



SURGICAL RESIDENT CURRICULUM FOR THE DIVISION OF SURGICAL ONCOLOGY AND ENDOCRINE SURGERY

OLLILA/DEMORE Service

Residency Years Included:

PGY1 PGY2 X PGY3 PGY4 PGY5 X

I. Mission for the Division of Surgical Oncology, Endocrine Surgery

The mission of the Division of Surgical Oncology and Endocrine Surgery at the University of North Carolina at Chapel Hill has 3 components:

- 1- Provide cutting edge multidisciplinary treatment for patients afflicted with solid malignancies and endocrine neoplasms.
- 2- Actively seek novel therapeutic alternatives through clinical, instrumentation and basic science research.
- 3- Provide an educational environment in which surgical residents and research fellows become facile at both of the previous 2 goals.

In addition the division will actively participate in the surgical clinical preceptorship of medical students in both their 3rd and 4th years.

- To apply evidence based up-to-date procedures in an appropriate context using solid medical and scientific information;
- To care for complex patients afflicted with solid tumors using the multiple multidisciplinary approach embraced by all cancer programs at UNC;
- To expand the sphere of care to include the community endocrinologists, medical and radiation oncologists as well as dermatologists in the home community in efforts that include education and communication;
- To respect the patient and his or her family during all phases of care, including efforts to provide care in a painless, caring environment;
- To promote an educational environment where patient decisions are informed, questions are answered, and family members are educated and informed about the patients conditions;
- To include clinical and basic science research to enhance education, improve patient care, and advance oncology care.

II. Overview of the Division

A. Short History

The origins of the division of Surgical Oncology and Endocrine Surgery are the practices of Dr. Colin Thomas and Dr. Turk Neusome. Dr. Colin Thomas was the second chair of The Department of Surgery at UNC (Chair Emeritus of the Department of Surgery) and gained an international reputation for his focus on Endocrine surgery and science. Dr. Neusome served UNC for 37 years and eventually focused his general surgery practice on patients afflicted with malignancies. He was the first director of the hospital's tumor clinic, helped establish the Central Tumor Registry which later became the statewide tumor registry. Dr. James Huth headed the Surgical Oncology Division from 1988-1993 was succeeded by Dr. William Cance 1993-2003 and Dr. Benjamin Calvo 2003- to present.

B. Clinical Resources

1. Personnel

The division of Surgical Oncology views all MD faculty members, nurse practitioners and multidisciplinary support personnel as essential to its educational mandate.

a) Faculty and Nurse Practitioners

There are 7 surgical oncology fellowship trained surgeons: Benjamin Calvo, MD, Nancy Demore MD, H.J. Kim MD, Michael Meyers MD, Karyn Stitzenberg, MD, David Ollila MD, Jen Jen Yeh MD. In addition four nurse practitioners provide initial evaluation and follow up care in the multiple surgical oncology clinics: Patricia Long MSN, Susan McKenney MSN, Teresa Sadiq MSN, and Judy Swasey MSN

b) Service Divisions

The Surgical Oncology division will be divided into 3 separate resident teams.

1. CALVO/YEH/ STITZENBERG
2. KIM/MEYERS
3. OLLILA/DEMORE

2. Operating Room Resources

The Division is assigned 8 block Operating Room starts per week. A number of cancer cases are performed at the Ambulatory Care Center on Mason Farm Road. In addition, an outpatient minor operating room is available which is staffed and equipped to care of patients requiring minor procedures under conscious sedation.

3. Outpatient Clinics

While rotating on the division, residents actively participate in multidisciplinary clinics for 1- Breast 2- Gastro Intestinal malignancies and Soft Tissue Malignancies. Virtual multidisciplinary clinics function for the care of patients with Melanomas and Endocrine neoplasms.

III. The Educational Mission

A primary mission of the Division is to educate all surgeons that complete general surgery training with an in-depth knowledge of the multidisciplinary treatment of solid malignancies.

Learning objectives are based upon post-graduate level and the six clinical core competencies. Each objective is graduated; i.e., each builds upon skills and attitudes learned in earlier years. Objectives reflect teamwork; i.e., the skills and responsibilities blend so that they complement contributions from other members of the physician team and recognize the input from nursing and other allied health professionals.

A. Learning Objectives

The Division is a clinically busy unit that provides surgical care for patients with all six core competencies put forth by the Accreditation Council of Graduate Medical Education

PGY V

- A. *Core Competency - Patient Care*
 - 1. To know up-to-present details of all assigned patients.
 - 2. To gather and interpret essential and accurate information about the patient's health status, including:
 - a. Learning to obtain clinical information from patients and families.
 - b. Obtaining relevant information from nurses and hospital departments (e.g., radiology, laboratory, and hospital information systems),
 - c. Obtaining information from referring physicians, hospitals.
 - 3. To learn the principles of pre and postoperative management, including:
 - a. Fluid, electrolyte and parenteral nutrition management.
 - b. Pharmacological management of pain, sedation, antibiotic dosing, cardiovascular support and metabolic diseases such as diabetes.
 - c. Recognition and management of respiratory distress and cardiovascular emergencies such as pulmonary edema and shock.
 - d. Wound care.
 - e. Follow-up and outpatient management, including referrals and resources for medical oncology, radiation oncology,

endocrinology, social work, rehabilitation and physical medicine and post-operative clinic visits.

- f. Management of enteral tubes and enteral nutrition
4. To perform basic clinical procedures, including:
 - a. Venipuncture.
 - b. Intravenous line placement (peripheral and central).
 - c. Placement of naso-enteric tubes
 - d. Placement of urinary catheters
 - e. Management of open and infected wounds
 - f. Ostomy management
 - g. Management of drainage catheters
 - h. Primary resection and closure of skin neoplasms.

B. *Core Competency - Medical Knowledge*

1. To expand the fund of knowledge from textbooks, journals, and electronic media.
2. To critically evaluate the literature based upon methodology and statistical techniques, a survey of related articles, and resident-initiated discussions with attending staff and other experts.
3. To participate in scheduled multidisciplinary conferences.
4. To teach medical students.
5. To become expert at navigating medical databases such as the National Library of Medicine.

6. Cognitive Objectives

Through participating in out-patient evaluation of patients in the clinic the chief resident shall demonstrate proficiency and will be able fully evaluate, communicate findings, and plan diagnostic and treatment with supervising faculty for patients with:

A. Breast diseases

- i. Mastalgia
- ii. Fibrocystic changes
- iii. Cellulitis, mastitis and infectious problems
- iv. Breast cysts
- v. Benign breast masses
- vi. Nipple discharge
- vii. Atypia ductal hyperplasia
- viii. Lobular carcinoma in-situ
- ix. Ductal carcinoma in-situ
- x. Invasive breast cancer
 1. Locally advanced breast cancer
 2. Metastatic Disease
 3. Bilateral, multifocal, and multicentric disease
- xi. Inflammatory breast cancer

B. Skin and Soft-tissue

- i. Melanoma

- ii. Squamous Cell Carcinoma
- iii. Basal Cell Carcinoma
- iv. Merkel Cell Carcinoma
- v. Atypical Melanocytic Nevus

C. Endocrine

- i. Thyroid Malignancies
- ii. Hyperparathyroidism
- iii. Adrenocortical carcinoma
- iv. Functional Adrenal Masses

C. Core Competency - Practice-based learning and improvement

- 1. To evaluate patients during clinic visits with the goal of proficiently developing with a working diagnosis and treatment plan.
- 2. To understand the medical, surgical, and scientific bases of a patient's condition and his or her treatment plan.
- 3. To obtain consultations and other opinions regarding a patient's status, work-up, or hospital course when necessary.

D. Core Competency – Interpersonal and Communication Skills

- 1. To present clinical information on work rounds as well as divisional conferences clearly and concisely.
- 2. To write progress notes with sufficient detail such that patients' condition, status and care plans are clear.
- 3. To work effectively with attending staff, house staff colleagues, medical students, nurses, nurse practitioners and multidisciplinary support personnel.
- 4. To maintain that attending staff stay informed, particularly with "problem" cases, unstable patients, and daily changes in-patient condition and care plan.
- 5. To foster teamwork and a work environment based upon communication, respect, trust, and honesty.
- 6. To foster a social environment based upon tolerance for other opinions, backgrounds, and cultures.

E. Core Competency - Professionalism

- 1. To demonstrate compassion and integrity through respectful patient care, family interactions, and communication with other health care providers.
- 2. To understand when expert medical advice is necessary.
- 3. To obtain expert medical, nursing, or other opinions when limits of knowledge, experience, and training are reached.

F. Core Competency - Systems-based practice

1. To effectively transfer care when duty hours are completed.
2. To responsibly accept all the on-call care responsibilities of patients who are not on the primary service.
3. To apply standardized care plans and rationale including:
 - a. Bowel preparation procedures,
 - b. Preoperative antibiotic regimens,
 - c. S.B.E. prophylaxis,
 - d. Clinical care pathways,
 - e. Universal precautions,
 - f. Aseptic technique,
 - g. Care of central lines,
 - h. Care of enteral tubes,
 - i. Care of urologic drainage tubes and catheters, and
 - j. Postoperative feeding regimens (e.g., post-gastrectomy regimens).
4. To attend care conferences on assigned patients.
5. To write notes with sufficient detail to satisfy the requirements of governmental agencies, health care payer organizations, including:
 - a. Admission histories, physical examinations, and care plans,
 - b. Daily progress notes, and
 - c. Discharge summaries.

G. Technical Goals

1. Be fully knowledgeable in general surgical principles.
2. To have a detailed understanding of intraoperative decisions and interpretation of complex oncologic operations including, but not limited to:
 - a. Needle localization segmental mastectomy
 - b. Mastectomy
 - c. Thyroidectomy
 - d. Adrenalectomy
 - e. Radical Soft-tissue tumor resection
 - f. Lymphatic Mapping
 - g. Sentinel lymph node biopsy
 - h. Complete anatomic Lymph node dissection
3. To understand the technical aspects of complex oncologic procedures coordinated with other surgical services such as plastic surgery, urology, vascular surgery or radiation oncology.

Technical Objectives

Objectives for Technical Goal 1:

1. Demonstrate proficiency in:
 - a. Basic operative principles
 - b. Knot tying
 - c. Vascular anastomosis

1. Know the basic principles of:
 - a. Tumor resection
 - b. Proper positioning for all surgical procedures
 - c. Perioperative management of critically ill and complex patients

Objectives for Technical Goal 2:

1. Articulate oncologic surgical procedures in detail.
2. Demonstrate knowledge or proper handling of specimens
3. Identify and minimize expected postoperative complications for complex oncologic procedures.

Objectives for Technical Goal 3:

Be able to coordinate perioperative care of complex cancer patients with other surgical services. Be able to assist other services with intraoperative care of complex cancer patients.

PGY II

D.

Core Competency - Patient Care

1. To know up-to-present details of all assigned patients and consultations.
2. To gather and interpret essential and accurate information about the patient's health status, including:
 - b. Learning to obtain clinical information from patients and families.
 - b. Obtaining relevant information from nurses and hospital departments (e.g., radiology, laboratory, and hospital information systems),
 - c. Obtaining information from referring physicians, hospitals.
3. To learn the principles of pre and postoperative management, including:
 - a. Fluid, electrolyte and parenteral nutrition management.
 - b. Pharmacological management of pain, sedation, antibiotic dosing, cardiovascular support and metabolic diseases such as diabetes.
 - c. Recognition and management of respiratory distress and cardiovascular emergencies such as pulmonary edema and shock.
 - g. Wound care.
 - h. Follow-up and outpatient management, including referrals and resources for medical oncology, radiation oncology, endocrinology, social work, rehabilitation and physical medicine and post-operative clinic visits.
 - i. Management of enteral tubes and enteral nutrition
4. To perform basic clinical procedures, including:
 - a. Venipuncture.
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- c. Placement of naso-enteric tubes
- d. Placement of urinary catheters
- e. Management of open and infected wounds
- f. Ostomy management
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- h. Primary resection and closure of skin neoplasms.

E. *Core Competency - Medical Knowledge*

- 1. To expand the fund of knowledge from textbooks, journals, and electronic media.
- 2. To critically evaluate the literature based upon methodology and statistical techniques, a survey of related articles, and resident-initiated discussions with attending staff and other experts.
- 3. To participate in scheduled multidisciplinary conferences.
- 4. To teach medical students.
- 5. To learn the indications and abnormal findings on standard and modern breast imaging and diagnostic modalities.
 - A. Diagnostic and Digital Mammography
 - B. Breast Ultrasound
 - C. Breast MRI
 - D. Ultrasound Guided Core Biopsy
 - E. MRI Guided Core Biopsy
 - F. Stereotactic Core Biopsy
- 6. To become expert at navigating medical databases such as the National Library of Medicine.

7. Cognitive Objectives

Through participating in out-patient evaluation of patients in the clinic the resident will be able to present and discuss with supervising faculty, the history, etiology, pathophysiology, physical findings of patients with:

- A. Breast diseases
 - vii. Mastalgia
 - viii. Fibrocystic changes
 - ix. Cellulitis, mastitis and infectious problems
 - x. Breast cysts
 - xi. Benign breast masses
 - xii. Nipple discharge
 - vii. Atypia ductal hyperplasia
 - viii. Lobular carcinoma in-situ
 - ix. Ductal carcinoma in-situ
 - x. Invasive breast cancer
 - xi. Phylloides Tumor
 - xii. Inflammatory breast cancer
- B. Endocrine
 - i. Thyroid Carcinoma
 - ii. Hyperparathyroidism

- iii. Adrenocortical Carcinoma
- iv. Multiple Endocrine Neoplasms

F. Skin and Soft Tissue

- i. Melanoma
- ii. Squamous Cell Carcinoma
- iii. Basal Cell Carcinoma
- iv. Merkel Cell Carcinoma
- v. Atypical Melanocytic Nevus
- vi. Sarcoma

C. Core Competency - Practice-based learning and improvement

- 1. To evaluate patients during clinic visits with the goal of coming up with a working diagnosis and treatment plan.
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G. Core Competency – Interpersonal and Communication Skills

- 1. To present clinical information on work rounds as well as divisional conferences clearly and concisely.
- 2. To write progress notes with sufficient detail such that patients' condition, status and care plans are clear.
- 3. To work effectively with attending staff, house staff colleagues, medical students, nurses, nurse practitioners and multidisciplinary support personnel.
- 4. To maintain that senior residents and attending staff stay informed, particularly with "problem" cases, unstable patients, and daily changes in-patient condition and care plan.
- 5. To foster teamwork and a work environment based upon communication, respect, trust, and honesty.
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- 1. To demonstrate compassion and integrity through respectful patient care, family interactions, and communication with other health care providers.
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I. Core Competency - Systems-based practice

- 1. To effectively transfer care when duty hours are completed.
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3. To apply standardized care plans and rationale including:
 - a. Bowel preparation procedures,
 - b. Preoperative antibiotic regimens,
 - c. S.B.E. prophylaxis,
 - d. Clinical care pathways,
 - e. Universal precautions,
 - f. Aseptic technique,
 - g. Care of central lines,
 - k. Care of enteral tubes,
 - l. Care of urologic drainage tubes and catheters, and
 - m. Postoperative feeding regimens (e.g., post-gastrectomy regimens).
4. To attend care conferences on assigned patients.
5. To write notes with sufficient detail to satisfy the requirements of governmental agencies, health care payer organizations, including:
 - a. Admission histories, physical examinations, and care plans,
 - b. Daily progress notes, and
 - c. Discharge summaries.

G. Technical Goals

3. Demonstrate proficiency in general surgical principles.
4. To be fully knowledgeable regarding procedures listed below
 - i. Cyst aspiration
 - j. Fine needle aspiration biopsy
 - k. Core biopsy of breast mass
 - l. Punch/ Excisional Biopsy of Skin Lesion
3. To Articulate operative principles of excisional biopsy including:
 - a. Proper incision placement
 - b. Operative technique of biopsy of palpable mass
 - c. Operative technique and confirmation of needle localization of non-palpable lesions
 - d. Cosmetic closure
 - e. Basic anatomy of the neck, axilla and groin
4. To have a detailed understanding of advance breast and soft- tissue cancer operations including:
 - a. Simple and Modified radical mastectomy
 - b. Skin-Sparing Mastectomy
 - c. Oncoplastic Flaps
 - d. Wide local Excision of Melanoma and other Skin Cancers
 - e. Skin grafting

Technical Objectives

Objectives for Technical Goal 1:

1. Demonstrate complete proficiency skills listed for PGY1 including:
 - d. Basic operative principles
 - e. Making incisions
 - f. Knot tying
 - g. Removing breast masses
 - e. Creating Skin Flaps

Objectives for Technical Goal 2:

4. Be able to successfully perform cyst aspiration
5. Be able to perform fine needle aspiration of palpable breast lesions
6. Demonstrate ability to perform core biopsy of palpable breast lesion
7. Demonstrate ability to perform core biopsy of skin lesion
8. Demonstrate knowledge or proper handling of specimens

Objectives for Technical Goal 3 and 4:

1. Demonstrate proficiency and articulate the following:
 - a. Proper incision placement
 - b. Removal of palpable mass or skin lesion
 - c. Removal of non-palpable, wire localized mass, with assistance
 - d. Cosmetic closure of wounds
2. Demonstrate ability to assist with or perform with assistance,
 - a. Skin flaps
 - b. Axillary and inguinal lymph node dissection
 - c. Sentinel node mapping and biopsy with assistance

B. Didactic Curriculum

1. Multidisciplinary GI, Sarcoma Tumor Conference, Monday 7:30-8:30 AM
2. Ward Rounds, (PGY1,2 and available 4,5) Monday 9:00-11:00 AM
3. Weekly Surgery Grand Rounds. Wednesday 7:15 – 8:00 AM
4. Weekly Multidisciplinary Breast Program Conference, Wednesday 8:00AM-9:30AM
5. Weekly Morbidity and Mortality Conference, Wednesday 5:00-6:00 PM
6. Weekly Surgical Oncology Didactic Conference, Friday 7:00-8:30 AM
7. Biweekly Multidisciplinary Melanoma Program Conference, Wednesday 9:00-10:00AM
8. Yearly Resident-as-Teacher conference (with Department of Surgery).

C. *Apprenticeship Curriculum*

1. Multidisciplinary Surgical Oncology Clinics.
2. Operating room instruction. (Main and minor OR)
3. Tutorial session for residents presenting in conferences.
4. Ward work rounds.
5. Day-to-day interactions with staff (Attendings, Nurse Practitioners, Medical and Radiation oncologists, multidisciplinary programs office staff).
6. Research, including chart reviews, database outcome studies, laboratory investigation.

D. *Evaluation*

All attending staff evaluate resident performance based upon the six core competencies relevant to his or her postgraduate level summarized above. Discussions are held routinely by the service faculty during the weekly Monday 5:00 PM service meeting. Input from senior residents assists in the evaluation of junior level residents. End-of-rotation faculty meetings assess in addition the strengths and weaknesses of the residents. Dr. David Ollila is charged with coordinating completion of evaluation forms which summarize these evaluations. Faculty and residents meet, using the evaluation form as a guide for constructive discussion. They make plans to address perceived resident weaknesses. Part of the discussion addresses the quality of the educational experience on the service.

E. *Responsibilities and Expectations*

- a. Chief Residents are expected to round on the patients on their service before going to the operating room on surgery days and before clinic on clinic days. Please page the faculty to discuss patient plans before scrubbing in on your first case.
- b. Please make an effort to attend clinics. Clinics are where surgical decisions are made for the majority of our patients.
- c. For weekends designated as off for a particular chief resident, please inform the faculty who (PGY4 or PGY5) will be rounding on that service for the weekend.
- c. The Chief resident should be involved in the daily planning for inpatient consultations. These patients should also be discussed the responsible faculty member daily.
- d. The Chief resident will coordinate resident assistant coverage for each operative procedure. If you are not going to be available for a surgical procedure (Out of town or will not be available for whatever reason),

you will be responsible for informing the faculty of your absence and arranging coverage.

- e. The faculty expect to be notified should there be any problem with any of our patients. We are always available.
- f. Should there be any issues with any of us or our service, please feel free to talk to us openly so that we can try to work to improve your experience on our service.
- g. Please try not to wear scrubs to clinic – unless circumstances are extenuating.
- h. Please come to OR having reviewed the history and indications for surgery for each patient that you scrub.