A Novel Emergency Operating Room Scheduling Software Promotes Efficiency and Cost-Effectiveness

Description

A Novel Emergency Operating Room Scheduling Software Promotes Efficiency and Cost-Effectiveness

James Lee^a* BEng, MD, CM, MSc, FRCSC | Ahmed Aoude^a BEng, MEng, MD, CM, FRCSC | Becher Alhalabi^a MD, MHPE, PhD, FRCSC | Ayden Watt^b BSc | Lucie Lessard^a MD, FRCSC, FRCSC, FACS

ABSTRACT

Background: Operating room efficiency is invaluable for all medical systems across the globe. Particularly important for public systems, such as the one in Canada, the efficient management of operating room scheduling is crucial to managing large patient loads with limited resources. Methods: A new online scheduling software ORNET.CA was created and installed in a level one trauma centre. All staff were then trained for its use. The pilot for the software was launched in October 2015. Results: ORnet can improve OR efficiency by up to 10% by improving communication. For a single hospital center in Quebec, this represents an average annual cost saving of \$267,325.99. Discussion: We present the results of launching a new real-time OR scheduling software at a Level 1 Trauma Center to improve communication between nurses and physicians during emergency surgeries in the OR on weeknights and weekends. Improved efficiency through real-time OR scheduling carries real benefits in improving access to quality patient care. Conclusion: We demonstrate that ORnet improves communication between hospital staff and physicians, reduces workflow interruption, and improves the quality of the working environment. These benefits have significant implications for the delivery of timely care in emergent cases for public health systems.

AUTHOR AFFILIATIONS: ^a Department of Surgery, McGill University Health Centre, Montreal; ^b Department of Experimental Surgery, McGill University, Montreal.

SUBMISSION DATE: July 1, 2021 | PUBLICATION DATE: August 3, 2021

DISCLOSURES: No funds were received in support of this study. The authors report no conflicts of interest.

ACKNOWLEDGEMENTS: The authors acknowledge Amir Al-Shourbaji who was involved in the programming and implementation of the ORnet software, and parts of data acquisition for the webbased survey sent to residents, physicians and nurses.

CITATION: James Lee et al (2021). A Novel Emergency Operating Room Scheduling Software Promotes Efficiency and Cost-Effectiveness. Canadian Health Policy, August 2021. ISSN 2562-9492 www.canadianhealthpolicy.com