SCIP 2014
Surgery is a Team Sport
Surgical Care Improvement Project
You Are Our Surgical Care Improvement Program

Ancillary

Nutrition

Physician

Environmental Services

Nursing

Pharmacy

Customer (patient?)
Why SCIP?

SCIP measures are evidence based, standardized, and nationally accepted performance measures.

SCIP can reduce the risk of complication, encourage optimal care, and improve patient satisfaction. SCIP focuses on the documented care and the actual results that we achieve.

Peri-operative care begins when the patient is scheduled for surgery and continues through the post-discharge recovery process.

Medications, Normothermia (normal temperature), VTE prevention, Hair removal, Urinary Catheter management, Antibiotic selection and treatment all impact the patient’s surgical experience, and the recovery process.
Surgical Site Infections
Infection Rate for selected procedures

We are making Progress!
How do we get to zero?
SCIP measures are based upon Best Practice Recommendations.
CURRENT SCIP MEASURES

- **SCIP-1** Pre-op Antibiotic given within 1 hr. before incision
- **SCIP-2** Must receive SCIP recommended prophylactic antibiotic
- **SCIP-3** Discontinue antibiotic within 24 hrs. of anesthesia end time
  (cardiac op exception)
- **SCIP-6** Appropriate hair removal
- **SCIP-CARD-2** Perioperative beta-blocker therapy for pre B blocker Rx
- **SCIP-VTE-2** Appropriate VTE prophylaxis within 24 hrs. prior to or after anesthesia end time
- **SCIP-9** Remove urinary catheter by postop day 2
- **SCIP-10** Temperature >96.8 F- 15 min. after anesthesia end time
Nursing Impact on Post-Surgical Outcomes

- Nursing Care is instrumental in preventing surgical site infections (SSI).

- Hand washing
- Dressing Changes and Wound Care
- Pre- and Post-operative Assessment
- Nursing Role in Antibiotic Administration
- Pain Management
- Education
- Temperature Management
SCIP Checklist

Nursing Unit Peri-operative checklist
<table>
<thead>
<tr>
<th>Condition</th>
<th>Pre-Operative</th>
<th>Intra-Operative</th>
<th>Post-Operative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Site Infection</td>
<td>• Patient education</td>
<td>• Use an adapted Safe Surgery checklist</td>
<td>• Written wound care instructions</td>
</tr>
<tr>
<td></td>
<td>• Staph aureus screening and decolonization protocols</td>
<td>• Prophylactic antibiotics</td>
<td>• Glycemic control (insulin protocols)</td>
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<tr>
<td></td>
<td></td>
<td>• Glycemic and temperature control</td>
<td>• Post-operative antibiotics with discontinue orders, as appropriate</td>
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<td></td>
<td></td>
<td>• Appropriate hair removal (NO Razors)</td>
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<td></td>
<td>Pre-Admission</td>
<td>Peri-Operative</td>
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<tr>
<td></td>
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<td>• Use an adapted Safe Surgery checklist</td>
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<td>• NO Razors</td>
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<tr>
<td>Bleeding Disorders &amp; Venous</td>
<td>• Stopping aspirin/clopidogrel (Plavix)</td>
<td>• Surgeon’s awareness of blood loss and preparing blood products as necessary</td>
<td>• VTE prophylaxis order “set” written</td>
</tr>
<tr>
<td>Thromboembolism (VTE)</td>
<td>• Check INR, if on warfarin</td>
<td>• Length of use of intra-operative tourniquet</td>
<td>• Anticoagulation Protocol implemented</td>
</tr>
<tr>
<td></td>
<td>• Pre-op blood type and cross-match</td>
<td></td>
<td>• For patients previously anti-coagulated (on warfarin), plan for restarting/warfarin loading</td>
</tr>
<tr>
<td></td>
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<tr>
<td>Catheter-Associated Urinary Tract Infection (CAUTI)</td>
<td>Adherence to the CAUTI prevention/Foley insertion bundle:</td>
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<tr>
<td></td>
<td>• Documented Medical necessity criteria to insert Foley catheter</td>
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<tr>
<td></td>
<td>• Order set for discontinuing Foley catheter within 48 hours of anesthesia</td>
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<td></td>
<td>end time, if appropriate</td>
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</table>
Peri-Op Report / Safety Checklist

Date ____________

SCC RN ____________ Procedure ____________

Vital signs: BP ____________ HR ____________ RR ____________ Temp ____________ RA Sat ____________

1. Patient ID band in place ____________ Y / N
2. Signed Consent ____________ Y / N
3. H&P within 30 days in chart ____________ Y / N
   H&P update within 24 hours in chart ____________ Y / N
4. Allergies ____________
5. Beta Blocker taken Y / N / NA Time ____________
6. Antibiotic ordered Y / N Given at ____________ Incision at: ____________
7. DVT prophylaxis ordered/administered ____________ Y / N
8. HCG result (if applicable) ____________
9. Site verified ____________ Y / N
   Correct side initialed by surgeon ____________ Y / N
10. Anticipation of any critical issues? ____________

OR RN ____________

11. Patient temperature post – op ____________
Antibiotic Timing: Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision

- **Why do we Time Antibiotics?:** Prophylactic antibiotics must reach the tissue level before skin incision. Antibiotic administration **during the one hour prior to incision** provides the highest tissue level antibiotic protection.

- **Pre-operative** (On Call to OR) antibiotics should be administered in surgical services. This dose is frequently associated with timing errors when administered on the units.

- **HINT:** Surgical staff can properly time the antibiotic administration with the incision time to ensure that it is infused within one hour of incision.

- Patients who received vancomycin or a fluoroquinolone (Cipro) for prophylactic antibiotics should have the antibiotics initiated within **two** hours before surgical incision. **Due to the longer infusion time** required for vancomycin or a fluoroquinolone, it is acceptable to start these antibiotics within two hours prior to incision time. **Surgical Services will administer these antibiotics.**

- Check with Surgeon or Surgery (6574) if you have any questions about a pre-operative antibiotic infusion.
Antibiotic Selection: Surgical Patients
who received prophylactic antibiotics consistent with current guidelines

• **Rationale:** A goal of prophylaxis with antibiotics is to use an agent that is safe, cost-effective, and has a spectrum of action that covers most of the probable intraoperative contaminants for the operation.

• First or second-generation cephalosporins (Ancef) satisfy these criteria for most operations, although anaerobic coverage is needed for colon surgery.

• Vancomycin is not recommended for routine use because of the potential for development of antibiotic resistance, but is acceptable if a patient is allergic to beta-lactams, as are fluoroquinolones (Cipro) and clindamycin in selected situations.
Antibiotic Discontinuation:
Surgical Patients who’s prophylactic antibiotics were discontinued within 24 hours after Anesthesia End Time.

Nursing Considerations

• Prophylactic Antibiotics are administered as preventative treatment. They must be discontinued within 24 hours of the anesthesia end time unless there is a documented actual or suspected infection.

• Administration of antibiotics for more than a few hours after the incision is closed offers no additional benefit to the surgical patient. Most surgeons order 1-3 doses postoperatively. Current antibiotic stewardship programs suggest that one post-operative dose may be enough for prophylaxis. Prolonged administration does increase the risk of Clostridium difficile infection and the development of antimicrobial resistant pathogens.

• If an actual or suspected infection is documented by the physician, the antibiotics may be therapeutic. Do not hold therapeutic antibiotics pre-op.

• If in doubt, clarify the order with the prescriber and pharmacy.
### ANESTHESIA RECORD

<table>
<thead>
<tr>
<th>Date</th>
<th>OR</th>
<th>Start</th>
<th>Time</th>
<th>End</th>
<th>Time</th>
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<tbody>
<tr>
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</table>

**PROCEDE.:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Time</th>
<th>Time</th>
</tr>
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</table>

**IV Fluids:**

- **N2O/O2:**
- **Malignan:**
- **Sedative/Analgesic:**
- **Antibiotic:**
- **Antacid:**
- **Antispasmodic:**
- **Antihypertensive:**
- **Anticonvulsant:**
- **Local Anesthetic:**
- **Vasopressor:**
- **Antiarrhythmic:**
- **Blood Transfusion:**
- **Blood Replacement:**
- **Plasma:**
- **Other:**

**Monitors:**

- **EKG:**
- **NIBP:**
- **RESP:**
- **SpO2:**
- **ETCO2:**
- **Temperature:**
- **Heart Rate:**
- **Respiration Rate:**

**Adverse Effects:**

- **Hypotension:**
- **Hypertension:**
- **Bradycardia:**
- **Tachycardia:**
- **Arrhythmia:**
- **Hypoxia:**
- **Hyperoxia:**
- **Carbon Dioxide Retention:**

**Complications:**

- **Infection:**
- **Hypoglycemia:**
- **Hypocalcemia:**
- **Hypomagnesemia:**
- **Hypokalemia:**
- **Hyperkalemia:**
- **Hypophosporit:**
- **Hypocalciem:**

**Time-out Verification for Anesthesia Procedures:**

- **Correct patient identified:**
- **Correct procedure confirmed:**
- **Correct site and side identified if applicable:**
- **Blood products available:**
- **Correct equipment and medications available:**
- **Correct equipment and medications available:**
- **Correct equipment and medications available:**
- **Correct equipment and medications available:**
- **Correct equipment and medications available:**

**Signature:**

- **Date:**
- **Initials:**

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**UR Medicine | Thompson Health**
Antibiotic Discontinuation:

• Prophylactic antibiotics are often ordered for a short time post-operatively.

• Prophylactic post-operative antibiotics should be ordered for a limited time (0-24 hours post-anesthesia end time), and for a limited number of doses.

• First dose post-op is typically administered in the PACU – check post-op orders and PACU documentation to confirm whether the initial post-op dose was administered in PACU and at what time. PACU typically documents time administered next to the order.

• If first dose is administered in PACU, count the PACU dose as post-op dose #1 and confirm scheduling for remaining doses.

• Overuse of antibiotics may contribute to MDROs (Multi Drug Resistant Organisms – MRSA, ORSA, Etc.). Antibiotic Stewardship is everyone’s job.
Appropriate Hair Removal:
Surgery Patients with appropriate surgical site hair removal.

Nursing Considerations:
• **NO Razors** for pre-operative hair removal.

• Shaving is considered inappropriate.

Acceptable hair removal options:
1. No hair removal,
2. hair removal with clippers, or
3. depilatory is considered appropriate.

Surgical site hair removal should be performed within the hospital. Patients should not shave themselves before surgery. Bacteria can invade the micro abrasions caused by shaving and cause a post-operative surgical site infection.

It is recommended that a depilatory or electric clippers be used immediately prior to surgery when hair removal is required.
Urinary Catheter Removal:
Surgical patients with urinary catheter removed on Postoperative Day 1 or Postoperative Day 2 with day of surgery being day Zero

Nursing Considerations

• Urinary Catheter **must** be removed or a clinical indication for continued placement must be documented by provider. The risk of catheter-associated urinary tract infection (CAUTI) increases with each day that an indwelling urinary catheterization remains.

• Patients who have indwelling bladder catheters for more than 2 days postoperatively are:
  1. 21% more likely to develop UTI,
  2. significantly less likely to be discharged to home, and
  3. had a significant increase in mortality at 30 days.

• Pooled research suggests that bacteriuria will develop in 26% of patients after 2 to 10 days of indwelling catheterization.
Perioperative Temperature Management: Surgery Patients with Perioperative Temperature Management

Nursing Considerations

- Patient **Must** have temperature documented within 30 minutes before Anesthesia start time, and 15 minutes after Anesthesia end time.

- Appropriate warming increases patient comfort and satisfaction and reduces surgical adverse outcomes.

- Temperature is monitored pre-, intra, and post-operatively. Active warming is initiated when indicated.

- Normothermia is ≥36.0° C.

Why does Warm Matter?

- Research shows an increased incidence of infections, chance of blood products administration, delayed wound closure, myocardial infarction, and mechanical ventilation, as well as adverse cardiac events, altered drug metabolism, and coagulopathies with unplanned perioperative hypothermia.

- Culture-positive surgical site infections among those with mild perioperative hypothermia is **three times higher** than the normothermic perioperative patients.

- Adverse outcomes result in prolonged hospital stays and increased healthcare costs.
Beta-Blocker Therapy:
Surgery Patients on Beta-Blocker Therapy Prior to Arrival who Received a Beta-Blocker During the Peri-operative Period

- If a patient on Beta-Blocker therapy does not take/receive that medication peri-operatively, the Provider **must document the reasons the medication was held**.

- If a patient is on Beta-Blocker therapy pre-op, it must be continued post-op unless the provider documents a reason to hold the med. If a Beta-blocker is held for parameters (e.g., HR<50, SBP <100, etc.), the reason must be documented.

- Perioperative myocardial ischemia has been identified as a leading risk factor for mortality after non-cardiac surgery.
VTE Prophylaxis:
Surgery Patients who Received
Appropriate Venous Thromboembolism Prophylaxis

- VTE is one of the most common postoperative complications and prophylaxis is the most effective strategy to reduce morbidity and mortality.

- If VTE is not prescribed, Provider must document reason for NOT administering VTE prophylaxis as recommended. Bleeding risk and open wound on the extremity would be appropriate reasons.

- Early ambulation is not acceptable documentation.

- Nursing **MUST** document VTE medication and SCDs. If it is not documented, it is not done. If SCDs are ordered, and the patient is not wearing them when physical assessment is done, document why they are off at that time, i.e., patient ambulating, SCDs on while in bed.

- VTE prophylaxis must be ordered and documented within the first 24 hours post-op.

- **Document VTE in McKesson**
2013 Surgical Site Infections

17 Surgical Site Infections 2013

16/17 infections involved Skin contaminants

1 Hip: 1 Superficial SSI

3 Knees: 3 Organ/Space(Joint) SSI

3 Hernias: 3 Deep Incisional SSI and 2 RTOR (Return to OR)

2 Abdominal Hysterectomy: 1 Deep and 1 Organ/Space

3 C-Sections: All Deep Incisional, treated as outpatient

What can you do to help reduce these numbers?
We want your suggestions!
### How do we compare?

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>NHSN</th>
<th>NYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip Prosthesis</td>
<td>1.5</td>
<td>0.8</td>
<td>0.7</td>
<td>0-1.87</td>
<td>1.1</td>
</tr>
<tr>
<td>Knee Prosthesis</td>
<td>2.9</td>
<td>0.4</td>
<td>1.2</td>
<td>0-0.81</td>
<td></td>
</tr>
<tr>
<td>Hernias – outpatient</td>
<td>2.3</td>
<td>0.9</td>
<td>1.1</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Colon</td>
<td>38.5</td>
<td>21.4</td>
<td>11.8</td>
<td>3.49-5.06</td>
<td>5.1</td>
</tr>
</tbody>
</table>
How does this affect my practice?
Take credit for your hard work and document it!

- **Peri-operative**
  - Use of peri-op checklist to ensure all SCIP OR measures and safety checks are completed
  - Accurate documentation of all SCIP interventions
    - antibiotics and other medications administered
      - Antibiotics started within 1 hour of incision, unless Vanco or Clindamycin (within 2 hours of incision)
    - SCDs intra-op and post-op
    - BetaBlocker–date and time of last dose
    - BairHugger/BairPaw warming system
      - Pre-op and post-op temperatures
    - NO Razors are used for hair removal
    - Urine culture per protocol for foley catheter

- **Pre-operative and Post-operative Inpatients**
  - Prophylactic antibiotics should be administered in the OR. (On Call and pre-op antibiotics)
  - Discontinue prophylactic antibiotics within 24 hours of anesthesia time (end time per anesthesia record). Double check orders.
  - Do Not use a razor to remove body hair before surgery.
  - Administer Beta-Blockers as ordered and per patient’s home routine. Provider must document why a Beta-Blocker is held peri-operatively.
  - Document VTE prophylaxis within 24 hours
  - Remove urinary catheter (per order or protocol) by Post Op Day 2 (POD2)
  - Keep dressing integrity intact, allowing the wound to “seal” to keep skin contaminants out of the incision.
Post-Test

1. The risk of a urinary tract infection increases by ___________% if a urinary catheter remains in place more than 2 days.
   a) 7
   b) 14
   c) 21
   d) 26

2. Prophylactic antibiotics should be infused during the ___________ before incision?
   a) 15 minutes
   b) 30 minutes
   c) One hour
   d) Two hours

3. T / F
   Patients should shower and shave their surgical site before surgery.

4. Beta-Blockers include:
   a) Metoprolol
   b) Trandate
   c) Atenolol
   d) Bystolic
   e) All of the above

5. T / F
   Beta-Blockers should be held the day of surgery to prevent low blood pressure and heart rate during surgery.
6. It is important to keep surgical patients warm because even **mild** perioperative hypothermia increase the risk _________ for culture-positive surgical site infections over normothermic perioperative patients.

a) Two times  
b) Three times  
c) Five times  
d) Ten times

7. **T / F**

For SCIP VTE prophylaxis, a provider can order early ambulation and not order any other VTE prophylaxis.

8. Colon surgery, and hysterectomies with colon surgery, require two antibiotics to provide both **aerobic** and **anaerobic** prophylactic antibiotic coverage.

9. Post-op prophylactic antibiotics may be given for _________ after the anesthesia end time without a clinical indication and order to continue administration.

a) Three days  
b) 12 hours  
c) Two days  
d) 24 hours

10. **T / F**

It doesn’t matter what antibiotic is prescribed pre-op so long as it is administered within one hour of the incision.
Resources

For more information related to Best Practices:

- For CMS the publicly reported data is found on http://www.hospitalcompare.hhs.gov

- For JCAHO the publicly reported data is found on www.qualitycheck.org

- Specifications Manual for National Hospital Inpatient Quality Measures on www.qualitynet.org
Pocket Guide and Help Booklet contain SCIP and all Core Measures

HINT: Check the Date on any guide – they change frequently

CORE MEASURES
Pocket Guide
For discharges
January 1 through September 30, 2014

CoreMeasBooklet2014 - Shortcut.Ink

CoreMeasPktGuide2014 - Shortcut.Ink
This guide is not exhaustive.

Complete and detailed information is available in the Hospital Outpatient and Hospital Inpatient Specifications Manuals, Data Collection Time Period 01-01-14 through 09-30-14 located at:

www.qualitynet.org under the Hospitals-Inpatient and Hospitals-Outpatient tabs.
## Commonly Used Beta Blockers

- Acebutolol
- Atenolol
- Atenolol/chlorthalidone
- Betapace
- Betapace AF
- Betaxolol
- Bisoprolol
- Bisoprolol fumarate
- Bisoprolol/hydrochlorothiazide
- Brevibloc
- Bystolic
- Carvedilol
- Coreg
- Corgard
- Corzide 40/5
- Corzide 80/5
- Esmolol
- Inderal
- Inderal LA
- Inderide
- InnoPran XL
- Labetalol
- Levatol
- Lopressor
- Lopressor HCT
- Lopressor/hydrochlorothiazide
- Metoprolol
- Metoprolol/hydrochlorothiazide
- Metoprolol Tartrate/hydrochlorothiazide
- Nadolol
- Nadolol/bendroflumethiazide
- Nebivolol
- Nebivolol HCL
- Nebivolol Hydrochloride
- Penbutolol
- Pindolol
- Propranolol
- Propranolol HCL
- Propranolol hydrochloride
- Propranolol/hydrochlorothiazide
- Sectral
- Sorine
- Sotalol
- Sotalol HCL
- Tenoretic
- Tenormin
- Tenormin I.V.
- Timolol
- Toprol
- Toprol-XL
- Trandate
- Trandate HCL
- Zebeta
- Ziac

**Beta Blockers**
- Recommendations for specific Beta-Blockers are constantly evolving.
- This list of medications is subject to change. Please consult eQHealth or [www.qualitynet.org](http://www.qualitynet.org) for any updates.
Why do we care about removed or suspended reporting measures?

- SCIP and Core Measures are continually evolving. As research identifies Best Practices, shown to improve patient outcomes, we will see new measures reported on, and older measures may be retired. Suspension of an element does not mean that it is not important. Best Practices must be followed regardless of reporting requirements.

- The suspended measures are those which CMS is considering retirement; however, due to public concern over possible declination of adherence, data collection and submission may be continued and any data submitted will be publically reported on Hospital Compare.

- Because “removed” or “suspended” measures are still considered “best practices” and indicators of high quality clinical practice and are encouraged to be performed even if no longer measured by CMS, they continue to be a part of this Core Measures Help Booklet.