



## 52<sup>nd</sup> International Conference on Nursing & Primary Healthcare

### Intershift Report in PICU: Is Telemedicine Making it Better?

**Mahmoud Nadar**

University of Quebec in Outaouais, Canada

An effective communication between nurses is irreplaceable in teamwork, without which the patient safety and care quality are affected. Miscommunications during interfacility handoffs remain a leading cause of serious errors and sentinel events in hospitals. It may lead to incomplete clinical assessment and lack of necessary resources required upon admission, especially in pediatric population where patients are transferred at higher rates than adults. Although some literature supports the value of resident telemedicine handoff both in improving patient safety and quality of care, studies of nursing handoffs have been limited. In their paper, Lieng et al. compare nurse preparedness and quality of patient handoff during interfacility transfers from a pretransfer emergency department to a PICU when conducted over telemedicine versus telephone. Telemedicine was incorporated to increase the nurses' preparedness and the handoffs' quality in comparison to handoffs using telephone. Although the rating difference is not highly considerable, nurses perceived they were more prepared after conducting telemedicine handoffs than they did through telephone. As for the handoffs' quality, handoffs conducted through telemedicine tended to have higher handoff quality scores. Significantly, nurses were more likely to communicate with the patient's family and the transport team during the handoff. Published studies evaluated other handoff types for improving nurses' preparedness and handoff quality. The implementation of the I-PASS nursing handoff bundle was associated with widespread improvements in verbal handoff communication. On the contrary, a study conducted in the PICU concluded that the implementation of an electronic handoff tool did not have a positive impact on handoffs within patient care teams. Despite the positive impact of telemedicine on handoffs reported in the current investigation, we are still far from conclusively asserting that the telemedicine is efficient in nursing handoffs during the interfacility transfers.

### Publications

1. Nadar Mahmoud, Tambyln Robyn, Marquez Santiago, Bustillo Melinda, Habib Betti, Daniala L Weir, Fiona Chan, Rola El Halabieh, Jeanne Vachon, Manish Thakur. Thai Tran Melissa Bustillo Caroline Beauchamp André Bonnici David L Buckeridge. (2021). Smart About Medications (SAM): A Digital Solution to Enhance Medication Management Following Hospital Discharge. The American Medical Informatics Association.

<http://dx.doi.org/https://pubmed.ncbi.nlm.nih.gov/34159299/>

2. Eric Nguemeleu Tchouaket, Idrissa Beogo, Drissa Sia, Kelley Kilpatrick, Catherine Séguin, Aurelie Baillot, Mahmoud Nadar, Natasha Parisien, Sandra Boivin. (2020). Protocol for a systematic review of economic analyses of nosocomial infection prevention and control interventions in OECD hospitals. *BMJ Open*. 10

<http://dx.doi.org/http://dx.doi.org/10.1136/bmjopen-2020-037765>

3. Mahmoud nadar, Philippe Juvet. (2019). Nursing Handoffs in PICU: Is telemedicine making it better? *Pediatric Critical Care Medicine*. 4(10): 155-156.

<http://dx.doi.org/10.1097/PCC.0000000000002020>.

4. Nadar, M. Juvet, P. Tucci, M. Toledano, B. Sicotte, C. (2019). The Impact of a Synchronous Telemedicine Platform Between Off-site Pediatric Intensivists And On-site Fellows in a Pediatric Intensive Care Unit: A Feasibility Study. *International Journal of Medical Informatics*. 6(17): 33-41.

<http://dx.doi.org/10.1097/PCC.0000000000001733>

5. Nadar, M. Fortin, A.J. Malas, K. Dimova, M. Cyr, M. Sicotte, C. (2019). Pediatric Telecare Follow-up Home Visits in Speech-Language Pathology: A Pilot Study. *International Journal of Information Research and Review*. 5(9)

### Biography

My expertise lie in the area of using new developments in telemedicine technologies to provide whole-person care. I'm interested in investigating the use of different information and communication technologies to bridge geographic distance and improve healthcare delivery for the elderly, for people living at home with chronic and life-threatening illness, and for persons having undergone surgery. I examine the feasibility of integrating a tele-health program in the current healthcare system. This includes the development of a combination of interventions targeted at the patient, the family, healthcare providers, and the healthcare organization. The goal of the program is to provide access to quality care, and to improve patients' and families' quality of life. An important part of this program of research is exploring how an interpersonal relationship can be developed using a video-conferencing approach.

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Mahmoud.nadar@uqo.ca