LLUMC Research Goals and Objectives

PGY 1

Goals:

Loma Linda University Medical Center will provide a learning environment for various components of research. The resident who rotates on Research will acquire proficiency in clinical and/or basic science research including adjuncts such as statistical analysis, human protections competency, and/or laboratory methodology.

Objectives:

MEDICAL KNOWLEDGE

Laboratory Research

- Participate in ongoing laboratory research projects under the supervision of faculty members in the department of surgery
- Demonstrate the ability to independently design laboratory research projects to answer surgical questions
- Demonstrate an understanding of, and the ability to use, basic laboratory devices and instruments
- Demonstrate the ability to keep careful laboratory records
- Demonstrate the ability to analyze laboratory data and draw appropriate conclusions

Clinical Research

- Participate in ongoing clinical research projects under the supervision of faculty members in the department of surgery
- Demonstrate an understanding and proper use of databases for collecting and analyzing data for prospective clinical trials
- Demonstrate an understanding of the concepts necessary to design successful clinical research studies
- Demonstrate the ability to analyze and draw appropriate conclusions from clinical data

Biostatistics Methods
• Participate in formal learning sessions on biostatistical methods under the supervision of faculty members in the department of surgery.
• Demonstrate an understanding of biostatistical methods that are sufficient to successfully design and analyze laboratory and clinical research studies
• Demonstrate the ability to critically analyze journal articles
• Demonstrate the ability to successfully organize and conduct surgical journal club meetings

PATIENT CARE

Manage invasive monitoring catheters, interpret the data obtained, and manipulate the hemodynamic variables toward calculated goals.

Manage the nutritional and metabolic components of the patient’s illness.

Identify the indications for routine preoperative laboratory studies, recognize clinically significant abnormalities, and provide appropriate management under supervision.

Manage the postoperative course of patients, using relevant laboratory studies (including their indication, relevance to clinical condition, and continued need).

Construct a caregiver assessment to include caregiver preparedness, needs, and signs of strain. Consider caregiver emotional support and actual physical care of the patient.

Recognize when to apply a specific screening test in a case finding situation.

Apply clinical decision analysis to the treatment of a given patient with a given disease.

Estimate risk of disease development for a given patient given a history of exposure to specific risk factors.

Decide whether a given association is one of cause and effect.

PRACTICE BASED LEARNING AND IMPROVEMENT

Critically evaluate the published evidence for a surgical therapy using a computer search engine such as MEDLINE, using the users’ guide for evaluating therapy articles, and summarizing your findings in writing, to include your recommendation for surgical practice.

Demonstrate the ability to critically evaluate the information provided by drug companies and medical instrument and equipment manufacturers.

Demonstrate improvement in clinical management of patients by continually improving care related knowledge and skills during the rotation.
Develop an attitude of responsibility for the patients, and in so doing develop the skill of self-assessment with the goal of continuous improvement in practice management style.

Understand the importance of critically reading and discussing medical literature pertinent to patients critically ill.

Importantly discuss performance with respect to care of patients and progress made during rotation with Chief of Service or designee at mid-rotation meeting.

INTERPERSONAL AND COMMUNICATION SKILLS

Establish rapport with patients and their families.

Perform a patient-centered medical interview.

Engage patients in shared decision-making, and participate in family discussions.

Effectively and considerately communicate with team staff in a manner that promotes care coordination.

Communicate effectively with person on ventilator.

Communicate effectively with ICU nurses.

Ask for organ donation and interact with the “Gift of Life” organization appropriately.

PROFESSIONALISM

Demonstrate respect and compassion for all patients.

Exhibit competency in working with patients regarding advanced directives, DNR status, futility, and withholding/withdrawing therapy.

Understand and compassionately respond to issues of culture, age, sex, sexual orientation, and disability for all patients and their families.

Assist with families of critically injured/ill patients and guidance of families towards or through difficult decisions.

Communicate with multiple consultants.
SYSTEMS-BASED PRACTICE

Demonstrate understanding of medical delivery systems as they relate to both inpatient and outpatient resources.

Work well with multidisciplinary teams, coordinating care and effectively working with surgical intensivists and other providers in a team setting.

Understand the importance of supporting medical and ancillary services in the complete and efficient care of the patient.

Develop a cost-effective attitude toward patient management.

Discuss the value of an interdisciplinary approach to health care for the critically ill, elderly surgical patient. Include consideration of these groups/disciplines, working together:

a. Hospital administration  
b. Nursing staff  
c. Family-friends as caregiver  
d. Physical therapy  
e. Pharmacy  
f. Religion  
g. Social work  
h. Surgery