Purpose:
To provide a general overview of the resident roles, responsibilities and functions while serving as a trainee in the Department of Surgery at the University of North Carolina – Chapel Hill. This is meant to address issues relating to degrees of independent clinical practice, interactions with and supervision by faculty, performance of procedures and interactions with or supervision of other house staff or medical students. It is expected that residents will demonstrate ongoing maturity during each training year and will progressively transition into the next level by the end of prior academic year.

Supervision of Residents

Overview:
The UNC General Surgery Residency Program follows the principle that supervision is necessary at all resident levels but recognizes that a delicate balance exists in which graduated responsibility and opportunity to make decisions is vital to the growth and development of surgical judgment by the resident. The principle of graduated responsibility under supervision begins in the PGY-1 year with resident credentialing in critical skills and progression from specific to general supervision. As residents gain knowledge, proficiency in manual and problem solving skills, and demonstrate acquisition of good judgment, the intensity of supervision decreases to foster independent decision-making.

Supervision Policy:
The program recognizes the ACGME's three classifications or Levels of Supervision:

1. Direct Supervision: The supervising physician is physically present with the resident and patient.
2. Indirect Supervision:
   a. With direct supervision immediately available: The supervising physician is physically within the confines of the site of patient care, and is immediately available to provide Direct Supervision
   b. With direct supervision available: The supervising physician is not physically present within the confines of the site of the patient care, but is immediately available via phone and/or electronic modalities, and is available to provide Direct Supervision.
3. Oversight: The supervising physician is available to provide review of procedure/encounters with feedback provided after care is delivered.

Date Last Reviewed: July 2019
Outpatient clinics:

Each outpatient surgical clinic is staffed by a surgical attending. Every patient that is evaluated by a surgical resident is done so under attending direct or indirect supervision. Notes may be dictated by the attending or the resident. If the resident dictates the clinic note, it is read, amended as appropriate and counter-signed by the attending with the appropriate teaching attestation. On occasion, a patient may be seen in clinic or the Emergency Department when the designated attending is not presently available (e.g., scrubbed in the OR). In these instances, the resident will contact the attending at the time of the evaluation, discuss care and disposition and dictate the appropriate note to be counter-signed by the attending.

Inpatient Care:

Similarly, each inpatient has an assigned attending who is responsible for the care of each patient and provides direct or indirect supervision to the residents. Every patient that is evaluated by a surgical resident is done so under the oversight of an attending. Daily care plans are discussed prior to implementation. Notes may be dictated/written by the attending or the resident and handled as with clinic notes.

Operating Room:

Each patient has an attending responsible for his/her care who provides immediate direct supervision in the conduction of operations assisted by the resident staff. The supervising physician shall be physically present during the critical portion of each surgical procedure. Operative Notes may be dictated by the attending or the resident. If the resident dictates the note, it is read, amended as appropriate and counter-signed by the attending with the appropriate teaching attestation.

Progressive Responsibility Policy

In general, the roles, responsibilities and functions of a Department of Surgery resident, per training year, are as follows:

PG-1 - Patient Management, Basic operative skills, Critical Care

PG-1 clinical year is organized to introduce residents to basic general surgery problems. The objectives are to:
- Expose the resident to the breadth of General Surgery
- Provide the fundamentals of basic science needed by the surgical resident
- Master preoperative and postoperative patient care, in both the in-patient and the out-patient settings
- Instill the basics of caring for critically ill patients in the ICU
- Train the resident in basic surgical techniques and introduce more advanced skills

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PGY 1 residents require Direct Supervision until competency is demonstrated for:

- **Patient Management Competencies:**
  - Initial evaluation and management
  - Evaluation and management of post-operative complications, including hypotension, hypertension, oliguria, anuria, cardiac arrhythmias, hypoxemia, change in respiratory rate, change in neurologic status and compartment syndromes
  - Evaluation and management of critically-ill patients, either immediately post-operatively or in the intensive care unit, including the conduct of monitoring, and orders for medications, testing and other treatments.

- **Procedural Competencies:**
  - Central venous access placement
  - Arterial catheterization
  - Temporary dialysis access
  - Tube thoracostomy

PGY 1 residents require Indirect Supervision for:

- **Patient Management Competencies:**
  - Evaluation and management of a patient admitted to hospital, including initial history and physical examination, formulation of a plan of therapy, and necessary orders for therapy and tests.
  - Pre-operative evaluation and management, including history and physical examination, formulation of a plan of therapy, and specification of necessary test.
  - Evaluation and management of post-operative patients including the conduct of monitoring and orders for medications, testing and other treatments
  - Transfer of patients between hospital units or hospitals
  - Discharge of patients from the hospital
  - Interpretation of laboratory results

**PGY 2 and 3 – Patient Management and Leadership, Advanced Operative skills**

PGY 2 – 3 residents who demonstrate good performance may be given responsibility for independent judgment and surgical decision-making with continued attending supervision.

The PG2 resident is responsible for day-to-day care of surgical patients on their assigned service and patients they follow as consultants. They will be supervised at all times by senior residents and faculty. The major goal of the second year of residency is to allow graded responsibility for patient care,
including instruction in pre- and postoperative care, and the evaluation and management of patients seen in consultation. The PGY-2 will gain additional valuable experience in the operating room both as an assistant and as the primary surgeon on uncomplicated minor surgeries.

By the third year, residents may be given more responsibility for evaluating surgical patients in the emergency room, initiating preoperative treatment and arranging for further surgical care. In addition, PGY 3 residents are more involved with the technical aspects of the surgery in the operating room.

The goal for the PG-3 residents is to expose them to some of the more complex aspects of clinical surgery and to develop the clinical judgment necessary to decide who needs an operation, what operation, and the appropriate timing. PG-3 residents are expected to master basic surgical techniques as well as more advanced techniques including laparoscopic skills and burn management. Leadership and supervisory skills are further developed.

Outpatient objectives

- Able to evaluate and treat patients with most surgical diseases
- Develop surgical skills in ambulatory procedures
- Master outpatient postoperative follow-up

Inpatient objectives

- Assume increased responsibility for surgical decision making
- Perform moderately complex surgeries

Research/Academic Development Residents

Residents in the research year(s) are expected to spend one or more years conducting basic and/or clinical research. The specific objectives of the research experience are to:

- Learn the fundamentals of research study design
- Learn basic research techniques, such as cell culture, microsurgery, polymerase chain reactions, etc.
- Learn clinical study design
- Master the fundamentals of statistics as they apply to basic and clinical research
- Hone computer skills, including how to develop and manipulate database and spread sheet programs, statistical programs, and graphic programs
- Prepare oral and written scientific presentations
- Participate in a regular reading program and teaching conferences
- Participate in patient safety, quality improvement and administrative committees

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The research experience also allows time for thoughtful reflection and specific planning of the resident’s future career, including investigating fellowship opportunities and practice possibilities.

**PG-4 and PG-5 – Coordination of Patient Management, Advancement of Independent management and operative Skills, Leadership, Role Model**

The last two years of clinical training are designed to provide residents with an extensive operative experience. The PG-4 and PG-5 residents are the team leaders (chief residents) and under the supervision of the faculty they supervise junior residents and make decisions about patient care. They perform complex operations under the supervision of the faculty. These senior residents are expected to exercise increasing degrees of independent responsibility for surgical decision-making and perform more advanced surgical procedures, while attending surgeons monitor their progress and continue to supervise the service. Senior residents are allowed and encouraged to exercise independent surgical judgment to the degree that is consistent with good patient care. The goal of these two years is to transition the individual from a resident to an independently practicing surgeon. It is expected that residents will be able to:

- Identify high-risk patients and anticipate perioperative problems.
- Possess a thorough knowledge of anatomy and embryology
- Recognize and understand the indications for surgery
- Discuss options in managing surgical pathology, and guide clinical decision making with appropriate imaging and endoscopic exams. Gain more specific knowledge of general surgery, laparoscopic surgery, gastrointestinal surgery, surgical oncology, pediatric surgery, transplant, vascular, and trauma
- Develop leadership skills of a surgical team: identify strengths and weaknesses of team members, provide feedback to all team members, identify one’s own strengths and weaknesses in leadership skills, balance educational and service needs of all team members
- Function more independently in patient and critical care management.
- Increase critical decision-making skills.
- Organize and run the Surgical Service efficiently, ensuring that junior house staff and students participate in the educational activities of the service at a level appropriate to their level of training.
- Hone interactive skills with patients, families, and ancillary staff.
- Present a cogent linkage of basic research experience with clinical surgical problems at a forum of peers, such as during management conferences, morbidity and mortality conference and Grand Rounds.
- Increase proficiency and ability to do independent work-ups, determine the need for surgery, and determine special requirements for Postoperative Care.
**Attending Notification:**

Any significant change in a patient’s condition should be reported immediately to the appropriate attending physician. “Significant changes” in the patient’s condition include:

- Admission to hospital of any unstable patient
- Transfer of the patient to the intensive care unit
- Need for intubation or ventilatory support
- Cardiac arrest or significant changes in hemodynamic status
- Development of significant neurological changes
- Development of major wound complications
- Medication errors requiring clinical intervention
- Any significant clinical problem that will require an invasive procedure or operation

A resident may request the physical presence of an attending at any time and is never to be refused. Attendings will be available for immediate consultation by pager/phone 24 hours a day.

*Residents must be aware of the supervisory lines of responsibility. If there is a serious concern related to supervision or any other aspect of the training, any resident can bypass the supervisory lines and communicate directly with the Program Director or the Chairman of the Department of Surgery.*