

Quality—Reducing Surgical Site Infections (SSIs): An Epic Journey

Background

Meritus Health's replacement hospital, Meritus Medical Center, opened five years ago in Washington County, Md., to provide hospital and health care services to residents of Maryland and the surrounding region. Single-patient rooms provide 243 licensed beds for acute and rehabilitative patient care. The emergency department serves as a level III trauma center and EMS Base Station as designated by the Maryland Institute for Emergency Medical Services Systems. The wound center was recently reaccredited with distinction by the Undersea & Hyperbaric Medical Society, recognizing the center, housing four chambers, as a hyperbaric leader. The certified primary stroke center is a recipient of the American Heart Association/American Stroke Association's Get With The Guidelines® Stroke Gold Plus Performance Achievement Award, the only central or western Maryland hospital program earning this level of recognition. Other recognized and award-winning programs of the hospital include the bariatric surgery program accredited with commendation, the Bronze Mission Lifeline American Heart Association-recognized cardiac catheterization lab and the CARF-accredited inpatient rehabilitation unit.

Meritus Medical Center was built as a direct link to Robinwood Professional Center to provide a campus where health care providers, outpatients, visitors and families can move easily from one service area to another. A number of the primary and specialty care practices that make up Meritus Medical Group are based on the main campus, including Meritus Infectious Disease, Meritus Pain Center and the Women's Health Center. Also readily accessible is Meritus Health's John R. Marsh Cancer Center, accredited with commendation by the Commission on Cancer and offering the TrueBeam™ radiotherapy/radiosurgery system; the Meritus Center for Breast Health, recently accredited by the National Accreditation Program for Breast Centers; Meritus Cancer Specialists with a team of fellowship-trained and board certified hematology and oncology physicians; and Meritus Medical Laboratory, accredited by the College of American Pathologists.

The health system has committed to caring for the community for more than a century. With the addition of Meritus Medical Center, the one-million-square-foot combined campus represents the largest community medical footprint in the state of Maryland.

Quality Initiative

Develop an interdisciplinary, collaborative approach for the prevention of SSIs or Surgical Site Infections by implementing the following steps:

- Create an interdisciplinary SSI Risk Analysis Committee that includes wound care specialists, OB-GYN physicians, OR leadership, staff RNs, educators, clinical managers/directors of other departments and infection control specialists to analyze quality outcomes/data (*met monthly initially*)
- Identify commonalities of patients with SSI (*obesity, smokers, diabetics*)
- Institute CHG bathing for all patients going to surgery
- Provide standardized discharge instructions to surgical patients (*Caring for your incision and Changing your dressing*) to increase patient education and awareness
- Involve Home Health staff in post-op, follow-up care (*C-sections*)

- Create standardized physician order sets with weight-based dosing of antibiotics
- Use Betadine as prep for priority 1 C-sections
- Monitor first hand scrub of the day
- Monitor Chloraprep dry times before draping patients (*use of timers*)
- Begin quarterly education/observations/competencies by Chloraprep rep with staff

Results

Education, collaboration and compliance resulted in a **56.3-percent** reduction in the Standardized Infection Ratio for Surgical Site Infections or **SIR** in the quarter ending December 2015 (**0.597**), in comparison to the previous quarter ending September 2015 (**1.366**).

Lessons Learned

The following were **must haves** for success:

- Interdisciplinary collaboration across surgical specialties
- Accountability of surgeons and staff
- Standardization of physician order sets with weight-based antibiotic dosing
- Standardization of processes such as the application and dry time of surgical prep agent (Chloraprep)
- Support from senior leadership and other physician leaders

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