SAGE Open Medical Case Reports
3: 2050313X15584859
© The Author(s) 2015
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/2050313X15584859
sco.sagepub.com
SAGE

# Communication failures during clinical handovers lead to a poor patient outcome: Lessons from a case report

**Elizabeth Manias[1,2,3], Fiona Geddes[4], Bernadette Watson[5], Dorothy Jones[4] and Phillip Della[4]**

**Abstract**

In the emergency department, communication failures occur in clinical handover due to the urgent, changing and unpredictable nature of care provision. We present a case report of a female patient who was assaulted, and identify how various factors interacted to produce communication failures at multiple clinical handovers, leading to a poor patient outcome. Several handovers created many communication failures at diverse time points. The bedside medical handover produced misunderstandings during verbal exchange of information between emergency department consultants and junior doctors, and there was miscommunication involving plastic registrars. There was a failure in adequately informing the general practitioner and the patient relating to follow-up care after discharge. Deficiencies of communication occurred with conveying changes in an investigative report. Communication could be improved by dividing the conduct of handover in a quiet room and at the bedside, ensuring multiple sources of information are used and encouraging role-modelling behaviours for junior clinicians.

**Keywords**

Clinical handover, emergency medicine, communication, adverse outcomes, communication failure

Date received: 30 December 2014; accepted: 8 April 2015

## Introduction

Clinical handover occurs between working shifts, between clinical settings, between different health care institutions and between various health professions.[1] The term 'clinical handover' has been defined as 'the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis' (p. 7).[2] The emergency department (ED) is at risk of communication failures due to the urgency and critical nature of patients' conditions, as well as the changing and unpredictable nature of care provision.[3] We present a case report identifying the complexities of how various factors interact to produce communication failures at multiple points of clinical handover, leading to a poor patient outcome.

## Case report

An ambulance brought in a female patient aged 25 years to the ED of a public, teaching hospital. She was assaulted in the face with a rock. Full examination was performed and she was kept in a hard-collar until a spinal injury could be ruled out with a head and cervical computerised tomography (CT) scan. Her facial wound was cleaned and left open. The CT scan was performed just before the morning medical shift handover and results had not been processed at the time of handover.

[1]School of Nursing and Midwifery, Deakin University, Burwood, VIC, Australia
[2]Melbourne School of Health Sciences, The University of Melbourne, Parkville, VIC, Australia
[3]Department of Medicine, The Royal Melbourne Hospital, Parkville, VIC, Australia
[4]School of Nursing and Midwifery, Curtin University, Bentley, WA, Australia
[5]School of Psychology, The University of Queensland, St Lucia, QLD, Australia

**Corresponding Author:**
Elizabeth Manias, School of Nursing and Midwifery, Deakin University, 221 Burwood Highway, Burwood, VIC 3125, Australia.
Email: emanias@deakin.edu.au

Creative Commons CC-BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 3.0 License (http://www.creativecommons.org/licenses/by-nc/3.0/) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access page (http://www.uk.sagepub.com/aboutus/openaccess.htm).

Handover was conducted at the bedside comprising a multidisciplinary team of clinicians. A senior medical consultant conducted the handover, and junior clinicians positioned themselves at the peripheries. The junior doctor taking over patient care from the night-time doctor could not hear the handover clearly and did not attempt to clarify information. Instead, he read the medical notes and assumed that the wound had been explored and cleaned. He also believed that the wound could be safely sutured if the CT scan was reported as normal. Unfortunately, the medical consultant stated that the wound was explored only superficially and recommended careful exploration and possible referral to the plastics team. After the junior doctor obtained a verbal report of the CT scan over the phone, he removed the hard-collar and cleared the patient of a spinal injury. He then cleaned and sutured the wound.

In preparing for discharge, the junior doctor wrote the discharge letter for the patient's general practitioner (GP), detailing the plan of care. He told the patient to see her GP in 3 days and then again in 7 days for wound review, suture removal and confirmation that the formal CT report was normal. He gave a copy of the letter to the patient, faxed a copy to the GP and placed another copy in the medical record. The letter requested that the GP seek out the formal CT report. The fax was not received by the GP and the GP did not have access to the patient's medical record. The patient forgot the advice she was given, and aside from the discharge letter, she was not provided with any additional written discharge instructions. In addition, the patient did not give her discharge letter to her GP. Nevertheless, the patient managed to see her GP on three occasions over the next 10 days.

In reviewing the wound, the GP observed that it appeared red, slightly swollen and painful to touch. There was also some tissue discolouration at the wound margins. As a result, she believed that it may have become infected and she prescribed a course of antibiotics. No wound culture was taken of the wound. The GP also removed the sutures. Unfortunately, the GP did not request the formal CT report, nor was it sent to the GP. As the GP did not receive the letter from the patient, she saw no reason to check the CT report. On the day following the patient's discharge, a consultant radiologist reviewed the CT scan. He amended the original report to indicate that he located a foreign body in one of the jaw muscles. He noted that it looked like a piece of rock, but he could not see a fracture. The amended report was sent to the senior ED consultant, but it was misplaced once the report arrived in the department.

After the senior ED consultant eventually received the amended report 2 weeks later, he spoke to the junior doctor involved with the patient's care. They attempted to clarify whether the GP knew about the results of the CT report by checking with the patient and the GP. The senior consultant rang the GP and the GP informed the consultant that she was unaware of the situation relating to the CT scan. Furthermore, after the senior consultant called the patient at home, the patient stated that she had been off work for 2 weeks, was unable to eat, had lost 6 kg since the incident and was taking opioid analgesics, which had been prescribed by her GP. In addition, the patient had chronic facial inflammation, leading to problems with salivation, facial numbness and severe pain. The amended results of the CT were discussed with the patient, and she was asked to attend the ED.

As the senior ED consultant was about to finish his shift, he informed the oncoming ED doctor about the patient, and he called the plastics registrar to organise a review. He wrote a detailed entry in the medical record, requesting an admission under plastic surgery for removal of the rock. The second ED doctor examined the patient's cheek with a bedside ultrasound machine. She easily recognised a piece of rock in the masseter muscle with a collection of fluid involving the parotid gland and facial nerves just below the well-healing scar. She wrote this observation in the patient's notes and told the triage nurse who called the plastics registrar.

An oncoming plastics registrar had just commenced his shift and was not informed about the patient at his handover meeting. The oncoming plastics registrar saw the patient 6 h after the patient's arrival. By this time, the patient was angry, in pain and wanted to go home. The plastics registrar was also unwilling to admit the patient without a formal ultrasound. The patient was sent home.

Subsequently, the patient visited her GP 1 week later, who organised the formal ultrasound to be performed. The patient underwent surgery where the rock was removed from her masseter muscle. It took several weeks before she was able to eat normally and have normal facial sensation.

## Discussion

In this particular ED, senior medical consultants delivering bedside handovers spoke quietly and directed their speech to other senior clinicians. Highly sensitive information was discussed with curtains dividing cubicles. Handovers tended to be rushed, disorganised and lengthy, and the environment was often noisy. Clinicians jostled for position while walking quickly between patients so they could hear what was being said. While senior doctors moved close to where patients were located, junior doctors gravitated around the periphery of cubicles because of feelings of discomfort and fear in speaking up and experiences of power imbalances. Junior doctors felt overwhelmed by the work environment of the ED, where staff interruptions, time pressures and routine chaos commonly occurred. They preferred to take a role of deference when attention was directed to clinical handover. The observation that junior doctors were not ideally located also added to the chaos because important information could not be accurately conveyed.[4,5] Important results were not checked during handover. Previous research has shown that while ED clinicians and patients value bedside handovers,[3] this format creates problems in terms of interruptions, noise and confidentiality concerns.[6–8]

**Table 1.** Deficits in communication and possible strategies for improvement.

| Deficits in communication | Possible strategies for improvement |
|---|---|
| End-of-shift medical handover produced misunderstandings during verbal exchange of information | Conduct part of the handover in a quiet room to minimise distractions, ensure patient privacy and encourage participation from junior clinicians. |
| | Encourage junior doctors to deliver handover in the quiet room under supervision from senior staff, who can provide feedback and role-modelling. |
| | Encourage contributions from other members of the health care team in the quiet room to ensure multidisciplinary perspectives are obtained. |
| | Conduct remaining part of handover at the patient bedside to facilitate patient engagement and confirm shared understandings of all stakeholders relating to the patient's current status and treatment plan. |
| | Senior doctors should encourage junior doctors to be empowered and actively query anything they do not understand. |
| Failure in adequately informing the general practitioner and the patient relating to follow-up care after discharge | Submit more than one format of discharge letter to the general practitioner, such as a faxed letter, a letter through a secure electronic transmission system and a posted letter. |
| | Make use of electronic communication and integrated report systems to inform the general practitioner and ensure receipt of this information has been acknowledged. |
| | Structured discharge counselling should be organised with the patient before discharge home to discuss follow-up care and to clarify concerns. |
| Failure with conveying the amended abnormal CT report to treating doctors and the patient's general practitioner | Amended CT report should be sent by internal postal mail and also by secure electronic transmission. A phone call should be directed from the radiologist to the emergency department doctor. |
| | Amended CT report should be sent as a faxed report, as a posted letter and by an electronic, integrated reporting system to the general practitioner. A phone call should be directed from the emergency department doctor to the general practitioner to ensure the amended CT report has been received. |
| Failure with conveying information between the plastic registrar who was commencing his shift and his colleague who provided handover | Recommended use of standardised tools, such as iSoBAR (identify, situation, observations, background, agreed plan and read-back), is needed to ensure relevant and important information is covered between the offcoming and incoming plastic medical registrars. |
| | Clear documentation is needed about the patient's situation in the emergency department referral notes to the plastics unit. |
| Inadequate handover also occurred between the offcoming and incoming emergency department doctors and between emergency department medical staff and plastics team | Use of standardised tools is needed to ensure relevant and important information is covered between the offcoming and incoming emergency department doctors, and with the plastics team. |
| | Clear documentation is needed about the changes in the patient's situation in the progress notes. |
| Inadequate handover also occurred between emergency department medical staff and plastics team. | Use of standardised tools is needed to ensure relevant and important information is covered between the emergency department doctors and plastics registrar. |
| | Clear documentation is needed about the changes in the patient's situation in the emergency department progress notes and referral notes to the plastics unit. |

Power issues may have affected junior doctors who struggled to assert themselves. As they were situated away from the medical consultant delivering handover, they were unable to hear properly, were reluctant to speak out and were concerned that posing questions would slow down proceedings. In a national survey of handover practices, Fassett et al.[9] found that in 96% of hospital settings, clinical handover tended to be solely conducted by senior medical staff rather than junior doctors. Clinical handover appears to be largely dominated by medical consultants. This dominance could contribute to junior doctors' lack of confidence in speaking out, lack of opportunities in playing an active role and perceptions that communication during clinical handover lies within the domain of medical consultants.

Communication problems with clinical handover also happened with medical specialists. Medical specialists focus on the management of specific aspects of patient care. As such, they may experience cognitive bias, where their processing lens is heavily influenced by distinctive patterns of training and experience.[4,5] Their decision to follow certain guidelines of care can lead to disruptions in communication, as found in this case when the plastics registrar was unwilling to admit the patient without a formal ultrasound. The tendency to rely too heavily on one piece of information or trait could lead to breakdowns in communication and possible adverse outcomes. Another potential communication problem with medical specialists is the presence of patients who are situated in diverse ward settings. As a result, medical specialists are required to move from one setting to another, which potentially can lead to fractured and disorganised handovers.

Various strategies should be considered to improve handover communication (Table 1). Owing to contextual challenges associated with EDs, it may be more feasible to

conduct the greater portion of handovers in quiet rooms. Junior doctors should be encouraged to deliver handover under supervision from senior staff, who can provide feedback and role-modelling. The handover team can subsequently proceed to the bedside where clinicians review the patient's current status and discuss treatment goals with patients and family members as a confirmatory forcing function. With increased complexity of patients' medical conditions, there is a need to involve several medical specialists. Use of standardised handover tools and a focus on ensuring careful documentation in patients' medical records can prevent communication failures.[10–12] The use of written aids can assist in improving communication during handover. This strategy goes beyond the offcoming clinician providing a verbal handover while the incoming clinician listens. Instead, the offcoming clinician documents the key elements of each patient's progress, goals and management plan. This documentation can be easily accessed and checked during the course of the following working shift.[13,14]

Emphasis should be placed on informing GPs and patients about follow-up care and in conveying updated results of investigations. Three separate modes of communication were attempted with the GP: provision of a discharge letter that was given to the patient, a faxed copy of the discharge letter and interacting with the patient. All these modes failed to ensure the GP was aware of the patient's situation and plan of care. GP liaison officers employed in hospitals or in the community can be used to relay concerns about patients with complex health care needs to GPs. Alternatively, greater use should be made of electronic, web-based means that alert GPs about hospital discharges associated with patients in their care and specific aspects of clinical management that need to be addressed.

## Conclusion

This case report raises the importance of ensuring accurate, current and relevant handovers. Clinicians who are participating in a given patient's care need to be fully aware of the patient's situation, background and assessment and the plan of care. Communication failure at any point in the communication chain can produce dire patient consequences.

### Declaration of conflicting interests

The authors have reported no conflicts of interest.

### Funding

Work undertaken for this paper has been supported by an Australian Research Council, Linkage Project Grant (LP110100035).

### References

1. Joint Commission Center for Transforming Healthcare. Improving transitions of care: hand-off communications, 2013, http://www.centerfortransforminghealthcare.org/assets/4/6/CTH_Hand-off_commun_set_final_2010.pdf (accessed 13 July 2014).
2. British Medical Association (BMA). *Safe handover: safe patients – guidance on clinical handover for clinicians and managers*. London: BMA, 2004.
3. Klim S, Kelly AM, Kerr D, et al. Developing a framework for nursing handover in the emergency department: an individualised and systematic approach. *J Clin Nurs* 2013; 22(15–16): 2233–2243.
4. Cheung DS, Kelly JJ, Beach C, et al. Improving handoffs in the emergency department. *Ann Emerg Med* 2010; 55(2): 171–180.
5. Alvarez G and Coiera E. Interdisciplinary communication: an uncharted source of medical error? *J Crit Care* 2006; 21: 236–242.
6. Currie J. Improving the efficiency of patient handover. *Emerg Nurse* 2002; 10(3): 24–27.
7. Fernando K, Adshead N, Dev S, et al. Emergency department multiprofessional handover. *Clin Teach* 2013; 10: 219–223.
8. Iedema R, Merrick E, Kerridge R, et al. Handover – enabling learning in communication for safety (HELiCS): a report on achievements at two hospital sites. *Med J Aust* 2009; 190(11): S133–S136.
9. Fassett MJ, Hannan TJ, Robertson LK, et al. A national survey of medical morning handover report in Australian hospitals. *Med J Aust* 2007; 187(3): 164–165.
10. Porteous J, Stewart-Wynne E, Connolly M, et al. iSoBAR – a concept and handover checklist: the National Clinical Handover Initiative. *Med J Aust* 2009; 190(11): S152–S156.
11. Cleland J, Ross S, Miller S, et al. 'There is a chain of Chinese whispers …': empirical data support the call to formally teach handover to prequalification doctors. *Qual Saf Health Care* 2009; 18: 267–271.
12. Cohen MD and Hilligoss PB. The published literature on handoffs in hospitals: deficiencies identified in an extensive review. *Qual Saf Health Care* 2010; 19(6): 493–497.
13. Pillow M (ed.). *Improving hand-off communication*. Oakbrook Terrace, IL: Joint Commission Resources, 2007.
14. Patterson E, Roth E, Woods D, et al. Handoff strategies in settings with high consequences for failure: lessons for health care operations. *Int J Qual Health Care* 2004; 16(2): 125–132.

University Library

MINERVA ACCESS

A gateway to Melbourne's research publications

Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:
Manias, E;Geddes, F;Watson, B;Jones, D;Della, P

Title:
Communication failures during clinical handovers lead to a poor patient outcome: Lessons from a case report

Date:
2015

Citation:
Manias, E., Geddes, F., Watson, B., Jones, D. & Della, P. (2015). Communication failures during clinical handovers lead to a poor patient outcome: Lessons from a case report. SAGE OPEN MEDICAL CASE REPORTS, 3, https://doi.org/10.1177/2050313X15584859.

Persistent Link:
http://hdl.handle.net/11343/260006

License:
CC BY-NC