

Level of Training	Surgical Service / Competency	Milestone Level Assigned
PGY2	SURGICAL ONCOLOGY / MEDICAL KNOWLEDGE	
	Understand the advances of minimally invasive and conservative breast therapy.	
	Explain the steps in the clinical decision tree that are involved in the work-up of a breast mass.	
	Discuss the role of mammography, needle aspiration, fine-needle biopsy, open biopsy, and mammographic needle localization and biopsy.	
	Explain the mechanics and potential value of the stereotactic needle biopsy.	
	Outline the diagnostic work-up and the differential diagnosis of various forms of nipple discharge.	
	Explain the use of tumor, nodes, and metastases (TNM) staging in the treatment of breast cancer.	
	Summarize the rationale for using a team approach to facilitate the complex discussions and explanation of options for the newly diagnosed breast cancer patient prior to definitive treatment (e.g., team of oncologist, surgeon, plastic surgeon, and radiation therapist).	
	Explain the role of reduction and augmentation mammoplasty.	
	Discuss several causes of gynecomastia and outline an appropriate work-up.	
	Describe the characteristics, diagnosis, and therapy of less common lesions of the breast such as: <ul> <li>a. Inflammatory carcinoma</li> <li>b. Paget's Disease</li> <li>c. Lactiferous duct fistula</li> <li>d. Mondor's Disease</li> </ul>	



e. Cystosarcoma phylloides f. Bilateral breast carcinoma	
g. Male breast carcinoma	
Define appropriate breast conservation therapies, their benefits, and comparative outcomes, and compare them with modified radical mastectomy.	
Summarize the role of adjuvant chemotherapy and radiation therapy for the treatment of primary breast carcinoma.	
Outline the importance of estrogen and progesterone receptors in the prognosis and treatment of breast cancer.	
Describe the basic issues in the staging and treatment of metastatic breast cancer, including the role of:	
a. Chemotherapy b. Radiation therapy c. Hormonal therapy	
Summarize the physiologic changes associated with pregnancy, including breast problems peculiar to pregnancy. Describe the appropriate management of breast cancer diagnosed during pregnancy.	
Summarize the major considerations for post-mastectomy breast reconstruction.	
Identify and analyze the data addressing controversial areas of breast disease, such as:	
a. Current concepts in the management of cancer	
b. Cancer prevention techniques, such as tamoxifen and raloxifene	
c. Role of various adjuvant therapy programs.	
d. Biological behavior of lesions such as lobular carcinoma in situ	
e. Benefit and frequency of screening mammograms  f. Relationship of mammographic parenchymal patterns to the risk of subsequent malignancy	



Review and e	valuate the following areas of research in breast disease:
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a. Role o	f breast cancer susceptibility genes
	clonal antibodies
	breast markers, including Her-2/neu and flow cytometry with chromosomal analysis
Explain the ro	le of sentinel lymph node biopsy for breast cancer
a.	Sensitivity and specificity
b.	Indication and contraindications
c.	Technique
d.	Treatment plan based on findings
Explain the g	oss and histological appearance of malignant melanoma.
List the natho	logical sub-types of malignant melanoma and their characteristics.
List the patric	logical sub-types of manghant metanoma and their characteristics.
Report the ro	ites of spread of malignant melanoma.
Report Clarks	, Breslows and the TMN staging systems as well as the prognostic significance of
each and how	treatment is determined based on this information.
Outline the ap	propriate pre-operative work-up of patients with malignant melanoma.
Explain the re	le of continue hands biopou for malignant male page
	le of sentinel lymph node biopsy for malignant melanoma Sensitivity and specificity
a.	Indication and contraindications
D.	
	Technique Treatment plan based on findings
a.	Treatment plan based on findings
Classify soft t	ssue sarcomas.
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	Describe the clinical presentation of the patients with extremity and retroperitoneal soft tissue sarcomas.	
	Outline the appropriate pre-operative work-up of patients with soft tissue sarcomas.	
	Classify the sarcomas that occur in the retroperitoneum.	
	Participate in the history and physical of a patient with retroperitoneal sarcoma.	
PGY2	SURGICAL ONCOLOGY / PATIENT CARE	
	Demonstrate the ability to surgically manage diseases of the breast	
	Perform open breast biopsies and other operative procedures such as simple mastectomy and excision of intraductal papillomas, under direct supervision.	
	Educate patients to perform breast self-examination.	
	Demonstrate familiarity with male breast problems, including gynecomastia and male breast cancer.  a. Discuss risk factors	
	b. Outline appropriate work-up and management	
	Perform, under direct supervision, more advanced procedures on the breast such as:	
	a. Radical mastectomy b. Modified mastectomy c. Lumpectomy and axillary dissection d. Sentinel lymph node biopsy e. Excision of lactiferous duct fistula f. Needle-localized breast biopsy g. Simple mastectomy for gynecomastia	
	Acquire basic experience with breast reconstruction and cosmetic surgical techniques.	



	Evaluate the physical status of patients who report for evaluation of augmentation and reduction mammoplasties.	
	Prescribe various types of adjuvant therapy such as:	
	a. Chemotherapy c. Radiation therapy b. Hormonal therapy d. Biologic response modifiers	
	Manage unusual breast diseases such as:	
	a. Inflammatory carcinoma e. Bilateral breast cancer b. Paget's Disease f. Male breast cancer c. Lactiferous duct fistula g. Cystosarcoma phylloides d. Mondor's Disease	
	Outline an appropriate follow-up schedule for patients who have undergone:  a. Treatment of breast cancer with curative intent b. Treatment of DCIS c. Biopsy which revealed fibroadenoma, benign epithelial hyperplasia, or fibrocystic disease with atypia	
	Explain and perform the appropriate surgical treatment for malignant melanoma including excision of the primary lesion with appropriate margins.  Participate in the history and physical of a patient with soft tissue sarcoma.	
	Devise and execute treatment plans for patients with soft tissue sarcoma under appropriate supervision.	
PGY2	SURGICAL ONCOLOGY / PRACTICE-BASED LEARNING	
	The resident should be familiar with the literature regarding surgical management of breast cancer,	



	soft tissue sarcoma, and malignant melanoma including areas of controversy.	
	Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.	
	Residents are expected to develop skills and habits to be able to meet the following goals:  a) Identify strengths, deficiencies, and limits in one's knowledge and expertise; b) Set learning and improvement goals; c) Identify and perform appropriate learning activities; d) Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; e) Incorporate formative evaluation feedback into daily practice; f) Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; g) Use information technology to optimize learning; h) Participate in the education of patients, families, students, residents and other health professionals; i) Participate in mortality and morbidity conferences that evaluate and analyze patient care outcomes; j) Utilize an evidence-based approach to patient care.	
PGY2	SURGICAL ONCOLOGY / INTERPERSONAL AND COMMUNICATION SKILLS	
	Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.	
	Residents are expected to:  a) Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; b) Communicate effectively with physicians, and other health professionals, and health-related agencies; c) Work effectively as a member or leader of a health care team or other professional group;	



	<ul> <li>d) Act in a consultative role to other physicians and health professionals;</li> <li>e) Maintain comprehensive, timely, and legible medical records, if applicable;</li> <li>f) Counsel and educate patients and families;</li> <li>g) Effectively document practice activities.</li> </ul>	
	The PGY II resident should instruct students and PGY I residents about the preoperative and postoperative care of surgical patients and the principles of surgery.	
PGY2	SURGICAL ONCOLOGY / PROFESSIONALISM	
	Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.	
	Resident is expected to demonstrate:  a) Compassion, integrity, and respect for others; b) Responsiveness to patient needs that supersedes self-interest; c) Respect for patient privacy and autonomy; d) Accountability to patients, society, and the profession; e) Sensitivity and responsiveness to a diverse patient population  Resident completes operative case logs and duty hour logs, performs other assigned and required administrative tasks in a timely fashion and does not require excessive reminders or follow-up.  The house officer must demonstrate a commitment to patient care and acquiring the necessary	
	knowledge to successfully carry out the duties of the PGY II resident.	
	PGY II residents are expected to attend surgical oncology and breast clinics as assigned the equivalent of at least one full day a week, as well as the WFUBMC Multidisciplinary Solid Tumor Conference and the Breast Conference as assigned weekly.	
PGY2	SURGICAL ONCOLOGY / SYSTEMS-BASED PRACTICE	
	Resident works effectively in various health care delivery settings and systems relevant to their clinical specialty.	



	Resident incorporates considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate.	
	Resident should advocate for quality patient care and optimal patient care systems.	
	Resident works in interprofessional teams to enhance patient safety and improve patient care quality.	
	Resident demonstrates knowledge of risk-benefit analysis.	
	Resident demonstrates an understanding of the role of different specialists and other health care professionals in overall patient management.	
	PGY II residents are expected to consult and interact with other members of the professional cancer team in explaining options to patients with newly diagnosed breast cancer, sarcoma, and malignant melanoma.	
	Residents are expected to develop an appreciation of multi-disciplinary approaches to patients with cancer including adjuvant therapies, and cancer rehabilitation by participating in multi-disciplinary outpatient and inpatient activities.	
	PGY II residents are expected to present patients with cancer in multidisciplinary tumor boards.	
	Residents are required to learn the role of palliative surgical treatment and pain control in cancer patients that are seen and followed in both inpatient and outpatient settings.	
PGY3	SURGICAL ONCOLOGY / MEDICAL KNOWLEDGE	
	Demonstrate normal thyroid anatomy in the operating room, including the thyroid gland, its vascular supply and venous drainage, the parathyroid glands, recurrent laryngeal nerves, strap muscles and platysma.	



Describe norr	nal variants in recurrent laryngeal nerve anatomy including frequency.	
Describe norr	mal thyroid and parathyroid embryogenesis.	
Outline the no mechanisms.	ormal thyroid hormone synthetic pathway including iodine metabolism and feedback	
Outline the no	ormal calcium and parathyroid hormone pathway.	
Outline appro	priate lab testing for the following clinical scenarios, including interpretation of	
'	Thyroid nodule	
c)	Hyperthyroidism	
d) e)	Hypothyroidism: Hypercalcemia	
Recognition a	and treatment of common postoperative complications:	
a.	Hematoma	
b.	Hypocalcemia	
c. d.	Thyroid storm: Voice changes	
	voice enangee	
Outline algori	thms for the evaluation and treatment of:	
a.	Well-differentiated thyroid cancer	



	b. Medullary thyroid cancer	
	c. Thyroid lymphoma	
	d. Anaplastic thyroid cancer	
	Describe risk factors for well-differentiated thyroid cancer, medullary thyroid cancer and anaplastic thyroid cancer.	
	Outline the staging and prognosis in thyroid cancer.	
	Outline the complete evaluation and management of nontoxic multinodular goiter and substernal goiter.	
	Describe the management of intraoperative recurrent nerve injury.	
	Describe the approach for reoperative thyroid and parathyroid surgery.	
	Demonstrate knowledge of the surgical anatomy, physiology, and neoplastic diseasesof the gastrointestinal tract, hepatobiliary and pancreatic organ systems.	
PGY3	SURGICAL ONCOLOGY / PATIENT CARE	
	Obtain a focused history, perform an examination and institute the diagnostic evaluation of a	
	patient with the following conditions:	
	a) Thyroid nodule	
	b) Goiter[se]	
	c) Hyperthyroidism	
	Palpate and describe a thyroid nodule	
	Palpate and describe a goiter	



Identify exophthalmos	
Perform a fine needle aspiration biopsy of a palpable thyroid nodule	
Perform the initial steps in thyroid surgery, including	
a) Patient positioning and marking	
b) Skin incision and raising subplatysmal flaps	
c) Opening strap muscles	
d) Identification of recurrent laryngeal nerve	
e) Ligation of the superior and inferior pole vessels	
f) Mobilization of thyroid lobe	
g) Close strap muscles, platysma and skin	
Interpret thyroid ultrasound and parathyroid scan Interpret intra-op intact PTH values	
Close wounds following major resections	
Manage colostomies and ileostomies.	
Design an appropriate nutritional support program for a cancer patient both pre- and post-operatively.	
First assist on all major GI and liver resections.	
Perform nutritional assessments and plan nutritional support programs	
Perform feeding gastrostomies and tube jejunostomies	
 Record clinical and pathological correlations by presenting the clinical picture and operative	



	findings on each assigned cancer patient.	
	Perform axillary and ileo-inguinal node dissection for malignant melanoma.	
PGY3	SURGICAL ONCOLOGY / PRACTICE-BASED LEARNING	
	Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.	
	Residents are expected to develop skills and habits to be able to meet the following goals:  a) Identify strengths, deficiencies, and limits in one's knowledge and expertise; b) Set learning and improvement goals; c) Identify and perform appropriate learning activities; d) Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; e) Incorporate formative evaluation feedback into daily practice; f) Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; g) Use information technology to optimize learning; h) Participate in the education of patients, families, students, residents and other health professionals; i) Participate in mortality and morbidity conferences that evaluate and analyze patient care outcomes; j) Utilize an evidence-based approach to patient care.	
	Familiarity with the literature regarding surgical management of malignancy including areas of controversy is also expected.	
PGY3	SURGICAL ONCOLOGY / INTERPERSONAL AND COMMUNICATION SKILLS	
	Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.	
	Residents are expected to:	



PGY3	introductory level cases; c) must display leadership skills and the ability to run an effective multi-level service with numerous residents and medical students on the service; d) demonstrate organization, time management and administrative skills for managing a team of residents and students should be demonstrated.  SURGICAL ONCOLOGY / PROFESSIONALISM	
	Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.	



The resident must demonstrate a commitment to patient care and acquiring the necessary knowledge to successfully carry out the duties of the PGY III.	
PGY III residents are expected to attend surgical oncology and breast clinics as assigned the equivalent of at least one full day a week, as well as the Multidisciplinary Solid Tumor Conference and the Breast Conference as assigned weekly.	
SURGICAL ONCOLOGY / SYSTEMS-BASED PRACTICE	
Resident works effectively in various health care delivery settings and systems relevant to their clinical specialty.	
Resident incorporates considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate.	
Resident should advocate for quality patient care and optimal patient care systems.	
Resident works in interprofessional teams to enhance patient safety and improve patient care quality.	
Resident demonstrates knowledge of risk-benefit analysis.	
Resident demonstrates an understanding of the role of different specialists and other health care professionals in overall patient management.	
The resident is expected to consult and interact with other members of the professional cancer team in explaining options to the newly diagnosed patients with cancer.	
The residents are required to develop an appreciation of multi-disciplinary approaches to cancer patients including adjuvant therapies, and cancer rehabilitation by participating in multi-disciplinary outpatient and inpatient activities	
	PGY III residents are expected to attend surgical oncology and breast clinics as assigned the equivalent of at least one full day a week, as well as the Multidisciplinary Solid Tumor Conference and the Breast Conference as assigned weekly.  SURGICAL ONCOLOGY / SYSTEMS-BASED PRACTICE Resident works effectively in various health care delivery settings and systems relevant to their clinical specialty.  Resident incorporates considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate.  Resident should advocate for quality patient care and optimal patient care systems.  Resident works in interprofessional teams to enhance patient safety and improve patient care quality.  Resident demonstrates knowledge of risk-benefit analysis.  Resident demonstrates an understanding of the role of different specialists and other health care professionals in overall patient management.  The resident is expected to consult and interact with other members of the professional cancer team in explaining options to the newly diagnosed patients with cancer.  The residents are required to develop an appreciation of multi-disciplinary approaches to cancer patients including adjuvant therapies, and cancer rehabilitation by participating in multi-disciplinary



	The PGY III resident is expected to present patients with cancer in multidisciplinary tumor boards	
	The PGY III resident is required to demonstrate an understanding of the role of palliative surgical treatment and pain control in cancer patients that are seen and followed in both inpatient and outpatient settings	
PGYIV & PGYV	SURGICAL ONCOLOGY / MEDICAL KNOWLEDGE	
	Demonstrate knowledge of the anatomy, physiology, and neoplastic diseases of the gastrointestinal tract, hepatobiliary and pancreatic organ systems	
	Apply clinical screening for common malignancies. Recognize typical presentations and clinical manifestations for GI/hepatobiliary/pancreatic neoplasms	
	Stage specific neoplasms both clinically and pathologically, including the tumor, nodes, and metastasis system (TNM).	
	Relate tumor staging to prognosis	
	Describe differences in presentation, treatment, and outcomes for GI/hepatobiliary/pancreatic malignancies	
	Compare each applicable treatment modality to the prognosis for tumors within the scope of general surgery	
	Describe a diagnostic approach with a patient with a retroperitoneal mass including clinical exam, radiological exam, and other diagnostic measures	
	Describe the natural history of retroperitoneal sarcomas with various modalities of treatment including surgery only, surgery plus radiotherapy, radiotherapy only.	



	Describe the natural course of recurrence of this disease and strategies for management	
	Describe the role of adjuvant radiotherapy and chemotherapy for retroperitoneal sarcoma	
	Describe the approaches for palliation of this disease with surgery and other therapeutic modalities	
	Be able to discuss the potential for recurrence and palliative support for patients with retroperitoneal sarcoma	
	Be able to identify the issues around transperitoneal biopsy of retroperitoneal sarcoma and the spread of this disease secondary to surgical maneuvers	
	Discuss the management of metastatic disease to the liver	
PGYIV & PGYV	SURGICAL ONCOLOGY / PATIENT CARE	
	Demonstrate the ability to surgically manage malignant or premalignant diseases of the gastrointestinal tract, liver, biliary tract, and pancreas	
	Demonstrate the capability for independent function in all aspects of cancer patient management, including palliative care planning	
	Prepare and defend the preoperative assessment plan for the elderly patient in preparation for:  a. Gastric resection b. Colon resection c. Pancreatic resection d. Liver resection e. Esophageal resection	
	Prepare patients medically for cancer surgery, including correction of nutritional and metabolic deficits	
	Assess the need and institute appropriate monitoring both pre- and post- operatively	



	Use appropriate support from pharmacologic agents.	
	Prepare an operative plan for treatment of malignant disease and act as the operating surgeon for resective procedures of the gastrointestinal tract, hepatobiliary and pancreatic organ systems, with attending surgeon supervision	
	Perform colostomies, colostomy closures, and bowel resections and anastomoses of all types	
	Perform radical resection of retroperitoneal sarcoma with enbloc removal of affected organs under attending supervision	
PGYIV & PGYV	SURGICAL ONCOLOGY / PRACTICE-BASED LEARNING	
	Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.	
	Residents are expected to develop skills and habits to be able to meet the following goals:  a) Identify strengths, deficiencies, and limits in one's knowledge and expertise; b) Set learning and improvement goals; c) Identify and perform appropriate learning activities; d) Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement; e) Incorporate formative evaluation feedback into daily practice; f) Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems; g) Use information technology to optimize learning; h) Participate in the education of patients, families, students, residents and other health professionals; i) Participate in mortality and morbidity conferences that evaluate and analyze patient care outcomes; j) Utilize an evidence-based approach to patient care.	



	Familiarity with the literature regarding surgical management of malignancy including areas of controversy is also expected	
PGYIV & PGYV	SURGICAL ONCOLOGY / INTERPERSONAL AND COMMUNICATION SKILLS	
	Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.	
	Residents are expected to:  a) Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds; b) Communicate effectively with physicians, and other health professionals, and health-related agencies; c) Work effectively as a member or leader of a health care team or other professional group; d) Act in a consultative role to other physicians and health professionals; e) Maintain comprehensive, timely, and legible medical records, if applicable; f) Counsel and educate patients and families; g) Effectively document practice activities.	
	The resident should:     a) instruct medical students and residents about the preoperative and postoperative care of surgical patients and the principles of surgery;     b) demonstrate the ability to teach junior house staff basic surgical skills and assist them with introductory level cases;     c) demonstrate organization, time management and administrative skills for managing a team of residents and students.	
PGYIV & PGYV	Chief resident must display leadership skills and the ability to run an effective multi-level service with numerous residents and medical students on the service.  SURGICAL ONCOLOGY / PROFESSIONALISM	



	Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.	
	Resident is expected to demonstrate:  a) Compassion, integrity, and respect for others; b) Responsiveness to patient needs that supersedes self-interest; c) Respect for patient privacy and autonomy; d) Accountability to patients, society, and the profession; e) Sensitivity and responsiveness to a diverse patient population	
	Resident completes operative case logs and duty hour logs, performs other assigned and required administrative tasks in a timely fashion and does not require excessive reminders or follow-up.	
	The PGY IV and V house officers must demonstrate a commitment to patient care and acquiring the necessary knowledge to successfully carry out the duties of a senior resident	
	Senior residents are expected to attend surgical oncology and breast clinics as assigned the equivalent of at least one full day a week, as well as the Multidisciplinary Solid Tumor Conference and the Breast Conference as assigned weekly	
PGYIV & PGYV	SURGICAL ONCOLOGY /SYSTEMS-BASED PRACTICE	
	Resident works effectively in various health care delivery settings and systems relevant to their clinical specialty.  Resident incorporates considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate.	
	Resident should advocate for quality patient care and optimal patient care systems.	
	Resident works in interprofessional teams to enhance patient safety and improve patient care quality.	
	Resident demonstrates knowledge of risk-benefit analysis.	



Resident demonstrates an understanding of the role of different specialists and other health care professionals in overall patient management.	
The senior resident is expected to consult and interact with other members of the professional cancer team in explaining options to the newly diagnosed patients with cancer	
The senior residents are required to develop an appreciation of multi-disciplinary approaches to cancer patients including adjuvant therapies, and cancer rehabilitation by participating in multi-disciplinary outpatient and inpatient activities	
The senior resident is expected to present patients with cancer in multidisciplinary tumor boards	
The senior resident is required to demonstrate an understanding of the role of palliative surgical treatment and pain control in cancer patients that are seen and followed in both inpatient and outpatient settings	