Reduction of Surgical Site Infections Post Cesarean Section through Implementation of Novel Evidenced Based Bundle

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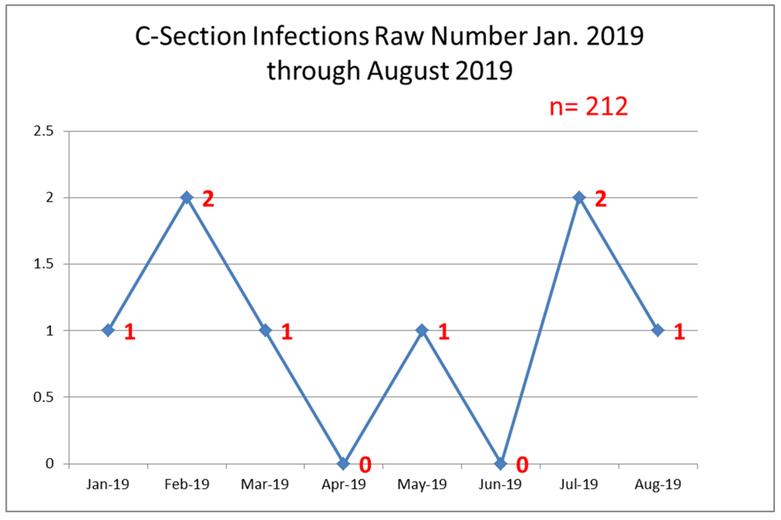
Background

A frequent complication post cesarean section (C-section) is surgical site infections (SSI) which are associated with heightened maternal morbidity and mortality, decreased patient satisfaction, prolonged hospitalization, and increased costs. In Calendar Year 2019, our Infection Control Committee identified an increase in the incidence of post-operative C-section SSI rates over an 8-month period from January through August 2019. The purpose of this study was to develop, implement and measure the compliance and efficacy of a novel pre-operative bundle (POB) for patients undergoing C-section.



Calendar Year 2019 Jan. through Aug. C-Section Infections Raw Numbers

Introduction of Novel Evidenced Based Bundle

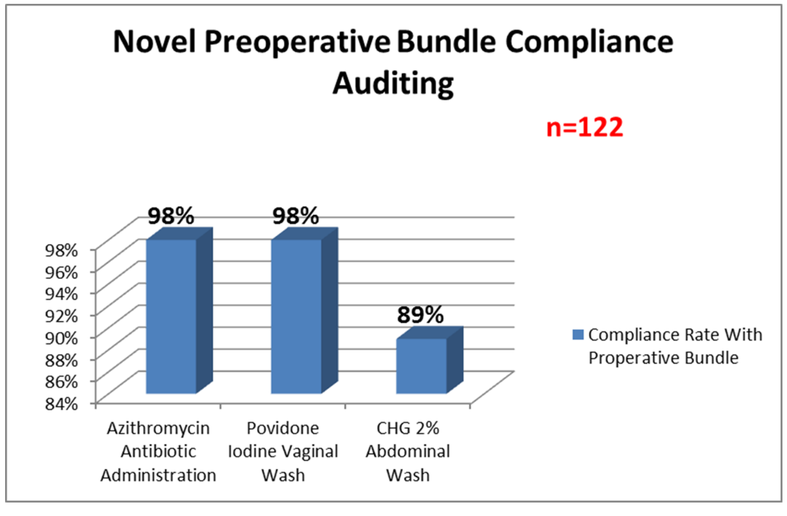
We implemented the following novel-based bundle for every C-Section case with the exception of emergent cases:

1. Mandatory interventions of vaginal cleansing using povidone iodine
2. Chlorhexidine (CHG) 2% wipes to abdomen
3. Addition of Azithromycin 500mg x 1 dose as pre-operative antibiotic.

A literature review indicated that although those organizations that implemented each element of the bundle individually had success with Surgical Site Infection reduction, there was no evidence available showing the effects of bundling all three elements.

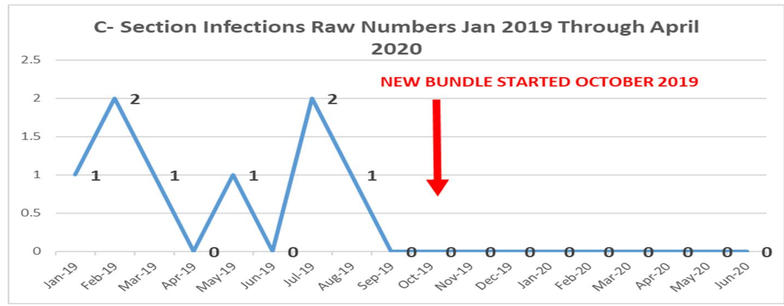
Compliance Auditing of Novel Bundle

In addition to implementing the novel, evidenced based bundle, each Cesarean Section Case is monitored in "real time" for compliance with feedback if all bundle elements are not being met.



Results

The combination of implementing a novel evidenced based bundle for every Cesarean case combined with bundle compliance monitoring helped our organization achieve remarkable success in reducing hospital-associated surgical site infections related to Cesarean Sections.



From left standing: Nikunj Vyas, Marilyn Mapp, Maria Vacca, and Kenneth Covone

From left seated: Ashlee Hiester, and Julia Burke