



Reducing Surgical Infections: Evidence-Based Care in Colorectal Surgery



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BACKGROUND

- Surgical Site Infection (SSI) prevention bundles have been shown to reduce morbidity, mortality, and healthcare costs in colorectal surgeries (1,3,4).
- Colon SSIs are tracked by the CDC via the National Healthcare Safety Network (NHSN) due to their high mortality risk and cost (1,5).
- CMS reduces payments to hospitals with higher-than-average colon SSI rates nationally (1).

PURPOSE

This interdisciplinary initiative aimed to:

1. Reduce SSIs in patients undergoing colorectal procedures
2. Standardize evidence-based intraoperative care practices
3. Reduce practice variation across the surgical team to promote consistent, high-quality outcomes

Participants included surgeons, infection preventionists, OR nurses, pharmacists, informaticists, ERAS leaders, and quality analytics specialists.

METHODS

Model for change: The Iowa model for evidence-based practice

Step 1



Literature review & synthesis

Step 2



Developed evidence-based SSI Prevention bundle.

Step 3



- Educated OR clinical staff & surgeons on EBP bundle
- Hardwired bundle into EHR

Step 4



- Constructed dashboard to reflect EBP bundle
- Validated dashboard tracking metrics

PRACTICE CHANGE

Circulator Flowsheet Enhancements

Surgical Site Infection Protocols:

Surgical Site Infection Protocol - Colon

Is this a colon/bowel procedure? Yes No

Fascial Wound Protector Yes No

Gown and Glove change before fascial closure Yes No

Dedicated clean wound closure tray Yes No

Antibiotic-coated sutures for skin closure Yes No

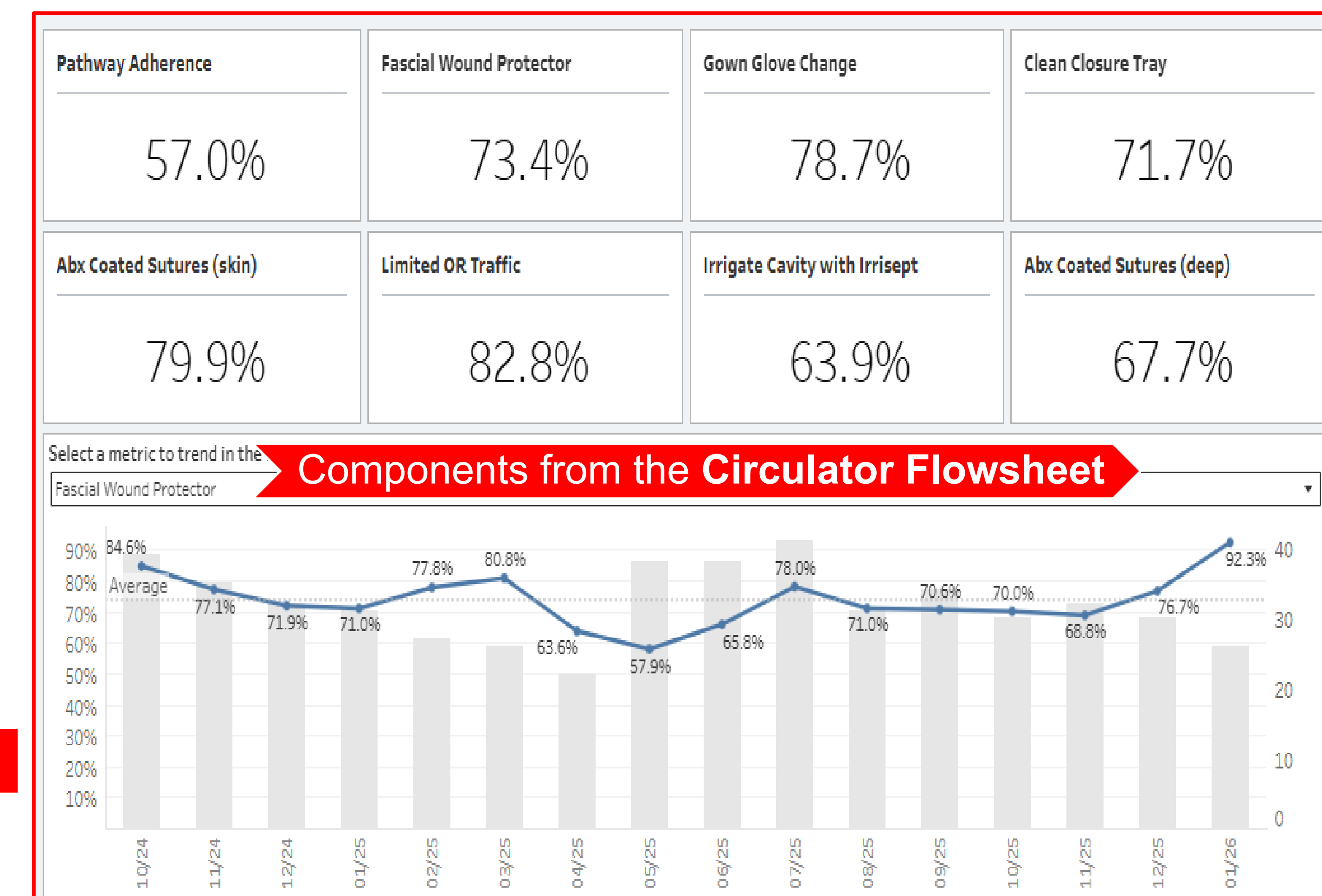
Limited OR traffic Yes No

Irrigate Cavity with IriSept (if open case) Yes No

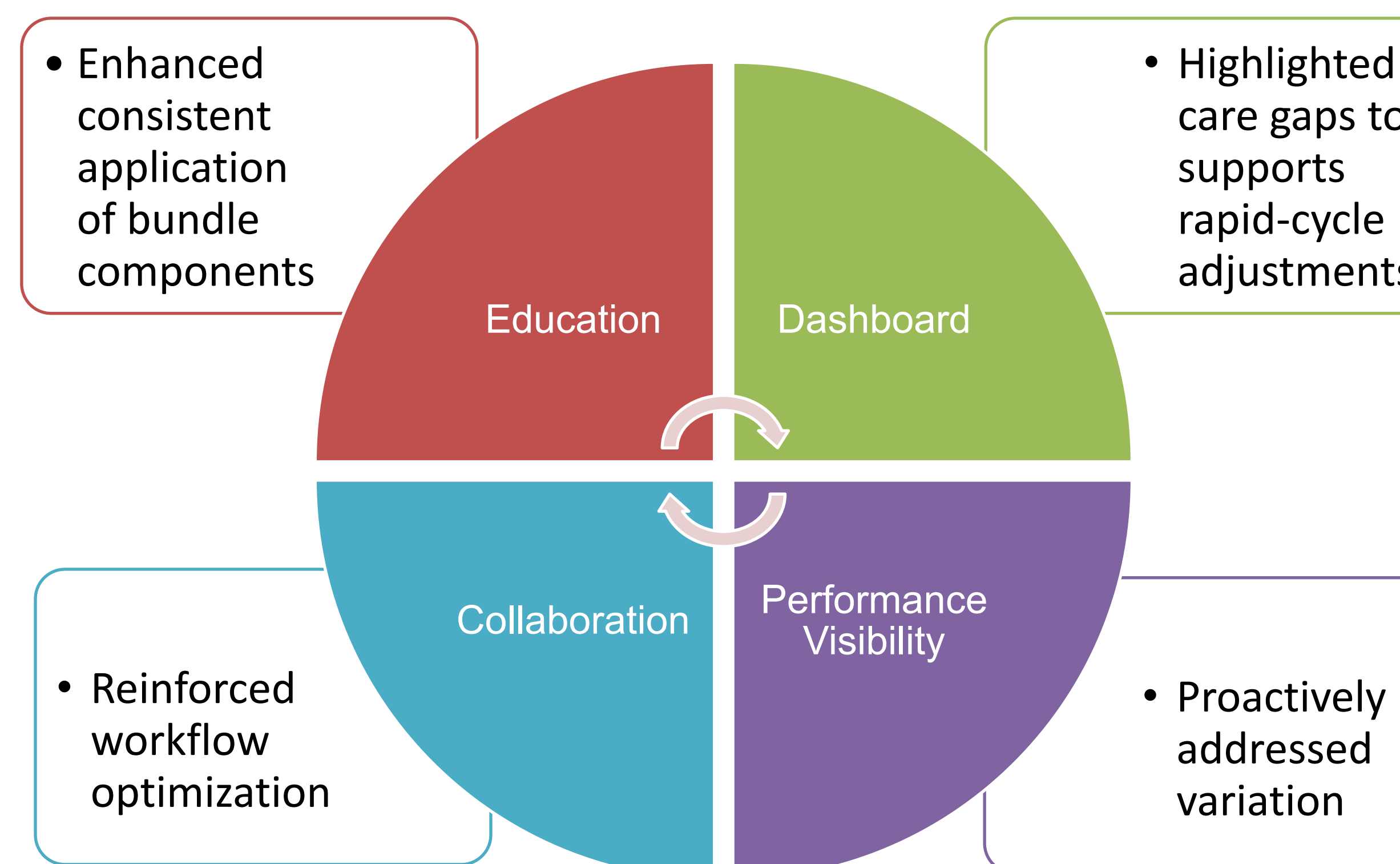
Antibiotic-coated sutures for deep closure (if open case) Yes No

OUTCOMES

- Continuous tracking of adherence to bundle elements.
- Identification of deviations from standard protocols.
- QI strengthened and outcome visibility.



IMPLICATIONS FOR PRACTICE



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