

# Patient Safety Topics: Improving Inpatient Surgical Safety and Reducing MRSA Infections

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Patient safety is one of three national themes that are components of the Ninth Scope of Work (9th SOW), the 3-year quality improvement contract sponsored by the Centers for Medicare & Medicaid Services (CMS). The patient safety theme focuses on six primary topics for improvement (see "Six Primary Topics of CMS Patient Safety Theme"). In this article, two topics that involve hospitals are emphasized: improving inpatient surgical safety and reducing methicillin-resistant *Staphylococcus aureus* (MRSA) infections.

In a recent issue of *QIO News* (July 2008),\* CMS emphasized that the work with hospitals has long been a core component of the Quality Improvement Organization (QIO) Program, and that the hospital setting continues to provide high-profile national challenges and hallmarks of success. The newsletter further noted that, while hospitals have made remarkable progress over the past several years, there is still a long way to go. With an increasing national focus on the quality of medical care and a potential movement in the industry toward pay-for-performance models, the incentive has never been greater for hospitals to focus significant energy and resources on quality improvement.

## Inpatient Surgical Safety

CMS continues to focus on Surgi-

cal Care Improvement Project (SCIP) measures from the 8th SOW in this current SOW. SCIP is a national quality partnership of organizations targeting improvement of surgical care by significantly reducing surgical complications. SCIP is a unique partnership that is proving to be a transformational undertaking in health care. The SCIP goal is to reduce the incidence of surgical complications nationally by 25% by the year 2010.

The following performance measures were part of the 8th SOW and are being carried over into the 9th SOW to encourage continued improvement:

- *SCIP-Infection (Inf) 1*: Prophylactic antibiotic received on time—within 1 hour prior to surgical incision (2 hours for vancomycin and fluoroquinolones)

- *SCIP-Inf 2*: Prophylactic antibiotic selection for surgical patients
- *SCIP-Inf 3*: Prophylactic antibiotics discontinued within 24 hours after surgery end time
- *SCIP-Inf 4*: Cardiac surgery patients with controlled 6:00 am postoperative serum glucose
- *SCIP-Inf 6*: Surgery patients with appropriate hair removal
- *SCIP-Cardiac (Card) 2*: Surgery patients on a beta blocker prior to arrival who received a beta blocker during the perioperative period
- *SCIP-Venous Thromboembolism (VTE) 1*: Surgery patients with recommended VTE prophylaxis ordered
- *SCIP VTE 2*: Surgery patients who received appropriate VTE prophylaxis within 24 hours prior to surgery to 24 hours after surgery

According to CMS, the SCIP-Inf measures were selected because surgical site infections (SSIs) account for 14% to 16% of all hospital-acquired infections. Reduction in SSI incidence can result in hospital savings and reduced patient lengths of stay. Since adverse cardiac events are significant com-

\* Recent issues of *QIO News* can be downloaded by going to [QualityNet.org/MedQIC](http://QualityNet.org/MedQIC) and clicking on *QIO News*.

## Six Primary Topics of CMS Patient Safety Theme

- Improving inpatient surgical safety and heart failure treatment in hospitals
- Reducing rates of health care–associated MRSA infections
- Reducing rates of pressure ulcers in nursing homes and hospitals
- Reducing rates of use of physical restraints in nursing homes
- Improving drug safety
- Providing quality improvement technical assistance to nursing homes

plications of surgery, the SCIP-Card measure was established. Appropriately administered beta blockers have been shown to reduce perioperative ischemia, especially in patients considered at high risk. Because CMS recognizes that deep vein thrombosis and pulmonary embolism occur in 25% and 7% of all major surgical procedures, respectively, the SCIP-VTE measures were developed. Prophylaxis has been shown to be effective and safe for reducing the incidence of VTE. Additional information about the SCIP measures can be accessed at [QualityNet.org/MedQIC](http://QualityNet.org/MedQIC). Click on Hospitals.

The target passing score for hospital SCIP measures is at least 70% of the Achievable Benchmark of Care (ABC™), which is a system to identify peer group–based, objective, reproducible, and data-driven performance measures. The ABC system was developed by the University of Alabama at Birmingham.

### MRSA Infections

The reduction of MRSA infections is a new topic for the 9th SOW. MRSA is a rising public health issue that crosses all health care settings. CMS believes its importance to hospitals is heightened in light of payment policies that are evolving for hospital-acquired infections. Under the SOW, hospitals will be monitoring MRSA-related data by using the Multi-Drug Resistant Organism (MDRO) Module of the National Healthcare Safety Network (NHSN) of the Centers for Disease Control and Prevention (CDC). Two MDRO metrics are being used:

- *No. 1:* Nosocomial MRSA infection rate

*Calculation:* Number of NHSN MRSA infections divided by 1000 patient days by selected patient care location (unit)

- *No. 2:* Incidence rate of hospital-onset MRSA based on clinical culture

*Calculation:* Number of first positive MRSA cultures divided by 1000 patient days

The metrics were chosen in conjunction with the CDC and are considered to be good starting points for hospitals wanting to reduce their MRSA rates. Hospitals will be sharing data for the metrics with the QIO in their state. The target criterion for hospitals is a 40% reduction in each of the two reported MRSA metrics compared to baseline in at least half of reporting units.

Many hospitals are also working to meet state-specific legislative mandates to control and prevent MRSA infections. For example, recent legislation in New Jersey (N.J.S.A. 26:2H-12.36 et seq.) requires hospitals to submit information on MRSA to the Department of Health and Senior Services. In early 2008, a MRSA Advisory and Working Group established guidelines regarding screening protocols for the identification of patients who might have MRSA infections and required general hospitals to screen all patients admitted to a patient care area (PCA) where a MRSA active surveillance program

had been undertaken. Hospitals were required to implement active surveillance in at least one medical or surgical intensive care unit (ICU) or other high-risk PCA within 30 days of guideline dissemination. General hospitals in New Jersey are also being required to expand active surveillance facility-wide.

### Summary

The 9th SOW began in August 2008 and will continue through July 2011. Fifty-three QIOs, one for each of the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands, are working with health care providers. Two topics of the national patient safety theme highlighted in this article are improving inpatient surgical safety and reducing MRSA infections. The successes that participating acute care facilities achieve in these areas throughout the SOW will improve quality of care and better align hospitals for pay-for-performance. MPM

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