Canadian Journal of Emergency Medicine (2023) 25:359–360
https://doi.org/10.1007/s43678-023-00491-5

EDITORIAL

Communicating key information in trauma: it's time to gain the advantage we need

Sean Hurley[1,2] · **Robert S. Green**[1,2,3,4]

Published online: 5 May 2023

Communication is a major challenge for all clinicians, especially in emergency medicine, where time constraints can limit our ability to obtain the necessary information to inform patient care. As emergency physicians, we are often in situations where we find ourselves thinking "I wish I had that information when the patient first arrived!". Communication is even more important in resuscitations where life saving decisions need to be made immediately. So, this begs the question: Why don't we ensure that we communicate better? Several standardized handover tools have been developed to improve the handover process, including the IMIST-AMBO tool [1]. In this month's CJEM publication, [2] the feasibility of implementation of this handover tool was assessed at the SunnyBrook Trauma Center.

Resuscitation of trauma patients is just one example where a relatively simple improvement in communication will likely result in better patient outcomes. Trauma resuscitations are high risk for patient safety errors due to ad-hoc trauma teams, high-stress and time-limited decision making, and complex dynamic physical environments. EMS handover has been identified as one source of error in trauma resuscitations, as it is prone to incomplete information and delays of care [3]. A recent Canadian study analyzed EMS handovers in trauma patients and identified a high rate of communication issues, such as parallel conversations, interruptions, and repetition of information already provided [4]. Standardized sign-over protocols have been recommended to improve information transfer between care EHS and trauma teams [5].

The IMIST-AMBO tool is one standardized approach for the paramedic-trauma team interface that has demonstrated improved handover communication and team cohesion [1] but has not been studied in the Canadian setting until this month's CJEM publication [2]. This pre-post study was conducted at the Sunnybrook Trauma Center and included video analysis of 79 trauma team activations before and 80 trauma team activations after implementation of the IMIST-AMBO tool. Adherence was 71.2% with a decrease in handover duration by an average of 49s with decreased informal handovers and patient interruptions.

Although this study has limitations (mostly due to its before/after design), it is a good example of the feasibility of implementing a handover tool with impressive adherence numbers in a complex environment and demonstrating several improved quality outcomes. This study did not assess if the use of IMIST-AMBO improved patient outcomes, and this remains to be investigated, but it is intuitive that improved communication has many benefits with little downside.

Often investigations in our trauma population are focused on new technology (i.e. REBOA) or protocols (i.e. overly complex massive hemorrhage protocols) that are high cost with low generalizability. Interestingly, the basics of high-quality trauma care are often overlooked and understudied, such as human factors, team dynamics, and communication. Simple is often better and more feasible in real world Canadian trauma care. Dedicating time and effort on the optimization of a structured paramedic handover of major trauma patients is well worth our attention.

Funding None.

✉ Robert S. Green
greenrs@dal.ca

[1] Department of Emergency Medicine, Dalhousie University, Room 1-026B Centennial Building, 1276 South Park Street, Halifax, NS B3H 4R2, Canada

[2] Trauma Nova Scotia, Nova Scotia Health Authority, Halifax, NS B3H 2Y9, Canada

[3] Department of Critical Care, Dalhousie University, Halifax, NS B3H 4R2, Canada

[4] Department of Surgery, Dalhousie University, Halifax, NS, B3H 2Y9, Canada

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

References

1. Iedema R, Ball C, Daly B, Young J, Green T, Middleton PM, et al. Design and trial of a new ambulance-to-emergency department handover protocol: 'IMIST-AMBO.' BMJ Qual & Safety. 2012;21(8):627. https://doi.org/10.1136/bmjqs-2011-000766.
2. Elliott CG, Notario L, Wong B, Javidan AP, Pannell D, Nathens AB, Tien H, Johnston M, Thomas-Boaz W, Freedman C, da Luz L. Implementing the IMIST-AMBO tool for paramedic to trauma team handovers: a video review analysis. Can J Emerg Med. 2023. https://doi.org/10.1007/s43678-023-00503-4.
3. Nikouline A, Quirion A, Jung JJ, Nolan B. Errors in adult trauma resuscitation: a systematic review. CJEM. 2021;23(4):537–46. https://doi.org/10.1007/s43678-021-00118-7. (**Epub 2021 Apr 29 PMID: 33914280**).
4. Javidan AP, Nathens AB, Tien H, da Luz LT. Clinical handover from emergency medical services to the trauma team: a gap analysis. Can J Emerg Med. 2019. https://doi.org/10.1017/cem.2019.438.
5. Hicks C, Petrosoniak A. The human factor: optimizing trauma team performance in dynamic clinical environments. Emerg Med Clin North Am. 2018;36(1):1–17. https://doi.org/10.1016/j.emc.2017.08.003. (**PMID: 29132571**).