

# Eliminating Total Abdominal Hysterectomy Surgical Site Infections with Bundled Care

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## Background

- Surgical site infections (SSI) are the most common and most costly healthcare acquired infections and create a significant risk of patient morbidity and mortality.<sup>1</sup>
- A small community hospital's superficial surgical site infection (SSI) rates were determined retrospectively for total abdominal hysterectomy cases between January 1, 2017 and December 31, 2017.
- Of the 12 total abdominal hysterectomies performed, 4 patients developed a superficial SSI.
- Each of these 4 patients required additional emergency room and wound clinic visits. One patient additionally required a surgical debridement of her wound.
- Surgical services staff collaborated with an infection control team to implement an evidence-based action plan to reach a goal of zero SSI's.
- A perioperative decontamination protocol bundled with the application of antimicrobial foam dressings was initiated.
- The initiative was titled "Nose to Toes Protocol."

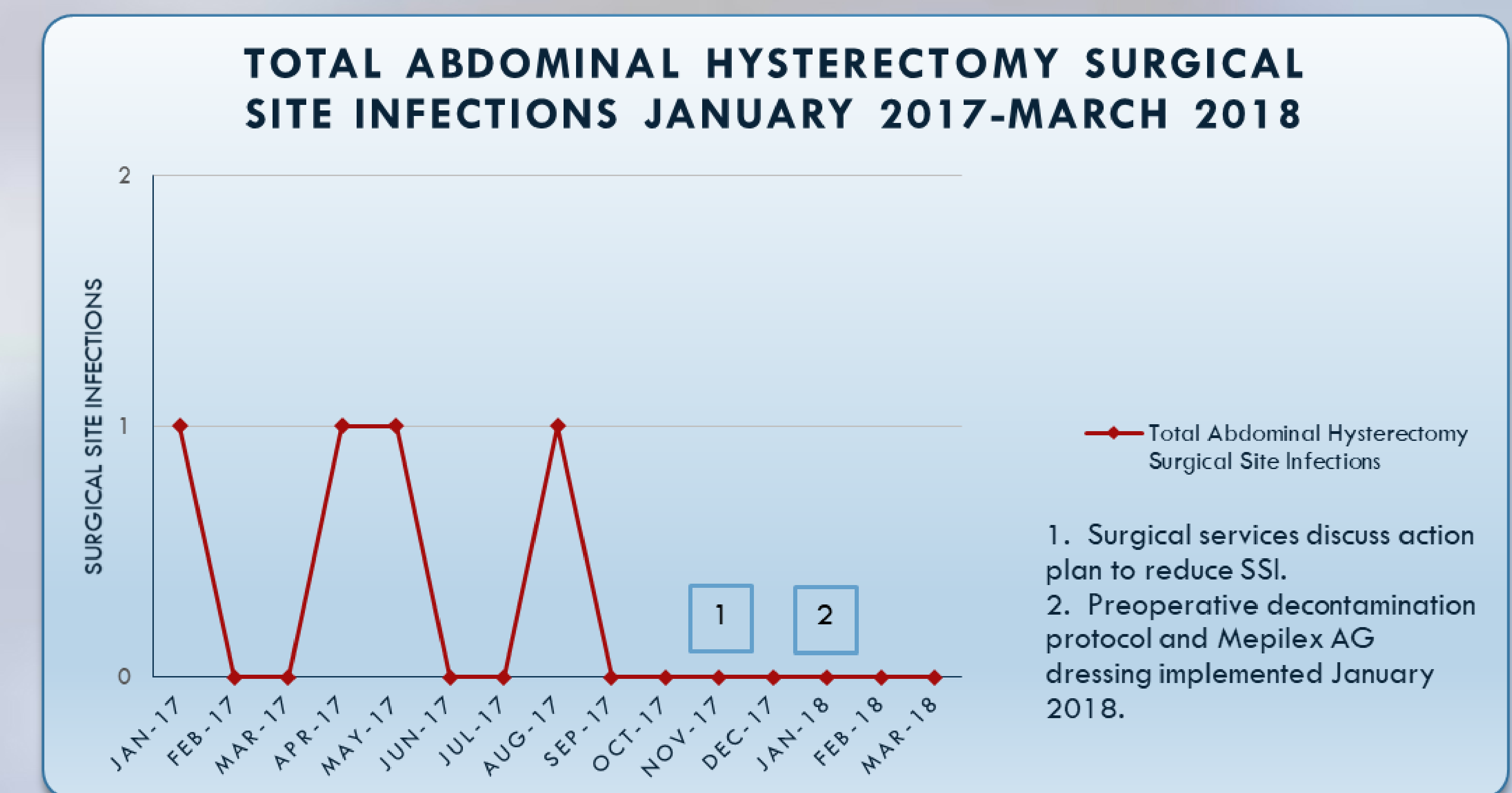
## Purpose

- Research suggests that the use of chlorhexidine gluconate cloths the night before and morning of surgery will decrease rates of SSI compared to patients who receive routine standard of care (soap and water pre-op, day of surgery and daily post-operative).<sup>2</sup>
- Evidence-based clinical studies have shown chlorhexidine gluconate to be a safe and effective perioperative skin-prepping agent as it sufficiently sufficient to inhibit/kill skin colonizing flora, including methicillin-resistant *Staphylococcus aureus*.<sup>3</sup>

## Methods

- All staff involved in the care of patients undergoing total abdominal hysterectomies were provided education regarding the implementation of the hospital's approved Nose to Toes Systems and antimicrobial foam dressings.
- The night before surgery, patients:
  - Are to wipe their entire bodies from their neck to their toes with the provided chlorhexidine gluconate wipes after bathing thoroughly.
- The morning of surgery, upon arrival to the hospital, patients:
  - Repeat the use of chlorhexidine gluconate wipes without rinsing
  - Brush their teeth and gums with peridex oral solution
  - Swab their nose with providone iodine
- An antimicrobial foam dressing is applied postoperatively and the patient is to continue the use of the dressing until the second post-op day.

## Results



## Conclusion

- A total of 5 abdominal hysterectomies have been performed from January 1, 2018 – March 31, 2018.
- Since the implementation of the Nose to Toes protocol in January 2018, zero surgical site infections have been reported.
- The perioperative protocol will continue in efforts to maintain zero surgical site infections.

## References

1. Anderson, D. (2018). Strategies to Prevent Surgical Site Infections in Acute Care Hospitals: 2014 Update. *Infection Control and Hospital Epidemiology*, 35(6), 605-627. Available at: <http://www.jstor.org/stable/10.1086/676022>
2. Card, E. (2015). 2% Chlorhexidine Gluconate Skin Cloths to Prevent SSI in Spine Surgery Patients (DeSSI). US National Library of Medicine. Available at: <https://clinicaltrials.gov/ct2/show/NCT02490631>
3. Edmiston, C. E., Bruden, B., Rucinski, M. C., Henen, C., Graham, M. B., & Lewis, B. L. (2013). Reducing the risk of surgical site infections: Does chlorhexidine gluconate provide a risk reduction benefit? *American Journal of Infection Control*, 41(5). doi:10.1016/j.ajic.2012.10.030

The Nose to Toes Protocol includes the use of chlorhexidine gluconate cloths, along with peridex mouthwash and providone iodine nasal swabbing. The antimicrobial foam dressings were included postoperatively.

<https://sageproducts.com/clinical-information-reducing-surgical-complications-ssi/>