

Information sharing, knowledge transfer and patient safety

In this invited editorial, we focus on information sharing, knowledge transfer and patient safety. We initially distinguish between information and knowledge, drawing on a keynote presentation the first author (W. C.) delivered at the 2007 BACCN National Conference in Brighton. We build on this foundation to discuss patient safety and the critical role breakdowns in communication play in clinical errors. We end by providing an overview of some initiatives directed at improving communication currently underway in Australia and Queensland, our home state, contextualizing it in the international scene. Providing this 'panoramic view' is meant to raise your awareness of how important communication in health care is. Ultimately, we hope to influence how you next share your knowledge of your patient with others.

Information has been described as data put into a context. For example, a blood pressure reading may be 100/50, which is simply a piece of data, but if you add the comment that this blood pressure is from a young adult, who is bleeding profusely, then it becomes information. When we share information, we are using the communication process to alert another person about this information. What then distinguishes knowledge transfer from information sharing, and why is this distinction important? We will first consider knowledge and then the transfer of this knowledge; however, we do so with one caveat. We do not hold ourselves out as philosophers, undertaking an in-depth epistemological world-view of knowledge (i.e. the nature of knowledge), but instead, as learned nurses providing a practical, everyday synopsis of these terms. Simply put, knowledge has been described as the capacity to reason and make sense of information (Davenport

and Prusak, 1998). It requires you to use your judgement and make interpretations from this 'data in context'. This notion of making sense of and interpreting information sets knowledge transfer apart from simply information sharing when we are communicating with others. So, when should you ensure you go beyond information sharing and actually transfer your knowledge? This is a question that has no one answer, but we turn to the body of evidence on patient safety, and the critical role breakdowns in communication play in errors resulting in patient harm in order for you to consider what these situations might be.

With 1 in 10 people entering hospital experiencing harm as a result of their care and not related to the reasons that they were admitted (Wilson *et al.*, 1999), patient safety has emerged as a major driving force in health care today. Accurate communication during clinical handover has been identified as one of the most important elements in the safety and quality agenda. Ineffective communication can lead to delays in diagnosis, wrong treatment and adverse events, all of which have profound implications for patients and the health system (Australian Council for Safety and Quality in Health Care, 2005). The analysis of clinical incidents and adverse events has helped us learn about the critical connection among teamwork, communication and quality care. For example, in 2004–2005, communication failures were a contributing factor in 25–41% of sentinel events in Australia (Australian Institute of Health and Welfare and the Australian Commission on Safety and Quality in Health Care, 2007; Wakefield, 2007). However, there seems to be limited awareness among clinicians about the consequences of poor communication of information. Furthermore, we do not seem to acknowledge that, as

humans, we are prone to making mistakes and therefore have to look towards tools and standard operating protocols to help make it easy to do the right thing and hard to do the wrong thing.

Accurate communication specifically during clinical handover is the focus of a number of international, national and local initiatives. Leading this work falls under the remit of organizations such as the World Health Organization's (WHO) World Alliance for Patient Safety (WAPS), the Institute for Healthcare Innovations (USA), the National Patient Safety Agency (UK) and the Australian Commission for Safety and Quality in Health Care (ACSQHC). Locally, where we live, the Queensland Health Patient Safety Centre (PSC), launched in 2005, leads this reform in the state of Queensland (Australia). Despite the importance of clinical handover, we know that many health professionals are not formally taught how to undertake this important activity.

We finish this editorial with an overview of some of the initiatives the ACSQHC and the PSC have put in place to understand and improve communication in Queensland and Australia. We start with a brief overview of WHO activities and then describe how national and local Australian initiatives are currently contributing to the international agenda. In their 'High 5s' report, the WAPS targeted improving five patient safety problems over 5 years (WHO, 2005). One of these problems is communication during patient care handover. Since then, they have produced 'Nine Safety Solutions' to translate what is currently known in these areas to action, guiding the redesign of care processes to prevent patient harm (WHO, 2007). One of the safety solutions focuses on communication during patient handovers.

Two suggestions related to the Intensive Care Unit (ICU) include: (1) ensuring a standardized approach to handover is adopted with suggested elements to include use of the Situation, Background, Assessment and Recommendations (SBAR) allocating sufficient time for the handover and (2) ensuring information regarding the patient's status, medications, treatment plans, advance directives and any significant changes are communicated.

Furthermore, the WAPS has identified communication as the leading research priority identified for developed countries (WHO, 2008). The ACSQHC (2007) has committed to take a lead in clinical handover for the WHO and has funded to a number of projects in the area. The precursor to the commission, the Australian Council on Safety and Quality in Health Care commissioned a literature review of clinical handover in 2005. In 2007, the ACSQHC funded six studies of clinical handover, including the one we are leading. These studies include:

1. Structures, processes and outcomes of nursing bedside handover and the use of whiteboards to assist multidisciplinary communication (led by W. C.).
2. Improving clinical handover for the critically ill patient requiring air transportation.
3. The development of standard operating protocols and educational resources for shift-to-shift medical and nursing handover.
4. Transfer to hospital envelope: the use of a large coloured envelope, used to transport various patient forms, with a standard set of patient-specific questions answered on the outside of the envelope.
5. Development of an e-learning strategy for safe clinical handover.
6. Team STEPPS™ (Team Strategies and Tools to Enhance Performance and Patient Safety): testing a teamwork training system in targeted handover points.

Due to be completed in the middle of 2008, these studies will develop standard operating protocols for particular types of clinical handovers. In our case, we are focusing on how to undertake bedside handover on medical and surgical wards and will develop some standard operating protocols for implementation of bedside handover. In 2008, the commission has recently commissioned an updated literature review on clinical handover, due to be completed mid-year. A second piece of commissioned work, due later in 2008, is the development of a methodology to analyse clinical incidents related to handover. There is little doubt that these various initiatives will help us to both understand and improve clinical handover in the future.

Within the state of Queensland, the PSC, launched in 2005, too has funded a number of projects to improve clinical handover (PSC, 2006). The following seven pilot projects have just been completed and their evaluations are currently being written up:

1. Improving the inter-hospital transfers with a focus on outlying to metropolitan hospitals.
2. Developing a structured process for medical officer shift-to-shift handover.
3. Developing, implementing and evaluating a multidisciplinary care plan for acute care internal medicine patients.
4. Improving ward rounds in mental health.
5. Improving the transfer of factual and risk information between treating teams in the medical and surgical wards and the 'ward call' registered medical officer.
6. Improving nursing shift-to-shift handovers.
7. Using 15-minute multidisciplinary patient planning meetings facilitated by a tracking and referral whiteboard in medical and surgical wards.

Considering these various studies and pilot projects may make you ponder their implications for ICU. So,

when we come back to our initial points about information sharing and knowledge transfer, where does this leave us? Consider that patient safety experts advocate the use of the SBAR technique for clinical reporting and handovers. While there is actually limited research on SBAR, there is no doubt that communication is a crucial element in patient safety. And, given the 'R', implicit in the SBAR technique is the fact that it is knowledge rather than simply information, which is viewed as crucial in communication. To this end, it may be that we have to pay more care and attention to how and what we communicate.

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