General Surgery Residency  
Loma Linda University

Arrowhead Regional Medical Center (ARMC) SICU/ Burn Unit Goals and Objectives

PGY 2

Goals:

ARMC will provide a learning environment for the care and management of the critically ill patient requiring intensive care. Surgical basic science, including fluids and electrolytes, wound healing, and nutrition will be emphasized. Clinically, residents will assess the critically ill patient, develop clinical judgment on managing these issues, and become proficient in managing and weaning off ventilation support. Careful postoperative care and follow up will be emphasized. Residents will develop cognitive and technical skills in dealing with complex critically ill patients.

Objectives:

Medical Knowledge

Outline the basic techniques of evaluation and resuscitation of trauma patients using the Advanced Trauma Life Support (ATLS) protocol.

Summarize basic critical care management principles.

Consistently apply basic science principles to common clinical situations.

Demonstrate ability to interpret radiographic findings, EKGs, laboratory data, and intravascular and intra-cranial monitoring systems.

Fundamentals of surgical nutrition including nutrition evaluation as well as routes of access, TPN, eternal nutrition, and nutritional supplements

Evaluate and institute management of abdominal wound problems.

Be able to apply and remove all types of dressings.

Describe the management of glucose in the diabetic patient.

Describe the different ventilatory modalities.
Describe the basic ventilatory weaning principles.

Have an understanding of the pulmonary artery catheter (Swan-Ganz catheter) and understand the parameters – both measured and calculated - obtained by it.

Become proficient in placing central venous access, arterial access and floating Swan-Ganz catheters.

Define ARDS and how it is diagnosed and treated, including necessary ventilatory adjustments.

Define and contrast: SEPSIS, SIRS, MODS and MOF.

Have an understanding of and be able to write TPN orders, as well as enteral nutrition orders.

Become familiar with the different enteral nutrition formulas and be able to choose appropriate formulas for each particular patient.

Become familiar with the indications and technique for tracheostomy.

Become familiar with indications and technique for PEG, gastrostomy and jejunostomy tubes.

Be able to describe the mechanism of action of different vasopressors including: dopamine, dobutamine, vasopressin, norepinephrine, epinephrine, neosynephrine and their particular indications.

Define abdominal compartment syndrome and how to diagnose it.

Become proficient in the placement and management of thoracostomy tubes.

Develop proficiency with the different sedation and analgesic protocols including: PCA, epidurals, conscious sedation, paralysis and have an understanding on the indications of each one of these modalities.

Become proficient with the use of antibiotics and treatment of multi-drug resistant organisms.

Describe the difference between first-, second-, third- and fourth-degree burns.

Describe the techniques for estimating burn size.

Describe the protocols for estimating and resuscitating burn patients.

Describe the indications and timing for burn excision and grafting.
Describe the role for partial- and full-thickness skin grafting.

Describe different skin substitutes for temporary grafting of burns.

Become familiar with the workup and management of the burn patient.

**Patient Care**

Establish basic proficiency in providing pre-operative and post-operative care (writes appropriate pre-op and post-op orders for floor patients, handles nursing calls appropriately, and manages most routine post-operative care with minimal intervention by supervisor).

Take an appropriate history to evaluate patients with general surgical issues to include:

a. A complete history of present illness  
b. Presence of any co-morbidities  
c. A review of social and family history impacting the present problem  
d. A complete review of systems

Demonstrate an increasing level of skill in the physical examination of the general surgery patient with a special emphasis in recognition of the surgical abdomen.

Develop a proficiency in evaluation and interpretation of the different diagnostic modalities including: X-rays, ultrasounds, CT scans, Contrast studies and MRIs.

Discuss treatment options, risks and potential complications of patients with general surgical issues.

Assist in the performance of general surgical and laparoscopic procedures.

Demonstrate skill in basic surgical techniques, including:

- Knot tying  
- Exposure and retraction  
- Knowledge of instrumentation  
- Incisions  
- Closure of incisions  
- Handling of graft material including mesh  
- Establishing pneumoperitoneum  
- Handling of laparoscopic instruments  
- Handling of the laparoscopic camera
**Professionalism**

The resident should be receptive to feedback on performance, attentive to ethical issues and be involved in end-of-life discussions and decisions.

Understand the importance of honesty in the doctor-patient relationship and other medical interactions.

Treat each patient, regardless of social or other circumstances, with the same degree of respect you would afford to your own family members.

Learn how to participate in discussions and become an effective part of rounds, attending staff conference, etc.

Complete all assigned patient care tasks for which you are responsible or provide complete sign out to the on-call resident.

Maintain a presentable appearance that sets the standard for the hospital this includes but is not limited to adequate hygiene and appropriate dress. Scrubs should be worn only when operating or while on call.

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

Demonstrate mentoring and positive role-modeling skills

**Systems-Based Practice**

Understand, review, and contribute to the refinement of clinical pathways

Understand the cost implications of medical decision-making

Partner with health care management to facilitate resource efficient utilization of the hospital’s resources.

Describe in general terms the benefits of clinical pathway implementation

Develop a cost-effective attitude toward patient management.

Develop an appreciation for the benefits of a multi-disciplinary approach to management of critically ill surgical patients.
Comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations regarding patient privacy and confidentiality

**Practice-Based Learning & Improvement**

Demonstrate the ability to:
- Evaluate published literature in critically acclaimed journals and texts
- Apply clinical trials data to patient management
- Participate in academic and clinical discussions

Accept responsibility for all dimensions of routine patient management on the wards

Apply knowledge of scientific data and best practices to the care of the surgical patient

Facilitate learning of medical students and physician assistant students on the team.

Use the LLUMC library and databases on on-line resources to obtain up to date information and review recent advances in the care of the surgical patient.

Demonstrate a consistent pattern of responsible patient care and application of new knowledge to patient management.

Demonstrate a command and facility with on line educational tools.

**Interpersonal & Communication Skills**

Work as effective team members

Cultivate a culture of mutual respect with members of nursing and support staff

Develop patterns of frequent and accurate communication with team members and attending staff

Gain an appreciation for both verbal and non verbal communication from patients and staff

Demonstrate consistent respectful interactions with members of nursing and support staff
Demonstrate consistent, accurate and timely communication with members of the surgical team.

Demonstrate sensitivity and thoughtfulness to patients concerns, and anxieties.

The resident will demonstrate the ability to provide and request appropriate consultation from other medical specialists.