

SURGICAL RESIDENT CURRICULUM FOR WAKEMED
DIVISION OF SURGERY/TRAUMA



2008

Residency Years Included:

PGY1 X PGY2 PGY3 X PGY4 X PGY5 Fellow

I. Overview of Division of Wake Medical Center Division of Surgery

The Surgical Department at WakeMed is a clinically busy unit providing surgical care to patients with general surgical, trauma, and, in some cases, gastrointestinal, heart, vascular, and thoracic-specific diseases. Areas of special interest and expertise are particularly trauma and general surgery with special attention to the value of private physician's interface with the surgical residents, including their own private surgical cases.

Surgery resident education is a specific aim of WakeMed's division of the Department of Surgery and on this service, residents may include postgraduate years (PGY) I, III, and IV. The team of residents works cooperatively to provide preoperative, intraoperative, and postoperative care to the patient with the specific diseases that WakeMed sees. For the junior residents, specific emphasis is placed on preoperative and postoperative management and lower level technical operations whereas with senior resident emphasis is with the supervision of the attending doing more difficult intraoperative and critical care. The primary goal of instruction is to nurture the development of each surgical resident so that she/he can function at a high level of competence as a general surgeon. The ultimate goal of the resident training is to train residents to function independently as a general surgeon within the framework of the hospital and clinic setting. Each resident must know and understand the six competencies put forth by the Accreditation Council of Graduate Medical Education. The learning environment in the Division will stress these core competencies and resident evaluation will be based on these principles.

II. Core Competencies

- 1 . Patient care.
- 2 . Medical Knowledge.
- 3 . Practice-based learning and improvement.
- 4 . Interpersonal and communication skills.
- 5 . Professionalism.
- 6 . Systems-based practice.

III. The Educational Mission

A primary mission of the Division is to train general surgeons to provide a high level of surgical and critical care appropriate to a community general surgical practice, and to prepare selected trainees for additional specialty training.

SURGICAL RESIDENT CURRICULUM FOR WAKEMED
DIVISION OF SURGERY/TRAUMA

Learning objectives are based upon post-graduate level and the six clinical core competencies. Each objective is graduated; ie, each builds upon skills and attributes learned in earlier years. Objectives reflect teamwork; ie, 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. Learning objectives for the first year on service (PGY I) are longer and have more detail because of the many requirements for inculcation into a functioning surgical team. Many are not specific to the Division of General Surgery/Trauma, however, and are reinforced in all PGY I level rotations.

1. PGY I

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 children and parents, as well as non-English speaking patients.
 - b. Obtaining relevant information from nurses and hospital departments (eg. Radiology, laboratory, and hospital information systems)
 - c. Obtaining information from referring physicians and/or hospitals.
3. To learn the principles of pre and post-operative management, including:
 - a. Fluid and electrolyte management
 - b. Pharmacological management, including pain and sedation, antibiotic dosing, and pharmacology
 - c. Recognition and management of respiratory distress and shock
 - d. Wound care
 - e. Follow-up and outpatient management, including referrals and resources for social work, rehabilitation, and physical medicine
4. To perform basic clinical procedures, including:
 - a. Primary closure of incisions
 - b. Management of open and infected wounds
 - c. Venipuncture
 - d. Intravenous line placement
 - e. Placement of urinary catheters
 - f. Simple hernia repair, laparoscopy, and excision of soft tissue masses

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 conferences.
4. To teach medical students.

SURGICAL RESIDENT CURRICULUM FOR WAKEMED
DIVISION OF SURGERY/TRAUMA

- C. *Core Competency – Practice-Based Learning and Improvement*
1. To evaluate patients critically with the goal of initiating 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 clearly and concisely.
 2. To write orders legibly.
 3. To write progress notes legibly and with sufficient detail so that patients condition, status, and care plans are clear.
 4. To work effectively with attending staff, house staff colleagues in surgery, medical students, nurses, ancillary personnel, and pre-hospital personnel.
 5. To keep senior residents and attending staff informed, particularly with "problem" cases, unstable patients, and changes in patient condition and care plan.
 6. To foster teamwork and a work environment based upon communication, respect, trust, and honesty.
 7. To foster a social environment based upon tolerance for other opinions, backgrounds, and cultures.
- E. *Core Competency – Systems-based Practice*
1. To effectively transfer care when duty hours are completed.
 2. To responsibly accept the on-call responsibilities of patients who are not on the primary service.
 3. To apply standardized care plans and the rationale behind them, including:
 - a. Bowel preparation procedures
 - b. Preoperative antibiotic regimens
 - c. S.B.E. prophylaxis
 - d. Tetanus prophylaxis
 - e. Universal precautions
 - f. Aseptic technique
 - g. Care of central lines
 - h. Care of gastrostomies
 - i. Post-operative feeding regimens

SURGICAL RESIDENT CURRICULUM FOR WAKEMED
DIVISION OF SURGERY/TRAUMA

- A. *Core Competency – Patient Care*
1. To be available to PGY I residents and medical students so that evaluations and treatments are completed in an appropriate and timely manner.
 2. To evaluate new patients and take new consultations, with the goal of identifying the major surgical problem and developing a plan for diagnosis and treatment.
 3. To identify patients who are unstable, critically ill, and are developing new complications.
 4. To be able to initiate treatment in the emergency room and intensive care setting.
 5. To provide advanced trauma care and life support.
 6. To perform basic surgical procedures under supervision, including:
 - a. Placement of chest tubes
 - b. Placement of central venous catheters
 - c. Hernia repair
 - d. Gastrointestinal procedures in children and adults
 - e. Laparoscopic procedures in children and adults
 - f. Perform supervised thoracotomy and vascular access
- B. *Core Competency – Medical Knowledge*
1. To contribute substantively in scheduled conferences.
 2. To teach PGY I residents and medical students on rounds and at conferences.
- C. *Core Competency – Practice-Based Learning and Improvement*
1. To contribute to work rounds so that diagnostic and treatment issues are identified and care tasks are initiated and completed in an appropriate and timely manner.
 2. To provide information and resources so that the team understands the medical, surgical, and scientific bases of a patient's condition and his or her treatment plan.
- D. *Core Competency – Interpersonal and Communication Skills*
1. To instruct PGY I residents and medical students on presentation skills so that clinical information is clear and concise.
 2. To review team orders and progress notes legibility, detail, and accuracy.
 3. To provide informed opinions during consultations with other services in a thoughtful, respectful manner.
 4. To advise family and patients in the decision-making process.
- E. *Core Competency – Professionalism*
1. By way of example and direct instructions to PGY I residents and medical students, to demonstrate compassion and integrity through respectful patient care, family interactions, and communication with other health care providers.
 2. To present deaths and complications to rounds and conference on assigned patients.

SURGICAL RESIDENT CURRICULUM FOR WAKEMED
DIVISION OF SURGERY/TRAUMA

F. Core Competency – System-Based Practice

1. To assure that priorities of care and service duties are transferred completely and responsibly on changes in duty hours.
2. To responsibly accept the on-call care responsibilities of patients who are not on the primary service.
3. To supervise the application of standardized care plans and that junior residents understand the rationale behind them.
4. To identify problems and inefficiencies in the provision of patient care and devise means of assessing and addressing them.

3. PGY IV

A. Core Competency – Patient Care

1. To be available to residents and medical students so that evaluations, treatments, and consultations are completed in an appropriate and timely manner.
2. To take new patients and consultations, with the goal of assigning team resources to address them in an appropriate and timely manner as “chief”.
3. To coordinate team efforts with multiple patients presenting multiple problems of varying urgency.
4. To coordinate hospital and physician resources for the transfer and care of critically ill patients from other institutions.
5. To provide trauma care where more than one person is injured or admitted.
6. To perform advanced surgical procedures under supervision, including:
 - a. Thoracic procedures
 - b. Major abdominal resections
 - c. Resection of solid tumors
 - d. Hernia repair in complicated patients
 - e. Laparoscopic procedures in infants and more advanced laparoscopy in adults

B. Core Competency – Medical Knowledge

1. To contribute substantively in scheduled conferences.
2. To teach residents and medical students during work rounds and under ‘ad hoc’ situations.

C. Core Competency – Practice-Based Learning and Improvement

1. To lead work rounds so that diagnostic and treatment issues are identified and care tasks are initiated and completed in an appropriate and timely manner.
2. To provide information and resources so that the team understands the medical, surgical, and scientific bases of a patient’s condition and his or her treatment plan.

SURGICAL RESIDENT CURRICULUM FOR WAKEMED
DIVISION OF SURGERY/TRAUMA

D. Core Competency – Interpersonal and Communication Skills

1. To conduct work rounds so that clinical information is clear and concise.
2. To assure that team orders and progress notes are legible, detailed, and accurate.
3. To provide informed opinions during consultations with other services in a thoughtful, respectful manner.
4. To advise family and patients in the decision-making process.
5. To be “chief” administrative resident.

E. Core Competency – Professionalism

1. To obtain informed consent from parents.
2. By way of example and direct instruction to residents and medical students, to demonstrate compassion and integrity through respectful patient care, family interactions, and communication with other health care providers.
3. To present death and complications at rounds and conferences on assigned patients.

F. Core Competency – Systems-based Practice

1. To assure that priorities of care and service duties are transferred completely and responsibly on changes in duty hours.
2. To responsibly accept the on-call care responsibilities of patients who are not on the primary service.
3. To assure the standardized care plans are applied and that junior residents understand the rationale behind them.
4. To identify problems and inefficiencies in the provision of patient care and devise means of assessing and addressing them.

IV. Didactic Curriculum

1. Weekly intake and review conference on Monday mornings at 7:30am (working conference).
2. Daily Tuesday and Thursday Critical Care Rounds with Critical Care experts.
3. Wednesday morning surgical education resident-led lecture/discussion.
4. Friday morning Ortho-Trauma Conference, Quality Assurance Conference for Trauma, Surgical Education Topics Conferences on rotating Friday’s of each month, and monthly radiology/surgical case conference (presentations by staff/residents). Gastrointestinal/Tumor Conference on one Thursday morning of the month.
5. Department of Surgery Grand Rounds at UNC and the annual resident presentation, ‘As a Teacher’, with the Department of Surgery.

V. Apprenticeship Curriculum

1. Preoperative and postoperative clinics.
2. Operating room instruction.
3. Tutorial session for residents presenting in conferences.
4. Ward work rounds.
5. Day-to-day interactions with attending staff.
6. Optional research, including chart reviews, database outcome studies, laboratory investigation.

SURGICAL RESIDENT CURRICULUM FOR WAKEMED
DIVISION OF SURGERY/TRAUMA

VI. Evaluation

Evaluation of residents performed at the end of the rotation is by the surgical faculty at WakeMed with the input of all relevant surgical faculty. The evaluation forms are completed and the residents are encouraged to meet with the faculty at the conclusion of their rotation. Feedback is distributed to the residents. The faculty is evaluated by the residents on an anonymous basis with the resident returning the faculty and the service evaluation form. The residents are also evaluated in an informal manner by the nurses, paramedical personnel, and patient families on a regular basis throughout because their input is encouraged by the Director of WakeMed Surgical Education Service.