Handovers and Debussy

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When I started to study the piano at the age of eight, I would labour over my exercises and pieces, one note at a time. As I learned to read music, there was always a sense of accomplishment when the played notes seemed to reflect correctly the musical score in front of me. I don't recall anyone ever calling me a musician, certainly not my first teacher. Getting the individual notes right and in correct sequence was a long way from making music. For me it was all about the notes. Claude Debussy is said to have clarified this issue that generally eludes most novice musicians, when he said, "Music is not just about the notes. Rather it is created by the spaces between the notes."

Healthcare steadily becomes more complex—more chronically ill people who live longer, and sicker patients who require more powerful medicines and riskier procedures. Randomised controlled trials indicate the drugs and procedures that work best for many diseases. Junior doctors (resident trainees) learn these parts quickly and effectively. As important as this knowledge is, there is increasing recognition that the value of learning these components well is just part of good healthcare. Successful healthcare requires attention to effective connectivity between each and every component—the spaces between the notes.

TRAINEE COMPETENCE AND HANDOVERS

One area where the spaces are increasingly of concern is handovers or transfers between health professionals, particularly doctors in training. This has long been an essential part of care processes in teaching hospitals,¹ so why the increased attention now? Reduced duty hours for health professionals, at the same time that patients are sicker and treatments are more complex, is part of the explanation. And as duty hours become more restricted around the world, the number of handovers among health professionals who care for a particular patient inevitably

increases—more parts that have to work effectively together.

The Accreditation Council of Graduate Medical Education (ACGME), the public agency charged with accreditation of postgraduate training in the USA, has called for attention to just six general competencies for the 100 000 resident trainees in the over 7000 resident training programmes in the USA. The six ACGME general competencies are patient care, medical knowledge, professionalism, communication, practice-based learning and improvement, and systems knowledge.² Although medical educators have traditionally focused on the competencies that describe the individual parts in medical education—for example, medical knowledge or patient care—the ACGME has put equal emphasis on the competencies that characterise the interactions between the components. Communication, professionalism, and systems knowledge constitute fully half of the ACGME general competencies.

A WELL-DEFINED PROBLEM THAT CALLS OUT FOR A SOLUTION

Borowitz and colleagues (*page 6*) demonstrate again in this issue of *Quality and Safety in Health Care* the problems that develop in healthcare quality and patient safety when handovers are left to chance in teaching hospitals.³ They report that over a quarter of untoward events in their teaching hospital might have been anticipated, and perhaps better managed, with more effective sign-out information between shifts of doctors. Thanks to this report, as well as others that document similar risks associated with handovers,^{1 4-6} sufficient evidence exists that poor communication across shifts of trainee doctors is a source of unsafe care.

It is time to move to solutions. This calls for medical educators, particularly those with responsibility for junior doctors' education, to develop strategies and standards that no longer leave effective handovers to chance. The resident trainees who were the study subjects in the Borowitz report recommended a minimum of three components:

- ▶ sign-out information is up to date and timely;

- ▶ the care plan is communicated so that changes that might be required by emergent changes in the patient's condition are anchored in a clearly defined context;
- ▶ anticipated potential problems are communicated with recommendations for contingencies.³

Arora and colleagues (*page 11*) bring the reader back to the ACGME competencies in a proposal that also appears in this issue.⁷ Their recommendations describe a theoretic base for handovers that addresses both economic burden and patient safety. They emphasise communication, and they also call attention to professionalism. Such an emphasis suggests three additional opportunities for improvement in an increasingly discontinuous care environment⁷:

- ▶ bringing the patient into the process;
- ▶ professional responsibility—from a concept of "not my patient" to "every patient is my patient";
- ▶ exploitation of the broader health professions team for better handovers.

LEARNING FROM OTHER HIGH-RISK ORGANISATIONS

Fortunately, health professionals are not alone when it comes to the challenge of handovers. Patterson, in a commentary in this issue (*page 4*), offers a number of hard-won lessons from non-healthcare high-risk organisations (HROs) such as nuclear submarines, space missions and nuclear power plants.⁸ The application of human factors research to handovers in HROs provides many such lessons, including the importance of attention to complexity and context, as well as an emphasis on parsimony, flexibility and anticipation of problems.⁸ Be warned that many in healthcare may find these lessons counterintuitive. Nevertheless, given the currently well-documented contribution to insufficient healthcare quality and patient safety of inadequate handovers, educators should consider testing these lessons before discarding the rich experience from which others have learned.

When I was a young piano student, my teacher knew when to shift my learning beyond slavishly reading the correct notes to a focus on making music. In so doing, she was not ignoring the notes, but adding the richer contribution of the spaces between the notes. It is time that healthcare in general and medical education in particular, focus attention on the

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opportunities for healthcare quality and safer patient care that are provided by systematically addressing handovers in teaching settings.

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