in collaboration with the patient and/or family/carers. Ideally the hospital team is multidisciplinary with a holistic approach, comprising geriatric medical, nursing and allied health professionals. Responsibility for coordination of care transition is usually allocated early to either a nurse, occupational therapist, physiotherapist or social worker. The CIRACT findings suggest that intensive therapy for general medical patients in the acute phase does not facilitate earlier discharge home. This also raises questions about setting achievable and appropriate goals that enable safe transfer home in the shortest possible time frame. While therapists are eager to achieve the best outcomes possible

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for patients, this may not be possible within the acute hospital stay.

What are the essential components of successful transition?

The evidence supports use of Comprehensive Geriatric Assessment (CGA) to reduce risk of negative post-discharge outcomes. CGA is a 'multidimensional, interdisciplinary diagnostic process to determine the medical, psychological, and functional capabilities' [8]. In hospital settings, CGA reduces mortality or functional deterioration (odds ratio 0.76, 95% confidence interval (CI) 0.4–0.90; 5 trials, n = 2,622) up to 12 months after hospitalisation [9].

Although CGA does not focus specifically on the care transition process, it lays the necessary foundation for development of a coordinated and integrated plan for treatment and long-term follow-up. Use of structured and individually tailored discharge planning is identified to be effective for older medical patients, with the most recently updated Cochrane Review [10] reporting small but significant reductions in hospital LOS (mean difference −0.73 days, 95% CI −1.33 to −0.12; 12 trials, n = 2,193), and reduced emergency re-admission rates at 3 months (risk ratio 0.87, 95% CI 0.79–0.97; 15 trials, n = 4,743).

Additional components of the CIRACT intervention included the provision of a pre-discharge home risk assessment, relevant home modifications and aids, follow-up therapy and other supportive services. One of the objectives of CIRACT was to provide seamless transfer with continuity of services upon discharge. While this has face validity, it was of no benefit for reducing re-admissions or improving function. Other elements for consideration include medication management, telephone follow-up and motivational coaching to encourage patient engagement and self-management. A key element is effective communication and transfer of relevant information with relatives, carers and community service providers including the primary care physician during the active transitional care period.

A recent synthesis of 17 systematic reviews [4] highlighted the many sources of heterogeneity in care transition, with variation in populations studied, intervention characteristics, personnel involved, outcomes measured and settings, making it difficult to identify definitive recommendations for a specific intervention that should be broadly applied. The authors concluded that there are no patient population or intervention type categories whereby transitional care interventions are consistently effective; however, they deduced that more complex interventions are possibly superior to those that are less complex [4]. This highlights the importance of conducting comprehensive program evaluations in parallel to randomised controlled trials that are testing clinical effectiveness, to ascertain which components of such complex interventions contribute to effectiveness.

How and at what time point should we determine effectiveness?

Effectiveness of care transition has historically been determined from a health system perspective. LOS and re-admission are important outcomes, not only from a health service viewpoint but also from a patient perspective, as this focus also serves to reduce exposure to the risks of hospital-acquired harm. However, the purpose of healthcare is to improve or maintain health, hence, a need for patient-centred outcomes such as quality of life, restoration or maintenance of function in keeping with increasing age, family/carer burden and delayed transfer for nursing home care as measures of effectiveness. Follow-up periods vary up to 12 months post-hospitalisation; however, defining a reasonable period is difficult with an older population that is continuing to age with increasing frailty over time.

Optimising care transition across the acute hospital to community interface calls for a collaborative shift in focus by researchers, service providers, funders and policymakers that is not only pragmatic and patient-centred but also evidence-based.

Key points

- Transitional care models are complex interventions encompassing multiple components.
- Effectiveness is usually determined by service-centred rather than patient-centred outcomes, yet both impact each other.
- Evidence supporting care transition models is mixed.
- To truly understand intervention effectiveness, multilevel program evaluation of implementation strategies is needed.

Conflicts of interest

None declared.

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