

Preparing for Downtime in the Operating Room

DESCRIPTION OF TEAM

To pilot a performance improvement process addressing access and efficiency procedures for documentation during disruption with online access to the electronic health record (EHR) in the Operating Room (OR)

PREPARATION AND PLANNING

- The focus of this project is during surgery or the intraoperative phase
- Surgical Services is operational 24/7, with 15 OR Theater

ASSESSMENT

- No standardized workflow or education on downtime procedures in the OR prior to project implementation
- Hospital policy for downtime procedures did not apply to the OR.
- The paper forms for documentation were outdated and difficult to read.
- The computer assigned specifically for use during downtime was stationed at the front desk but staff were unaware of its purpose

IMPLEMENTATION

- Updated the intraoperative forms
- Replaced outdated forms with current screenshots of the EHR as an interim solution followed by an approved revision.
- The following were created/generated and placed in the new resource binder:
 - Downtime documentation checklist
 - Instructions on how to use the revised paper intraoperative form
 - List of other pertinent paper forms
 - Guide for specimen ordering and handling
 - Instructions for using the downtime computer and login credentials
- The new downtime resource binder was placed by the downtime computer to ensure all downtime resources are available in one place.
- Education was provided on the new downtime workflow.

OUTCOME

- Evaluation of staff satisfaction with the forms and the procedure for use was measured before and after the teaching was provided using a questionnaire (n= 20).
- Staff satisfaction with the downtime forms improved from 6% (n=1) prior to the update to 63% (n=10) after the update
- Staff satisfaction with downtime forms being able to comply with the required documentation improved from 6% (n=1) prior to 69% (n=11) after
- Staff satisfaction with the accessibility of the downtime forms improved from 6%(n=1) prior to the update to 63% (n=10) after the update.

IMPLICATIONS FOR PERIOPERATIVE NURSING

Enhancing the downtime process reduces the risk of delay in nursing care delivery by making the process clear and tools easy to use. Staff satisfaction with accessibility and usability of the downtime forms and resources contribute to a smoother workflow and reduces the risk of documentation gaps and errors, and losing pertinent information during handoff.



REFERENCES

- Cano, R., Bejarano, B., Vidal, M., Luna, D., & Benítez, S. (2017). Lack of Training for a Downtime Procedure: End User's Perceptions of an Electronic Health Record Contingency Plan. In *MEDINFO 2017: Precision Healthcare through Informatics* (pp. 689-692). doi:10.3233/978-1-61499-830-3-689
- Chen, J., Wang, Y., & Magrabi, F. (2017). Downtime in Digital Hospitals: An Analysis of Patterns and Causes Over 33 Months. *Studies in Health Technology & Informatics*, 239, 14-20. doi:10.3233/978-1-61499-783-2-14
- Eckhard, M., & Martin, D. (2012). Roles of the Perioperative Nurse and Informaticist and Implications for Practice, Education, and Administration. *Perioperative Nursing Clinics*, 7(2), 171-175. doi:10.1016/j.cpen.2012.02.003
- Harrison, A., Siwani, R., Pickering, B., & Herasevich, V. (2019). Clinical impact of intraoperative electronic health record downtime on surgical patients. *Journal of the American Medical Informatics Association*, 26(10), 928-933. doi:10.1093/jamia/ocz029
- Joint Commission International. (2017, December). *Planned and Unplanned Downtime - Part 1 - Communication*. Retrieved from <https://www.jointcommissioninternational.org/planned-and-unplanned-downtime-part-1-communication/>
- Joint Commission International. (2018, January). *Planned and Unplanned Downtime – Part 2 – Data Recovery Tactics*. Retrieved from <https://www.jointcommissioninternational.org/planned-and-unplanned-downtime-part-2-data-recovery-tactics/>
- Larsen, E., Fong, A., Wernz, C., & Ratwani, R. (2018). Implications of electronic health record downtime: an analysis of patient safety event reports. *Journal of the American Medical Informatics Association*, 25(2), 187-191. doi:10.1093/jamia/ocx057
- Larsen, E., Hoffman, D., Rivera, C., Kleiner, B., C, W., & Ratwani, R. (2019). Continuing Patient Care during Electronic Health Record Downtime. *Applied Clinical Informatics*, 10(3), 495-504. doi:10.1055/s-0039-1692678
- Parker, J., & Abbott, P. (2000). The New Millennium Brings Nursing Informatics into the OR. *AORN Journal*, 72(6), 1011-1017
- Walsh, J., Borycki, E., & Kushniruk, A. (2019). Strategies in Electronic Medical Record Downtime Planning: A Scoping Study. *Studies in Health Technology & Informatics*, 257, 449-454. doi:10.3233/978-1-61499-951-5-449