



# Reduction in Colon Surgical Site Infections using CHG Irrigant Solution

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Month - Year	August 2015	September 2015	October 2015	November 2015	December 2015	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016
Rate/100 Procedures	5.88	6.21	3.24	2.13	2.65	3.47	4.37	3.33	1.28	1.49	2.43	1.05	2.24	2.01	3.18	1.09

### Clinical Issue:

- Colon surgical site infections (SSIs) have one of the highest rates of healthcare acquired infections that can lead to increased morbidity and mortality and use of hospitals resources
- Numerous clinical interventions with varying levels of supporting evidence have been implemented:
  - Appropriate antibiotic prophylaxis,
  - Normo-thermia,
  - Appropriate hair removal,
  - Glycemic control
  - Wound protectors
  - Mechanical bowel preparation.
- For this project a surgical irrigating solution, using a 0.05% chlorhexidine gluconate antiseptic was introduced in a 26-facility acute care system starting in June 2015.

### Pre-Implementation: May 2015

- Manufacturer of the CHG irrigation solution visit the hospitals with the highest standardized infection ratio (SIR) for Colon SSI to educate perioperative nursing staff and physicians.

### Implementation:

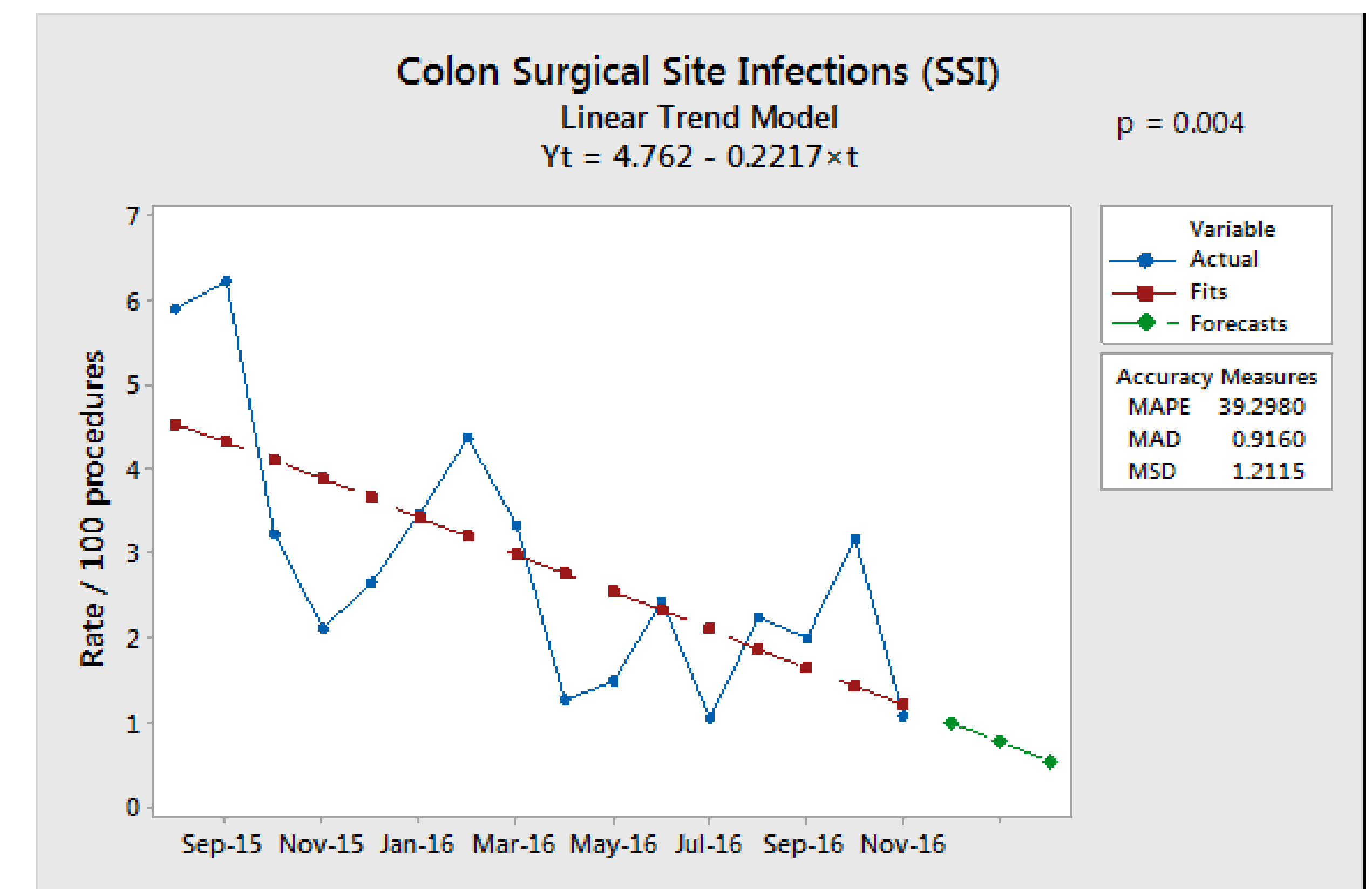
- Each Operating Room site purchased product
- Clinical Specialist contacted the OR Director and were assigned the week to visit for in-service education.
- The procedure involved irrigating the tissues after the fascia was closed with the 450ml of CHG, leaving it in the tissues for 1 minute, followed by a rinse with the 450ml of saline.

### The Product Change: Irrisept CHG Irrigant

- A wound debridement and cleansing system that contains 0.05% Chlorhexidine Gluconate (CHG) in sterile water for irrigation
- Mechanism of action:
  - Mechanical action removes bacteria and debris without harming underlying tissues.
  - Bottle design allows users to control the delivery pressure of the solution through manual bottle compression. Grasping the bottle firmly, the user can control the direction and pressure needed to help remove bacteria, particulate and debris.
- Irrisept has successfully completed testing for acute systemic toxicity, cytotoxicity, neurotoxicity, skin irritation and immune allergic response.

### Implications for Perioperative Nursing:

- Replaces the use of antimicrobial irrigations, such as cefazolin, vancomycin, bacitracin and polymixin.
- Facilitates compliance with hospital antimicrobial stewardship
- Pre-packaged design is more efficient for preparation and dispensing to field
- Pharmacy no longer mixing irrigations
- Since CHG is a biocide and can efficiently attach to tissues it creates a residual antibacterial effect that can last for many days in the tissues.



### REFERENCES

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