The European HANDOVER project: the role of nursing

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In this issue of *BMJ Quality and Safety*, two articles from the European HANDOVER Project (Gobel *et al*[1] and Johnson *et al*[2]) highlight the complexity of patient handovers between health professionals in acute-care settings and primary-care settings. On the surface, it seems that handovers in patient transitions between acute care and primary care involve rather straightforward communication between and among well-meaning providers. Yet, findings from the HANDOVER Project, and nearly two decades of research addressing handovers during care transitions, suggest otherwise. The common, everyday process of these handovers is fraught with errors that present a major threat to patient safety and quality of care, and is a source of waste in a nation's healthcare systems, as patients are inappropriately rehospitalised and/or undergo unneeded diagnostic tests, and is a source of patient and family dissatisfaction and concern. Understanding and improving the handover process has become a major healthcare delivery system initiative. Nurses play a significant clinical role in handovers within and between care settings, and have also been integral to advancing knowledge about the handover process and its improvement.

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NURSES AND HANDOVERS

Traditionally, nurses have had a key role in the management of care coordination systems in healthcare agencies. Handovers have been a major focus for nurses—handovers from shift to shift, healthcare setting to healthcare setting, and healthcare setting to home. In addition to initiating handovers within and from the hospital, nurses also are on the receiving end of patients transferred to rehabilitation centres, long-term care facilities, and home health providers. Additionally, discharge planning and home-going instructions for patients have a long history of being in the domain of nursing. More recently, nurses have assumed care coordination functions across settings, including roles as care coordinators for disease management, case managers and transitional care advanced practice nurses. Most important, nurses have a long-established history of including patient preferences and values in plans of care, a factor considered essential in successful handovers.[3–5]

Although there is still a need for more evidence to support best practices regarding patient transitions, there is considerable agreement in both the nursing-specific literature and the literature at large, regarding strategies for more effective execution of handovers. Components found to be essential for a good handover include the combination of written and verbal transfer of information among care providers, the opportunity of the receiving clinician to ask questions during the handover process, use of standardised protocols regarding the handover procedure and the information to be included in a handover, inclusion of patient and family preferences in the plan of care, and preparation of the patient and family for what to expect and how to manage the care transition.[3–7] Considerable evidence supports improved patient outcomes and lower costs in managing complex patient transitions by the use of an advanced practice nurse to coordinate the handover process, such as in the Transitional Care Model of Naylor *et al*[3 8] or the Nurse Case Management Model of Daly *et al*.[5]

As indicated in the Handover Project, successful handovers in and across healthcare delivery systems require sufficient clinician time. The literature suggests that verbal communications, augmented by written summaries, are the most effective way to communicate important information for a successful handover.[6] Finding a mutual and sufficient length of time for both the sending and receiving clinicians across different care settings to engage in real-time conversations for handovers, however, is difficult. Thus, the findings of another study from the HANDOVER Project (Tocccafondi *et al*[9]), which found that information exchanges preceding handovers from high-acuity to low-acuity care units solely involve the physician members of the healthcare team.

The authors report that a consequence of this was lack of shared common ground related to the handover between physicians and nurses in the receiving unit, thus creating patient safety vulnerabilities. Moreover, in complex handovers in which multiple care providers in addition to physicians and nurses are involved, such as rehabilitation specialists, social workers or home health personnel, time is needed for just the scheduling of a handover meeting among these providers, and significant time is required for meaningful discussions and joint care planning during the actual handover discussion. The use of electronic health records and informatics tools has potential to assist with these scheduling and communication challenges, but considerable impediments remain in the standardisation, availability and utility of health information systems that are usable across care settings.

BENEFITS OF A TIERED APPROACH

One effective way to manage handovers of patients with complex care needs is to designate one person (usually an advance practice nurse) as having responsibility to coordinate the care transition. The use of the Transitional Care Model using advanced practice nurses has been shown to be effective in improving episodes of care outcomes, and reducing costs for patients needing complex care.[3 8] Not all handovers, however, involve patients who require complex care. This suggests that a tiered approach, or categorisation of patient handovers, could be useful to determine the level of handover resources to employ in meeting a given patient's transitional care needs. The use of a standardised, quantitative handover risk assessment tool to determine patients' varying levels of risk for poor outcomes during a transition could provide a methodology to objectively decide on appropriate intensity levels of handover services. Such measures are currently under development and testing, and include both population-specific measures of Naylor *et al*[8] for transitions involving older persons, as well as measures of transition risk across populations being developed by the Health Texas Provider Network in conjunction with Baylor Health Care System.[10] The widespread use of transitional care risk assessment tools from a case mix perspective have the potential to improve handover outcomes, and also help care providers use their time in the most efficient and effective ways.

Another recommendation from the HANDOVER Project is the need for better methods of feedback to the involved clinicians, and the larger healthcare system, regarding the success of handovers. In the past few years, several rating tools to assess handover quality have been developed in an attempt to quantify the quality of episodes of care across settings. These tools assess the impact of handovers from both the patient/family viewpoint and on clinical and healthcare system outcomes.[11–14] The establishment of valid and reliable measures of handover quality and safety will assist us to establish the causal effects of handovers on safe care, and identify best practices for handovers.

NEW CONCEPTUAL MODELS FOR THE HANDOVER

There is a repeated theme in the literature, that new conceptual models are needed for understanding and improving the processes involved in successful handovers. Predominant conceptualisations used in studies of handovers include communication, process improvement and socioecological models. It is possible that a conceptual reframing of the handover process is needed, from one of deficit thinking, to one of affirmative thinking. Current handover models are built predominately on philosophies that suggest that the handover process is a time of vulnerability, or a problem to be solved. A new philosophical approach to view handovers, consistent with an Appreciative Inquiry approach,[15] is to consider transitions across an episode of care as an affirmation process that focuses on the cocreation of a more positive future by care providers and patients and families. This involves reconceptualising handovers from being a potential source of failure, to being a potential source of recovery; from an opportunity for error, to an opportunity for rescue. Such a viewpoint might shift care providers' opinions of a handover from that of it being a time consuming, burdensome, administrative paperwork function, to an opportunity to engage in a joint, creative endeavour to promote a more idealised future for patients. Many of the components currently identified as being important to a successful handover process would be emphasised in this affirmation conceptualisation, including the importance of asking questions, a high level of inclusion of the preferences of patients and family members, and clarification and confirmation of shared goals for optimal care. It is possible that this affirmation, and energy-generating conceptualisation of handovers by care providers will positively impact some of the underlying hierarchy, communication, trust and relationship factors suggested as being current barriers to successful handovers. An Appreciative Inquiry conceptualisation of handovers may be a more useful approach to guide our education of health professionals about the knowledge, skills and attitudes involved in successful handovers.

The lens of complexity science also may assist us in formulating a model of handovers that is more useful to clinicians than our existing approaches are. There is wide agreement that handovers are a complex process. In the

formative work, *Crossing the Quality Chasm: A New Health System for the 21st Century*, Plsek advocates developing 'a few simple rules' to guide system change involving complex processes.[16] In the spirit of Plsek's suggestion, the following 'few simple rules' are distilled from the literature and offered to clinicians to guide their thinking regarding handovers:

- Incorporate patient/family preferences in the transitional plan of care and the handover process.
- Use both written and real-time interactions for communicating standardised information in the handover.
- Provide the opportunity for all receiving and sending clinicians and patients/families to ask questions.
- Design and use a feedback system to assess success.

Electronic health records (EHR) and decision support systems offer promise in achieving these recommendations. The use of computers and hand-held devices by patients and their families to communicate their preferences to clinicians in an efficient, yet comprehensive manner, is growing rapidly. Also, while overall the literature on the impact of health information technology on transitional care outcomes is sparse, current evidence suggests that organisations with electronic health records that utilise decision support systems have better chronic disease outcomes than organisations that do not have mature health information systems.[17] Over the next decade there will be even greater attention from policy makers, regulatory agencies and quality improvement entities given to the quality and safety of care across entire episodes of care. Handovers are a central process in the quality and safety of that care, and all clinicians, both in the executive suites and on the front lines of care, are instrumental in preventing harm and improving the handover process.

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