

CRITICAL CARE MEDICINE

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Location: Boise VA Medical Center

FACULTY CONTACT:

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EDUCATIONAL GOALS

- Learn to take responsibility for and organize the care of patients in the intensive care unit.
- Learn critical care procedures such as arterial line, central line, and intubation.
- Learn to function as a multidisciplinary team member (with Respiratory Therapy, Nutrition, Pharmacy, Nursing, and other consultant services).
- Learn to cover interim problems for colleagues' patients.
- Develop skills for patient education, counseling, and negotiation of treatment goals.
- Develop communication skills for conducting family conferences to apprise family members of patients' status and prognosis, and to mediate decisions on code status and focus of care.

Patient Care: History taking

Demonstrate the ability to obtain and document an accurate, complete and non-judgmental history from the patient and/or caretaker with minimal help from the faculty. Specific focus on:

- Identifying the medical problem and how it integrates into the patient's physiological systems.
- Obtain accurate history from a variety of sources when the patient is unable to provide it.

Patient Care: Physical examination

Performs accurate and complete physical examination with occasional input from faculty. Can describe and document major abnormalities including:

- Hemodynamic assessment and volume status.
- Pain assessment.
- Neurological status.

Patient Care: Medical decisions

Reliably recognizes evidence of clinical decompensation and seeks consultation when appropriate.

Patient Care: Procedures

Able to perform and/or interpret the results of the following:

- Endotracheal intubation
- Arterial line placement
- Central line placement
- EKG for evidence of ischemia and heart block, and correct identification of tachy- and bradyarrhythmias.
- CXR interpretation
- Correct use of vascular ultrasound

Medical Knowledge Objectives: Tailor relevant clinical and basic science knowledge of chronic medical conditions to the context of the patient's setting, resources, and support systems.

Practice-based Learning Objectives:

- Regularly display self-initiative to stay current with new medical knowledge.
- Locate new evidence from scientific studies related to the patient's current illnesses
- Apply knowledge of study designs and statistical methods to appraise these clinical studies. Assimilate valid new findings into practice.
- Improve skills in ICU procedures (code, intubation, central line, thoracocentesis)

Interpersonal and Communication Skills Objectives:

- Establish rapport with patients and family members from a variety of backgrounds.
- Effectively and sensitively carry out difficult discussions about topics such as code status and focus of care.
- Engage patients and families in shared decision-making.

Professionalism Expectations:

- Understand and appropriately maintain patient confidentiality.
- Provide and document care in a timely and thorough manner.
- Demonstrate respect and compassion for patients, family members, and colleagues.

Systems-based Practice Objectives:

- Coordinate care effectively in a multidisciplinary team.
- Develop an effective lab and imaging tracking system.
- Develop awareness for costs, risks, and benefits of diagnostic and therapeutic procedures.

PRINCIPAL TEACHING METHODS

Case-based seminars with faculty: One hour per week

Medical scenario/procedural simulations

Pulmonary Grand Rounds: One hour per week

Critical Care Grand Rounds (St. Alphonsus): One hour per week

Critical Care Noon Conference: One hour per week

Curriculum didactic sessions with attending and fellow: One hour per day

Consult case review with faculty supervisors

Assigned reading generated from clinical cases

EDUCATIONAL CONTENT

General Approach to Diseases

Residents will participate in didactic sessions covering the general principals for the following topics:

- Hemodynamics
- Mechanical ventilation
- Acid-base and electrolyte disorders
- Vasopressors and vasodilators

- ICU physiology

At the conclusion of the rotation, residents will be required to do a one-hour presentation on the topic of their choice for the weekly Critical Care Noon Conference. Faculty will assist with preparation of this presentation as needed.

Mix of Diseases

Resident will see a wide range of illness including, but not limited to:

- Cardiac disease including angina, CHF, atrial fibrillation, ventricular arrhythmias
- Pulmonary disease including COPD and interstitial lung disease
- Gastrointestinal disease including Peptic ulcer disease, constipation/diarrhea, GI bleeding, inflammatory bowel disease
- Oncologic disease including lung, prostate, colon and breast cancer
- Hematologic disease including anemia, thrombocytopenia, and DVT
- Infectious disease including upper respiratory infections, cellulites and soft tissue infection
- Metabolic disease including diabetes mellitus and its complications, thyroid disease

Patient Characteristics

The patient age distribution reflects boluses of participation from all recent wars and conflicts (World War II, Korean era, Vietnam era, Gulf war, and OAF/OIF veterans)

Types of Clinical Encounters

All encounters occur in the intensive care unit or in the emergency room prior to admission. On occasion, encounters will occur on the medical or surgical wards, in the event that a patient is becoming unstable and needs to be transferred to intensive care.

Services

Residents work closely with pharmacy PhD residents assigned to the intensive care unit. Consultative services in internal medicine subspecialties, general surgery, surgical subspecialties, and psychiatry are available. There is on site laboratory, radiology, non-invasive cardiovascular testing, pulmonary testing and pharmacy. Immediate consultative services are available from mental health, pharmacy, dietetics, respiratory therapy, and physical therapy. There is an extensive range of patient education programs available.

Rotation Specific Schedule

Five full days of ICU coverage

One weekend of coverage per month

One half-day of follow-up clinic or New Pulmonary Consult clinic

PRINCIPAL EDUCATIONAL MATERIALS USED

A critical care syllabus has been developed locally and is updated yearly.

Simulation materials have been developed for intubation, arterial and central line placement.

The intensive care unit has computing stations with a network allowing instant access to the

University of Washington Medical Library's collection of online journals, Up-To-Date, Micromedex, Pub Med, Stat Reference, Patient Data and other educational sources.

There is a medical library available to supplement these online resources. Residents have access to this area 24 hours a day.

There are also complete medical libraries at St. Luke's Regional Medical Center and St. Alphonsus Regional Medical Center, with texts, journals and available computer access.

There are maintained teaching files for particularly demonstrative x-rays, pathologic material, electrocardiograms, echocardiograms, clinical vignettes, etc

METHODS USED IN EVALUATING RESIDENT AND PROGRAM PERFORMANCE

At the end of the rotation, the resident is evaluated using the standard 9-point Likert-style instrument. The instrument contains components for each element of clinical competence.

Objective Structured Clinical Exams (OSCE's) will be developed and piloted this year. Each station will have a faculty observer trained to use the checklist and provide formative feedback.

EXPLICIT LINES OF RESPONSIBILITY FOR THE CARE OF PATIENTS ON THIS SERVICE

Drs. Carvalho has oversight responsibility for this rotation. There is additional supervision from all Pulmonary/Critical Care faculty and fellows.