



Offload ambulance delays: a small piece of a bigger puzzle

Francois Gravel¹ · Valérie Bélanger² · Sophie Gosselin³

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In this issue of CJEM, Blanchard et al. [1] report their finding on the relationship between offload ambulance delays (OAD) and paramedics response time. This study exposes a daily occurrence in many emergency departments throughout Canada that is increasingly studied worldwide. News and social media regularly expose tragedies due to delayed ambulance response time and long wait times in emergency departments. Longer response times put lives at risk due to compromised availability of ambulance services.

The perspective of growth in the demand for prehospital interventions, the hospital turnaround time or ambulance offload delay, and the availability of ambulance resources to respond to emergency calls in the community is a significant challenge. The increased requests to 911 are also complex; demographic changes with a majority of ambulances transporting elderly patients, difficult access to primary care, understaffed aged care homes unable to cope with a patient with an acute increase in needs, but also perhaps the evaluation of the healthcare delivery model with an increasing number of sick people receiving active treatment outside hospitals.

Blanchard and colleagues discuss the association between hospital offload and ambulance response times. They highlight the need for a response time standard definition. However, while standard definition is required, offload delay targets are also needed to drive system improvements. Canada is not the only country with such a challenge. Australia and the UK also struggle with meeting their target times.

In 2021, 38% of Queensland ambulances waited more than 30 min to hand patients over to emergency department staff and 33.3% of Victorian ambulances were “ramped” for more than 40 min, meaning ambulances are “in the ramp” outside the ED unable to offload their patients. The NHS established targets of offloading ambulances of 15 min between ambulance arrival and patient care transfer to the emergency staff. However, university hospitals in the Leeds district report a 95.1% compliance of 30 min or less [2, 3]. This performance is the result of strong commitment and ongoing working relationships to uphold targets and solve large flow issues between the prehospital and hospital systems.

Despite the complex interaction with other variables, approaches to reduce offload delay with the goal of improving response time and outcome for patients are needed. For interventions to be effective and true to real-world situations, the measurement of OAD needs to be improved. To date, no method exists to measure the ambulance offload time accurately and reliably. Most researchers use the ambulance turnaround time as a proxy measure of OAD. Further studies are required to standardize the definition and the measurement of the ambulance offload process. Interventions to decrease AOD should be based on a solid understanding of the main components of this process as outlined by Cone and al. [4]. Offload delay is the sum of many variables (arrival to hospital, out of ambulance, entering ED, completing triage, offloading patient in ED, leaving ED, leaving hospital, completing documentation of transport, vehicle housekeeping) that in order to be improved, must be consistently measured.

Reducing offload delay often focuses on increasing capacity in the ED (e.g., offload zones), or reducing demand for a specific hospital (e.g., ambulance diversion). These solutions have shown mitigated effects [5]. In fact, the entire health care system is challenged with fewer resources and is under critical strain. Why would emergency departments constantly have to absorb alone the pressure of the other care areas? They cannot and should not.

Regardless of how much effort can be devoted to build standards for ambulance offload times to promptly return

✉ Sophie Gosselin
sgosselinmd@gmail.com

¹ Direction du Soutien à Domicile, Centre Intégré de Santé et de Service Sociaux de la Montérégie-Centre, Greenfield Park, QC, Canada

² Department of Logistics and Operations Management, HEC Montréal, Montreal, QC, Canada

³ Emergency Department, Centre Intégré de Santé et de Service Sociaux de la Montérégie-Centre, Greenfield Park, QC, Canada

ambulances on the road, we should also consider whether all these ambulance transports were actually necessary. Clinicians routinely encounter in their practice patients calling ambulances for minor injuries. Some patients transported by ambulance are triaged to the waiting room and some end up leaving without being seen. Are the highly specialized resources of a team of paramedics in an expensive vehicle the best response to these calls? Do all patients dialing 911 for a health query require to be sent to emergency departments in such a vehicle? What happens to patients transported by ambulance to the ED needs to be analyzed to propose different care pathways.

An interesting avenue to spare the pressure on ED and ambulances could be to redirect patients to alternative care. This is sometimes legally constrained by the rules and laws regulating 911 calls and ambulance transport of each jurisdiction. New approaches are nevertheless necessary to avoid the transport of patients who do not need the emergency department resources but do require some form of medical care. Studies report on the beneficial impact community paramedicine approaches especially to elderly [6] as well as the safety of secondary triage of low acuity patients calling EMS service, a management strategy to cope with the increase in ambulance demand, to divert patients away from ambulance transport to ED [7].

We need to expand our knowledge and understanding of such approaches to develop tools to quantify the potential of each strategy to affect our outcome of interest be it the ideal ambulance response time to urgent calls, the ambulance offload delay, the number of ED visits, and length of stay, but most of all whether patients had their health needs met in an acceptable time frame. For this, we need to cross reference databases, share data, ideally in real time.

The offload ambulance delay is one step in a process that questions how the domino effect of hospital congestion

and resultant emergency department overcrowding impact prehospital care. The current context of scarcity of ambulances and also overall health care resources must trigger an exhaustive analysis of allocation of resources relevance to allow the resources we have to do what they are best suited for. In essence, this means the promotion of integrative efficiency across prehospital and hospital systems.

Declarations

Conflict of interest The authors have no conflict of interest to disclose.

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