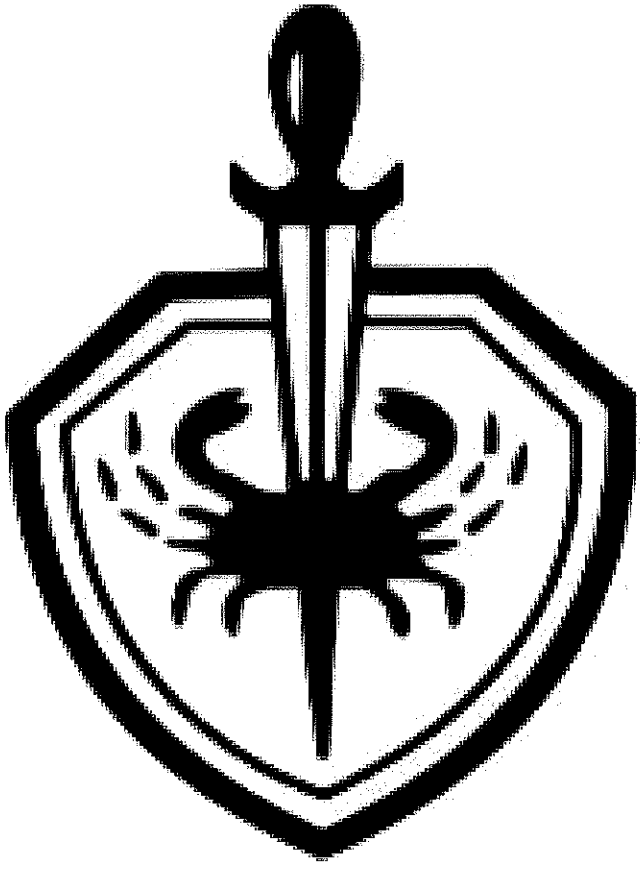
Surgical Oncology Service Manual Maine Medical Center



Updated 7/5/2023

The surgical oncology service provides care for a complex group of patients. The service is structured to provide coordinated, patient-=centered care. Given our desire to perform high quality, cost-effective, efficient care it is imperative that we organize our service effectively and expectations are clear. The surgical oncologist is a surgeon who not only performs cancer surgery but also cares for the cancer patient. This manual is designed to orient residents to the service, clarify structure, and outline educational objectives.

Attending call and advanced practice provider schedules

The attending surgeon call schedule will be done approximately six months in advance and is available on amion. The schedule is subject to change, and the latest version is on amion. The advanced practice provider schedule is the responsibility of the lead-APP.

Chief Resident responsibilities

The Surgical Oncology Service is a resident and advance practice provider driven service. The Chief Resident is to function as the leader of the resident service while on Surgical Oncology. The Chief Resident will work with the lead-APP to ensure the service runs smoothly, assign cases, and ensure coverage for clinics. The Chief Resident will also ensure the weekend rounding resident will be available from 6:30 through 9 am Saturday and Sunday.

Weekly schedule

Each Friday the Chief Resident and lead-APP will provide a schedule for the following week. The Chief Resident should be aware of any potential coverage gaps. If gaps cannot be mitigated, communication to the affected attending and if necessary to the Chief-of-Service will occur.

Consults and admissions

A predictable schedule of attending responsibilities on the service is imperative for clear communication and patient care. The service aspires to provide easy access for patients 24 hours a day seven days a week, and the service pager will serve as single point of access. To ensure rapid, easy access, the on-call surgeon of the week will be available for all cancer-related surgical consults at Maine Medical Center and patient transfers. The surgeon of the week is responsible for most consults and admissions. To simplify the schedule, the surgeon of the week will be the same Monday-Sunday a majority of the time (except when transtplant is

covering weekend call). Consults not resolved by the transplant surgeon on for the weekend will be picked by the team on Monday.

Resident schedule and days off

The resident schedule is in surg.me. Surg.me will be the repository for vacation, days off (i.e., interviews), and scheduled events (required training, lectures, or events). Having a central location for this information will help with making a combined resident and advanced practice provider schedule that anticipates educational and clinical needs. Any deviation from expected vacation time is to be discussed with the Chief resident, Lead APP, and Chief-of-Service/Program Director with plans for addressing coverage needs. Reporting changes intend to minimize the unintended disruption to patient care.

Enhance recovery after surgery

The surgical oncology service utilizes evidence-based perioperative care protocols. Enhanced recovery protocols encompass the entire perioperative period. The basic principles of enhanced recovery are patient education, carbohydrate loading, goal-directed resuscitation, multimodal pain management, early convalescence, and early resumption of oral intake. Order set exists for patients undergoing colorectal surgery. The complex GI program is built upon the existing colorectal order sets. Specific details for different surgical procedures are outlined and posted on surg.me. Also, perioperative glucose control is imperative. Providers should utilize the perioperative glucose control algorithm for patients requiring an insulin drip intraoperatively. This glucose algorithm is also posted in surg.me.

Educational Mission

Maine Medical Center is a teaching hospital and the surgical oncology service is committed to this mission. It is imperative that there is clear communication between the residents and the advanced practice providers when there is anticipated conflict between resident education and service needs. Although we are committed to resident education, patient safety remains a penultimate goal.

On the service we manage complex patients with benign and malignant conditions. Also, we perform a variety of complex surgical procedures. The mastery of all the subject matter and technical aspects of surgical oncology is unrealistic outside of context of a surgical oncology fellowship. However, on this rotation there are opportunities to master important aspects of general surgery. For example, it would not be expected that residents would be able to perform cytoreductive surgery with HIPEC. However, within this procedure are critical skills such as complex adhesiolysis and multivisceral resection. Similarly, a modified radical neck

dissection provides the residents with a better understanding of complex neck anatomy. The endocrine service also provides exposure to complex pathologic and physiologic issues. Although very few general surgeons perform Whipple procedures, within this operation resident will be able to get comfortable with open cholecystectomy, biliary exploration, upper GI anatomy, and gastric reconstruction/reconstruction. Many SCORE curriculum goals for general surgery can be met on the service. Below the service educational goals are outlined using the SCORE curriculum. Goals have been organized by resident level (Junior or Chief) and by whether they are cognitive or procedural.

Cognitive

Junior resident

Biliary

Understanding benign biliary obstruction, bile duct injury, and biliary neoplasm

Liver

Primary and secondary hepatic malignancies

Pancreas

Cystic lesions of the pancreas, acute and chronic pancreatitis, pancreatic divisum, and sequelae of chronic pancreatitis

Stomach

Management of gastrointestinal stromal tumor and miscellaneous gastric neoplasms

Small bowel

Treatment of small bowel neoplasms

Large intestine

Management of colon cancer and colonic polyps

Endocrine

Understanding of incidental adrenal mass, hyperaldosteronism, Cushing's syndrome, hyperparathyroidism, hyperthyroidism, hypercalcemia, hypocalcemia, and pheochromocytoma

Soft tissue and skin

Management of non-melanoma skin cancer
Work-up of soft tissue mass

Biostatistics and evidence-based medicine

Understanding of clinical trials
Evaluation and incorporation of surgical literature
Clinical research

End-of-life care and geriatrics
Frailty screening
Palliative and hospice care

Oncology
Adjuvant treatment for solid malignancies
Screening and biomarkers

Preoperative evaluation and perioperative care
Management of perioperative risk
Postoperative pain management
DVT prophylaxis in cancer patients

Chief resident

Biliary
Choledochocyst classification

Pancreas
Treatment of intraductal papillary mucinous neoplasms

Stomach
Management of gastric adenocarcinoma

Large intestine
Understanding the treatment for polyposis syndromes

Rectal
Surgical and adjuvant treatment for rectal cancer

Endocrine
Management of thyroid cancer, work-up of thyroid nodule, and thyroiditis
Treatment of adrenal and parathyroid cancer
Understanding of multiple endocrine neoplasia syndromes

Soft tissue and skin
Treatment of desmoid tumors
Treatment of soft tissue sarcoma

Biostatistics and evaluation of evidence

Summarizing data and studies
Levels of evidence
Research design
Clinical research

Oncology
Genetic susceptibility
Talking about death

Preoperative evaluation and perioperative care
Evaluation and management of surgical risk

Procedural

Junior resident

Liver
Liver biopsy

Small bowel
Ileostomy takedown and small bowel resection

Large intestine
Partial colectomy

Endocrine
Assist with parathyroidectomy
Thyroid ultrasound

Soft tissue and skin
Wide excision of skin cancer
Sentinel node biopsy
Excision of soft tissue/skin lesion
Excision of small soft tissue neoplasms
Simple wound closure
Skin grafting
Lymph node biopsy
Core biopsy of soft tissue lesion

Chief resident

Biliary
Biliary enteric anastomosis
Operative procedures for bile duct cancer, iatrogenic biliary injury, bile duct neoplasm, and gallbladder cancer

Liver

Hepatic ultrasound
Segmentectomy/lobectomy

Pancreas
Distal pancreatectomy, ampullary resection, pancreatectomy, pancreatic ultrasound, and operative management of chronic pancreatitis

Spleen
Laparoscopic and open splenectomy

Stomach
Gastrectomy

Small bowel
Adhesiolysis

Large intestine
Total and subtotal colectomy
Colostomy and colostomy closure

Rectal
Abdominal perineal resection
Proctectomy with low anastomosis

Endocrine
Partial or total thyroidectomy
Laparoscopic and open adrenalectomy

Skin and soft tissue
Completion lymph node dissection
Excision of soft tissue sarcoma
Complex wound closure and advancement flaps
Complex skin grafting
Modified radical neck dissection

ERAS for Abdominal Surgery

	Pre-op	Day of Surgery	Intra-op	Post-op				
				POD1	POD2	POD3	POD4	POD5
Core ERAS	• Smoking & alcohol abstinence • PREP visit	• Clearfast 2-3 hours before surgery • Multi-modal pain management	• Avoid placing an NG tube • Multi-modal pain management • DVT Prophylaxis • Anti-microbial skin prep • Regional anesthesia • Avoidance of hypothermia • ERP Anesthesia protocol • Glucose Control protocol	• Clear liquids • Tailor IVFs to oral intake • Continue multi-modal pain management • Chewing gum • Consider ketamine IV post-op • Early ambulation (chair 6 hours, walk w/ assistance in hall) • Remove NG tube if present • Remove Foley	• If still present, Remove Foley	• If drains, check output		
+If Colorectal	• Oral bowel prep • Colorectal surgery education booklet			• Anticipate discharge needs POD 3 • Consider D/C IVF • Offer diet		• Discharge planning		
+ If Liver	• Liver surgery education booklet • No bowel prep		• Low CVP (<5)	• Anticipate discharge needs POD 3 • Offer diet • Tailor IVF to patient need		• If drain placed, check bilibin & remove if similar to serium • Discharge planning		
+ If Gastrectomy	• Gastrectomy education booklet • No bowel prep			• Anticipate discharge needs POD 3		• Discharge planning		
+ If Pancreas	• Pancreas education booklet • No bowel prep			• Metaclopromate 20 mg IV 48 hours • No somatostatin analog • Entemal nutrition • Anticipate discharge needs POD 5		• Remove drains if amalyse is <2x normal		• Discharge planning

Doc ID:	Title: ERAS for Colorectal Surgery-Post-Op Hypotension with Epidural	Effective Date:
Revision #	Prepared By: Eric Brown	Next Review Date:
Revision Date:	Approved By: Craig Curry	Date Approved:

Spectrum HCP **Divisional** **Departmental**

Policy/Procedure **Guideline** **Protocol** **Visual Aid**

Policy:
It is the policy of Spectrum Healthcare Partners to provide, safe, effective care to patients undergoing colorectal surgery at Maine Medical Center.

Scope:
Maine Medical Center

Definitions:
None

Procedure:
Guidelines for managing post-operative hypotension with epidural in place (PACU or floor):

- Hypotension defined as sustained MAP <65 mmHg OR evidence of poor end organ perfusion (mental status changes, sustained urine output <0.5ml/kg/hr).
- Covering physician (APMS staff, anesthesia resident, or anesthesia staff) notifies primary team. As always, close communication with PACU RN throughout is essential.
- Evaluate for presence and extent of dermatomal blockade with ice. Running epidural intraoperatively will help facilitate rapid assessment in PACU. If no block or an inadequate block, troubleshoot or replace when hemodynamic conditions allow for safe test dosing.
- Even if a block is present, consider non-epidural causes of hypotension.
- If adequate dermatomal coverage is present, stop epidural for 30 minutes. This will more rapidly reduce drug volume in epidural space. After 30m, resume epidural at ½ original rate. This plan should be communicated with PACU RN in detail to avoid lengthy epidural off times. Consider short term continuation or initiation of alpha-agonists (i.e. phenylephrine). Avoid crystalloid boluses unless you have reason to believe the patient is hypovolemic.

- If patient experiences increasing pain while hypotensive, consider 100mcg epidural fentanyl or 0.2mg epidural hydromorphone. Diluting the drug in saline will help improve spread. Ensure that all drugs given via epidural route are preservative free.

- If MAP> 65mmHg or normal perfusion cannot be achieved after halving the epidural rate and/or patient remains vasopressor-dependent, contact primary team to discuss further management. This should include workup for non-epidural causes of hypotension.

    - Options at this point include:
        - Further decreasing epidural rate
        - Decreasing epidural LA concentration to 0.0625% bupivacaine
        - Adding or uptitrating vasopressors
        - Giving additional crystalloid or colloid if clinically indicated for hypovolemia
        - Please reserve lengthy periods of epidural cessation for the most refractory patients. Even maintaining epidural rate at 1-2ml/hr will help avoid pain peaks and reduce the need for future epidural boluses.

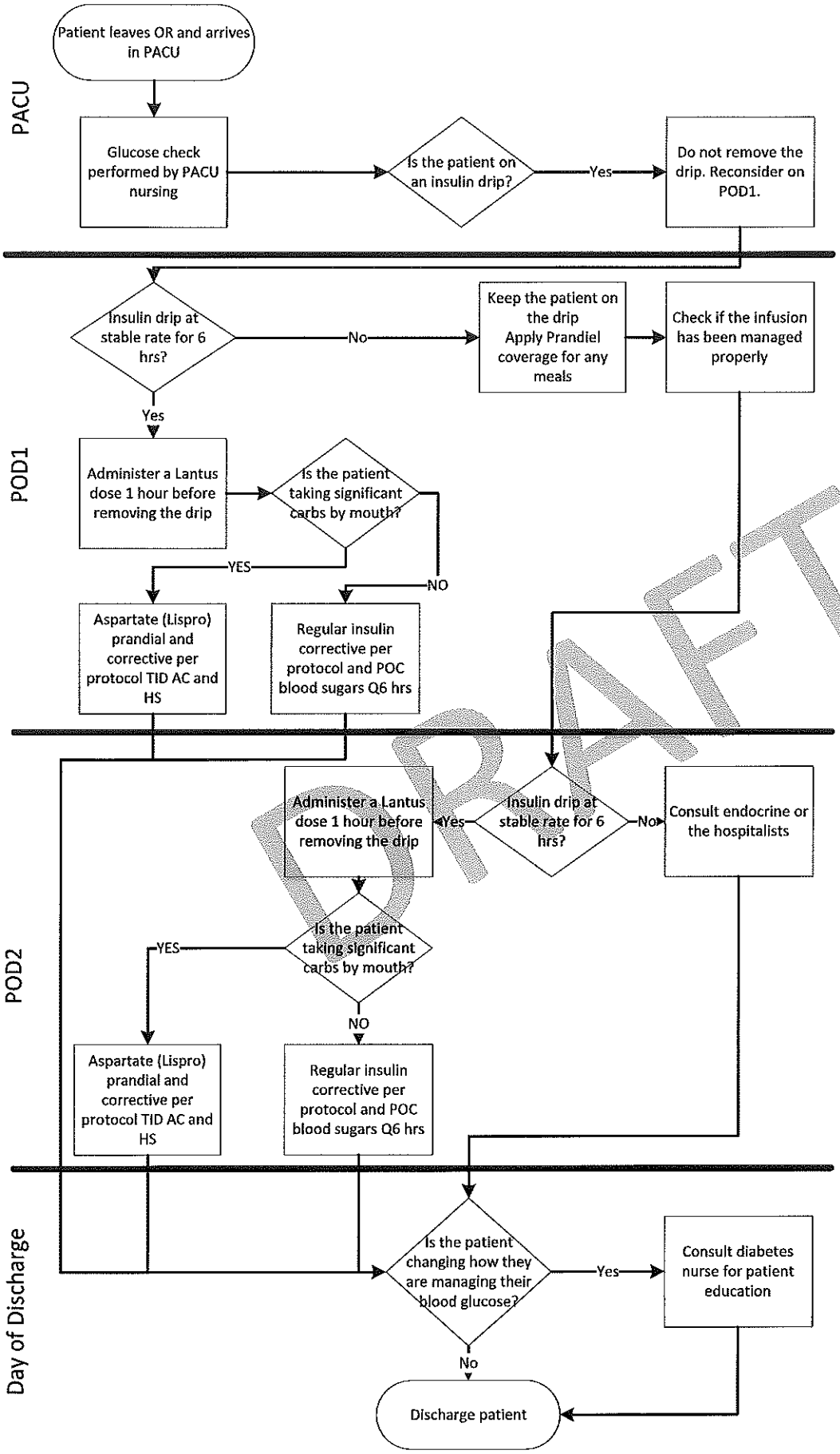
- In the average patient, a functional T8-10 thoracic epidural for colon surgery should not require standard solution (0.125% bupivacaine with 10mcg/ml hydromorphone) infusion rates >6ml/hr. Many patients can be comfortable at 3-4ml/hr. Obviously, there are extenuating circumstances. However, consider placing your initial orders with conservative rates as the rate can always be increased.

- Please document your workflow in the PACU signout note, even if the patient is not ready to "sign out." This can always be addended later if there are further clinical changes.

References:

None

DRAFT: Post-Operative Glucose Control



Instructions for glargine (Lantus) dose:

If insulin requirement expected to remain the same:
- daily glargine dose = 0.8*24*IIR

If insulin requirement expected to decrease (infection improving, weaning steroids, etc):
- daily glargine dose = 0.6*24*IIR
(IIR = Avg hourly insulin infusion rate past 6 hrs)

It is best that transitions from the drip occur in the mornings, not overnight.

Intranet -> Depts & Initiatives -> Diabetes (Glycemic control) Program -> Insulin -> Clinical Decision Support Tool - Transition from IV to SC Insulin.

When to consult endocrinology vs. hospital medicine:
Endocrine consult- anticipate follow-up with endocrine clinic
Hospitalist consult- anticipate follow-up with PCP

It is important to involve the diabetes nurse educators when a patient is leaving the hospital managing their glucose in a new way

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Approved by: Dr. Jaswin Sawhney, Dr. Tim Fitzgerald, Dr. Molly Douglas, Dr. Steve Hess