Improving clinical handovers: creating local solutions for a global problem

Julie K Johnson,[1] Vineet M Arora[2]

The clinical handover serves as the basis for transferring responsibility and accountability of patient care from outgoing to incoming healthcare teams across shifts, across disciplines and across care settings.[1] There has been a groundswell of interest in clinical handovers, which has taken shape in the form of research, policies, guidelines and quality improvement efforts. The buzz generated by these efforts has resulted in handovers jostling for top position as one of the hottest topics in the global patient safety arena. The World Health Organization (WHO) listed "Communication during Patient Care Handovers" as one of its High 5 patient safety initiatives.[2] Improving effective communication throughout the hospital is a lead patient safety goal put forth in the USA by The Joint Commission.[3] The Australian Commission on Quality and Safety in Health Care (ACQSC) has identified clinical handovers as a particular focus for 2009.[4] Policies and guidelines for handovers extend to physician trainees as well, as evidenced by the guidelines put forth by the Junior Doctors Committee of the British Medical Association.[5] The Institute of Medicine in the USA has also recommended that "all trainees receive formal training in handoff communications."[6] In essence, interest in the communication act during a transition of care—whether we call it a handover, hand-off or sign-out—has grown steadily over the past decade as researchers, hospital administrators, educators and policy makers have come to realise that the potential breakdown in communication during patient handover is a serious issue affecting their institutions, their clinicians and their patients.

As the research has burgeoned, there are several simple points on which most researchers agree:[1 7–9]

- Handovers are a vulnerable time in patient care.
- There is little standardisation and great variation across disciplines and healthcare organisations in the ways in which handovers are performed.
- Limits on physician duty hours lead to increased handovers.
- Handovers are rarely taught to junior doctors in a systematic way.

Three papers in this issue ***(see pages 248, 267, 261)*** support these themes but go beyond the global problems to highlight specific issues that must be addressed to improve clinical handover.[10–12] In a study of sign-outs among US internal medicine house staff, Horwitz *et al* concluded that technical and cultural changes in the handover process could improve quality of information transmission.[11] The finding that key clinical information was available only two-thirds of the time in either written or oral sign-out points to a technical need for standardising the key content and providing a template for written sign-outs. These technical improvements can most likely be accomplished with local quality improvement efforts. However, cultural changes such as involving the primary team whenever feasible, emphasising the role of sign-out in maintaining patient safety and fostering professional responsibility are also needed. Achieving these cultural changes continues to challenge many of our quality improvement efforts.

Cleland *et al*'s study of physicians at various stages of training and night nurses in the UK concluded that new doctors feel unprepared for handover, and their handovers are viewed by others as poor.[10] She suggests that certain clinical skills are required, but she adds that professional attitudes are also essential. Similarly, Philibert suggests that the handover is not merely a communication task but a clinical skill in which residents' diagnostic, clinical and decision-making abilities underpin the skills for the actual hand-off task.[12 13] Philibert also highlights the importance of trust during clinical handovers—whether the resident receivers actually perceive the content of the hand-off to be accurate and reliable. Similarly, our studies support that this trust, or rather lack of trust, drives resident behaviour after handovers. For example, a resident who does not trust information received during handover will ultimately check each detail of each patient to obtain information needed to provide the best patient care.[14]

This of course begs the question: why have a handover if the information is not used? Perhaps a more realistic framing of the issue is: what changes are needed so that the resident trusts both the content of the handover as well as the sender of information? Larger issues, such as the culture of training, supervision and formal education, will have a major role in improving trust.

Clearly, the problems experienced during clinical handover are global. Systems issues are universal and at the heart the breakdown in communication during the handover process which can lead to patient harm. Countless studies conclude that many of the current processes for conducting handovers are not effective. What are the implications of the existing research on how we think about improving handovers? The findings from the papers in this issue have implications for the path forward, yet they suggest that the field is stuck between more research and practice change. All authors call for more research. Handovers are now plagued with the age-old problem of not translating the findings of current research into improved practice.

Several thoughts guide our recommendations for future research that is tailored to integrate the research on handovers into our efforts to improve handovers. First, focus the improvement efforts on the content and the process. Improving the handover process will require an appreciation of the inherent link between explicit processes and results. Include physician trainees in the redesign of the handover process. Handovers are a critical component of the junior doctor work life. We have had success in coupling the research with resident-driven improvement projects that result in both an improved handover process and junior doctors with skills needed to make improvements in their own practices.[14] Electronic tools may be particularly useful

[1] Centre for Clinical Governance Research in Health, Faculty of Medicine, University of New South Wales, Sydney, Australia; [2] University of Chicago, Chicago, Illinois, USA

Correspondence to: Dr Julie K Johnson, Centre for Clinical Governance Research in Health, Sydney, NSW 2052, Australia; j.johnson@unsw.edu.au

for standardising the content and creating templates for the written handover. Well-designed, ergonomic solutions and consistent policies regarding the use of these resources increase the chances for successful adoption of such tools.

Second, recognise the effect of local culture as a key enabler for change and improvement. The culture of the care giving unit underpins all processes and all improvement of care. Efforts at quality improvement often have limited success because they ignore the local context. This is the problem when we try to transfer a best practice into another setting with adapting it to the local culture. Horwitz *et al* point out that it is possible to use the multiple purposes of the handover to facilitate a supportive culture. Handovers serve a number of purposes beyond the transfer of clinical information, and while these purposes are sometimes at odds, they can be harnessed to develop and maintain a culture that prioritises and enhances patient safety.[11]

Third, develop and implement a competency-based handover training programme for frontline clinical staff. For the most part, handovers are taught implicitly through "on the job training" with information carried down through generation of junior doctor. There is a need to develop formal training to teach these skills to incoming cohorts of residents. At a minimum, residents need formal didactic instruction on the importance of the handover for patient safety, research highlighting ineffective handover communication, strategies for safe and effective handover communication, and the local expectations regarding handover process and content. Developing the template for such educational efforts can be facilitated by national or global medical education bodies who have a vested interest in improving handovers while work hours of medical trainees are shortened throughout the world. To improve and monitor handover practice among medical trainees, it is important to create a safe space for residents to practise their handover skills. At the University of Chicago, we have piloted a low-cost simulation with standardised resident receivers for graduating medical students that we are actively disseminating to other institutions.[15] In addition, the training effort needs to be sustained monitoring and providing feedback about individual performance.

Fourth, incorporate new methods for improving quality of handovers. There are approaches to improving quality of care that may be particularly relevant for improving the complex handover phenomenon. For example, in this issue, Jeffcott calls for research that focuses on resilience and on understanding how frontline staff "fix" mistakes ***(see page 256)***. She outlines a process that includes characterising the gaps in the process, learning how the gaps develop, understanding the gap within a particular context, understanding the relationship between the gap and the outcomes of care, and understanding how experts successfully bridge the gaps.[16] Resiliency research could fit well with positive deviance, which is an approach that identifies innovative strategies from organisations that consistently demonstrate exceptionally high performance in the area of interest, in this case the clinical handover.[17] Another method, Soft Systems Methodology (SSM+), is an iterative staged framework that emphasises collaborative learning and systems redesign in involving both technical and cultural fixes.

There are many ways to get to an improved handover process that results in more effective communication for the transition of patient care—the standard process and the core content, the foundation of guidelines. The most difficult challenge lies in how to create the culture that supports the changes that are required and facilitates the learning. How do we draw on all available wisdom about what is needed to improve handovers, coupled with a systems approach to understanding and improving care at the front lines of care where patients and providers meet?

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