Classify that Wound!

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Problem Statement

- Eisenhower Health a non-profit, 300+ bed hospital located in Southern California is experiencing challenges with RN circulators inaccurately documenting patient's wound classes according to AORN guidelines.
- Cases are being rejected from upload to the NHSN database due to a wound classification that is not possible (e.g. colorectal cases being documented as "clean").
- Inaccurate wound classification has negatively impacted the organization's standardized infection ratio (SIR).
- RNs have expressed that the process for classifying wounds is confusing and they do not always know what the correct option is.

Description of the team

A multidisciplinary team was formed and consisted of the following:

- Perioperative RN educators
- Clinical Informaticists
- Perioperative leadership
- System Analysts
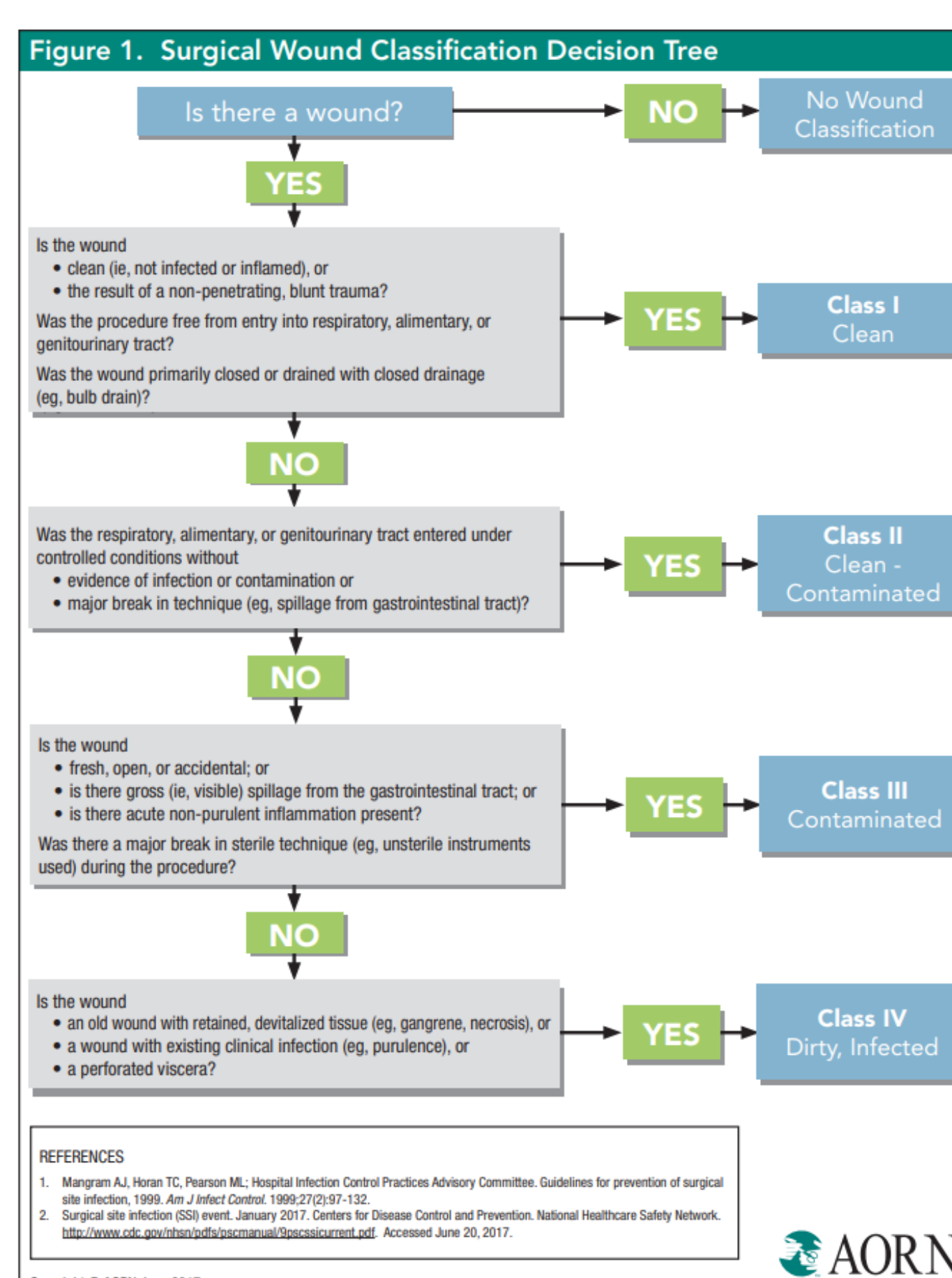- Infection Preventionist/Quality improvement

Preparation

- Obtain copyright approval from AORN to utilize the Surgical Wound Classification Decision Tree in the hospital's electronic health record (EHR).
- RN informaticists worked with system analysts to create an electronic version of the AORN Surgical Wound Classification Decision Tree.
- Support was obtained from perioperative leadership and the quality improvement team to implement the proposed change.
- RN educators provided staff education and demonstrations for utilizing the new tool.
- An audit tool was developed to utilize during chart reviews to assess the accuracy of the RNs wound classification documentation.
- An eight question survey was developed utilizing a 5-point Likert scale to assess RN's satisfaction with the new tool.

Implementation/Method

- On January 11, 2023 the AORN Surgical Wound Classification Decision Tree was placed into the hospital's Intra-operative EHR. Due to technical build challenges the intervention was implemented a month later than anticipated (original implementation date was December 2022).
- The electronic version of the AORN Surgical Wound Classification Decision Tree provided a step-by-step tool for the RN to document the wound class for each case. The electronic version is exactly the same as the paper version except that it takes the RN 1 question at a time.
- A hard-stop was created in the EHR that prevents the RN from closing their chart until the decision tree is utilized and a wound class is documented.
- A report was generated and Excel was utilized to randomly select 100 cases pre and post-implementation to audit for wound classification documentation accuracy.
- The operative report and RN wound classification documentation for each case audited was reviewed for accuracy. Incorrectly classified wounds were deemed either under classified or overclassified. This information was documented on the audit tool.
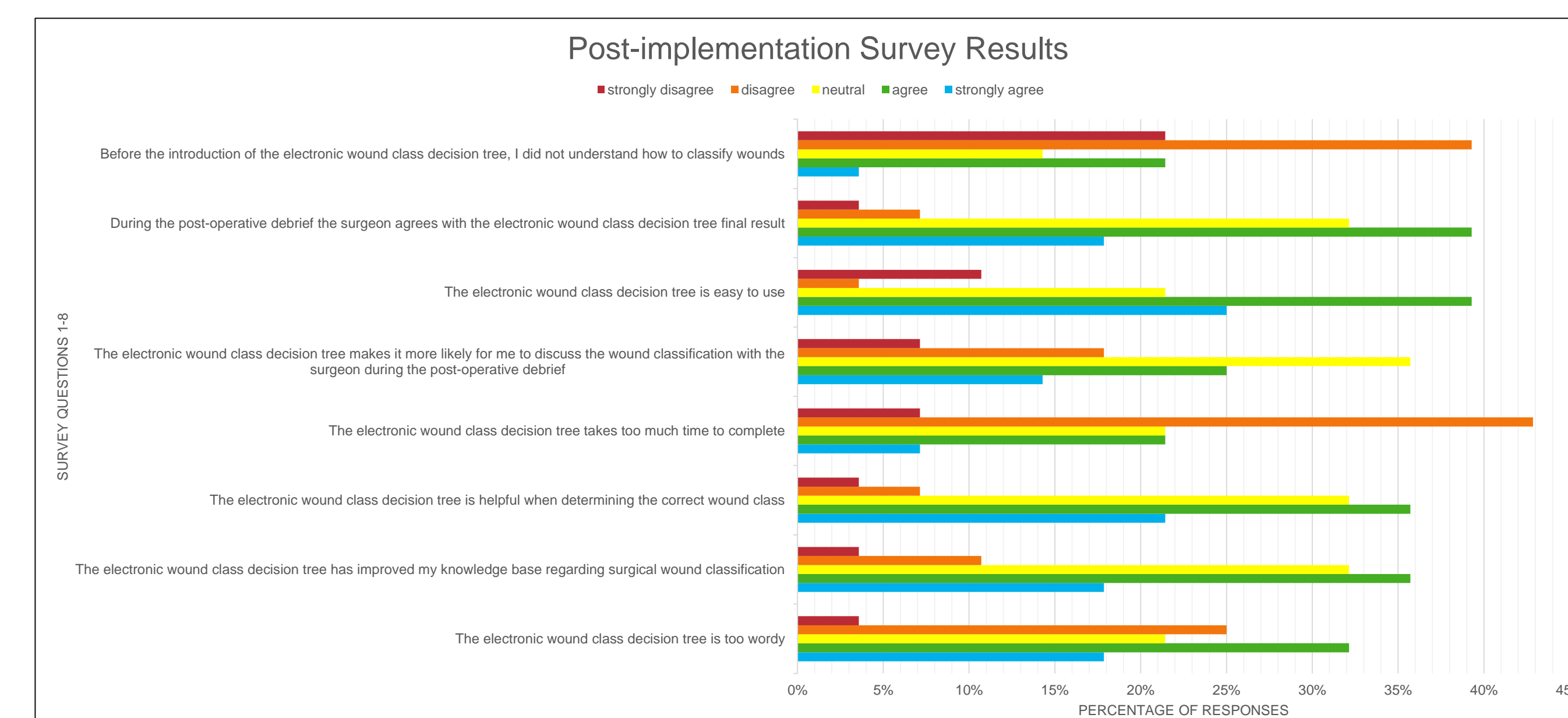- Additionally, a survey was conducted to assess the RNs satisfaction with utilizing the implemented intervention.

Tools

Figure 1. Surgical Wound Classification Decision Tree

QR Code for post-implementation survey

Outcome

- 100 cases were randomly selected for audit 30 days before and after the implementation of the electronic version of the AORN Surgical Wound Classification Decision Tree.
- Pre-implementation there were 17 cases that were incorrectly classified. Of these incorrectly classified cases 13 were under classified and 4 were overclassified.
- Post-implementation there were 17 cases that were incorrectly classified. Of these incorrectly classified cases 13 were under classified and 4 were overclassified.
- There was no change in the accuracy of wound classification between the pre and post-implementation data.

Implications for Perioperative Nursing

- RN circulators are relied on to accurately classify wounds intra-operatively. This process can be confusing and challenging for some.
- Hospital infection preventionist also rely on wound classification accuracy since misrepresentation of wound classes can negatively affect a hospital's surgical site infection rate.
- Placing the AORN Surgical Wound Classification Decision Tree into a hospital's EHR did not have an impact on the accuracy of wound classification. However, RNs did respond to a survey stating that the tool can be helpful with determining the wound class and that it may make them more likely to discuss the wound classification with the surgeon during the post-operative debrief.

References

- AORN. *Surgical Wound Classification Tree*. AORN, 2017, https://aornguidelines.org/tool/content?gbosid=532804. Accessed 1 Feb. 2023.