CORRESPONDENCE

From intensive care unit to operating room: what about the transition of care of liver transplanted patients?

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To the Editor,

Handover refers to the process where a patient, clinical relevant information, equipment, and professional responsibility and accountability are transferred from one person or care team to another.¹ It is recognized by The Royal College of Physicians and Surgeons of Ontario, the Institute for Healthcare Improvement, Accreditation Canada, The Joint Commission International, the Anesthesia Patient Safety Foundation, and the Agency for Healthcare Research and Quality as an integral process of high performing teams.

Safe handover is a complex process that focuses on providing patient information that will increase efficiency and safety of the medical care of a patient whose management is being transferred from one clinical team to another. It entails several structured processes, including continuous feedback, check back, close-loop communication, and cross monitoring.² These processes are not regularly taught during medical education, but should be included in the learning process as a shared mental model when transition of care is being instructed, especially when a sustainable change is aimed at within an institution.²

Literature has focused mainly on the handover process from the OR to the ICU, but there is a paucity of information about the process coming from the ICU to the

OR, especially regarding liver transplant recipients. These patients are very vulnerable during transitions of care, as the majority remain intubated, hemodynamically tenuous, and urgent or emergency cases are booked off hours.

Recent published data suggest that a handwritten or electronic handover template can be used as an additional tool for avoiding relevant omissions for patient care; however, written handover notes should not replace a face-to-face hand off, which is an important milestone for multidisciplinary handover of care.³ The Table shows a liver transplant ICU-OR handover form that was adapted to our local institution to provide the best information in these scenarios. As a quality of care improvement process, the monitoring and enhancement of this tool will be evaluated.

The development of this tool is a continuum of the Quality and Improvement research project on handover in liver transplant recipients from the OR to the ICU carried out in our hospital. For that purpose, a written handover format was developed as a complement to the verbal sign out provided to the ICU team. The ICU staff has expressed its satisfaction and has made great use of our tool. Thus, the idea to have a formal way of documenting the transfer of care from the ICU to the OR was brought to our attention.

The tool described below was developed by two anesthesiologists based on their expertise in liver transplantation and handovers. Input from all members of the transplant anesthesia team was taken into consideration. We plan to evaluate the form using the Translating Evidence Into Practice Model that comprises the four components: summarize the evidence, identify local barriers to implementation, measure performance, and ensure all patients receive intervention according to the cycle: engage, educate, execute, evaluate, endure, and extend the intervention.⁴

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Table Liver transplant ICU to OR handover form (emergency cases)

<u>Demographic data</u>			
Date: ____/____/____ (DD/MM/YY) Time: ____:____ (HH:MM)			
Diagnosis: _____			
Age: ____ (yr) Height: ____ (cm) Weight: ____ (kg) Allergies: _____			
<u>Ventilator settings</u>			
Ventilation mode: ____ Tidal volume: ____ Resp. rate: ____ PEEP: ____			
F _i O ₂ : ____ ETT size: ____ Distance at teeth: ____			
<u>Intravenous access</u>			
Site:	Size:	Arterial line:	
_____	_____	Site:	Size:
_____	_____	_____	_____
Any issues with any IV port? Yes __ No __			
<u>ICU transfusion—last six hours (units)</u>			
PRBC: ____ FFP: ____ Platelets: ____ Cryoprecipitate: ____			
Factor VII considered or given: _____			
Any blood products coming from blood bank to OR? Yes __ No __			
<u>Medications required in the next six hours</u>			
Name:	Dose:	Time of administration:	
_____	_____	_____	
_____	_____	_____	
<u>Concerns in ICU</u>			
Anuric: ____	Oliguric: ____	on PRISMA: ____	
Infection concern: ____	Other: _____		

ETT = endotracheal tube; F_iO₂ = fraction of inspired oxygen; FFP = fresh frozen plasma; ICU = intensive care unit; IV = intravenous; OR = operating room; PEEP = positive end-expiratory pressure; PRBC = packed red blood cells

To the best of our knowledge, this is the first published description of a tool to facilitate perioperative transfer from the ICU to the OR. More research and shared experiences from multidisciplinary teams in which the anesthesiologist is the active receiver during handover is required. Efficient and effective transfer of information is critical for appropriate preparedness, team coordination, and patient safety especially for those procedures that are complex, urgent, or emergent.

Handovers are daily practice in the preoperative setting and this process will continue to improve as it fosters a culture change in safe practices.

Conflicts of interest None declared.

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