RESEARCH ROUNDup

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Continuity and safety in care transitions: communication at the hospital/community care interface

In the health care setting, risks to patient safety may arise when there is poor written or verbal communication between personnel during times of care transition.[1] Care transition refers to the "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".[2] Transitions occur at staff shift changes within health care institutions,[3] transfer between institutions, or, at the interface between acute and community care.[4] This *RESEARCH ROUNDup* outlines communication mishaps that may occur in the latter instance, during discharge from hospital to community based care. It is an abbreviated appraisal of major citation database and freely available literature, and may be relevant to primary care clinicians, policy makers and researchers.

Communication Failure

Adverse events occurring during the hospital to community care transition period may lead to clinician[5] and patient dissatisfaction,[2,6,7] temporary or permanent injury or disability,[8] or death.[9] Communication failures at this time may result in delays to appropriate treatment and community supports, additional primary health care (PHC) or emergency department visits,[10] further laboratory tests, replication of laboratory tests,[9,11] or rehospitalisation,[9,10,12,13] leading to emotional and financial burdens borne by the community, patient and their families.

A study by Makeham et al[14] in 2006 - the first to investigate the incidence of adverse events reported by Australian general practitioners - found that 15% of all reported events were related to hospital care, largely due to communication failures at the time of discharge.[15] Similarly, poor communication between hospital clinicians and the patient and/or the primary care physician was found to be the most common (59%) cause of any adverse event at the time of discharge in an earlier North American study.[1] This study also found that during the care transition period, an adverse event occurred for almost one in five patients. At discharge (and admission), a substantial proportion of adverse events are related to medication discrepancies.[1,4]

Discharge related communication mishaps occur as:

⇒ the process is usually not overseen by one health care provider[2,6]

⇒ hospital staff may have limited understanding of the capacities of the receiving clinic or institution[6]

⇒ general practitioners may not be involved in in-patient management or discharge planning[7,15,16] – particularly in metropolitan areas[5]

⇒ health services operate across a variety of locations[2,17]

⇒ health services operate within public and private sectors[17,18]

⇒ institutions often function in isolation[6,19]

⇒ clinicians often function independently and in only one health care setting[2,17]

⇒ patients (and their caregivers) may be poorly informed[11] or not included in the transition process,[16] due to:

- functional impairment[1]
- unplanned or urgent discharge[6]

⇒ there may be late or no receipt of discharge summaries by PHC providers - leading to failure to carry out the discharge care plan (eg. implementation of new medication regimen, review of pending tests, or ordering follow-up tests).[6,7,13,16]

Some patients are especially vulnerable to misadventures occurring at discharge, such as those:

⇒ who are unable to advocate for themselves[10]

⇒ with cognitive, literacy[20] or physical impairments, such as the elderly[10,12,21]

⇒ with complex and/or chronic health problems[2,10]

⇒ from different cultures where language and expectations may differ[11]

⇒ requiring multi-disciplinary care.[22]

Improving Communication during Care Transitions

A meta-analysis published in 2010[23] concluded that 'a potential role' existed for interactive communications between primary care clinicians and specialists. Studies included in the analysis focused upon the psychiatric patient. A comprehensive systematic literature review was undertaken by Powell Davies et al[17,24] in 2006. Of the 85 studies identified that aimed to describe strategies that addressed care coordination, many focused upon the relationship between PHC and

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specialists (47%), or PHC and hospitals (34.1%). Twenty percent were Australian studies. Nine broad types of strategies were identified (Table). Of the Australian studies, most (74.5%) investigated 'communication between service providers' (Table, Strategy Type 1). Improvements to *health outcomes* were most likely to occur when strategies to provide 'systems and structure to support coordination' were undertaken. Improvements to *patient satisfaction* were most likely to occur when 'communication and support' initiatives were promoted.[17] Success was more likely when combinations of strategies were used.

Table: Nine strategy types addressing care coordination.[17] Adapted from Table 2 Powell Davies et al, 2008.[24] Studies were not mutually exclusively grouped.

Level of Strategy Implementation	Strategy Type	Number of Studies (%)
Patient/Health Service Provider	1 Communication between service providers	58 (68.2)
	2 Systems to support the coordination of care	50 (58.8)
	3 Coordinating clinical activities	38 (44.7)
	4 Support for service providers	37 (43.5)
	5 Relationships between service providers	36 (42.3)
	6 Support for patients	17 (20.0)
Organisational	7 Joint planning, funding and/or management	7 (8.2)
	8 Organisational agreements	3 (3.5)
System	9 Organisation of the health care system	1 (1.2)

Only one study was identified that attempted to address change from the system level (Table, Strategy Type 9). Nonetheless, policies relating to organisation of the health care system with the intention to improve coordination of care have already been formulated in Australia. Notably, Divisions of General Practice have been long established, and have made important contributions to PHC coordination. *Medicare Locals* are to be established.[25] These independent primary health care organisations will aim to "ensure that GP and primary health care and hospital care are better integrated".[25] In addition, an electronic patient record system (*eHealth*) is being developed that will permit "the electronic collection, management, use, storage and sharing of healthcare information".[22]

Conclusions

Hallmarks of a good PHC system include the ability to coordinate care across health sectors.[18] The current health care reform provides an opportunity to improve cross-sector communications, and will rely upon a suite of changes to be undertaken by clinicians, researchers and educators.[2] Reform will need to be dynamic and responsive to fluctuating local needs. The systematic review of Powell Davies and colleagues has shown that a number of studies addressing the development and/or evaluation of initiatives have been undertaken at the patient/service provider and organisational levels, yet few have been directed at the health system level. Future research will be required to measure the long-term viability and effectiveness of the unfolding health care reform upon improved communication at the hospital/community interface.

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