Surgical Complications Core Processes (SCIP)
Establish reliable assessment and treatment to reduce surgical complications with the core processes established by the Surgical Care Improvement Project (SCIP).

Domain
- Patient Care Processes:
  Clinical processes that ensure delivery of high-quality care to individual patients

Aims
- Effective:
  An evidence-based practice that produces better outcomes than its alternative
- Timely:
  Care delivery that is prompt and provided without delay to mitigate any harm to a patient
- Safe:
  Delivery of care in a manner that minimizes any risk of harm to a patient

Process Attributes

$ Cost to Implement
The monetary resources required to implement this process
- Minimal: Just the cost of the improvement effort itself

Time to Implement
The amount of time, from months to years, it will take on average to establish this process
- Fewer than 12 months

Difficulty to Implement
The challenges of implementing this process
- Moderately Challenging: Either involves multiple units or disciplines OR requires a substantial shift in culture and/or operations, but not both of these

Level of Evidence
The degree to which the actions in this process are supported by research and experience; based on the Cochrane scale
- Strong Evidence: Level I or Level II — Studies published using randomized trials

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**Details**

**Elements**

- **Surgical Site Infection Prevention**
  - Appropriate use of prophylactic antibiotics:
    - Prophylactic antibiotic received within 1 hour prior to surgical incision
    - Prophylactic antibiotic selection for surgical patients consistent with national guidelines (as defined in JCAHO/CMS Specification Manual and SCIP for Measure SCIP-Inf-2)
    - Prophylactic antibiotics discontinued within 24 hours after surgery end time (48 hours for cardiac patients).
  - Appropriate hair removal
  - Controlled 6:00 AM postoperative serum glucose in cardiac surgery patients
  - Urinary catheter removed on postoperative day 1 (POD 1) or postoperative day 2 (POD 2) with day of surgery being day zero
  - Surgery patients with perioperative temperature management

- **Beta Blockers Continuation**
  - Beta blockers for patients on beta blockers prior to admission

- **Venous Thromboembolism (VTE) Prophylaxis**
  - Venous thromboembolism prophylaxis ordered
  - Appropriate VTE prophylaxis given between 24 hours prior and 24 hours after surgery

**Outcomes**

- **Mortality (HSMR)**: Decreased mortality (hospital standardized mortality ratio, or HSMR)
- **Harm**: Decreased harm to patient (e.g., Harms per 100 patient days, as measured by the IHI Global Trigger Tool)
- **Cost of Care**: Decreased cost per inpatient case
- **Readmissions within 30 Days**: Decreased readmissions within 30 days
- **Reliability**: Increased delivery of evidence-based care 100% of the time

**Service Lines and Critical Functions**

- Cardiac
- Surgical

**Key Measures**

- **Perioperative Adverse Events**
  - Numerator: Perioperative adverse events
  - Denominator: 1000 patient days using IHI Trigger Tool for Measuring ADEs

- **Rate of Surgical Site Infection**
  - Rate of surgical site infection for Class 1 and 2 wounds within 30 days of surgery

- **SCIP Measures**
  - SCIP-Inf-2: Prophylactic antibiotic selection for surgical patients
  - SCIP-Inf-3: Prophylactic antibiotics discontinued within 24 hours after surgery end time (48 hours for cardiac patients)
  - SCIP-Inf-4: Cardiac surgery patients with controlled 6 a.m. postoperative serum glucose
  - SCIP-Inf-6: Surgery patients with appropriate hair removal
  - SCIP-Inf-9: Urinary catheter removed on postoperative day 1 (POD 1) or postoperative day 2 (POD 2) with day of surgery being day zero
  - SCIP-Inf-10: Surgery patients with perioperative temperature management
  - SCIP-Card-2: Surgery patients on a beta-blocker prior to arrival who received a beta-blocker during the perioperative period
  - SCIP-VTE-1: Surgery patients with recommended venous thromboembolism prophylaxis ordered
  - SCIP-VTE-2: Surgery patients who received appropriate venous thromboembolism prophylaxis within 24 hours prior to surgery to 24 hours after surgery

**Reasons and Implications**

**Importance for Patients and Families**

Providing specific treatments to surgical patients at the right time speeds healing and prevents them from having several serious complications.
Requirement, Standards, Policies, and Guidelines

- Centers for Medicare & Medicaid Services (CMS)
- National Priorities Partnership (NPP) Safety
- National Quality Forum (NQF)
  Safe Practice for Better Healthcare—2009 Update
  Safe Practice 22: Surgical-Site Infection Prevention
- Premier
  A supporting partnership organization of the Surgical Care Improvement Project (SCIP)
- The Joint Commission (TJC)

Financial Implications

- Expense reduction can occur due to reduced cost of treating complications (e.g., supplies, medications, possible hospital days).

Prerequisites

None for this process

Resources

Additional Resources

- The Journal of the American Medical Association (JAMA)
  Adherence to Surgical Care Improvement Project Measures and the Association With Postoperative Infections
- The Joint Commission (TJC)
  Surgical Care Improvement Project (SCIP) Improvement Project
- US Department of Health and Human Services
  Partnership for Patients
- Surgical Care Improvement Project (SCIP)

Information Compiled By

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