NO HARM ACROSS THE BOARD

ADVANCED COLORECTAL SURGERY BUNDLE COMPANION DOCUMENT

To be used as a companion document to the Advanced Colon Bundle Gap Analysis

ESSENTIAL BUNDLE ELEMENT	BUNDLE ELEMENT SPECIFICS (If not present at your hospital or answering no, please see next column for suggested next steps)	IF THE SPECIFIC BUNDLE ELEMENT IS MISSING, CONSIDER THE FOLLOWING STEPS:
Pre-operative Mechanical Bowel Preparation and Oral Antibiotics	Does your hospital provide pre-operative mechanical bowel preparation and prescribe/provide pre-operative oral antibiotics for patients in the physician office/pre-admission testing (PAT) Yes No	• Determine who will provide, as standard, patients with the prescription for or provide the mechanical bowel preparation and oral antibiotics for patients to take pre-operatively • Work with surgeons, office staff, or PAT staff to identify and overcome barriers to ensure that the prescription for or mechanical bowel preparation and antibiotic formulations are provided to the patient • Add provision of pre-operative mechanical bowel preparation and oral antibiotics to standardized workflow in preparing the patient for surgery. • Provide patient and caregiver education on how to properly use the mechanical bowel preparation and take the oral antibiotics prior to hospital admission for the procedure and why the bowel preparation and oral antibiotics are necessary • Build into workflow a pre-operative check with patient as to completeness of mechanical bowel prep in combination with oral antibiotics
Normothermia	Does your hospital have active patient warming (e.g., using forced air warming device, warm blankets, warmed IV fluids in OR) in the: Pre-operative Holding Area OR PACU	• Work with staff to identify and overcome barriers to active patient warming. • Determine what equipment and supplies are needed to provide active patient warming. • Add active patient warming to work flow and care protocols.
	Does your hospital have a mechanism to check and maintain patients' core temperature >36˚C in the: OR PACU	• Determine frequency of temperature monitoring required. • Add temperature monitoring to standard order sets, including target temperature and frequency of monitoring. • Assign accountability and time frames for monitoring patient temperature. • Determine what equipment and supplies are needed to regularly monitor patient temperature.

Disclaimer: The information contained in the Advanced Colon Bundle is provided by the NYS Partnership for Patients (NYSPFP) for informational purposes only. NYSPFP makes no representations, guarantees or warranties of any kind, express or implied, about the completeness, accuracy, reliability or suitability with respect to any of the information above. NYSPFP disclaims any liability for any and all damages or losses arising from use of this information. The Advanced Colon Bundle is not meant to provide medical advice and is not a substitute for professional medical or clinical judgement.

ESSENTIAL BUNDLE ELEMENT	**BUNDLE ELEMENT SPECIFICS** (If not present at your hospital or answering no, please see next column for suggested next steps)	**IF THE SPECIFIC BUNDLE ELEMENT IS MISSING, CONSIDER THE FOLLOWING STEPS:**
Glucose Control	Does your hospital have glucose control protocols for use throughout the peri-operative and operative processes to maintain blood glucose between 50–200 mg/dl in the: Pre-operative Holding Area OR PACU Surgical Unit	• Work with pharmacists, endocrinologists, surgeons, and anesthesiologists to review existing glucose protocols from other hospital units and develop protocols specific to the pre-operative holding area, the OR, PACU, and surgical units to maintain blood glucose between 50–200 mg/dl. • Provide staff education on why glucose control in the peri-operative setting is important. Consider using the following suggested resources: • **NYSPFP SSI Tools and Resources** • **Preventing Surgical Site Infections: Glucose Control** (29 minutes) • **Reduce Colon SSI through Effective Glucose Management** (Septem-ber 18, 2014)
	Does your hospital identify known diabetics and potential hyper-glycemics in the PAT? Yes No	• Work with staff to identify barriers to identifying and optimizing known diabetics in the PAT. • Provide patient education on the benefits of pre-operative glucose manage-ment to patients known to be diabetic with hyperglycemia/high HbA1C. • Discuss and consider testing/evaluation aimed at identifying unknown hypo/hyper glycemics. Consider the following suggested resource: • **Perioperative Glycemic Control in a Community Hospital Setting** (September 18, 2014)
	Does your hospital perform frequent monitoring of blood glucose (for all patients, both known diabetics and non-diabetics) beginning in the: Pre-operative Holding Area OR PACU Surgical Units	• Work with staff to identify potential barriers to blood glucose monitoring (e.g., timing of testing, required equipment, treatment availability, etc.). • Work with surgeons, anesthesiologists, and nursing staff to determine accountability for blood glucose monitoring and treatment. Establish frequency of blood glucose monitoring.
Antimicrobial Prophylaxis	Does your hospital have a prophylactic antibiotic protocol? Yes If yes, does your antibiotic protocol have guidance on weight-based dosing and re-dosing for cases > 4 hours? Yes No No	• Provide education to physicians and staff and enlist support from your pharmacy department (e.g., pharmacy director) to provide evidence-based best practice education. Consider using the following resources: • **Reducing Surgical Site Infections: The Lutheran Medical Center Colon Bundle** • **Colon Surgery: Bowel Prep, Oral Antibiotics and the Best Intravenous Antibiotic** (28 minutes)

ESSENTIAL BUNDLE ELEMENT	**BUNDLE ELEMENT SPECIFICS** (If not present at your hospital or answering no, please see next column for suggested next steps)	IF THE SPECIFIC BUNDLE ELEMENT IS MISSING, CONSIDER THE FOLLOWING STEPS:
Antimicrobial Prophylaxis (continued)	Are more than 98% of prophylactic antibiotics administered within one hour prior to surgical incision? (N.B. Vancomycin or a fluoroquinolone should be administered within 60–120 minutes before the initial incision due to the longer half-life of these antimicrobials.) Yes No	• Work with staff to identify and overcome barriers to administering antibiotics in the hour prior to surgical incision and discontinuing prophylactic antibiotics within 24 hours of surgery. • Assign accountability for administering prophylactic antibiotics. Determine what equipment and supplies are needed to provide appropriate antibiotic prophylaxis.
	Are prophylactic antibiotics discontinued within 24 hours after surgery end time (48 hours for cardiac surgery)? Yes No	

Increased Peri-operative Oxygenation	Are patients with normal pulmonary function administered increased FiO_2, (e.g., up to 0.80 FiO_2) in the OR?
	Yes
	No
		• Discuss and establish frequency of monitoring oxygenation with staff and physicians.
		• Work with staff to establish criteria for oxygenation.
		• Consider using the following resource to provide education to staff:
		  • **Oxygen-What Does It Have To Do With Surgical Site Infection?**
		  • **The Expanding Role of the Anesthesiologist in Reducing Colon SSI**

Skin Preparation	Does your hospital use chlorhexadine gluconate with isopropyl alcohol or iodine povacrylex with alcohol (70%) as standard for skin preparation in the OR? Yes No	• Work with staff and materials management to ensure that the selected alcohol containing skin preparation solution is available as standard in all ORs and is used for every patient, every time, unless contraindicated. • Provide education to all staff to emphasize importance of skin preparation solution in reducing SSI. Consider using the following resource: • **Skin Preparation and Technical Factors that May Influence Infection Risk in Surgery** (20 minutes)
	Does your hospital standardize processes for hair removal prior to surgery? Yes Clippers Razors (If razors are used, consider working with staff to standardize protocols to use only clippers for hair removal) No	• Provide staff and physician education aimed at developing standardized hair removal protocols and using clippers only when hair removal is indicated. • Enlist the support of Infection Preventionist to provide evidence-based education to staff on need for removing hair with clippers in an area outside of the OR.

ESSENTIAL BUNDLE ELEMENT	BUNDLE ELEMENT SPECIFICS (If not present at your hospital or answering no, please see next column for suggested next steps)	IF THE SPECIFIC BUNDLE ELEMENT IS MISSING, CONSIDER THE FOLLOWING STEPS:
Clean Standardized Fascia Close	Does your hospital use clean closing trays and instruments routinely for closing of fascia? Yes No	• Work with surgeons and OR staff to identify barriers, including needed supplies and equipment. • Provide physician and staff education on need for clean closure trays and standardized wound closure techniques. Consider using the following resource: • **Colorectal Surgical Site Infections A Process Improvement Approach**, Dr. Robert Cima (Slide 72)
	Does your hospital have a protocol to standardize closing of the abdominal wound for all colorectal surgeons (e.g., with a subcuticular closure except type IV cases, where skin is left partially open)? Yes No	
Wound Management	Does your hospital have a protocol to standardize application of the wound dressing intra-operatively? Yes No	• Work with surgeons and OR staff to identify standard wound dressing to use in the OR. • Work with surgeons and staff in the OR to identify and overcome barriers to standardization of wound dressing, including equipment, supplies, and surgeon preferences. Invite wound care nurse (if applicable) to participate in the discussion.
	Does your hospital have a protocol to standardize post-operative wound care? Yes No	• Work with surgeons and staff on surgical unit to standardize post-operative wound dressing changes (i.e., standardizing timing of dressing change post-operatively, method of dressing change, and dressing materials used). • Determine what equipment and supplies are required for optimal wound management and ensure they are available on the unit.
	Does your hospital routinely provide patient and caregiver education on optimal post-discharge wound care? Yes No	• Work with nursing education and patients to develop a wound care leaflet and teaching that nursing staff and surgeons can provide to patients upon discharge.

New York State
Partnership
for Patients