

Embedding an Infection Preventionist (IP) in the OR

Nancy Osborn, RN, CIC, Leslie Reynolds, RN, BSN
Medical Center Navicent Health, 777 Hemlock Street, Macon, GA 31201

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Infection Prevention Division
3M Health Care
2510 Conway Avenue
St. Paul, MN 55144-1000
U.S.A.
1-800-228-3957
www.3M.com/infectionprevention

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Medical Center Navicent Health is a 637 bed, academic medical center, designated Level 1 Trauma Center and Magnet® hospital for nursing excellence.

Description of Team

- The success of the project is due to the Infection Preventionist's (IP) comprehensive focus on preventing surgical site infections (SSI's) by:
- working side-by-side with the neurosurgery team of surgeons, nurses, techs, and anesthesia,
- building relationships and
- gaining full support from Surgery Services Administration and Medical Director.

Preparation and Planning

Prior to 2012, an IP rounded intermittently in the OR, observing surgical cases. It was not unusual for comments to be made that the team must be on their best behavior in the presence of the "visitor". Skin preps, CHG pre-op baths, MRSA screening, and temperature (temp) control were primarily left up to the provider. Processes lacked standardization.

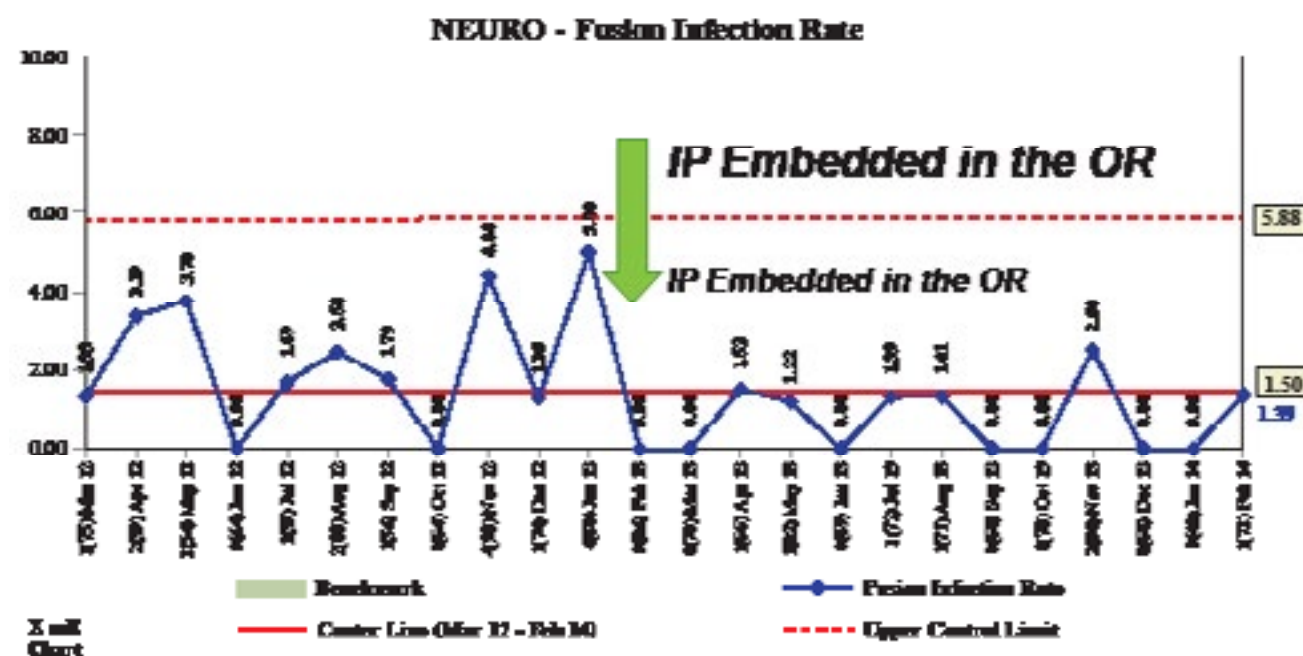
Assessment

- Surgeons (even in the same practice) varied in addressing de-colonization of MRSA carriers.
- The IP observed passive warming of the pre-op patient. Patients starting temps were below 36°C, 60% of the time.
- Neurosurgery Spinal Fusion SSI rate was consistently higher than NHSN benchmark of 2.23.
- Prevalent pathogens: Staph aureus and Methicillin Resistant Staph aureus.

Implementation

- Jan. 2013, an IP with OR experience was embedded (physically located) in the OR.
- Immediate focus on deviation from Evidenced Based Practices.
- Neuro-surgical services met monthly to review SSI data presented by the IP and to standardized processes.
- June-July: Pilot and implementation of hypothermia project.
- July – Pre-op implemented strong antiseptics procedure started on admission: CHG based product for bathing and instillation of Povidone-Iodine antiseptic into nares.

Results/Outcomes



Dec. 2013, the avg. cost of a surgical site infection = \$20,785.00. We experienced a 61% reduction in neurosurgery spinal fusion infections resulting in a cost savings of \$228,635 within 12 mo.

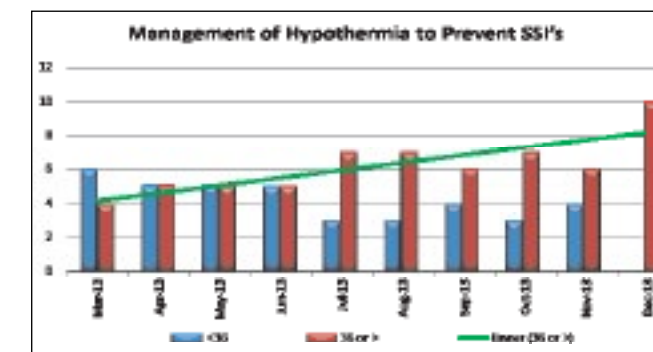
Implication for Perioperative Nursing

- The IP
- as an embedded member of the peri-op nurse team, builds trust while understanding barriers to compliance and standardization,
 - performs data drill downs on SSI's with nurses to reveal trends that contribute to poor outcomes,
 - Increases awareness within the peri-op nurses about how their actions can impact patient outcomes,
 - promotes
 - a thorough pre-op patient assessment including decolonization,
 - assessment of ABX selection and RX of nares pre-op. If no order, Povidone-Iodine antiseptic is an alternative,
 - actively warming patient in pre-op is crucial and
 - previously perceived as a "visitor", is now a welcome member of the perioperative team!**

PI Methodologies

MONTH	TOTAL # CASES	FULL #/Y	SCANNING	COMBIA WPT	NOISE	SSIs w/ Rx	SSIs w/o Rx	Net Rate
Jan	56							
Feb	30	8	8	2	18	0	1	1.66%
Mar	66	66	2	8	17			
Apr	111							
May	33	8	12	2	14	1	1	1.50%
Jun	66	10	5	2	58			
Jul	118							
Aug	30	8	12	7	11	0	1	1.66%
Sep	10	10	0	2	18			

3 mo. trial 2 Pods utilizing CHG pre-op, skin and nasal antiseptics, and the warming gown. **RESULTS:** Surgeries without Rx resulted in 5 times the number of SSI than those with Rx



Improvement in Hypothermia

References

- Beckers Healthcare review published in the *Journal of the American Medical Association*
- Clinical Practice Guidelines, Infectious Diseases Society of America, Treatment of Methicillin-Resistant *Staphylococcus Aureus* Infections in Adults and Children Clin. Infect Dis. (2011)
- APIC Implementation and Practice Guidelines
- AORN, Pre-warming recommendations