

# SURGICAL CARE IMPROVEMENT PROJECT (SCIP) CHANGE PACKAGE\*

This change package is a collection of recommendations for changing processes of care.

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## Infection Module

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Process Measure	Key Changes for Improving Care
<b>SCIP-Inf 1:</b> Prophylactic antibiotic administered (started) within one hour prior to surgical incision (two hours for vancomycin or a fluoroquinolone)	<ul style="list-style-type: none"><li>• Develop and implement a policy for the delivery of prophylactic antibiotics</li><li>• Designate the responsibility and/or accountability to administer preoperative prophylactic antibiotic to the anesthesiologist</li><li>• Standardize the antibiotic administration process to occur with commonly performed activity within one hour (within two hours for vancomycin or a fluoroquinolone) prior to surgical incision</li><li>• Use visible reminders or a checklist to give prophylactic antibiotic, e.g., brightly colored stickers, reminder posters located above operating room entrance</li><li>• Standardize the documentation process for antibiotic administration in every patient record (paper or electronic) to include required fields for date, time, and route of prophylactic antibiotic administration and incision start time</li><li>• Incorporate prophylactic antibiotic delivery verification into preoperative “time out”</li><li>• Stock operating room with approved prophylactic antimicrobials; standardize pharmacy delivery process to ensure adequate supply</li><li>• Implement drug matrix cards for surgeons, anesthesiologists, and nursing staff</li><li>• Use physician champions to address antibiotic timing with surgeons and anesthesiologists</li><li>• Educate operating room staff periodically and familiarize new staff with the importance of antibiotic timing</li><li>• Use wall clock to document all times; have maintenance synchronize all clocks in perioperative area</li><li>• Implement a SCIP checklist and include prophylactic antibiotic timing</li></ul>
<b>SCIP-Inf 2:</b> Prophylactic antibiotic selection for surgical patients	<ul style="list-style-type: none"><li>• Develop preprinted order sets specific to each of the seven types of surgeries to include the recommended antibiotic(s) for each. Provide these to surgeons’ offices. Update as guidelines change</li><li>• Make only approved antibiotics available in or near the operating room</li><li>• Educate surgeons about the requirement to document justification if ordering vancomycin</li><li>• Request that the pharmacy and therapeutics committee become involved in developing a standard formulary for prophylactic antibiotics and conduct reviews semi-annual or more frequently as needed</li><li>• Involve pharmacy in correct selection and delivery of antibiotics</li><li>• Include prophylactic antibiotic selection on SCIP checklist</li><li>• Require surgeons to document justification if not ordering recommended antibiotic</li></ul>

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Process Measure	Key Changes for Improving Care
<b>SCIP-Inf 3:</b> Prophylactic antibiotics discontinued within 24 hours after surgery end time (48 hours for cardiac surgery)	<ul style="list-style-type: none"><li>• Use physician champions to address prophylactic antibiotic discontinuation with surgeons</li><li>• Provide education to perioperative and floor nursing staff and pharmacy on duration of postoperative prophylactic antibiotic doses</li><li>• Develop a policy for the Pharmacy and Therapeutic Committee to automatically discontinue prophylactic antibiotic after surgery end time</li><li>• Limit post-op antibiotics to one or two doses</li><li>• Develop preprinted postoperative orders specific to each type of surgery to include timing of prophylactic antibiotic doses so they are discontinued within 24 hours of surgery end time (48 hours for cardiac surgery)</li><li>• Update postoperative pathways or protocols to routinely discontinue prophylactic antibiotics within 24 hours (48 hours for cardiac surgical procedures)</li><li>• Have postanesthesia care unit (PACU) fax post-op orders to the pharmacy, indicating surgery end time and/or time of pre-op/last prophylactic antibiotic dose, to assure timeliness of next dose</li><li>• Require surgeons to document reason for continuing antibiotics beyond 24 hours (48 hours for cardiac surgery), e.g., treatment for an infection</li><li>• Include prophylactic antibiotic duration on SCIP checklist</li><li>• Provide education to patient care unit staff on duration of postoperative prophylactic antibiotics</li></ul>
<b>SCIP-Inf 4:</b> Cardiac surgery patients with controlled 6 am postoperative serum glucose (<200mg/dL)	<ul style="list-style-type: none"><li>• Adopt a multidisciplinary team approach to address intraoperative and postoperative glucose control</li><li>• Establish perioperative glucose control accountability</li><li>• Gain anesthesiologists' acceptance of their responsibility for intraoperative glucose control</li><li>• Standardize protocol for preoperative, intraoperative, and postoperative glucose monitoring in patients undergoing cardiac surgery, regardless of diabetes diagnosis</li><li>• Standardize treatment protocol to maintain serum glucose less than 200 mg/dL in patients undergoing cardiac surgery</li><li>• Identify patients with hyperglycemia prior to surgery; include glucose testing and HbA1c in pre-op evaluation</li><li>• Institute a glucose management protocol, which includes the transition from intravenous insulin to insulin injections to oral hypoglycemic agents as required</li><li>• Educate physicians and clinical staff on correlation between elevated blood glucose level and infection rate</li><li>• Include glycemic control on SCIP checklist</li></ul>

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Process Measure	Key Changes for Improving Care
<b>SCIP-Inf 6:</b> Surgery patients with appropriate hair removal	<ul style="list-style-type: none"><li>• Institute a policy to avoid shaving surgical sites; if hair removal is necessary, perform hair removal only with clippers right before surgery</li><li>• Gain support from chief of surgery/physician champions</li><li>• Educate and send letters to surgeons and staff regarding the change from razors to clippers</li><li>• Remove all razors from operating suites and surrounding patient support areas; eliminate razors from surgical prep kits</li><li>• Place electric clippers throughout the holding and operating rooms where hair removal is likely to occur</li><li>• Educate surgeons and clinical staff on appropriate hair removal techniques, and purchasing personnel on appropriate supplies</li><li>• Include the use of clippers in preprinted order sets</li><li>• Standardize documentation of hair removal technique in preoperative/operative record. Eliminate razor/shaving option in all documentation</li><li>• Implement “No Shave Zone” posters throughout the hospital</li><li>• Educate patients to not shave surgical site before surgery; develop patient education materials on proper hair removal. Depilatory is acceptable</li><li>• Include surgical site hair removal on SCIP checklist</li></ul>
<b>SCIP-Inf 9:</b> Urinary catheter removed on postoperative day 1 (POD1) or postoperative day 2 (POD2) with day of surgery being day zero	<ul style="list-style-type: none"><li>• Adopt a policy for removing indwelling Foley catheters within 24 to 48 hours of insertion, including criteria for necessity and contraindications for removal</li><li>• Educate surgeons and clinical staff on policy for removing indwelling Foley catheters within 24 to 48 hours of insertion</li><li>• Initiate “getting to zero” program that includes a daily review of catheter necessity for all patients with urinary catheters, since this is an important step in preventing and, perhaps, eliminating all catheter-associated (CA) urinary tract infections (UTIs)</li><li>• Use alerts in computer systems to prompt staff about catheter removal</li><li>• Consider automatic stop orders for postoperative patients using catheters</li><li>• Establish mandatory daily review orders that require documentation of indication for continued use</li><li>• Use reminder prompts on patients’ medical records</li><li>• Include catheter necessity in nursing assessments at the start of each shift</li><li>• Educate preoperative patients and families, as appropriate, about CA UTI prevention</li></ul>

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Process Measure	Key Changes for Improving Care
<b>SCIP-Inf 10:</b> Surgery patients with perioperative temperature management	<ul style="list-style-type: none"><li>• Educate all surgeons, anesthesiologists, and perioperative nursing staff on the relationship between hypothermia and increased risk for surgical infection</li><li>• Designate responsibility and accountability for thermoregulation, including interval measurement and standard documentation of preoperative, intraoperative, and postoperative temperatures</li><li>• Standardize method for monitoring patient temperature preoperatively, intraoperatively, and postoperatively using a thermometer that produces reliable consistent measurement of patient temperature</li><li>• Standardize use of warming devices (blanket warmers, hot air blankets, IV fluid warmers, warming caps, etc.) to ensure patient temp &gt;36°C (96.8°F) in or near operative room suites and upon arrival to PACU</li><li>• Use warming devices preoperatively</li><li>• Limit body exposure prior to operative procedure to prevent heat loss in patients</li><li>• Consider increasing temperature in pre-op holding areas</li><li>• Consider increasing temperature in the operating room (note: increase humidity if you increase room temperature to prevent dry eyes/skin among staff.)</li><li>• Consider employing cooling vests for surgeons if operating room temperature is increased</li><li>• Consider increasing temperature in the operating room when it is not in use, to warm equipment, even if you decrease the temperature during operating room use</li><li>• Include normothermia control on SCIP checklist</li></ul>

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### VTE Module

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#### Process Measure

**SCIP-VTE 1:** Surgery patients with recommended venous thromboembolism (VTE) prophylaxis ordered

*AND*

**SCIP-VTE 2:** Surgery patients who received appropriate VTE prophylaxis within 24 hours prior to surgery to 24 hours after surgery

#### Key Changes for Improving Care

- Establish clinical guidelines for pre- and postoperative VTE risk assessment and prophylaxis, incorporating current recommendations
- Include VTE risk assessment with pre-op order set to be completed by nursing staff during pre-op evaluation
- Include the pharmacy in VTE prophylaxis planning
- Develop a standard hospital preprinted order set to administer recommended prophylactic treatments based on identified patient risk factors for both medical and surgical patients; provide place for physician to indicate if contraindicated or not warranted
- Include VTE risk assessment in ICU/SICU documentation
- Implement a DVT awareness campaign and training
- Include vascular lab director as team member for DVT prophylaxis
- Include perioperative VTE prophylaxis on SCIP checklist

#### VTE Prophylaxis Selection for Surgery-excluded Populations

- Patients who are less than 18 years of age
  - Patients with procedures performed entirely by laparoscope
  - Patients whose total surgery time is less than or equal to 60 minutes
  - Patients who have a length of stay >120 days
  - Burn patients (as defined in Appendix A, Table 5.14 for ICD-9-CM codes)
  - Patients enrolled in clinical trials
  - Patients who are on warfarin prior to admission
  - Patients with reasons for not administering both mechanical and pharmacological prophylaxis
  - Patients whose ICD-9-CM principal procedure occurred prior to the date of admission
  - Patients with a hospital length of stay less than or equal to three calendar days
  - Patients who expire perioperatively
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### Cardiac Module

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Process Measure	Key Changes for Improving Care
<b>SCIP-Card 2:</b> Surgery patients on a beta blocker prior to arrival who received a beta blocker during the perioperative period	<ul style="list-style-type: none"><li>• Educate physicians, surgeons, and nursing staff on adverse cardiovascular complications for surgical patients</li><li>• Develop a policy for universal cardiac risk assessment of all patients admitted to the hospital and flag chart when patient is eligible for beta blocker administration</li><li>• Engage physician/surgeon champion to address beta blocker usage with peers</li><li>• Develop standardized preprinted orders to incorporate beta blocker administration/continuation for eligible patients</li><li>• Develop policy and protocol or algorithm to address beta blocker eligibility (i.e., documentation of risk factors, allergies)</li><li>• Adopt a system whereby nursing staff or pharmacy is assigned responsibility for reviewing home medications or include checkbox on nursing assessment to identify patients on beta blockers, including date and time of last dose administered</li><li>• Include beta blocker usage and administration on SCIP checklist</li><li>• Incorporate beta blocker administration verification into preoperative time out</li></ul>

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### Quality Improvement Strategies for all Measures

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<b>Measurement and Reporting</b>	<b>Key Changes for Improving Care</b>
Implement a performance measurement reporting system <i>AND</i>	<ul style="list-style-type: none"><li>Publicly report results of quality improvement initiatives through national programs and hospital/corporate website</li><li>Use standardized measures – relate to national benchmarks</li><li>Identify goals and measure progress toward goals</li><li>Improve patient care with continuous quality improvement models for maximum safety and efficiency</li><li>Report performance results regularly to Board and at internal committee meetings during discussion of goals</li></ul>
Use quality models (IHI, PDSA, Six Sigma, etc.) to guide and measure progress <i>AND</i>	<ul style="list-style-type: none"><li>Assign responsibilities for implementing and monitoring processes</li><li>Develop contingency plans if original interventions are found to be ineffective</li><li>Provide a report to hospital staff, physicians, and Board of Trustees that compares the hospital’s rates to rates for other hospitals, include SCIP rates</li></ul>
Use data to drive improvement and maintain change by regularly monitoring performance and compliance data and providing feedback to medical and hospital staff <i>AND</i>	<ul style="list-style-type: none"><li>Incorporate SCIP measures rates into physician reappointment credentialing process</li><li>Designate case managers to document monitoring and provide physician feedback</li><li>Provide internal physician profiles for project measures</li><li>Provide SCIP measures data to hospital leadership, surgeons, anesthesiologists, perioperative staff, physicians, nursing staff, pharmacists, and other clinicians</li></ul>
Manage variation	

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