

SERVICE SPECIFIC COMPETENCY-BASED EDUCATIONAL GOALS AND OBJECTIVES

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D. Practice-Based Learning and Improvement

1. A packet of relevant book chapters and journal articles will be distributed at the beginning of the rotation. The resident should read and become familiar with all information provided.
2. The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatments in the ambulatory setting.
3. The resident must attend assigned weekly outpatient clinics.

E. Systems-Based Practice

1. The resident should practice high quality, cost-effective care.
2. The resident should observe and learn the complexities of processing a patient through initial registration, acquisition of third party payer approval, interface with nursing personnel, the outpatient clinic visit, acquisition of test results, operative scheduling, admission to the postanesthesia care area, and discharge.
3. The resident should demonstrate an understanding and commitment to continuity of care by development of a patient care plan including timing of return to work and appropriate follow-up.

F. Professionalism

See general goals and objectives

PGY 2

A. Knowledge

1. The resident should learn pertinent scientific information applicable to preoperative and postoperative conditions seen in the ambulatory care setting.
2. The resident should learn detailed surgical anatomy applicable to procedures carried out in the ambulatory setting. *Examples include anatomy of lymphatics (neck, groin, axilla); anatomy of the structures of the porta hepatic and structures within the triangle of Calot; and anomalous biliary anatomy.*
3. The resident should have an in-depth understanding of the various options available for hernia repair and be able to discuss the preoperative variables important in selection of the most appropriate type of repair. *Examples include properitoneal repair, laparoscopic repair, and open mesh vs. tissue repairs.*
4. The resident should be able to demonstrate an understanding of the principles of surgical decision-making, with particular reference to the appropriateness of treating problems in an ambulatory setting.

B. Patient Care

1. Obtain detailed operative consent and participate in “time out” procedures prior to operations.
2. The resident should be able to identify instruments and supplies that will be necessary for operative procedures on which he or she will serve as surgeon of record.
3. The resident should understand the value of local and regional in the setting of ambulatory surgery.
4. Under appropriate supervision, perform intermediate surgical procedures such as:
Open and needle-localization breast biopsy Sentinel node biopsy
Laparoscopic cholecystectomy Recurrent inguinal hernia repair
Incisional hernia repair

C. Interpersonal and Communication Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. A packet of relevant book chapters and journal articles will be distributed at the beginning of the rotation. The resident should read and become familiar with all information provided.
2. The resident should use books, journal articles, internet access, and other tools to learn about potential complications commonly seen after ambulatory procedures and how to treat them.
3. The resident must attend assigned weekly outpatient clinics.

E. Systems-Based Practice

1. The resident should participate throughout the course of his or her patient’s surgery, including marking the operative sight, being present at induction of anesthesia, positioning the patient, and identifying the extent and area of skin preparation.
2. The resident should observe and learn about timing of discharge after outpatient procedures, including adequate pain control and recovery from general anesthesia.
3. The resident should recognize the importance of a step-by-step approach to planning and implementation in order to increase the efficiency of ambulatory surgery.

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for General Surgery Residents

Surgery A and C Services

PGY 1

A. Medical Knowledge

1. The resident should learn in-depth the fundamentals of basic science as they apply to the clinical practice of general surgery and, more specifically, to the practice of hernia surgery, open gastrointestinal surgery, and laparoscopic surgery. *Examples include anatomy, physiology, pathophysiology, and presentation of diseases of the abdominal cavity and pelvis; elements of wound healing; epidemiology of benign and malignant diseases, surgical nutrition, and management of fluid and electrolyte balance. In addition, residents should understand the physiological effects of pneumoperitoneum created for laparoscopic surgery.*
2. Specific to Surgery A: The resident should learn in-depth fundamentals of basic science as they apply to the clinical practice of endocrine surgery. *Examples include normal and pathological endocrine function, surgical anatomy and surgical pathology of the thyroid, parathyroid, adrenal, pancreas, and pituitary glands; evaluation and management of the surgical causes of hypertension.*
3. Specific to Surgery C: The resident should learn in-depth fundamentals of basic science as they apply to the clinical practice of colorectal surgery. *Examples include in depth knowledge of anorectal anatomy, normal colonic function, risk factors for colorectal cancer, tumor markers, patterns of metastatic spread, etiology of perirectal abscess, and pathology of inflammatory bowel disease.*
4. The resident should be able to efficiently utilize and interpret diagnostic laboratory testing. *Examples of appropriate tests include tumor markers, serum chemistries, liver function tests, arterial blood gas analysis, hematological profiles and coagulation tests.*
5. The resident should be able to efficiently utilize and interpret diagnostic radiological tests. *Examples of the types of studies include computed tomography, radionucleotide scintigraphy, ultrasonography, arteriography and gastrointestinal studies.*

B. Patient Care

1. The resident should assume responsibility for all elective admissions to the service, including performing an accurate history and physical examination, writing admission orders, and reviewing appropriate diagnostic tests.

2. Under appropriate supervision, perform basic surgical procedures such as:

<i>Placement of venous access devices</i>	<i>Flexible and rigid proctoscopy</i>
<i>Anoscopy</i>	<i>Removal of cutaneous lesions</i>
<i>Gastrostomy</i>	<i>Anorectal procedures</i>
<i>Routine wound closure</i>	<i>Appendectomy</i>
<i>Hernia repair (inguinal, femoral, umbilical)</i>	<i>Tracheal intubation</i>
3. The resident should assume responsibility for discharging patients, including dictating the discharge summary, writing prescriptions, and ensuring appropriate follow-up.
4. The resident must attend and participate in at least one of the two ambulatory surgery clinics held each week for their service. *Activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of patients with endocrine diseases (Surgery A) and colorectal pathology (Surgery C).
2. The resident should attend weekly outpatient general surgery and specialty (i.e., endocrine or colorectal/procto) clinics.

E. Systems-Based Practice

1. The resident should be able to appropriately utilize consultations from other surgical and medical specialties in a timely and cost efficient manner to facilitate and enhance patient care.

F. Professionalism

See general goals and objectives

PGY 3

A. Medical Knowledge

1. The resident should be able to correctly diagnose and understand principles of treatment of common surgical complications and surgical emergencies. *Examples include electrolyte imbalance, failure of hemostasis, surgical infection, renal failure, pulmonary insufficiency, cardiac abnormalities, shock, peritonitis, limb ischemia and gastrointestinal hemorrhage.*

Specific to Surgery A:

1. The resident should be able to correctly delineate the pathophysiology, clinical presentation, work-up and treatment of endocrine disorders. *Examples include but are not limited to hyperthyroidism, hypothyroidism, thyroid malignancy, MEN syndromes, solitary thyroid nodule, multinodular thyroid gland, hyperparathyroidism, insulinoma, glucagonoma, Zollinger-Ellison syndrome, Cushing's syndrome, Conn's syndrome, and pheochromocytoma.*
2. The resident should be able to accurately describe the perioperative management of acute endocrine crises. *Examples include but are not limited to thyroid storm, hypercalcemic crisis, malignant hypertension, carcinoid syndrome, and adrenal insufficiency.*
3. The resident should be accurately describe the surgical approaches to endocrine glands including the thyroid gland, the left and right adrenal glands, the superior and inferior parathyroid glands, and the anterior pituitary gland.

Specific to Surgery C:

1. The resident should learn in depth the pathophysiology, diagnosis and treatment of diseases of the colon, rectum, and anus.
2. The resident should be able to describe the principle of bowel preparation before colonic surgery and understand the rationale for various methods in current use, including the “no prep” technique.
3. The resident should be able to recognize and treat common complications after colonic surgery. *Examples include anastomotic leak, colostomy retraction, and intrabdominal abscess.*
4. The resident should learn in depth the presentation, diagnosis, and medical vs. surgical treatment of inflammatory bowel disease.

B. Patient Care

1. The resident should assume the overall care of every patient on the service.
2. The resident should be able to demonstrate correct use of invasive monitoring and non-surgical invasive procedures to diagnose and treat surgical complication. *Examples include interpretation of data from arterial lines, central lines, pulmonary artery catheters and radiology-directed percutaneous aspirations of fluid collection, abscess cavities and solid lesions. In addition, residents should understand the use and limitations of percutaneous drainage of fluid collections/abscesses.*
3. The resident should be able to correctly diagnose and treat diseases of the endocrine system (Surgery A). The resident should be able to diagnose and treat benign and malignant diseases of the colon and rectum (Surgery C).

4. Under appropriate supervision, perform basic surgical procedures such as:

<i>Thyroidectomy</i>	<i>Complicated bowel surgery including resection</i>
<i>Laparoscopic cholecystectomy</i>	<i>All hernia repairs including complicated incisional hernias</i>
<i>Laparoscopic inguinal hernia repair</i>	<i>Flexible sigmoidoscopy</i>
<i>Colonoscopy</i>	<i>Segmental and subtotal colectomy</i>
<i>Advanced laparoscopic surgery</i>	<i>Placement of gastrostomy/jejunostomy</i>
5. The resident must attend and participate in at least one of the two ambulatory surgery clinics held each week for their service.

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of patients with endocrine diseases (Surgery A) and colorectal pathology (Surgery C).

E. Systems-Based Practice

The resident should be able to appropriately utilize consultations from other surgical and medical specialties in a timely and cost efficient manner to facilitate and enhance patient care.

F. Professionalism

See general goals and objectives

CHIEF RESIDENT

A. Medical Knowledge

Specific to Surgery A:

1. The resident should be able to describe the surgical treatment of endocrine pathology, including preoperative preparation, surgical anatomy, and surgical options.
2. The resident should be able to describe treatment of postoperative complications in patients with endocrine disease. *Examples include but are not limited to hypocalcemia, vocal cord paralysis, and adrenal insufficiency.*
3. The resident should be able to describe localization techniques for endocrine tissue.
4. The resident should be able to discuss postoperative care of patients with endocrine malignancies, including thyroid ablation, management of hypocalcemia, and adrenal replacement therapy.

Specific to Surgery C:

1. The resident should be able to describe the pathophysiology and treatment of complications after intestinal and colon resections. *Examples include but are not limited to colostomy necrosis, short gut syndrome, acute postoperative bowel obstruction, and intraabdominal abscess.*
2. The resident should be able to delineate the medical treatment of inflammatory bowel disease and when surgical intervention is appropriate.

B. Patient Care

1. The resident should assume a supervisory role for the PGY1 and PGY3 residents.
2. Under appropriate supervision, perform advanced surgical procedures such as:

<i>Hepatic resection</i>	<i>Complicated biliary procedures (open and laparoscopic)</i>
<i>Pancreatectomy</i>	<i>Laparoscopic splenectomy</i>
<i>Parathyroidectomy</i>	<i>Open and laparoscopic adrenalectomy</i>
<i>Total abdominal colectomy</i>	<i>Abdomino-perineal resection</i>
<i>Low anterior resection</i>	<i>Pull-through procedures</i>

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of patients with endocrine diseases (Surgery A) and colorectal pathology (Surgery C).

E. Systems-Based Practice

See general goals and objectives

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for General Surgery Residents

Emergency General Surgery Services (EGS 1, EGS 2, EGS 3)

PGY 1

A. Medical Knowledge

1. The resident should learn in-depth the fundamentals of basic science as they apply to patients with acute surgical problems. *Examples include the pathophysiology of peritonitis, etiology of abscess formation, management of fluid and electrolyte balance in the emergency patient, and surgical anatomy and surgical pathology of the intra-abdominal organs and anal canal.*
2. The resident should be able to demonstrate preoperative assessment of patients with acute surgical diseases. *Examples include rapid assessment of comorbid conditions, assessment of operative risk, knowledge of anesthetic options for emergency procedures, and principles of stabilization.*
3. The resident should understand the appropriate use of antibiotics. *Examples include appropriate agents, timing, and duration of perioperative antibiotics.*
4. The resident should understand the pathophysiology of sepsis.
5. The resident should understand the pathophysiology of appendicitis.

B. Patient Care

1. The resident should perform appropriate resuscitation in patients with acute surgical problems.
2. The resident should perform advanced history and physical examination in the patient with acute surgical problems, including such conditions as the acute surgical abdomen, upper and lower gastrointestinal bleeding, and jaundice.
3. The resident should assume responsibility for care of all patients on the hospital ward, including initial assessment, evaluation of daily progress, and implementing discharge plans.
4. Under appropriate supervision, perform basic surgical procedures such as:
 - Open appendectomy*
 - Drainage of breast abscess*
 - Incision and drainage of perirectal abscess*
 - Lower extremity amputations*
 - Basic wound and drain care*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of patients with acute surgical illness.
2. The residents should attend the *A, C, St. Paul general surgery and Transplant Conference Wednesday, 7:00 a.m.* as well as Trauma Conference, held weekly on Thursday, 7:30 am.
3. The residents must attend and participate in the weekly clinics for their service. Activities will include perioperative and postoperative care of established patients under the supervision of attending surgeons.

E. Systems-Based Practice

The resident should be able to use appropriate consult services in the hospital to improve his or her patients.

F. Professionalism

See general goals and objectives

PGY 2

A. Medical Knowledge

1. The resident should be able to efficiently utilize and interpret diagnostic laboratory testing in patients with acute surgical conditions. *Examples of appropriate tests include serum chemistries, liver function tests, arterial blood gas analysis, hematological profiles and coagulation tests.*
2. The resident should be able to efficiently utilize and interpret diagnostic radiological tests. *Examples of the types of studies include mammography, computed tomography, radionuclide scintigraphy, ultrasonography, arteriography and gastrointestinal studies.*
3. The resident should be able to correctly use invasive monitoring and non-surgical invasive procedures to diagnose and treat surgical complication. *Examples include interpretation of data from arterial lines, central lines, pulmonary artery catheters and radiology-directed percutaneous aspirations of fluid collection, abscess cavities and solid lesions. In addition, residents should understand the use and limitations of percutaneous drainage of fluid collections/abscesses.*
4. The resident should be able to recognize diagnose and understand principles of treatment of common surgical problems in patients with surgical emergencies. *Examples include electrolyte imbalance, failure of hemostasis, renal failure, pulmonary insufficiency, cardiac abnormalities, shock, limb ischemia and gastrointestinal hemorrhage.*
5. The resident should understand the pathophysiology of cholecystitis and bowel obstruction.

B. Patient Care

1. The resident should perform the initial assessment and formulate a plan on every new consultation to the service, including patients in the hospital and those presenting to the emergency department.
2. The resident should perform a detailed history and physical examination on every new admission or transfer to the service.
3. The resident should assume the overall care of patients in the intensive care unit.
4. Under appropriate supervision, perform basic surgical procedures such as:
Repair of strangulated incisional or inguinal hernia
Laparoscopic appendectomy
Lysis of adhesions
Laparoscopic cholecystectomy
Colostomy

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of patients with acute surgical illness.
2. The residents should attend the *A, C, St. Paul general surgery and Transplant Conference Wednesday, 7:00 a.m.* as well as Trauma Conference, held weekly on Thursday, 7:30 am.
3. The residents must attend and participate in the weekly clinics for their service. Activities will include perioperative and postoperative care of established patients under the supervision of attending surgeons.

E. Systems-Based Practice

1. The resident should be able to communicate with patients, families, nurses, paramedics, and other allied health care personnel.
2. The resident should take responsibility for posting emergency cases in the operating room.

F. Professionalism

See general goals and objectives

2. The residents should attend the *A, C, St. Paul general surgery and Transplant Conference Wednesday, 7:00 a.m.* as well as Trauma Conference, held weekly on Thursday, 7:30 am
3. The residents must attend and participate in the weekly clinics for their service.

E. Systems-Based Practice

1. The resident should be able to communicate with referring physicians from other hospitals and emergency departments.
2. The resident should communicate with his or her peer from the trauma service to determine the optimal use of resources for the hospital, including timing of procedures in the operating room and recommendation for placing the hospital on divert status.

F. Professionalism

See general goals and objectives.

CHIEF RESIDENT

A. Medical Knowledge

1. The chief resident should be able to correctly explain the operative approaches for acute surgical conditions of the abdominal cavity and retroperitoneal organs.
2. The chief resident should be able to accurately explain the physiologic rationale for vagotomy, pyloroplasty, gastric resection and reconstructive techniques for ulcer disease, and stoma formation.
3. The chief resident should be able to correctly explain the indications and contraindications for diagnostic and therapeutic endoscopy in the acute setting.
4. The chief resident should be able to discuss the management alternatives for common bile duct stones.
5. The chief resident should learn the pathophysiology, presentation, and specific treatment options for hepatic cirrhosis and portal hypertension
6. The chief resident should be able to describe in detail the diagnosis and management of variceal hemorrhage. *Examples include correct use of the Sengstaken-Blakemore tube, selective portacaval shunts, nonselective portacaval shunts, and TIPS.*
7. The chief resident should be able to describe the operative details of portacaval shunts.

B. Patient Care

1. The chief resident should assume the overall responsibility for all patients on the service, including supervision of the residents assuming direct care responsibilities.
2. The chief resident should serve as teaching assistant for PGY 1-3 residents as they perform operations appropriate to their level.
3. The chief resident must attend weekly outpatient clinics.
4. Under appropriate supervision, the chief resident should perform advanced operative procedures such as

<i>Subtotal gastrectomy</i>	<i>Highly selective vagotomy</i>
<i>Total gastrectomy</i>	<i>Pancreatectomy</i>
<i>Austin-Jones sphincteroplasty</i>	<i>Hepaticojejunostomy</i>
<i>Peustow procedure</i>	

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of patients with acute surgical illness.
2. The residents should attend the *A, C, St. Paul general surgery and Transplant Conference Wednesday, 7:00 a.m.* as well as Trauma Conference, held weekly on Thursday, 7:30 a.m.
2. The residents must attend and participate in the weekly clinics for their service.

E. Systems-Based Practice

1. The resident should have an understanding about the resources of the county medical system, including the satellite outpatient clinics, hospital based outpatient clinics, and the number of available hospital beds for inpatients.
2. The resident should be able to discuss the impact of the Health Insurance Portability and Accountability Act (HIPAA) on the resources of the county medical system.
3. The resident should understand the rules for transfer of patients to the hospital under the HIPAA regulations.

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for General Surgery Residents

Trauma Services (Trauma 1, Trauma 2, Trauma 3)

PGY 1

A. Medical Knowledge

1. The resident should understand the principles of ATLS.
2. The resident should be able to identify different forms of shock associated with the injured patient. *Examples include hemorrhagic, neurogenic, cardiogenic and septic shock.*
3. The resident should understand the indications for, and different types of agents used in prophylactic and therapeutic antibiotic use.
4. The resident should understand appropriate fluid and electrolyte resuscitation.
5. The resident should understand the costs, risks and expected information obtained from routine laboratory testing.
6. The resident should understand the basic principles in the diagnostic evaluation of single organ system injury.
7. The resident should understand his or her role in the trauma resuscitation team, and be able to perform the appropriate tasks of that role. The resident must be familiar with trauma protocols.
8. The resident should be able to discuss the costs, risks and expected information obtained from non-invasive diagnostic tests to evaluate the injured patient. *Examples include plain films, ultrasonography and CT scanning.*
9. The resident should understand the costs, risks and expected information obtained from invasive diagnostic tests to evaluate the injured patient. *Examples include wound exploration, DPL and arteriography.*

B. Patient Care

1. The resident must be aware of his or her limitations and know when to call for help.
2. The resident must attend daily check out rounds for his or her service.
3. The resident should assist with resuscitation in trauma patients presenting to the emergency department.
4. The resident should assume responsibility for care of all patients on the hospital ward, including initial assessment, creating a therapeutic plan, evaluation of daily progress, and initial assessment of new problems.

5. The resident should be able to assess patients on the ward when called for cross-coverage.
Example include evaluation of patients with fever, oliguria, hypotension, respiratory insufficiency, and intractable pain.
6. The resident should assume responsibility for discharging patients, including dictating the discharge summary, writing prescriptions, and ensuring appropriate follow-up.
7. Under appropriate supervision, the resident should perform basic operative cases such as

<i>Insertion of central venous lines</i>	<i>Tracheal intubation</i>
<i>Stabilize long bone fractures</i>	<i>Placement of thoracostomy tubes</i>

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident must successfully pass ATLS.
2. The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of the injured patient.
3. The resident must attend Trauma Conference, held weekly on Thursday, 8:00 am.
4. The residents must attend and participate in the weekly clinics for their service

E. Systems-Based Practice

The resident should be able to use appropriate consult services in the hospital to improve the care of his or her patients.

F. Professionalism

See general goals and objectives

PGY 2

A. Medical Knowledge

1. The resident should learn the principles of triage and be able to demonstrate appropriate triage of injured patients based on number of patients, severity of injury and available resources.
2. The resident should review the principles of ATLS and be able to perform a rapid primary survey of the trauma patient, followed by an in depth secondary survey to detect all injuries.
3. The resident should be able to prioritize injuries in the multiply injured trauma patient.

4. The resident should understand the principles of resuscitation of the injured patient, including airway management, fluid administration, blood transfusion, fracture stabilization, and hemodynamic support.
5. The resident should be able to outline the signs and symptoms as well as the etiology of respiratory failure in the injured patient.
6. The resident should understand the indications for, and the complications of blood component therapy. *Examples include PRBC's, FFP, platelets and cryoprecipitate.*
7. The resident should be familiar with indications and institution of the massive transfusion protocol.
8. The resident should understand the factors associated with non-surgical bleeding in the injured patient. *Examples include hypothermia, dilutional and consumptive coagulopathy.*

B. Patient Care

1. The resident must attend daily check out rounds for his or her service.
2. The resident should be able to initiate remote resuscitation of patients in the field using the Biotel system.
3. The resident should institute the trauma resuscitation protocol in trauma patients presenting to the emergency department.
4. The resident should assume responsibility for care of all patients in the emergency department, including initial assessment, identification of all injuries, creation of a therapeutic plan based on priority of injuries, initial resuscitation, and determination of admission to the hospital ward or to the ICU.
5. The resident should assume responsibility for initial assessment of hospital consultations.
6. Under appropriate supervision, the resident should perform basic procedures such as:

<i>Insertion of pulmonary artery catheters</i>	<i>Tracheostomy</i>
<i>Tracheal intubation</i>	<i>Diagnostic peritoneal lavage</i>
<i>Stabilize long bone fractures</i>	<i>Placement of thoracostomy tubes</i>
<i>Needle pericardiocentesis</i>	<i>Lower extremity amputation</i>

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diseases and treatment of the injured patient.
2. The resident must attend Trauma Conference, held weekly on Thursday, 8:00 am.
3. The residents must attend and participate in the weekly clinics for their service

E. Systems-Based Practice

1. The resident should be able to communicate with patients, families, nurses, paramedics, and other allied health care personnel.
2. The resident should take responsibility for posting emergency cases in the operating room.

F. Professionalism

See general goals and objectives

PGY 3

A. Medical Knowledge

1. The resident should be familiar with all organ-based trauma scoring systems.
2. The resident should learn in detail the management of intra-abdominal injuries. *Examples include injuries of the liver, spleen, stomach, intestine, colon, pancreas, kidney, bladder, ureter, and diaphragm.*
3. The resident should understand rationale and indications for the operative as well as non-operative management of the injured patient.
4. The resident should understand the rationale and indications for the use of adjuncts to both operative and non-operative management of injured patients. *Examples include utilization of therapeutic interventional radiological techniques.*
5. The resident should understand the pathophysiology of traumatic brain injury, altered mental status and spinal cord injury. The resident should also be able to discuss stabilization and initial treatment of patients with severe neurologic injuries.

B. Patient Care

1. The resident should assume responsibility for the care of all patients on the trauma service.
2. The resident should examine every patient admitted to the service, ensure that all injuries and comorbid medical problems have been identified, and ensure that adequate therapeutic and diagnostic plans have been made.

3. The resident should ensure that all prophylactic precautions are taken to prevent complications such as DVT, stress gastritis, pressure ulceration, and aspiration pneumonia.
4. The resident should make daily rounds and have full knowledge of the medical problems and progress of all patients on the service.
5. The resident should see every consult and ensure that proper disposition has been made.
6. The resident is responsible for ensuring proper posting in the operating room, ensuring that all information regarding communicable illness has been relayed, and alerting the operating room personnel about specific instrument and equipment needs.
7. Under appropriate supervision, the resident should perform intermediate procedures such as:

<i>Exploratory laparotomy</i>	<i>Emergency thoracotomy</i>
<i>Acquisition of surgical airway</i>	<i>Repair of gastrointestinal injuries</i>
<i>Colostomy, colostomy closure</i>	<i>Open splenectomy</i>
<i>Upper and lower extremity fasciotomy</i>	<i>Neck exploration for trauma</i>
<i>Vascular exposure and repair of peripheral vascular injuries</i>	

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, anatomy videotapes, *Operative Trauma Management* (provided as a gift to all PGY 3), and other tools available to learn about diseases and treatment of the injured patient.
2. The resident must attend Trauma Conference, held weekly on Thursday, 8:00 a.m.
3. The residents must attend and participate in the weekly clinics for their service

E. Systems-Based Practice

1. The resident should be able to communicate with referring physicians from other hospitals and emergency departments.
2. The resident should be able to communicate with families, especially in those instances in which there has been a death.
3. The resident should communicate with his or her peer from the emergency general surgery service to determine the optimal use of resources for the hospital, including timing of procedures in the operating room and recommendation for placing the hospital on divert status.

F. Professionalism

See general goals and objectives

CHIEF RESIDENT

A. Medical Knowledge

1. The chief resident should be able to discuss in detail the management of complex traumatic injuries. This includes diagnosis, timing of intervention, and therapeutic options. *Examples include traumatic disruption of the thoracic aorta, renovascular injuries, injuries of the portal triad, retrohepatic caval injuries, complex cervical spine fractures, facial fractures, and complex pelvis fractures.*
2. The chief resident should be able to explain in detail advanced surgical procedures for management of injuries in the neck, torso and extremities. *Examples include management of tracheal injuries, stabilization and management of Le Fort fractures of the face, management of flail chest, management of the mangled extremity.*
3. The chief resident should be able to summarize areas of trauma surgery in which patient management is controversial and areas in which change is taking place. *Examples include management of penetrating neck injuries, management of colon injuries, and management of minimal vascular injuries.*

B. Patient Care

1. The chief resident should be able to direct the entire team through the trauma resuscitation.
2. The chief resident should be able to correctly triage the diagnostic evaluation of the patient with multiple injuries.
3. The chief resident should be able to perform advanced surgical procedures to manage injuries in the neck, torso and extremities.
4. The chief resident should be able to correctly utilize consultants, yet remain responsible for ultimate patient care issues.
5. The chief resident should be able to manage patients with multiple injuries using operative and non-operative techniques correctly.
6. Under appropriate supervision, the chief resident should perform advanced procedures such as

<i>Liver resection for injury</i>	<i>Placement of Shrock shunt</i>
<i>Repair of abdominal, chest, or pelvic vascular injury</i>	<i>Pancreatic resection for trauma</i>
<i>Duodenal diverticularization</i>	<i>Nephrectomy for trauma</i>
<i>Repair of ureteral injury</i>	

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, anatomy videotapes, and other tools available to learn about diseases and treatment of the injured patient.
2. The resident must attend Trauma Conference, held weekly on Thursday, 7:30 a.m.
3. The resident must attend and participate in the weekly clinics for their service.

E. Systems-Based Practice

1. The chief resident should be able to understand triage of mass casualties
2. The chief resident should understand the multi-disciplinary approach to management of patients with multiple injuries.
3. The chief resident should understand the concept of trauma systems and the need to transfer patients for the appropriate level of care.

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for General Surgery Residents

Surgical Intensive Care Unit Service

PGY 1

A. Medical Knowledge

1. The resident should learn in depth the fundamentals of basic science as they apply to patients in the intensive care unit. Examples include anatomy, physiology and pathophysiology of the cardiovascular, respiratory, genitourinary, gastrointestinal, musculoskeletal, hematologic, and endocrine systems.
2. The resident should understand the rationale for admission and discharge criteria in the ICU.
3. The resident should understand factors associated with assessment of preoperative surgical risk. *Examples include evaluation of the high risk cardiac patient undergoing non-cardiac surgery.*
4. The resident should understand fluid compositions and the effect of the losses of such fluids as gastric, pancreatic and biliary from fistulas at various levels.
5. The resident should understand the indications for, and complications of blood component therapy.
6. The resident should be able to discuss the pathophysiology of respiratory failure.
7. The resident should be able to demonstrate an understanding of acid-base disorders, including diagnosis, etiology, and instituting appropriate treatment.
8. The resident should be able to discuss the pathophysiology, indications, and complications associated with various modes of mechanical ventilation. *Examples include ventilator management of ALI, ARDS and thoracic trauma, as well as weaning from ventilatory support.*
9. The resident should understand the role of hormones and cytokines in the graded metabolic response to injury, surgery and infection.
10. The resident should understand the indications, routes and complications of administration of parenteral and enteral forms of nutrition.
11. The resident should understand the risk factors and common pathogens that are associated with nosocomial infections.
12. The resident should understand the factors associated with altered mental status. *Examples include traumatic, septic, metabolic and pharmacologic causes.*
13. The resident should understand the risk factors associated with stress gastritis.

14. The resident should understand the causes and treatment regimens for gastrointestinal bleeding. *Examples include bleeding from upper and lower GI sources.*

15. The resident should be able to discuss end of life ethical issues. *Examples include organ donation and withdrawal of support.*

B. Patient Care. Under appropriate supervision, the resident should be able to:

1. Perform endotracheal intubation.
2. Perform the following aspects of ventilatory management:
Set up initial and advanced ventilator settings. Wean patients from ventilatory support. Treat common complications of mechanical ventilation including tube thoracostomy.
3. Correctly utilize prophylaxis for stress gastritis in high risk ICU patients.
4. Initiate appropriate nutritional support through the most optimal route.
5. Manage complications of nutritional support. *Examples include hyperglycemia.*
6. Assist in managing patients with intracranial hypertension and neurovascular disease.

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, anatomy videotapes, and other tools available to learn about topics related to critical care.
2. The resident must view the ICU Core Curriculum. This is a series of 16 Power Point slide lectures available 24 hours per day on dedicated computers in the SICU at Parkland Hospital and formally presented three times per week.
3. The resident must prepare for and attend daily ICU attending rounds.
4. The resident must attend the Tuesday didactic seminars which rotate between journal club, performance improvement, and didactic lectures.
5. The resident must attend and successfully complete all relevant Wednesday technical skills curriculum offerings related to ICU care (ATLS, introductory ventilator skills laboratory, and pulmonary artery catheterization and interpretation).

E. Systems-Based Practice

1. The resident should be able to communicate with patients, families, nurses, and allied health care personnel.
2. The resident should be able to use appropriate consult services to improve care of patients in the intensive care unit.

F. Professionalism

See general goals and objectives

PGY 2

A. Medical Knowledge.

1. The resident should have an in depth understanding of the basic science related to problems commonly seen in the intensive care unit setting. *Examples include sepsis, respiratory failure, coronary ischemia, shock, malnutrition, stress ulceration, nonocclusive intestinal ischemia, antibiotic-associated colitis, antibiotic resistance, jaundice, and renal insufficiency.*
2. The resident should understand the pathophysiology of hemodynamic instability. *Examples include types of shock, cardiac arrest.*
3. The resident should know and apply treatments for arrhythmias, congestive heart failure, acute ischemia and pulmonary edema.
4. The resident should understand adjuncts to the analysis of respiratory mechanics and gas exchange. *Examples include work of breathing, rapid shallow breathing index, single breath CO₂ analysis and dead space measurements.*
5. The resident should understand fluid and electrolyte as well as acid/base abnormalities associated with complex surgical procedures and complications. *Examples include massive fluid shifts associated with trauma, shock and resuscitation, high output fistulas and renal failure.*
6. The resident should understand the pathophysiology associated with endocrine emergencies in the ICU. *Examples include thyroid storm, hyper, hypoparathyroid states and adrenal insufficiency.*
7. The resident should be able to discuss the mechanism of action as well as the spectrum of antimicrobial activity of the different antibiotic classes. *Examples include carbapenams, extended spectrum penicillins and fluoroquinolones.*
8. The resident should understand the risk factors that result in multiply resistant organisms. *Examples include antibiotic dosing, antibiotic synergy and transmission patterns.*

9. The resident should be able to discuss the factors that result in an immunocompromised state. *Examples include malignancy, major trauma and steroids.*
10. The resident should understand the factors associated with bleeding disorders. *Examples include DIC, ITP, hemophilia, coagulopathy associated with shock and hypothermia.*
11. The resident should understand the pathophysiology of traumatic brain injury and neural disease. *Examples include knowledge of intracranial pressure monitoring and maneuvers to normalize ICP.*
12. The resident should be able to discuss the pathophysiology, presentation, and causes of hepatic failure.

B. Patient Care. Under appropriate supervision, the resident should be able to:

1. Insert pulmonary artery, central venous, and arterial lines, with and without ultrasound guidance.
2. Insert PEG tubes.
3. Insert open and percutaneous tracheostomy tubes.
4. Resuscitate patients from shock and cardiac arrest.
5. Recognize and treat ischemia and arrhythmias on ECG.
6. Utilize correct class of anti-arrhythmic, vasodilators and diuretics as they pertain to cardiac disease.
7. Correctly determine the protein, caloric, electrolyte, fat and vitamin needs of surgical patients, taking into account their underlying disease process.
8. Correctly diagnose and treat gastrointestinal bleeding associated with ulcers, portal hypertension and lower GI sources. Perform rigid sigmoidoscopy to 25 cm when indicated.
9. Diagnose cause and appropriately alter treatment regimens to compensate for hepatic failure. *Examples include altering fluid, protein and drugs regimens.*

C. Interpersonal and Communications Skills

See general goals and objectives.

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, anatomy videotapes, and other tools available to learn about topics related to critical care.
2. The resident must view the ICU Core Curriculum. This is a series of 16 Power Point slide

lectures available 24 hours per day on dedicated computers in the SICU at Parkland Hospital and formally presented three times per week.

3. The residents must prepare for and attend daily ICU attending rounds.
4. The resident must attend the Tuesday morning didactic seminars which rotate between journal club, performance improvement, and didactic lectures.
5. The resident will attend and successfully complete all relevant Wednesday surgical skills curriculum offerings appropriate to ICU care (ultrasound-guided central line insertion, thoracentesis, and FAST training).

E. Systems-Based Practice

1. The resident should function as a member of the ICU team and act as a liason with each patient's home service to communicate patient progress and plans for care by the ICU team.
2. The resident should relate concerns and advice from the patient's home team to the ICU service.
3. The resident should be able to work with family to respect patient's end of life wishes, including withdrawal of care in a dignified manner.
4. The resident should be able to communicate with the organ bank to coordinate care for organ donation.

F. Professionalism

See general goals and objectives

PGY 3

A. Medical Knowledge

See service-specific goals and objectives for PGY 2 and PGY 3 residents above.

B. Patient Care

1. Under appropriate supervision, the resident should assist the junior residents with placement of central venous lines, pulmonary artery catheters, placement of PEG tubes, and other invasive procedures.
2. The resident should be able to identify and minimize factors associated with nosocomial infections and be able to utilize appropriate adjunctive measures to diagnose and treat nosocomial infection. *Examples include bronchoscopy to aid in the diagnosis of ventilator associated pneumonia.*
3. The resident should be able to utilize pharmacokinetics and drug levels to adjust antibiotic dosing,

utilize appropriate combinations of antibiotics to achieve synergy, and appropriately utilize isolation precautions.

4. The resident should be able to appropriately use intracranial pressure monitoring, including interpretation of hemodynamic and ICP data.
5. The resident should be able to initiate therapy to maintain cerebral perfusion pressure and minimize secondary brain injury.
6. The resident should be able to initiate and maintain salvage modes of ventilation such as airway pressure release, oscillatory and vibratory ventilation.

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, anatomy videotapes, and other tools available to learn about topics related to critical care.
2. The resident must view the ICU Core Curriculum. This is a series of 16 Power Point slide lectures available 24 hours per day on dedicated computers in the SICU at Parkland Hospital and formally presented three times per week. .
3. The resident must prepare for and attend daily ICU attending rounds.
4. The resident must attend the Tuesday didactic seminars which rotate between journal club, performance improvement, and didactic lectures.
5. The resident will attend and successfully complete all relevant Wednesday surgical skills curriculum offerings appropriate to ICU care (PEG/percutaneous tracheostomy simulation, limited echocardiography training, advanced ventilator skills laboratory).

E. Systems-Based Practice

1. The resident should function as a member of the ICU team and act as a liaison with each patient's home service to communicate patient progress and plans for care by the ICU team.
2. The resident should relate concerns and advice from the patient's home team to the ICU service.
3. The resident should be able to communicate with referring physicians from outside the medical system about patients in the ICU.
4. The resident should be able to discuss the role of surgeons in the ICU as well as the role of consultants.

5. The resident should be able to discuss the mechanism and need for performance improvement in the ICU.

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for General Surgery Residents

Surgical Oncology Service and Breast Service

PGY 1

A. Medical Knowledge

1. The resident should learn in depth the fundamentals of basic science as applied to surgical oncology. *Examples include: epidemiology of common tumors, biology of neoplasia, mechanisms of inherited cancer syndromes, mechanisms of recurrence and metastasis, nutritional support during chronic illness, mode of action of the common chemotherapy drugs, rationale for the use of preoperative induction vs. post-operative adjuvant chemotherapy, fundamentals of radiation therapy.*
2. The resident should be able to recognize and diagnose common cancer-related problems: *Examples include inadequate control of chronic pain, local/regional recurrence, metastases, bleeding, obstruction, mass effect, organ failure.* The resident should be able to interpret and correctly utilize diagnostic laboratory procedures. *Examples include blood tests to diagnose or monitor disease status such as CBC, Calcium, gastrin, LFT's, plasma metanephrines, 5-HIAA, CEA, CA125, CA19.9, CA27.29, and AFP. Additional examples include the genetic predisposition tests.*
3. The resident should be able to interpret and correctly utilize diagnostic radiological procedures. Know cost effectiveness of diagnostic tests managing and following cancer patients. *Examples include the use of radiological procedures for initial staging, as well as operative management (e.g. lymphoscintigraphy) and follow-up after cancer treatment. Specific tests to understand will include mammogram, chest x-ray, liver sonogram, bone scan, PET scan and CT.*
4. The resident should learn comprehensive preoperative assessment of disease status (i.e. staging) and co-morbid conditions, both cancer related (such as malnutrition) and cancer independent (such as coronary artery disease). Recognize and correct problems which might contribute to post-operative morbidity and mortality.
5. The resident should be able to recognize and treat post-operative complications more common in the surgical oncology patient *such as wound infection, tissue necrosis, seroma, lymphedema, DVT, feeding tube problems.*
6. The Division of Surgical Oncology has partnered with the UT Southwestern Medical School Library to provide online access to the M.D. Anderson Cancer Center Surgical Oncology Handbook, 4th ed, 2006. The link to the UT Southwestern Medical School Library is <http://www4.utsouthwestern.edu/library/> and available on campus. From this site, proceed to the Electronic Books area of the website. The PGY-1 resident is expected to be very familiar with the following material in the M.D. Anderson textbook:

B. Patient Care

1. Under adequate supervision, the resident should assume responsibility for the care of all patients admitted to the service, including admission history and physical examination, evaluation of daily progress, alerting the chief resident to any new problems, and discharge summary.
2. The resident should be able to perform pre- and post-operative history and physical exam with particular focus on patterns of cancer recurrence and metastasis unique to each individual tumor type (*e.g. detection of supraclavicular lymphadenopathy, recognition of pleural effusion, etc.*). The resident should understand the importance of assigning a clinical or pathologic AJCC TNM stage to every patient with a known or suspected cancer diagnosis.
3. The resident should assume responsibility for ensuring that all discharge plans are in place for every patient, including scheduling follow-up appointments in medical oncology and surgical oncology clinics, radiation therapy, and any other appropriate outpatient treatment center. This includes responsibility for dictating discharge summaries, preparing prescriptions for pain meds and other postoperative medications, and assisting in scheduling follow-up visits.
4. Under appropriate supervision, the resident should be able to perform basic operative procedures such as:

<i>Needle localization breast biopsy</i>	<i>Breast lumpectomy</i>
<i>Sentinel node biopsy</i>	<i>Lymph node biopsy</i>
<i>Wide local excision of skin lesions</i>	<i>Core needle biopsy</i>
	<i>Fine needle aspiration biopsy</i>

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about neoplastic diseases and treatment of patients with cancer.
2. The resident must attend the following conferences when not occupied with critical clinical services: Gastrointestinal Malignancy Conference (Monday, 12:00 p.m, E6.224)Multidisciplinary Breast Conference (Tuesday, 7:15 a.m, NC3.222) Gastrointestinal Cancer Working Group (Wednesday, 7:00 a.m, ND2.202)Chiefs Conference, Grand Rounds (Wednesday, 8:00.a.m)Surgical Oncology Clinical and Educational Conference (Wednesday, 12:00 p.m, E6.200)Gastrointestinal Cancer Case Conference (Friday, 4:15 p.m, St. Paul Board Room)
3. The residents must attend and participate in the Parkland Memorial Hospital clinics for the service. These include the Wednesday afternoon Multidisciplinary Breast Clinic, Friday morning General Surgical Oncology clinic, and Friday afternoon Breast Evaluation clinic. Activities will include preoperative and postoperative care of established patients under the supervision of

attending surgeons. Residents may be excused by agreement of the senior residents and faculty overseeing clinic to serve as operating surgeon for cases appropriate to the level of their training.

E. Systems-Based Practice

1. The resident should be able to communicate with patients, families, nurses, and allied health care personnel.
2. The resident should be able to use appropriate consult services to improve care of patients on the service.

F. Professionalism

See general goals and objectives.

Clinical year 4 – Breast Rotation

A. Medical Knowledge

1. The Breast service resident should be able to demonstrate knowledge of tumor staging based on the TNM classification system for breast malignancies.
2. The Breast service resident should learn in depth the management of breast malignancies and non-malignant breast diseases, including screening, diagnosis, medical and surgical treatment options, and follow-up.
3. The Breast service resident should be able to discuss prognosis for patients with cancer based on tumor site, pathology, stage, and the functional status of the patient.
4. The Breast service resident should be able to perform advanced assessment of risk/benefits for all interventions relevant to breast cancer management. This includes an understanding of the genetic risk assessment for patients with family history of breast cancer.
5. The Breast service resident should be able to discuss the difference between and indications for prophylactic surgery vs. palliative surgery vs. surgery with curative intent. The chief resident should be able to demonstrate knowledge of the patient factors (e.g. staging information) that may recommend one approach over another.
6. The Breast service resident should be able to demonstrate a thorough understanding of components and interventions involved in terminal care.
7. The Breast service resident should be able to demonstrate knowledge of cutting edge and experimental modalities in cancer care. *Examples include intraoperative lymphatic mapping, cryoablation or radiofrequency ablation of tumors and stereotactic biopsy.*
8. The Division of Surgical Oncology has partnered with the UT Southwestern Medical School Library to provide online access to the M.D. Anderson Cancer Center Surgical Oncology Handbook, 4th ed, 2006. The link to the UT Southwestern Medical School Library is

<http://www4.utsouthwestern.edu/library/> and available on campus. From this site, proceed to the Electronic Books area of the website.

9. The PGY-4 resident is expected to be very familiar with the following material in the M.D. Anderson textbook: **Chapter 1:** Noninvasive breast cancer; **Chapter 2:** Invasive breast cancer

B. Patient Care

1. The Breast service resident should assume overall responsibility for the care of all breast disease patients on the service, including inpatients and outpatients. This responsibility may be shared with the rotating Breast Fellow if they are assigned to the service simultaneously.
2. The Breast service resident should serve as teaching assistant for junior residents on appropriate cases authorized by the attending.
3. The Breast service resident should be able to perform ultrasound in the clinic and operating room for: evaluation of breast diseases, evaluation of lymph nodes and soft-part tumors, guidance of tissue sampling procedures.
4. Under appropriate supervision, the Breast service resident should be able to perform advanced surgical procedures in breast cancer patients such as mastectomy and axillary dissection.

B. Interpersonal and Communication Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The Breast service resident should use books, journal articles, operative videotapes, internet access, and other tools available to learn about neoplastic diseases and treatment of patients with cancer.
2. The Breast service resident must attend the following conferences when not occupied with critical clinical services: Gastrointestinal Malignancy Conference (Monday, 12:00 p.m, E6.224) Multidisciplinary Breast Conference (Tuesday, 7:15 a.m, NC3.222) Chiefs Conference, Grand Rounds (Wednesday, 8:00 a.m)Surgical Oncology Clinical and Educational Conference (Wednesday, 12:00 p.m, E6.200)Gastrointestinal Cancer Case Conference (Friday, 4:15 p.m, St. Paul Board Room)
3. The Breast service resident must attend and participate in the appropriate clinics for the service and participate in operative cases appropriate to the level of their training. In particular, senior-level coverage will be expected for mastectomy and axillary dissections unless exceptional conditions arise. The schedule of activities will be reviewed at the beginning of each rotation with the residents and overseeing faculty.

E. Systems-Based Practice

1. The Breast service resident should understand the team approach to treatment of cancer patients and be able to discuss how surgical oncologists interface with other services including medical oncology, radiation oncology, visiting nurses, and hospice care.
2. The Breast service resident should understand the financial implications of cancer treatment, including hospital/physician costs, loss of employment time, outpatient chemotherapy, and nursing home care.

F. Professionalism

See general goals and objectives

Clinical year 4-Sarcoma/Melanoma rotation

A. Medical Knowledge

1. The clinical year 4 (Sarcoma/Melanoma) resident should be able to demonstrate knowledge of tumor staging based on the TNM classification system for malignancies. *Examples include extremity soft tissue sarcoma, melanoma, other cutaneous malignancy.*
2. The clinical year 4 (Sarcoma/Melanoma) resident should learn in depth the management of malignancies, including screening, diagnosis, medical and surgical treatment options, and follow-up.
3. The clinical year 4 (Sarcoma/Melanoma) resident should be able to discuss prognosis for patients with cancer based on tumor site, pathology, stage, and the functional status of the patient.
4. The clinical year 4 (Sarcoma/Melanoma) resident should be able to perform advanced assessment of risk/benefits for all interventions relevant to cancer management.
5. The clinical year 4 (Sarcoma/Melanoma) resident should be able to discuss the difference between and indications for prophylactic surgery vs. palliative surgery vs. surgery with curative intent. The clinical year 4 (Sarcoma/Melanoma) resident should be able to demonstrate knowledge of the patient factors (e.g. staging information) that may recommend one approach over another.
6. The clinical year 4 (Sarcoma/Melanoma) resident should be able to demonstrate a thorough understanding of components and interventions involved in terminal care.
7. The clinical year 4 (Sarcoma/Melanoma) resident should be able to demonstrate knowledge of cutting edge and experimental modalities in cancer care. *Examples include preoperative/perioperative chemotherapy and radiation, intraoperative lymphatic mapping, cryoablation or radiofrequency ablation of tumors and stereotactic biopsy.*
8. The Division of Surgical Oncology has partnered with the UT Southwestern Medical School Library to provide online access to the M.D. Anderson Cancer Center Surgical Oncology Handbook, 4th ed, 2006. The link to the UT Southwestern Medical School Library is

<http://www4.utsouthwestern.edu/library/> and available on campus. From this site, proceed to the Electronic Books area of the website.

9. The PGY-4 resident is expected to be very familiar with the following material in the M.D. Anderson textbook: **Chapter 3: Melanoma** **Chapter 4: Nonmelanoma skin cancer**
Chapter 5: Bone and soft tissue sarcoma

B. Patient Care

1. The clinical year 4 (Sarcoma/Melanoma) resident should work closely with the chief resident on the service as well as other residents and assume a major role in the care for designated patients on the service, including inpatients and outpatients.
2. The clinical year 4 (Sarcoma/Melanoma) resident should serve as teaching assistant for junior residents on appropriate cases authorized by the attending.
3. The clinical year 4 (Sarcoma/Melanoma) resident should be able to perform ultrasound in the clinic and operating room for: evaluation of breast diseases, screening for liver metastases, evaluation of lymph nodes and soft-part tumors, guidance of tissue sampling procedures.
4. Under appropriate supervision, the clinical year 4 (Sarcoma/Melanoma) resident should be able to perform advanced surgical procedures in cancer patients such as *radical resection of soft tissue tumors, amputations, wide local excision of melanoma, sentinel lymph node staging, completion lymphadenectomy, gastrectomy, extended abdominal lymphadenectomy, liver resection, pancreatoduodenectomy, complex biliary resections, colon and rectal resections.*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The clinical year 4 (Sarcoma/Melanoma) resident should use books, journal articles, operative videotapes, internet access, and other tools available to learn about neoplastic diseases and treatment of patients with cancer.
2. The resident must attend the following conferences when not occupied with critical clinical services:
 - Gastrointestinal Malignancy Conference (Monday, 12:00 p.m, E6.224)
 - Multidisciplinary Breast Conference (Tuesday, 7:15 a.m, NC3.222)
 - Gastrointestinal Cancer Working Group (Wednesday, 7:00 a.m, ND2.202)
 - Chiefs Conference, Grand Rounds (Wednesday, 8:00 a.m)
 - Surgical Oncology Clinical and Educational Conference (Wednesday, 12:00 p.m, E6.200)
 - Gastrointestinal Cancer Case Conference (Friday, 4:15 p.m, St. Paul Board Room)
3. The resident must attend and participate in the Parkland Memorial Hospital clinics for the service. These include the Wednesday afternoon Multidisciplinary Breast Clinic, Friday morning General Surgical Oncology clinic, and Friday afternoon Breast Evaluation clinic. Activities will include perioperative and postoperative care of established patients under the

supervision of attending surgeons. Residents may be excused by agreement of the senior residents and faculty overseeing clinic to serve as operating surgeon for cases appropriate to the level of their training.

E. Systems-Based Practice

1. The clinical year 4 (Sarcoma/Melanoma) resident should understand the team approach to treatment of cancer patients and be able to discuss how surgical oncologists interface with other services including medical oncology, radiation oncology, visiting nurses, and hospice care.
2. The clinical year 4 (Sarcoma/Melanoma) resident should understand the financial implications of cancer treatment, including hospital/physician costs, loss of employment time, outpatient chemotherapy, and nursing home care.

F. Professionalism

See general goals and objectives

CHIEF RESIDENT

A. Medical Knowledge

1. The chief resident should be able to demonstrate knowledge of tumor staging based on the TNM classification system for all malignancies seen by general surgical oncologists. *Examples include soft tissue sarcomas and cancer of the esophagus, stomach, small intestine, colon, rectum, anus, liver, pancreas, biliary tree, and breast.*
2. The chief resident should learn in depth the management of malignancies seen by the general surgical oncologist, including screening, diagnosis, medical and surgical treatment options, and follow-up.
3. The chief resident should be able to discuss prognosis for patients with cancer based on tumor site, pathology, stage, and the functional status of the patient.
4. The chief resident should be able to perform advanced assessment of risk/benefits for all interventions relevant to cancer management.
5. The chief resident should be able to discuss the difference between and indications for prophylactic operations vs. palliative operations vs. procedures with curative intent. The chief resident should be able to demonstrate knowledge of the patient factors (e.g. staging information) that may recommend one approach over another, but also be aware that frequently different operative objectives are combined.
6. The chief resident should be able to demonstrate a thorough understanding of components and interventions involved in terminal care.
7. The chief resident should be able to demonstrate knowledge of cutting edge and experimental modalities in cancer care. *Examples include radiofrequency ablation of liver tumors,*

laparoscopic pancreatic resections, perioperative chemotherapy for resectable gastric cancer, PET staging, portal vein embolization for pre-resectional conditioning.

8. The Division of Surgical Oncology has partnered with the UT Southwestern Medical School Library to provide online access to the M.D. Anderson Cancer Center Surgical Oncology Handbook, 4th ed, 2006. The link to the UT Southwestern Medical School Library is <http://www4.utsouthwestern.edu/library/> and available on campus. From this site, proceed to the Electronic Books area of the website.9. The Chief resident is expected to be very familiar with the following material in the M.D. Anderson textbook: **Chapter 8:** Esophageal carcinoma;**Chapter 9:** Gastric cancer; **Chapter 10:** Small bowel malignancies and carcinoid tumors;**Chapter 11:** Cancer of the colon, rectum, and anus; **Chapter 12:** Hepatobiliary cancers**Chapter 13:** Pancreatic adenocarcinoma; **Chapter 14:** Pancreatic endocrine tumors and multiple endocrine neoplasia; **Chapter 15:** Adrenal tumors

B. Patient Care

1. The chief resident should assume overall responsibility for the care of all patients on the service, including inpatients and outpatients. He/she must assume full responsibility to assign other team members to operative, inpatient care or outpatient clinic tasks at all practice locations. He/she must responsibly partake and assign daily patient chart documentation, operative summary writeup, dictations of discharge summaries or procedures, preparations of discharge information including prescriptions, and signing verbal orders given.
2. The chief resident must see every new admission and know the progress and medical problems of all patients on the service every day.
3. The chief resident must be involved in the assessment and formulation of a treatment plan for all patients who develop significant new problems.
4. The chief resident should serve as teaching assistant for junior residents on appropriate cases authorized by the attending.
5. The chief resident should be able to perform ultrasound in the clinic and operating room for: evaluation of breast diseases, screening for liver metastases, evaluation of lymph nodes and soft tissue tumors, guidance of tissue sampling procedures.
6. Under appropriate supervision, the chief resident should be able to perform advanced surgical procedures in cancer patients such as *Mastectomy/axillary dissection, gastrectomy, open and laparoscopic colectomy, open and laparoscopic splenectomy, radical resection of soft tissue tumors, hepatic resection, pancreatic resection, low anterior resections or APRs, major amputations, and resections of tumors involving diaphragm, abdominal wall or chest wall.*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The chief resident should use books, journal articles, operative videotapes, internet access, and other tools available to learn about neoplastic diseases and treatment of patients with cancer.
2. The resident must attend the following conferences when not occupied with critical clinical services: Gastrointestinal Malignancy Conference (Monday, 12:00 p.m, E6.224) Multidisciplinary Breast Conference (Tuesday, 7:15 a.m, NC3.222) Gastrointestinal Cancer Working Group (Wednesday, 7:00 a.m, ND2.202) Chiefs Conference, Grand Rounds (Wednesday, 8:00 a.m.) Surgical Oncology Clinical and Educational Conference (Wednesday, 12:00 p m, E6.200) Gastrointestinal Cancer Case Conference (Friday, 4:15 p.m, St. Paul Board Room)
3. The residents must attend and participate in the Parkland Memorial Hospital clinics for the service. These include the Wednesday afternoon Multidisciplinary Breast Clinic, Friday morning General Surgical Oncology clinic, and Friday afternoon Breast Evaluation clinic. Activities will include perioperative and postoperative care of established patients under the supervision of attending surgeons. Residents may be excused by agreement of the senior residents and faculty overseeing clinic to serve as operating surgeon for cases appropriate to the level of their training.

E. Systems-Based Practice

1. The chief resident should understand the team approach to treatment of cancer patients and be able to discuss how surgical oncologists interface with other services including medical oncology, radiation oncology, visiting nurses, and hospice care.
2. The chief resident should understand the financial implications of cancer treatment, including hospital/physician costs, loss of employment time, outpatient chemotherapy, and nursing home care.

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for General Surgery Residents

University Hospital – St. Paul McClelland & Laycock Services

PGY 1

A. Medical Knowledge

1. The resident should learn in-depth the fundamentals of basic science as they apply to the clinical practice of general surgery and, more specifically, to the practice of endocrine surgery, colorectal surgery, hernia surgery, open and laparoscopic gastrointestinal surgery. *Examples include elements of wound healing, physiological principles of endocrinology, surgical nutrition, management of the obese patient, management of fluid and electrolyte balance, and surgical anatomy and surgical pathology of the thyroid, parathyroid and intra-abdominal organs. In addition, residents should understand the physiological effects of pneumoperitoneum created for laparoscopic surgery.*
2. The resident should be able to demonstrate knowledge of the principles and rationale for ambulatory management of surgical patients, including preoperative assessment, perioperative management and postoperative care of patients. *Examples include assessment of patient risk, selection of patients for outpatient versus inpatient surgery, understanding of social and economic issues associated with ambulatory surgery, knowledge of anesthetic options for ambulatory procedures, and principles of postoperative pain management and wound care.*
3. The resident should be able to efficiently utilize and interpret diagnostic laboratory testing. *Examples of appropriate tests include serum chemistries, liver function tests, arterial blood gas analysis, hematological profiles, coagulation tests and thyroid function studies.*
4. The resident should be able to efficiently utilize and interpret diagnostic radiological tests. *Examples of the types of studies include chest x-ray, computed tomography, radionuclide scintigraphy, ultrasonography, arteriography and gastrointestinal studies.*
5. The resident should be able to demonstrate an understanding of minimal access surgery, including the applications, risks, and technical and physiologic principles.

B. Patient Care

1. The resident should assume responsibility for all elective admissions *to his/her assigned service*, including performing an advanced history and physical examination, writing admission orders, and reviewing appropriate diagnostic tests.
2. The resident should assume responsibility for care of all patients on the hospital ward *assigned to him or her*, including evaluation of daily progress, implementation of treatment plans, daily notification of the senior resident about patient progress, and immediate notification of the senior resident about new problems.

3. The resident should assume responsibility for discharging assigned patients, including dictating the discharge summary, writing prescriptions, and ensuring appropriate follow-up.
4. Under appropriate supervision, perform basic surgical procedures such as:
*Placement of venous access devices and arterial lines - Flexible and rigid proctoscopy
Anoscopy - Removal of cutaneous lesions - Gastrostomy - Anorectal procedures
Routine wound closure - Open appendectomy - Hernia repair (inguinal, femoral, umbilical)
Lower extremity amputations - Drainage of breast abscess - Incision and drainage of perirectal abscess*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about treatment of surgical problems commonly seen in the community hospital setting.
1. The following conference is mandatory for residents rotating on the services listed below
A, C, St. Paul general surgery and Transplant Conference, Wednesday, 7:00 a.m.
2. The following conferences are mandatory for all residents rotating on the St. Paul general surgery services: *Grand Rounds, Monday-5:00 p.m.; Colorectal Surgery Conference, Friday-7:00 a.m.*
3. Each resident will attend at least two half-day office sessions each week in the Aston Center or St. Paul Professional Office Buildings where they will perform examinations and evaluations of new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.

E. Systems-Based Practice

1. The resident should learn about appropriate follow-up correspondence with referring physicians that are compliant with privacy regulations
2. The resident should be able to communicate with the surgery attending, the attending's office personnel, and hospital personnel regarding care of patients.

F. Professionalism

See general goals and objectives

PGY 2

A. Medical Knowledge

1. The resident should learn in depth the basic science of surgery as it applies to acute surgical problems and problems commonly encountered in the ICU setting. *Examples include the pathophysiology of sepsis, shock, coagulopathy, bowel and biliary obstruction, pancreatitis, respiratory failure, congestive heart failure, coronary ischemia, and stroke.*
2. The resident should correctly use invasive monitoring and non-surgical invasive procedures to diagnose and treat surgical complications. *Examples include interpretation of data from arterial lines, central lines, pulmonary artery catheters and radiology-directed percutaneous aspirations of fluid collection, abscess cavities and solid lesions. In addition, residents should understand the use and limitations of percutaneous drainage of fluid collections/abscesses.*
3. The resident should be able to recognize, diagnose and understand principles of treatment of common surgical problems and surgical emergencies. *Examples include electrolyte imbalance, malnutrition, failure of hemostasis, surgical infection, renal failure, pulmonary insufficiency, cardiac abnormalities, shock, peritonitis, cholangitis, limb ischemia, gastrointestinal hemorrhage, hypocalcemia and neck hematoma.*

B. Patient Care

1. The resident should assume ward care responsibility for all assigned patients as well as assume care of all service patients in the intensive care unit.
2. The resident should assume responsibility for initial evaluation of all consults generated from the emergency department as well as from other hospital services.
3. On the St. Paul service, the resident should assume responsibility for operating on all outpatient general surgery cases in the Ambulatory Care Building on alternating weeks, as assigned.
4. Under appropriate supervision, the resident should be able to perform intermediate surgical procedures such as
 - Tracheostomy*
 - Laparoscopic appendectomy*
 - Lysis of adhesions*
 - Open hernia repair*
 - Placement of gastromy or jejunostomy tube*
 - Laparoscopic cholecystectomy*
 - Colostomy closure*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about treatment of surgical conditions commonly seen in the community hospital setting.
2. The following conference is mandatory for residents rotating on the services listed below
A, C, St. Paul general surgery and Transplant Conference, Wednesday, 7:00 a.m.
2. The following conferences are mandatory for all residents rotating on the St. Paul general surgery services: *Grand Rounds, Monday-5:00 p.m.; Colorectal Surgery Conference, Friday-7:00 a.m.*
3. Each resident will attend at least two half-day office sessions each week in the Aston Center or St. Paul Professional Office Buildings where they will perform examinations and evaluations of new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.

E. Systems-Based Practice

1. The resident should participate throughout the course of his or her patient's surgery, including marking the operative sight, being present at induction of anesthesia, positioning the patient, and identifying the extent and area of skin preparation.
2. The resident should observe and learn about timing of discharge after outpatient procedures, including adequate pain control and recovery from general anesthesia.
3. The resident should recognize the importance of a step-by-step approach to planning and implementation in order to increase the efficiency of ambulatory surgery.

F. Professionalism

See general goals and objectives.

PGY 3

A. Medical Knowledge

1. The resident should learn in depth the management of common surgical conditions that present to community hospitals, including (but not limited to) upper and lower gastrointestinal bleeding, small and large bowel obstruction, pancreatitis, biliary obstruction, cholecystitis, and the acute abdomen.
2. The resident should be able to recognize and stratify comorbid conditions in the patient with surgical illness.
3. The resident should be able to discuss management options for patients with comorbid medical

conditions to reduce the risk of morbidity and mortality, including treatment of the comorbid condition, postponing the operation, and altering the type of operation or choosing a less invasive procedure.

4. The resident should be able to correctly diagnose and understand principles of treatment of common surgical complications and surgical emergencies. *Examples include electrolyte imbalance, failure of hemostasis, surgical infection, renal failure, pulmonary insufficiency, cardiac abnormalities, shock, peritonitis, limb ischemia, gastrointestinal hemorrhage, hypocalcemia, neck hematoma and adrenal insufficiency.*

B. Patient Care

1. The resident should assume responsibility for the care of all hospitalized patients on the service, including close supervision of the PGY 1 and PGY 2 as they perform the direct care of these patients.
2. The resident should personally see every new admission to the service and know the daily progress and problems of every patient.
3. After discussion with the chief resident, the resident should discuss patient progress and any new problems with the attending faculty.
4. Under appropriate supervision, the resident should be able to perform intermediate operative procedures such as:

<i>Thyroidectomy</i>	<i>Parathyroidectomy</i>	<i>Truncal vagotomy</i>
<i>Pyloroplasty</i>	<i>Gastrojejunostomy</i>	<i>Colectomy</i>
<i>Advanced laparoscopic surgery</i>		<i>Complicated bowel surgery</i>
<i>Open and laparoscopic hernia repair</i>		

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about treatment of surgical conditions commonly seen in the community hospital setting.
3. The following conference is mandatory for residents rotating on the services listed below
A, C, St. Paul general surgery and Transplant Conference, Wednesday, 7:00 a.m.
4. The following conferences are mandatory for all residents rotating on the St. Paul general surgery services: *Grand Rounds, Monday-5:00 p.m.; Colorectal Surgery Conference, Friday-7:00 a.m.*
2. Each resident will attend at least two half-day office sessions each week in the Aston Center or St. Paul Professional Office Buildings where they will perform examinations and evaluations of

new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.

E. Systems-Based Practice

1. The resident should be able to communicate with the referring physician.
2. The resident should be able to acquire the necessary consultative services to assess and reduce operative risk.
3. The resident should be able to interface with home health services, including nursing, nutrition, physical therapy, and occupational therapy.
4. The resident should be able to interface with the outpatient office and the hospital to schedule admissions and operations.

F. Professionalism

See general goals and objectives.

CHIEF RESIDENT

A. Medical Knowledge

1. The chief resident should learn in depth the principles of management of complex surgical problems seen in the tertiary hospital setting. *Examples include recurrent thyroid cancer, recurrent hyperparathyroidism, Barrett's esophagus, intestinal fistulas, transected bile duct, postgastrectomy syndromes and complications of inflammatory bowel disease.*
2. The chief resident should be able to correctly describe the pathophysiology of multisystem problems of the alimentary tract and digestive system, including neurohumeral and hormonal interactions.
3. The chief resident should be able to accurately analyze the medical preparation of patients for complex operations.
4. The chief resident should be able to accurately describe the surgical options for patients with complex problems, including an analysis of the risk vs. benefit for all procedures.
5. The chief resident should be able to accurately explain the physiologic rationale for the following gastrointestinal operations: vagotomy, pyloroplasty, gastric resection for ulcer disease, small bowel resection, stoma formation, and drainage of pancreatic pseudocysts (open internal vs. open external vs. percutaneous).
6. The chief resident should be able to accurately describe advanced operative procedures performed by the practicing general surgeon. *Examples include thyroidectomy, parathyroidectomy, Heller myotomy, surgical procedures for gastroesophageal reflux, surgical*

procedures for gastroduodenal ulcer disease, bariatric procedures, subtotal colectomy, abdominoperineal resection, adrenalectomy and neck dissection for thyroid cancer.

B. Patient Care

1. The chief resident should assume overall responsibility for all patients on the service, including close supervision of the junior residents who are caring for the patients directly.
2. The chief resident should examine all patients scheduled for operation and ensure that each is medically optimized and physiologically ready for the planned procedure.
3. The chief resident should know the progress of all patients on the service every day.
4. The chief resident should personally examine all patients who develop new problems and ensure that the attending has been notified.
5. Under appropriate supervision, the chief resident should perform advanced operative procedure such as
Advanced laparoscopic cases: Nissen Fundoplication and splenectomy
Open and laparoscopic bariatric procedures *Total and subtotal gastrectomy*
Open procedures for gastroesophageal reflux *Liver resection*
Parathyroidectomy *Esophagogastrectomy*
Adrenalectomy *Neck dissection for thyroid cancer*
Pancreaticojejunostomy *Complex hepatobiliary surgery*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The chief resident should use books, journal articles, videotapes, internet access, and other tools available to learn about treatment of complex surgical conditions seen in the tertiary hospital setting.
2. The following conference is mandatory for residents rotating on the services listed below A, C, *St. Paul general surgery and Transplant Conference, Wednesday, 7:00 a.m.*
3. The following conferences are mandatory for all residents rotating on the St. Paul general surgery services: *Grand Rounds, Monday-5:00 p.m.; Colorectal Surgery Conference, Friday-7:00 a.m.*
4. Each chief resident will attend at least two half-day office sessions each week in the Aston Center or St. Paul Professional Office Buildings where they will perform examinations and evaluations of new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.

E. Systems-Based Practice

1. The chief resident should be able to accurately summarize financial costs, risks and benefits of all proposed diagnostic and therapeutic procedures.
2. The chief resident should be determine and convey to the appropriate individuals the instruments and other materials necessary for all procedures in order to minimize waste of resources.
3. The chief resident should understand proper coding terminology, levels of care, and supporting evidence used in billing for medical services.
4. The chief resident should be able to communicate with the referring physician, consulting physicians, outpatient office, hospital admissions office, and allied personnel to ensure smooth and efficient coordination of care for all patients.
5. The chief resident should understand the process of credentialing and hospital privileging.

F. Professionalism

See general goals and objectives.

Educational Goals for General Surgery Residents

VA North Texas Health Care System (VA I and II Services)

PGY 1

A. Medical Knowledge

1. The resident should learn in depth the fundamentals of basic science as applied to clinical surgery. *Examples include the elements of wound healing, hemostasis, hematologic disorders, oncology, shock, surgical microbiology, respiratory physiology, circulatory physiology, surgical endocrinology, surgical nutrition, fluid and electrolyte balance, surgical anatomy, and surgical pathology.*
2. The resident should be able to interpret and correctly utilize diagnostic laboratory procedures. *Examples include serum chemistries, liver function tests, arterial blood gas analysis, hematologic profiles, and coagulation tests.*
3. The resident should be able to interpret and correctly utilize diagnostic radiologic procedures. Know cost-effectiveness of diagnostic tests in managing surgical problems. *Examples include chest x-ray, mammography, computed tomography, radionuclide scintigraphy, gastrointestinal studies, and ultrasonography.*
4. The resident should be able to recognize and treat common postoperative complications. *Examples include postoperative wound infection, respiratory insufficiency, myocardial infarction, oliguria, urinary tract infection, IV site phlebitis, and central venous line infection.*
5. The resident should be able to discuss strategies to prevent decubitus ulcer.
6. The resident should be able to demonstrate an understanding of minimal access surgery, including the applications, risks, and technical and physiologic principles.
7. The resident should be familiar with SIP/SCIP guidelines as they pertain to general surgical patients.

B. Patient Care

1. The resident should assume responsibility for all elective admissions to the service, including performing an advanced history and physical examination, writing admission orders, and reviewing appropriate diagnostic tests.
2. The resident should assume responsibility for care of all patients on the hospital ward, including evaluation of daily progress, implementation of treatment plans, daily notification of the senior resident about patient progress, and immediate notification of the senior resident about new problems.

3. The resident should assume responsibility for discharging patients, including dictating the discharge summary, writing prescriptions, and ensuring appropriate follow-up.
4. Under appropriate supervision, the resident should be able to perform basic procedures such as

<i>Placement of venous access devices and arterial lines</i> <i>Flexible and rigid proctoscopy</i> <i>Breast biopsy</i> <i>Open hernia repair (inguinal, femoral, umbilical)</i> <i>Anorectal procedures</i>	<i>Tracheal intubation</i> <i>Biopsy of subcutaneous mass</i> <i>Open appendectomy</i> <i>Lower extremity amputations</i>
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C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diagnosis and management of surgical diseases commonly seen in military veterans.
2. The resident must attend the following service-specific conferences:
 - VA General Surgery Services M & M Conference, Tuesday, 7:00 a.m.*
 - Combined GI/General Surgery conference, Friday, 7:30 a.m.*
 - VA General Surgery Journal Club, Last Monday each month, 7:00 a.m.*
3. The resident must attend weekly outpatient general surgery and specialty (i.e., endocrine or colorectal/procto) clinics as assigned.

E. Systems-Based Practice

1. The resident should be able to interact with VA Hospital’s electronic medical record system to efficiently and accurately enter and retrieve all pertinent medical information (history and physical examination, daily progress notes, orders, etc).
2. The resident should be able to communicate accurately with families, nurses, physician assistants, and other allied health care personnel.

F. Professionalism

See general goals and objectives

PGY 2

A. Medical Knowledge

1. The resident should learn in depth the basic science of surgery as it applies to acute surgical problems and problems commonly encountered in the ICU setting. *Examples include the pathophysiology of sepsis, shock, coagulopathy, bowel and biliary obstruction, pancreatitis, respiratory failure, congestive heart failure, coronary ischemia, and stroke.*
2. The resident should correctly use invasive monitoring and non-surgical invasive procedures to diagnose and treat surgical complications. *Examples include interpretation of data from arterial lines, central lines, pulmonary artery catheters and radiology-directed percutaneous aspirations of fluid collection, abscess cavities and solid lesions. In addition, residents should understand the use and limitations of percutaneous drainage of fluid collections/abscesses.*
3. The resident should be able to recognize, diagnose and understand principles of treatment of common surgical problems and surgical emergencies. *Examples include electrolyte imbalance, malnutrition, failure of hemostasis, surgical infection, renal failure, pulmonary insufficiency, cardiac abnormalities, shock, peritonitis, cholangitis, limb ischemia and gastrointestinal hemorrhage.*

B. Patient Care

1. The resident should assume responsibility for the care of all patients in the intensive care unit, with particular emphasis on interaction with the ICU care team.
2. The resident should assume responsibility for the initial evaluation of all consults from the emergency department as well as from other hospital services.
3. The resident should demonstrate ability to manage general surgery patients in the critical care setting. This will include management of patients who may or may not require surgical intervention such as those with pancreatitis, portal hypertension, multiple trauma, and immunosuppression.
4. Under appropriate supervision, the resident should be able to perform intermediate surgical procedures such as
 - Placement of pulmonary artery catheters (Swan Ganz catheters)*
 - Placement of gastrostomy and jejunostomy tubes*
 - Enterotomy closure and other types of uncomplicated bowel repair*
 - Tracheostomy*
 - Lysis of adhesions*
 - Creation of colostomy*
 - Colostomy closure*
 - Open hernia repair*
 - Laparoscopic appendectomy*
 - Laparoscopic cholecystectomy*
 - Leg amputation*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diagnosis and management of surgical disease commonly seen in military veterans.
2. The resident must attend the following service-specific conferences:
VA General Surgery Services M & M Conference, Tuesday, 7:00 a.m.
Combined GI/General Surgery conference, Friday, 7:00 a.m.
VA General Surgery Journal Club, Last Monday each month, 7:00 a.m.
3. The resident must attend weekly outpatient general surgery and specialty (i.e., endocrine or colorectal/procto) clinics as assigned.

E. Systems-Based Practice

1. The resident should be able to communicate with families, referring physicians, consultants, and hospital administration regarding medical care for his or her patients.
2. The resident should have knowledge of special services available at the Dallas VA Hospital for military veterans such as the VA homeless program, the VA domiciliary care unit, the drug and alcohol rehabilitation unit, and the amputation support service.

F. Professionalism

See general goals and objectives

PGY 3

A. Medical Knowledge

1. The resident should learn in depth the management of acute surgical conditions, including (but not limited to) upper and lower gastrointestinal bleeding, small and large bowel obstruction, pancreatitis, biliary obstruction, cholecystitis, and the acute abdomen.
2. The resident should be able to demonstrate understanding of the biology, pathology, diagnosis, treatment, and prognosis of neoplastic disease. *Examples include cancer of the breast, thyroid, parathyroid, adrenal, esophagus, stomach, pancreas, ampulla, liver, colon, and rectum.*
3. The resident should learn in depth the management of benign surgical conditions commonly seen in the VA Hospital population. *Examples include hernias, gastroesophageal reflux, intestinal fistulas, cholecystitis, cholangitis, pancreatitis, complications of gastroduodenal ulcer disease, small and large bowel obstruction, colonic diverticular disease, sigmoid volvulus, and rectal prolapse.*
4. The resident should be able to recognize and stratify comorbid conditions in the patient with surgical illness.

5. The resident should be able to discuss management options for patients with comorbid medical conditions to reduce the risk of morbidity and mortality, including treatment of the comorbid condition, postponing the operation, and altering the type of operation or choosing a less invasive procedure.
6. The resident should be able to correctly diagnose and understand principles of treatment of common surgical complications and surgical emergencies. *Examples include electrolyte imbalance, failure of hemostasis, surgical infection, renal failure, pulmonary insufficiency, cardiac abnormalities, shock, peritonitis, limb ischemia and gastrointestinal hemorrhage.*

B. Patient Care

1. The resident should assume responsibility for the care of all hospitalized patients on the service, including close supervision of the PGY 1 and PGY 2 as they perform the direct care of these patients.
2. The resident should personally see every new admission to the service and know the daily progress and problems of every patient.
3. After discussion with the chief resident, the resident should discuss patient progress and any new problems with the attending faculty.
4. Under appropriate supervision, the resident should be able to perform intermediate operative procedures such as

<i>Open and laparoscopic cholecystectomy</i>	<i>Truncal vagotomy</i>
<i>Partial or modified radical mastectomy</i>	<i>Pyloroplasty</i>
<i>Thyroidectomy</i>	<i>Colectomy</i>
<i>Enterectomy/enterolysis</i>	<i>Advanced laparoscopic surgery</i>
<i>Gastrojejunostomy</i>	<i>Open and laparoscopic hernia repair</i>
<i>Open splenectomy</i>	<i>Abdominal procedures for trauma</i>
<i>Complicated bowel surgery</i>	
<i>Repair of arterial and venous injuries</i>	
<i>Laparoscopic hernia repair</i>	

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use books, journal articles, internet access, and other tools available to learn about diagnosis and management of surgical disease commonly seen in military veterans.

2. The resident must attend the following service-specific conferences:
VA General Surgery Services M & M Conference, Tuesday, 7:00 a.m.
Combined GI/General Surgery conference, Friday, 7:00 a.m.
VA General Surgery Journal Club, Last Monday each month, 7:00 a.m.
3. The resident must attend weekly outpatient general surgery and specialty (i.e., endocrine or colorectal/procto) clinics as assigned.

E. Systems-Based Practice

1. The resident should be able to communicate with referring physicians and consultants.
2. The resident should be able to acquire the necessary consultative services to assess and reduce operative risk.
3. The resident should be able to interface with post-discharge health services, including nursing care, nutrition, rehabilitation, physical therapy, and occupational therapy.

F. Professionalism

See general goals and objectives

CHIEF RESIDENT

A. Medical Knowledge

1. The chief resident should learn in depth the principles of management of complex surgical problems seen in the VA Hospital setting. *Examples include recurrent and metastatic colon cancer, male breast cancer, Barrett's esophagus, intestinal fistulas, transected bile duct, postgastrectomy syndromes, Ogilvie's syndrome, nonocclusive mesenteric ischemia, portal hypertension, and complications of inflammatory bowel disease.*
2. The chief resident should be able to correctly describe the pathophysiology of multisystem problems of the alimentary tract and digestive system, including neurohumeral and hormonal interactions.
3. The chief resident should be able to accurately analyze the medical preparation of patients for complex operations.
4. The chief resident should be able to accurately describe the surgical options for patients with complex problems, including an analysis of the risk vs. benefit for all procedures.
5. The chief resident should be able to accurately explain the physiologic rationale for the following gastrointestinal operations: vagotomy, pyloroplasty, gastric resection for ulcer disease, small bowel resection, ileostomy, and low anterior resection.

- The chief resident should be able to accurately describe advanced operative procedures performed by the practicing general surgeon. *Examples include thyroidectomy, parathyroidectomy, Heller myotomy, surgical procedures for gastroesophageal reflux, surgical procedures for gastroduodenal ulcer disease, bariatric procedures, hepatic lobectomy, pancreaticoduodenectomy (Whipple procedure), subtotal colectomy, abdominoperineal resection, and procedures for portal decompression.*

B. Patient Care

- The chief resident should assume overall responsibility for all patients on the service, including close supervision of the junior residents who are caring for the patients directly.
- The chief resident should examine all patients scheduled for operation and ensure that each is medically optimized and physiologically ready for the planned procedure.
- The chief resident should know the progress of all patients on the service every day.
- The chief resident should personally examine all patients who develop new problems and ensure that the attending has been notified.
- Under appropriate supervision, the chief resident should perform advanced operative procedure such as:

Rigid and flexible endoscopic procedures, especially proctosigmoidoscopy, colonoscopy, and operative cholecystoscopy

Ultrasonography of the head and neck, breast, abdomen, and endorectum

Advanced laparoscopic cases such as Nissen Fundoplication and splenectomy

Open procedures for gastroesophageal reflux

Open and laparoscopic bariatric procedures

Total and subtotal gastrectomy

Esophagogastrectomy

Pancreaticojejunostomy

Liver resection

Adrenalectomy (open/laparoscopic)

Parathyroidectomy

Whipple procedure

Complex hepatobiliary surgery

Advanced colon repair

Portal decompression procedures

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

- The resident should use books, journal articles, operative videotapes, internet access, and other tools available to learn about diagnosis and management of surgical disease commonly seen in military veterans.

2. The resident must attend the following service-specific conferences:
 - VA General Surgery Services M & M Conference, Tuesday, 7:00 a.m.*
 - Combined GI/General Surgery conference, Friday, 7:00 a.m.*
 - VA General Surgery Journal Club, Last Monday each month, 7:00 a.m.*
3. The resident must attend weekly outpatient general surgery and specialty (i.e., endocrine or colorectal/procto) clinics as assigned.

E. Systems-Based Practice

The resident should understand the unique referral network of the Department of Veterans Administration's medical care system, including the makeup of VISN regions.

F. Professionalism

See general goals and objectives

Educational Goals for General Surgery Residents

Vascular Surgery (PMH Surgery D, VA III, St. Paul Vascular)

PGY 1

A. Medical Knowledge

1. The resident should be able to recognize and diagnose common vascular problems and vascular emergencies. *Examples include intermittent claudication, transient cerebral ischemic attacks, non-disabling stroke, amaurosis fugax, acute extremity arterial insufficiency, acute mesenteric ischemia, ruptured abdominal aortic aneurysm, and proximal venous thrombosis.*
2. The resident should be able to interpret and correctly utilize vascular noninvasive tests including API and toe pressures, carotid duplex ultrasonography, and venous duplex ultrasonography.
3. The resident should demonstrate knowledge regarding indications for treatment of common vascular problems, including both open surgical and endovascular techniques.

B. Patient Care

1. The resident should demonstrate performance of an advanced vascular physical examination including the use of Doppler ultrasound to calculate ankle brachial indices.
2. The resident should assume responsibility for the care of all patients on the hospital ward, including admission history and physical examination, daily progress notes, and discharge summaries.
3. Residents rotating on Surgery D at PMH and St. Paul will attend and participate in the weekly Vascular Surgery Clinic on Monday mornings at Parkland Memorial Hospital. Residents rotating on VA III will attend and participate in the weekly Vascular Surgery Clinic on Monday afternoons at the Dallas VA Hospital. Residents will also participate in at least one day equivalent office session with attendings. Activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.
4. Under appropriate supervision, perform basic surgical procedures such as:
 - Major extremity amputations*
 - Complex wound closure*
 - Ligation and stripping of varicose veins*

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should utilize textbooks and journal articles to learn the principles of vascular surgery during the rotation.
2. The resident must attend the Vascular Conference held on Wednesdays at 6:45 a.m.

E. Systems-Based Practice

1. The resident should be able to arrange for appropriate consults for vascular patients.
2. The resident should be able to arrange for appropriate support services commonly utilized by vascular patients such as social services, discharge planning, and Physical Medicine and Rehabilitation.

F. Professionalism

See general goals and objectives

PGY 2

A. Medical Knowledge

1. The resident should be able to explain indications for common interventional radiologic techniques as well as benefit/risk ratio in comparison to surgical intervention.
2. The resident should be able to demonstrate knowledge of the common complications of interventional radiologic procedures. The resident should understand associated risk factors and be able to discuss specific interventions to reduce the risk of these complications. *Examples include contrast-induced renal insufficiency and contrast dye allergy.*
3. The resident should demonstrate knowledge of the indications for medical management of common vascular disorders with emphasis on antithrombotic therapy.
4. Recognize common angiographic abnormalities including atherosclerosis, embolism, aneurysm, and vascular dissection.
5. Recognize need for amputation as well as optimal reconstruction technique to ensure maximum rehabilitation success.

B. Patient Care

1. The resident should assume responsibility for the care of patients in the intensive care unit and for admitting patients from the emergency department.

2. Residents rotating on Surgery D at PMH and St. Paul will attend and participate in a weekly Vascular Surgery Clinic at PMH. Residents rotating on VA III will attend and participate in a weekly Vascular Surgery Clinic at the DAVMC. Residents will also participate in at least one day equivalent office session with attendings. Activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.
3. Under appropriate supervision, perform basic surgical procedures such as:
 - Insertion of central venous lines*
 - Arterial lines*
 - Pulmonary artery (Swan-Ganz) catheters*

C. Interpersonal and Communications Skills

See general goals and objectives.

D. Practice-Based Learning and Improvement

1. The resident should utilize textbooks and journal articles to learn the principles of vascular surgery during the rotation.
2. The resident must attend the Vascular Conference held on Wednesdays at 6:45 a.m.

E. Systems-Based Practice

See general goals and objectives.

F. Professionalism

See general goals and objectives

PGY 3

A. Medical Knowledge

1. The resident should be able to perform a detailed preoperative assessment of co-morbid conditions in patients undergoing major vascular procedures to include need for cardiac evaluation, interpretation of common cardiac function test (EKG, MUGA, perfusion scans, and other stress tests) and be able to utilize this information to plan the safest procedure with appropriate monitoring.
2. The resident should interpret and correctly utilize vascular noninvasive tests including carotid duplex ultrasonography, and venous duplex ultrasonography.
3. The resident should demonstrate detailed knowledge about the angiographic anatomy of the upper and lower extremities, the abdominal aorta and its branches, the brachiocephalic vessels and their branches, the extracranial cervical arteries, and the major intracranial branches of the carotid arteries.

4. The resident should demonstrate detailed knowledge of critical care as it relates to recovering vascular patients. *This should include correct interpretation of physiologic monitoring tests (Swan-Ganz catheters, central oxygen saturation catheters, continuous ECG monitoring, etc.). Residents at these levels should also be able to manage common problems that arise in these patients including low cardiac output, renal insufficiency, congestive heart failure, cardiac arrhythmias, coagulopathy, and acute psychoses.*

B. Patient Care

1. The resident should assume the overall responsibility for knowing the daily progress and plans of all patients on the service.
2. Residents rotating on Surgery D at PMH and St. Paul will attend and participate in a weekly Vascular Surgery Clinic at PMH. Residents rotating on VA III will attend and participate in a weekly Vascular Surgery Clinic at the DAVMC. Residents will also participate in at least one day equivalent office session with attendings. Activities will include examination and evaluation of new patients, perioperative and postoperative care of established patients, and surgical consultations under the supervision of attending surgeons.
3. The resident is responsible for posting all operative cases.
4. Under appropriate supervision, perform basic surgical procedures such as:

<i>Common vascular exposures</i>	<i>Angioaccess procedures</i>
<i>Arterial embolectomy</i>	<i>Simple arterial reconstructions</i>
<i>Patch angioplasty</i>	<i>Vascular anastomosis</i>

C. Interpersonal and Communications Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should utilize textbooks, journal articles and internet tools to learn the principles of vascular surgery during the rotation.
2. The resident must attend the Vascular Conference held on Wednesdays at 6:45 a.m.

E. Systems-Based Practice

1. The resident should demonstrate knowledge about the cost effectiveness of diagnostic tests and preoperative evaluations in managing complex vascular problems.
2. The resident should be able to communicate with consultants, referring physicians, and families.

F. Professionalism

See general goals and objectives

2. The resident must attend the Vascular Conference held on Wednesdays at 6:45 a.m.

E. Systems-Based Practice

See general goals and objectives

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for General Surgery Residents

Community Surgery Services (San Angelo Rotation)

PGY 4

A. Medical Knowledge

1. The resident should understand the pathophysiology and clinical presentation of common general, thoracic, and vascular surgery problems encountered in community practice. *Examples include hernias, breast pathology, biliary tract pathology, diseases of the colon and rectum, lung tumors, diseases of the esophagus, aneurysms, and occlusive vascular disease of the cerebrovascular and lower extremity circulations.*
2. The resident should learn the indications for general, thoracic, and vascular surgery procedures and understand the surgical options available. *Examples include open versus minimally invasive surgical options for abdominal surgery (especially laparoscopic procedures), thoracic surgery (especially VATS), and vascular surgery (especially endovascular procedures).*
3. The resident should be able to perform advanced assessment of risk/benefits for all interventions relevant to general, thoracic, and vascular surgery procedures.
4. The resident should recognize surgical problems that can be appropriately treated in the outpatient versus inpatient setting. *Examples include hernia repairs, endovascular procedures, breast biopsy.*

B. Patient Care

1. Under the direct supervision of the attending, the resident should evaluate patients in the outpatient setting, make a treatment plan, arrange for appropriate diagnostic tests, and arrange for scheduling procedures.
2. The resident should write a concise and descriptive preoperative counseling note on all patients under his or her care.
3. The resident should dictate an accurate and descriptive operative note for every case on which he or she has participated at the level of surgeon of record.
4. The resident should write daily progress notes on all patients under his or her care in the intensive care unit or ward.
5. The resident should make a discharge plan, dictate a discharge note, and arrange for follow-up of all patients under his or her care.
6. The resident must see patients after discharge in the office or other outpatient setting.

C. Interpersonal and Communications Skills

1. The resident should be able to communicate with referring physicians, consulting physicians, and allied health care personnel.
2. The resident must communicate with the attending for patients under his care on a daily basis to discuss progress on plans.
3. The resident must alert the attending to any problems or significant changes in progress of the patients under his or her care.

D. Practice-Based Learning and Improvement

1. The resident must maintain an accurate log of all operations performed during the rotation.
2. The resident must enter all cases into the institutional computerized database (SNIPS) within two weeks of returning to Dallas after the rotation.
3. The resident should use readily available sources of medical information such as textbooks, journal articles, and web based tools.

E. Systems-Based Practice

1. The resident should understand the role of the private practitioner in the overall delivery of health care. *This includes knowledge of care delivery systems, role of the practitioner as a member of the health care team, and regulatory restrictions for exchange of medical information.*
2. The resident should understand basic management and financial issues in modern private surgical practice. *Examples include coding and billing procedures, supervision of office personnel, and regulatory/licensure compliance.*

F. Professionalism

The resident must adhere at all times to the principles of professionalism outlined in the general goals and objectives.

Competency-Based Educational Goals for Surgery Residents

Burn Service

PGY 1

A. Knowledge.

1. The resident should learn in-depth the fundamentals of basic science as applied to care of patients with burns. *Examples include physiology of thermal and chemical injury, wound healing, scar formation, healing of skin grafts, shock, surgical microbiology, respiratory physiology, cardiovascular physiology, surgical endocrinology as complications of critical illness, surgical nutrition, fluid and electrolyte balance, and oncology as applied to burns.*
2. The resident should learn in depth the indications, complications, and side effects of topical antimicrobial agents commonly applied to burns in the hospital setting.
3. The resident should be able to discuss the indications for admitting a burn patient to the hospital versus treatment in the outpatient setting.
4. The resident should recognize and diagnose common surgical problems and surgical emergencies in burn patients. *Examples include failure of resuscitation, respiratory insufficiency, cardiovascular insufficiency, surgical infection, gastrointestinal bleeding, peripheral vascular insufficiency, intraabdominal complications of critical illness.*
5. The resident should correctly interpret and utilize diagnostic laboratory procedures. *Examples include serum chemistries, coagulation profiles, liver and pancreatic function tests, arterial blood gas analysis and hematologic profiles.*
6. The resident should correctly interpret and utilize diagnostic radiologic procedures, understand the cost effectiveness of diagnostic tests and managing surgical problems. *Examples include chest x-rays, the role of computed tomography in the burn/trauma patient, and the use of radionuclide scintigraphy.*
7. The resident should know indications for and complications associated with invasive monitoring to diagnose and treat cardiopulmonary disorders, interpret and correctly utilize data from invasive monitoring devices. *Examples include evaluation of data from arterial lines – complications of peripheral vascular insufficiency and infection, central venous lines – vascular thrombus, deep venous pulmonary embolisms, suppurative thrombophlebitis, pulmonary artery catheter – endocarditis, central thrombosis, complications of j-wire insertions and the usefulness of indirect cardiovascular measurements.*
8. The resident should learn comprehensive preoperative assessment of co-morbid conditions in patients undergoing surgical procedures, recognizing current problems, discovering in the preoperative period to reduce perioperative complications.

9. The resident should recognize and treat common postoperative complications in the burn patient (bleeding, infection, respiratory insufficiency).
10. The resident should acquire an understanding of the principles of care of the burn patient including prevention, treatment of co-morbid conditions, associated polytrauma, the social/milieu of the injured patient and both the acute, chronic wound care and rehabilitation needs of the patient.

B. Patient Care

1. The resident should assume responsibility for all new admissions, including detailed history and physical examination, estimation of burn extent, calculation of fluid requirements, institution of resuscitation, and admission orders.
2. The resident should assume responsibility for the care of all patients on the burn service, including patients in the burn ICU. This will include daily assessment, evaluation of new problems, and preoperative preparation.
3. The resident should assume responsibility for initial evaluation of all consults in the emergency department and on other hospital services.
4. The resident should assume responsibility for discharging patients, including dictating the discharge summary, writing prescriptions, and ensuring appropriate follow-up.
5. Under appropriate supervision, the resident should be able to perform basic procedures such as:

<i>Placement of central venous lines</i>	<i>Tracheal intubation</i>
<i>Leg amputation</i>	<i>Burn excision</i>
<i>Skin graft</i>	<i>Burn scar revision</i>

C. Interpersonal and Communication Skills

See general goals and objectives.

D. Practice-Based Learning and Improvement

1. The resident should use textbooks, journal articles, internet access, and other tools available to learn about treatment of surgical problems in burn patients.
2. The resident must attend all service-specific conferences, including scheduled daily lectures from attending faculty.
3. The resident must attend all service-specific clinics.

E. Systems-Based Practice

1. The resident should understand the function of a regional burn institute as a referral center for patients with burns of all sizes and etiologies.
2. The resident should be able to communicate with referring physicians, consultants, burn nurses, and allied health care personnel regarding the care of burn patients.
3. The resident should take responsibility for posting cases in the operating room.

F. Professionalism

See general goals and objectives.

PGY 2

A. Knowledge

See service-specific goals and objectives for PGY 1

B. Patient Care

1. The resident should assume overall responsibility for the care of all patients on the service, including supervision of the PGY 1 as he or she cares for the patients directly.
2. The resident should review the admission data on all new patients to ensure that the resuscitation parameters have been calculated correctly and to ensure that the patient has been completely evaluated to exclude other injuries.
3. The resident should know the progress of all patients on the service every day.
4. The resident must personally examine all patients who develop new complications.
5. The resident must keep the attending faculty aware of the progress and treatment of all patients on the service, and he or she must inform the attending about new admissions or development of new problems in service patients.
6. The resident should evaluate all comorbidities in hospitalized patients, and he or she should utilize consults as necessary to ensure optimal medical care.

C. Interpersonal and Communication Skills

See general goals and objectives.

D. Practice-Based Learning and Improvement

1. The resident should use textbooks, journal articles, internet access, and other tools available to learn about treatment of surgical problems in burn patients.
2. The resident must attend all service-specific conferences, including scheduled daily lectures from attending faculty.
3. The resident must attend all service-specific clinics.

E. Systems-Based Practice

1. The resident should be able to communicate with families and referring physicians about the prognosis of each patient based on burn size, existence of comorbidities, and presence of other injuries.
2. The resident should understand the principles of informed consent and be able to communicate with family members regarding medical care decisions when patients are unable to do so.
3. The resident should know how to contact the hospital's ethics committee.
4. The resident should be able to discuss child abuse, including identifying injuries consistent with abuse, understanding the need to admit victims for protection, and knowing how to contact the appropriate authorities to report suspected cases of abuse.

F. Professionalism

See general goals and objectives.

PGY 4

A. Knowledge

1. The resident should be able to demonstrate knowledge about managing burns of all types. *Examples include acute and chronic care of flame injury, chemical burns, electrical burns, and radiation injury.*
2. The resident should be able to discuss the long-term management of patients with burns, including scar revision, psychiatric counseling, avoidance of sun exposure, and long-term surveillance for burn-related malignancy.
3. The resident should be able to recognize and treat burn-related malignancy.
4. The resident should understand the management of extreme radiation exposure, including decontamination procedures, evaluation, acute treatment, and long-term surveillance. The resident should understand the long term prognosis of radiation injury, based on the calculated dose of radiation received.

Competency-Based Educational Goals for Surgery Residents

Cardiothoracic Surgery Service

PGY 1

A. Knowledge

1. The resident should learn in depth the fundamentals of basic science as applied to clinical cardiovascular and thoracic surgery. *Examples include the elements of wound healing, hemostasis, oncology, shock, surgical microbiology, respiratory physiology, circulatory physiology, surgical nutrition, fluid and electrolyte balance, surgical anatomy, and surgical pathology.*
2. The resident should be able to recognize and diagnose common surgical problems and surgical emergencies. *Examples include electrolyte imbalance, failure of hemostasis, surgical infection, renal failure, pulmonary insufficiency, postoperative hypotension, arrhythmias, shock, pneumothorax, hemothorax, cardiac ischemia, and thoracic trauma.*
3. The resident should be able to interpret and correctly utilize diagnostic laboratory procedures. *Examples include serum chemistries, arterial blood gas analysis, hematologic profiles, and coagulation tests.*
4. The resident should be able to interpret and correctly utilize diagnostic radiologic procedures. *Examples include chest radiography, computed tomography, echocardiography, angiography, esophageal contrast studies, pulmonary function tests, and cardiac catheterization.*
5. Learn comprehensive preoperative assessment of co-morbid conditions in patients undergoing cardiothoracic surgical procedures. Recognize and correct problems discovered in the preoperative period to reduce perioperative complications.
6. The resident should be able to recognize and treat common postoperative complications in cardiothoracic patients. *Examples include atelectasis, ARDS, pneumonia, deep venous thrombosis, pulmonary embolus, arrhythmias, myocardial ischemia, postoperative hemorrhage, wound infection, oliguria, malnutrition, and fluid and electrolyte abnormalities.*

B. Patient Care

1. The resident should assume responsibility for all new admissions, including advanced history and physical examination with an emphasis on cardiac and pulmonary assessment. admission orders, and arranging for appropriate diagnostic tests.
2. The resident should assume responsibility for the care of all patients on the service, including patients in the ICU. This will include daily assessment, evaluation of new problems, and preoperative preparation.

3. The resident should be able to evaluate all patients for the presence of comorbid conditions and institute appropriate treatment to reduce the risk of perioperative complications.
4. The resident should assume responsibility for initial evaluation of all consults in the emergency department and on other hospital services.
5. The resident should assume responsibility for discharging patients, including dictating the discharge summary, writing prescriptions, and ensuring appropriate follow-up.
6. Under appropriate supervision, the resident should be able to perform basic thoracic procedures such as

Placement of central venous lines and arterial lines

Thoracotomy, open or video-assisted

Saphenous vein harvest and preparation

Tracheal intubation

Tracheostomy

Lung biopsy

Cervical mediastinoscopy

Bronchoscopy

Esophagoscopy

C. Interpersonal and Communication Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use textbooks, journal articles, internet access, and other tools to learn the fundamentals of cardiothoracic surgery.
2. The resident should enter all procedures that he or she has performed into the institutional database (SNIPS) within 48 hours of the operation.
3. The resident must attend all service-specific conferences.
4. The resident must attend all service-specific clinics.

E. Systems-Based Practice

1. The resident should be able to communicate with referring physicians, consultants, nurses, physician extenders, and allied personnel about patient care.
2. The resident should be able to communicate with family members about the progress and plans for each patient under his or her care.

F. Professionalism

See general goals and objectives

PGY 4

A. Knowledge

1. The resident should understand advanced basic science as applied to cardiac, esophageal, and pulmonary physiology. *Examples include the pathophysiology of atherosclerosis, pathophysiology and natural history of pulmonary malignancy, pulmonary function abnormalities in chronic obstructive pulmonary disease, manometric abnormalities in esophageal disease, and frequency/death rates of thoracic malignancies.*
2. The resident should learn about the diagnosis and management of mediastinal tumors.
3. The resident should understand the indications and appropriate tests available for screening patients for thoracic disease. *The resident should be able to discuss risk factors for cardiac/pulmonary/esophageal disease, typical presenting symptoms, and patterns of coexistence such as COPD and coronary artery disease in smokers.*
4. The resident should be familiar with diagnostic tests available to detect and categorize cardiac disease. *Examples include the treadmill exercise test, dipyridamole thallium scintigraphy, adenosine echocardiography, MUGA scan, CT-based coronary calcification score, CT angiography, catheter-based coronary angiography.*
5. The resident should be able to perform advanced assessment of indications and risk/benefit for all interventions in patients with cardiovascular disease. *Examples include optimal medical management, endovascular procedures, coronary bypass, and heart transplantation.*
6. The resident should understand the stepwise evaluation and management of the patient with an asymptomatic lung lesion.
7. The resident should understand changes in pulmonary function after lung resection and be able to determine whether a lung lesion is resectable on the basis of baseline pulmonary function tests.
8. The resident should be familiar with valvular heart disease, including natural history, presentation, diagnosis, available therapeutic options, and postoperative management.
9. The resident should be familiar with the evaluation and management options for patients with esophageal disease, including functional disorders, traumatic injuries (perforation and caustic injuries), and neoplasms.

B. Patient Care

1. The resident should function as a member of the cardiothoracic team and assume responsibility for all care on his or her assigned patients. This must include admission responsibilities outlined above under PGY 1 goals and objectives; daily evaluation of progress and detection of new problems; preoperative preparation; and discharge responsibilities noted above under PGY 1 goals and objectives.

2. The resident should be able to demonstrate ability to manage thoracic and cardiovascular surgery patients in the critical care setting including management of patients who may or may not require surgical intervention such as those with endocarditis, pleural effusion, empyema, thoracic trauma, and esophageal motility disorders.
3. Under appropriate supervision, the resident should be able to perform more advanced procedures such as:

Open and video-assisted decortication

Mediastinotomy and mediastinoscopy

Pulmonary wedge resection

Lobectomy and pneumonectomy

Thoracotomy

Lung biopsy

Thymectomy

Chest wall resection

C. Interpersonal and Communication Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use textbooks, journal articles, internet access, and other tools to learn advanced concepts in cardiothoracic surgery.
2. The resident should enter all procedures that he or she has performed into the institutional database (SNIPS) within 48 hours of the operation.
3. The resident must attend all service-specific conferences.
4. The resident must attend all service-specific clinics.

E. Systems-Based Practice

1. The resident should understand the interrelationship of the cardiothoracic surgeon, pulmonologist, cardiologist, medical oncologist, and rehabilitation specialist in the overall management of the patient with cardiothoracic disease.
2. The resident should be aware of community and VA programs for risk factor modification smoking cessation clinics.
3. The resident should be aware of community and VA screening programs such as cholesterol screening and vascular laboratory outreach programs.

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for Surgery Residents

GI Service

PGY 4

The Division of Digestive and Liver Diseases Surgery Resident Policy and Procedure Manual, which is appended to this document, highlights expectations of surgery residents rotating at Parkland hospital. All surgery residents are required to read this manual very carefully **prior** to rotating on the GI service. An overview of the educational goals and objectives for the rotation is highlighted below.

A. Knowledge

1. The resident should learn advanced basic science as applied to gastrointestinal physiology. *Examples include the pathophysiology of esophageal motility disorders, gastroesophageal reflux disease, peptic ulcer disease, gastrointestinal bleeding, medical management of the complications of portal hypertension, hepatitides, hepatobiliary disease, intestinal dysmotility syndromes, pancreatic insufficiency, intestinal ischemia, diarrhea syndromes.*
2. The resident should be able to recognize and diagnose common and unusual gastrointestinal disorders.
3. The resident should be able to correctly describe the use of endoscopes in the diagnosis and treatment of upper and lower gastrointestinal hemorrhage.
4. The resident should be able to accurately assess the complications that may result from flexible endoscopic procedures, including hemorrhage and perforation.

B. Patient Care

1. The resident is expected to function as an integral member of the GI consultation service. In this regard, the resident must assume responsibility for initial evaluation of all new consults, including an advanced history and physical examination with a particular emphasis on GI physiology and comorbid conditions.
2. The resident should assume responsibility for ensuring that each patient has been properly resuscitated prior to any endoscopic intervention.
3. The resident should assume responsibility for monitoring the daily progress on all patients on whom he or she has served as a consultant.
4. Under appropriate supervision, the resident should be able to perform endoscopic procedures such as

Esophagogastroduodenoscopy - minimum 35 procedures total over five years

Colonoscopy – minimum 50 procedures total over five years

Flexible and rigid sigmoidoscopy

Polypectomy

Competency-Based Educational Goals for Surgery Residents

Pediatric Surgery

PGY 1

A. Knowledge

1. The resident should learn in depth the fundamentals of basic science as applied to pediatric surgery. *Examples include embryologic development of the peritoneal cavity, normal rotation and fixation of the abdominal viscera, the physiologic changes of birth, fluid and electrolyte requirements by weight, normal physiologic parameters in newborns and children, and major physiologic differences of babies and children compared to adults.*
2. The resident should be able to recognize, diagnose, and initiate treatment for common surgical problems and emergencies in newborns. *Examples include omphalocele, gastroschisis, imperforate anus, meconium ileus, Hirschsprung's disease, pyloric stenosis, malrotation, volvulus, intestinal atresias, non-accidental trauma.*
3. The resident should be able to recognize, diagnose, and initiate treatment for common surgical problems and emergencies in children. *Examples include inguinal hernia, undescended testis, hydrocele, intestinal obstruction, intussusception and appendicitis.*
4. The resident should learn to recognize and initiate the workup for pediatric solid tumors. *Examples are hepatoblastoma, teratoma, germ cell tumors, Wilm's tumor, neuroblastoma, and rhabdomyosarcoma.*
5. The resident should be able to interpret and correctly utilize appropriate diagnostic laboratory procedures as applied to pediatric surgery patients. *Examples include hematologic profiles and coagulation assessment, hepatic function tests, tumor markers and serum chemistries.*
6. The resident should be able to interpret and correctly utilize appropriate diagnostic imaging studies in infants and children. *Examples include chest radiographs, abdominal ultrasonography, CT scans and contrast studies of the esophagus, stomach, intestine, and colon.*

B. Patient Care

1. The resident should assume responsibility for committed participation in a ward management team consisting of Pediatric Surgery faculty, Pediatric Surgery Fellows, surgery resident peers, advanced surgical nurse practitioners and physician assistants for the care of all ward patients on the Pediatric Surgery service.
2. The resident should assume a shared responsibility with the ward management team for the care of all new admissions, including advanced history and physical examination appropriate for age, calculation of fluid requirements, institution of treatment and admission orders.

3. The resident should assume a shared responsibility with the ward management team for the care of all ward patients on the pediatric service, including daily assessment, evaluation of new problems, and preoperative preparation.
4. The resident should assume a shared responsibility with the ward management team initial evaluation of all consults in the emergency department and on other hospital services, including comprehensible and appropriate communication between surgical and non-surgical care providers.
5. The resident should assume a shared responsibility with the ward management team for for discharging patients, including dictating the discharge summary, writing prescriptions, and ensuring appropriate follow-up.
6. Under appropriate supervision, the resident should be able to perform procedures in children over the age of one year, such as:

Placement of central venous line by percutaneous and cutdown approaches

Placement and removal of chest tubes

Repair of inguinal hernia

Circumcision

Incision and drainage of abscess

Placement of gastrostomy

Repair of umbilical hernia

Excision of subcutaneous lesion

Open and laparoscopic appendectomy

Excision of breast masses

C. Interpersonal and Communication Skills

See general goals and objectives

D. Practice-Based Learning and Improvement

1. The resident should use textbooks, journal articles, Internet access, and other available tools to learn about diseases of infants and children.
2. The resident must attend all service-specific conferences, as scheduled.
3. The resident must attend all service-based clinics on a weekly basis

E. Systems-Based Practice

1. The resident should be able to communicate with families, under the supervision and guidance of the senior resident and attending.
2. The resident should be able to communicate with nurses, physician extenders, social workers, and allied health care personnel about the care of pediatric surgery patients.
3. The resident should be able to appreciate the specific needs of infants and children that are different from those of adults.

F. Professionalism

See general goals and objectives.

PGY 4

A. Knowledge

1. The resident should learn in depth the fundamentals of basic and embryologic science as applied to congenital anomalies cared for by the Pediatric Surgeon. *Examples include embryologic development of the peritoneal cavity, normal rotation and fixation of the abdominal viscera, the physiologic changes of birth, fluid and electrolyte requirements by weight, normal physiologic parameters in newborns and children, VACTERL association, imperforate anus, congenital diaphragmatic hernia, intestinal atresia, tracheoesophageal fistula and major physiologic and anatomic differences of babies and children compared to adults.*
2. The resident should be able to recognize, diagnose, and initiate treatment for complex surgical problems and emergencies unique to the neonatal pediatric surgical patient, including resuscitation, evaluation of coexistent abnormalities, diagnostic tests, and treatment options in premature newborns and infants. *Examples include biliary atresia, tracheoesophageal fistula, congenital diaphragmatic hernia, omphalocele, gastroschisis, imperforate anus, meconium ileus, Hirschsprung's disease, malrotation, mid-gut volvulus, intestinal atresias, necrotizing enterocolitis, intestinal obstruction, congenital abdominal masses, ovarian cyst, intestinal duplication, Meckel's diverticulum and non-accidental trauma.*
3. The resident should learn the assessment and management logistics of a multi-discipline pediatric trauma system in which patient care is delivered by Pediatric Surgery trauma teams, Pediatric Critical Care teams, Pediatric Emergency Medicine teams, numerous physician assistants and advanced trauma surgery nurse practitioners.
4. The resident should learn the appropriate adjuvant and surgical treatment for pediatric solid tumors. *Examples are hepatoblastoma, hepatic cell carcinoma, teratoma, germ cell tumors, Wilm's tumor, neuroblastoma, and rhabdo-myosarcoma.*
5. The resident should learn to assess and treat newborn, infants and children with surgical amenable critical care problems. *Examples include venous and arterial access, feeding access, hemo- and peritoneal dialysis access, ECMO access and management, supplemental enteral and parenteral nutrition strategies, pediatric ventilator management modalities.*

B. Patient Care

1. The resident should assume responsibility for committed participation in a service management team consisting of Pediatric Surgery faculty, Pediatric Surgery Fellows, surgery resident peers, advanced surgical nurse practitioners and physician assistants for the care of all patients on the Pediatric Surgery service.

2. The resident should assume shared responsibility for care of all Pediatric ICU and Neonatal ICU patients on the Pediatric Surgery service with a critical care management team consisting of PICU personnel, NICU personnel and Pediatric Surgery faculty, Fellows, surgery resident peers, advanced surgical nurse practitioners and physician assistants. Responsibilities include daily assessment, comprehensive documentation and orders, bedside operative procedures, and comprehensible and appropriate communication between surgical and non-surgical teams.
3. The resident should assume shared responsibility with the Pediatric Emergency Medicine personnel for directing the initial evaluation, need for and assessment of diagnostic studies and overall management of the critically injured child in the Emergency Department.
4. The resident should personally assess all surgical consults from the Emergency Department, the Pediatric ICUs and Neonatal ICUs and supervise all ward consults evaluated by the R-1 house-officers.
5. The resident should be able to participate in surgery for problems in neonates and all children with complex surgical problems. Examples of such procedures are:

Insertion of central venous catheter and arterial line in infants
Exploratory laparotomy and stoma formation for necrotizing enterocolitis
Laparoscopic approach for the treatment of appendicitis, PD catheter problems, and VP shunt problems
Pull through procedure for Hirschsprung's disease, UC, FAP
Thoracotomy for tumor removal
Video assisted thoroscopic surgery (VATS) for empyema
Assessment for bilaterality in inguinal hernia
Nissen fundoplication (laparoscopic and open)
Splenectomy (laparoscopic and open)
Repair of intestinal atresia
Operative reduction of intussusception
Placement and removal of ECMO cannulae
Exploratory laparotomy for trauma
Posterior sagittal anoplasty for imperforate anus
Repair of chest wall deformity
Pyloromyotomy
Repair of incarcerated inguinal hernia
Nephrectomy for Wilm's tumor
Esophagoscopy
Bronchoscopy

C. Interpersonal and Communication Skills

See general goals and objectives.

D. Practice-Based Learning and Improvement

1. The resident should use textbooks, journal articles, Internet access, and other available tools to learn about diseases of infants and children.
2. The resident must attend all service-specific conferences, as scheduled.
3. The resident must attend all service-based clinics on a weekly basis.

E. Systems-Based Practice

1. The resident should be able to communicate with families, referring physicians, and consultants, under the supervision and direction of the attending.
2. The resident should have an appreciation of pediatric conditions that warrant treatment in a medical setting that is designed to meet the special needs of infants and children.
3. The resident should understand the close interactions between pediatrician and pediatric surgeon in the care of children and infants with surgical illness.
4. The resident should be able to discuss the problem of child abuse, including identifying injuries consistent with abuse, understanding the need to admit victims for protection, and knowing how to contact the appropriate authorities to report suspected cases of abuse.

F. Professionalism

See general goals and objectives

Competency-Based Educational Goals for Surgery Residents

PMH & University Hospital St. Paul Transplant Services

PGY 4 and PGY 5

A. Knowledge

1. The resident should learn the basic science of immunology as it applies to solid organ transplantation, including the mechanisms of rejection and tolerance.
2. The resident should learn the pharmacology of the wide range of immunosuppressive agents used in transplantation. This includes the common side effects of each agent, manipulation of dosages/blood levels based on different clinical scenario, and transplant outcomes related to various combinations.
3. The resident should be able to discuss the indications and contraindications to renal and/or pancreas transplantation.
4. The resident should be able to demonstrate a thorough understanding of perioperative management of a renal/pancreas transplant patient including preoperative evaluation, immunologic typing, management of fluid and electrolytes, institution and maintenance of immunosuppression, and infection prophylaxis /treatment.
5. The resident should be able to recognize and diagnose the cause of graft dysfunction in the acute peritransplant and chronic settings. *Examples include vascular compromise, ureteral obstruction, drug toxicity, infection, and rejection.*
6. The resident should be able to recognize and initiate treatment for acute rejection in renal and pancreas transplant patients.
7. The resident should learn the options for permanent hemodialysis and peritoneal dialysis access and have a thorough understanding of the National Kidney Foundation DOQI criteria
8. The resident should be able to diagnose and treat complications of dialysis access. *Examples include infection, failing access graft, steal syndrome, venous hypertension, graft pseudoaneurysm, and graft exposure.*

B. Patient Care

1. The resident should assume responsibility for evaluating all new patients admitted to the hospital for transplantation. This includes a detailed history and physical examination, assessment of comorbid conditions, ensuring that all comorbid conditions are adequately treated to minimize operative risk, review of the immunologic data including tissue typing and cross-match tests, and ensuring that all instruments and other materials necessary for the operation are available.
2. The resident should assume responsibility for evaluating all transplant donors, as above.

