

FELLOWSHIP OBJECTIVES

During your year of critical care fellowship, you will be exposed to a wide range of opportunities allowing you to develop the clinical judgment to master a wide range of skills required for the practice of critical care. While pursuing their training in critical care, fellows are expected to:

A. Master organ system based comprehensive care of the critically ill patient including diagnosis and management of the following disorders, their sequelae, and the sequelae of their treatments:

1. Neurologic system: cerebrovascular accident, head/brain trauma, altered mental status, agitation/sedation issues, spine injury, meningitis, ventriculostomy management, elevated intracranial pressure, aneurysm, tumor
2. Cardiovascular system: arrhythmias, acute myocardial infarction/ischemia, congestive heart failure, cardiogenic shock, hemodynamic instability, deep venous thrombosis
3. Respiratory system: pneumonia, adult respiratory distress syndrome, complex airway management, acute respiratory distress, hemo/pneumothorax, empyema, advanced ventilator management, non-invasive positive pressure ventilation., pulmonary toilet, chest trauma, pulmonary embolism
4. Gastrointestinal system: ileus, bowel obstruction, enteral nutrition, diarrhea, constipation, abdominal trauma, pancreatitis, hepatobiliary disorders, gastrointestinal bleeding, ulceration
5. Genitourinary system: acute renal failure/insufficiency, urinary tract infection
6. Integumentary system: prevention and management of pressure ulceration, complex wound care
7. Hematologic system: anemia, coagulopathy, platelet disorders, blood borne tumors
8. Infectious disease: fever, leukocytosis, antibiotic selection, septic shock, antibiotic resistant pathogens
9. Fluid and Electrolyte: electrolyte disorders, intravascular fluid management, hypovolemic shock, colloids versus crystalloids, total parenteral nutrition
10. Rehabilitation of the critically ill patient
11. Cancer treatment side-effects
12. Be able to diagnose death and manage the end-of-life process
13. Be familiar with and able to initiate and sustain the organ donor process where appropriate

B. Develop the leadership skills necessary to lead a multidisciplinary intensive care unit team

1. Be able to effectively utilize the strengths of the various ancillary services associated with the care of the critically ill patient including nurses, pharmacists, nutritionists, physical therapists, occupational therapists, critical care nurse practitioners, advanced practice nurses, respiratory therapists, social workers, and case managers.
2. Learn the fundamentals of intensive care unit administration
 - a. administrative skills
 - b. billing and coding issues
3. Be skilled at managing interaction between physicians of multiple services who have a stake in the care of the patient
4. Be adept at communicating end-of-life process with families
5. Attend meetings related to critical care which are attended by other critical care faculty

6. Participate in orientation of residents and medical students to the STICU, MDACC ICU at the start of the rotations

C. Attend didactic learning sessions and develop teaching skills

1. Attend daily lectures with the residents on current critical care issues
2. Lead daily ICU rounds under the supervision of the ICU attending physician.
3. Prepare a new lecture for residents and/or students each month so that the fellow has 8 prepared lectures on critical care topics at the completion of the fellowship
4. Attend and present at a critical care journal club once per month
5. Attend a Fundamentals of Critical Care Support course
6. Maintain current Basic and Advanced Cardiac Life Support status
7. Maintain current Advanced Trauma Life Support status
8. Participate in local and international societies pertinent to the practice of critical care
9. Remain current with the critical care literature
10. Fellows will be required to take the Society of Critical Care Medicine's Multidisciplinary Critical Care Knowledge Assessment Program Examination to see that their didactic knowledge is progressing appropriately and to identify areas that need further study
11. Read the provided Selected Readings in Critical Care to provide an idea of what is the current state of knowledge in the field of critical care medicine. These article deal with the education process from the medical student level to the fellowship level. Hopefully, these articles will improve the fellow's understanding of the learning and teaching process in critical care from the lower stages, and also help you to understand what are the needs of the medical students during their rotation through the intensive care units
12. Remember that the guidance and teaching of the medical students in this period are also part of your responsibilities as a fellow
13. The fellow will have at least one day free from clinical responsibilities a month for study and lecture preparation

D. Acquire the procedural skills necessary for the practice of critical care which should include:

1. Advanced airway skills including bag/mask ventilation, endotracheal intubation, fiberoptic bronchoscopy, cricothyroidotomy, retrograde intubation, laryngeal mask airway
2. Thoracentesis
3. Thoracentesis tube placement and management
4. Pericardiocentesis
5. Central venous catheter placement (internal jugular vein, subclavian vein, femoral vein)
6. Venous cut down
7. Intraosseous infusion
8. Arterial catheter placement
9. Pulmonary artery catheter placement and management
10. Esophageal doppler placement and management

11. Percutaneous gastrostomy placement
12. Percutaneous tracheostomy placement
13. Nasojejunal tube placement

E. Be introduced to research and stimulate its application to critical care medicine

1. The opportunity is available to spend up to 3 months performing basic science research under the direction of a critical care researcher.
2. Upon choosing to spend time in the research lab the fellow will be provided with a copy of "Conducting Research in Anesthesia and Intensive Care Medicine." A. M. Zbinden and D. Thomson, editors Woburn, Massachusetts: Butterworth-Heinemann, 2001.
3. The fellow will be given up to 5 days of continuing medical education leave and be provided with predetermined funds from the University for travel, lodging, meeting fees, and meals; the use of this time will require pre-approval from the Program Director.
4. The fellow is encouraged to participate in at least one clinical research project and submit an abstract to the appropriate national organization.
5. If the fellow has the opportunity to present research at a medical meeting every attempt within reason by the Department of Anesthesiology will be made to cover the fellow's expenses associated with the meeting in accordance with University Policy.