

SICU Curriculum for CA1

West Virginia University Department of Anesthesiology

Description of Rotation or Educational Experience

One month rotation in SICU as CA1 and another month in SICU as a CA2. During that time residents actively participate in the care of SICU patients. They also participate in daily teaching rounds and perform procedures under the supervision of the SICU faculty. They also take call and participate in conferences.

Patient Care

Goal

Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

Residents are expected to:

- Be able to admit a patient to the ICU, evaluate current issues and past medical history, establish and execute a plan of care for the patient's acute and chronic medical issues
- Be able to identify and implement different resuscitation strategies based on the physiology of the patient
- Place and interpret invasive monitors
- Prioritize and coordinate interventions

Competencies

Residents are expected to:

- Be able to evaluate the poly-trauma patient, prioritize and coordinate interventions
- Be able to evaluate the acute neurosurgical patient
- Be able to place pulmonary artery catheters
- Be able to place arterial catheters
- Be able to place central venous catheters

Objectives

Residents are expected to:

- Admit 10 patients
- Place 10 invasive monitors (arterial line, central venous line, or pulmonary artery catheter)
- Formulate 10 treatment plans for patients
- Be on call on an average of every fourth night

Medical Knowledge

Goal

Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioral sciences, as well as the application of this knowledge to patient care.

Residents are expected to:

- Learn how to diagnose diseases in ICU patients
- Understand the etiology, pathophysiology, and treatment of diseases in ICU patients
- Understand the basic modes of mechanical ventilation and when to change to a different mode according to patients medical condition
- Understand the concepts of and interpretation of invasive monitoring

Competencies

Residents are expected to:

- Be able to define shock and give examples of each type
- Understand fluid resuscitation and be able to evaluate the response to therapy
- Be able to name the vasopressors and inotropes and to know indications, dose, effects, and adverse consequences of each
- Know the risks and benefits of pulmonary artery catheters, arterial catheters, and central venous catheters
- Understand the indications, treatment duration, and adverse effects of the most commonly used antibiotics
- Understand the concept of antibiotic resistance and how it effects antibiotic selection
- Understand the basic modes of mechanical ventilation
- Be able to define ARDS
- Be able to diagnose and manage acute renal failure
- Understand the coagulation cascade and effectively treat coagulopathy
- Understand indications, risks, benefits, and alternatives to blood transfusion

Objectives

Residents are expected to:

- Discuss at least 10 cases with the attending during the month while on call
- Discuss the ventilator management of at least 5 cases involving different mechanical ventilation strategies—at least one should involve ARDS
- Discuss and manage 5 cases that require invasive monitoring
- Present organized evaluations and key issues on rounds every day
- Demonstrate evidence of additional reading about key issues on their assigned patients each day on rounds

Practice- Based Learning and Improvement

Goal

Residents must demonstrate the ability to investigate and evaluate the care of their patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and develop habits that ensure life long learning.

Residents are expected to develop skills and habits to be able to:

- Critique personal practice outcomes
- Evaluate complications, causes and outcomes

Competencies

Residents are expected to:

- Identify strengths, deficiencies and limits in one's knowledge and expertise
- Set learning and improvement goals
- Identify and undertake appropriate learning activities
- Systematically analyze practice, using quality improvement methods, and implement changes with the goal of practice improvement
- Incorporate formative evaluation feedback into daily practice
- Locate, appraise and assimilate evidence from scientific studies related to their patients' health problems
- Use information technology to optimize learning
- Participate in the education of patients, families, students, residents and other health professionals, as documented by evaluations of a resident's teaching abilities by faculty and/or learners

Objectives

Residents are expected to:

- Participate in all ICU mortality conferences
- Do daily presentations and reviews of ICU patients
- Participate in grand rounds one each month with CCM
- Participate in journal club once each month with CCM

Systems Based Practice

Goal

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Residents are expected to:

- Demonstrate a knowledge of risk-benefit analysis
- Recognize and understand the role of other health care professionals in the overall care of the patient

Competencies

Residents are expected to:

- Work effectively in various health care delivery settings and systems relevant to their clinical specialty
- Coordinate patient care within the health care system relevant to their clinical specialty
- Incorporate considerations of cost effectiveness and risk-benefit analysis in patient care
- Advocate for quality patient care and optimal patient care systems
- Work in interprofessional teams to enhance patient safety and improve the quality of care
- Participate in identifying systems errors and in implementing potential systems solutions

Objectives

Residents are expected to:

- Update the ICU daily patient update form each day with key issues related to their patients
- Review and consult with clinical pharmacist on each patient each day
- Review and consult with clinical dietician on each patient each day
- Assist in the development of a health care plan that provides high quality, cost effective patient care

Professionalism

Goal

Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.

Residents are expected to:

- Display the highest levels of professionalism through behaviors, verbal and non-verbal conduct
- Demonstrate sensitivity to age, gender and culture of patients, families, and other health care professionals
- Maintain high standards of ethical behavior

Competencies

Residents are expected to demonstrate

- Demonstrate compassion, integrity, and respect for others
- Demonstrate responsiveness to patient needs that supersedes self-interests
- Demonstrate respect for patient privacy and autonomy
- Demonstrate accountability to patients, society, and the profession
- Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation

Objectives

Residents are expected to:

- Demonstrate a professional behavior when interacting with nurses, pharmacy, dietitians, ancillary staff, patients, families, and consultants
- Update the families once each day at minimum

Interpersonal and Communication Skills

Goal

Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and teaming with patients, their families, and professional associates.

Residents are expected to:

- Be able to effectively communicate with other members of the multi-disciplinary ICU team, patients, and family
- Document the medical record in a comprehensive, timely, and legible manner
- Contribute to the teaching environment

Competencies

Residents are expected to

- Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds
- Communicate effectively with physicians, other health professionals, and health related agencies
- Work effectively as a member of a health care team
- Act in a consultative role to other physicians and health professionals
- Maintain comprehensive, timely, and legible medical records
- Communicate effectively with medical students, junior and senior residents

Objectives

Residents are expected to:

- Participate in end of life family discussions
- Complete accurate and legible documentation of all admissions, all procedures, and daily progress notes

- Be able to effectively and compassionately discuss the daily plan of care with the patients and their families
- Provide counsel in end of life family discussions
- Effectively communicate with medical students, junior and senior residents to contribute to the teaching environment

Teaching Methods

- Case based learning
- Bed side teaching
- Teaching rounds
- Radiology rounds
- Lectures
- Modeling
- Self study
- Grand rounds
- Journal club
- M&M conference

Assessment Method (residents)

- Global Rating Scale
- Chart Stimulated Recall (proposed)

Assessment Components

- Patient care: direct observation, case discussion, participation in rounds and conferences, formative evaluation
- Medical knowledge: case discussion, participation in rounds and conference, formative evaluation
- Practice based learning: case discussion, participation in rounds, formative evaluation, participation in journal club and M&M conference
- Systems based practice: formative evaluation of the resident's ability to effectively work within the health care system
- Professionalism: formative evaluation
- Interpersonal and communication skills: formative evaluation assessing the resident's documentation and communication with others

	Patient Care	Med Knowledge	Practice Based Learning	System Based Practice	Professionalism	Communication
Global Rating Scale	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly
Chart Stimulated Recall (proposed)	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly

Assessment Method (Program Evaluation)

- Performance improvement over the month
- Improved knowledge base documented on rounds
- Improvement in technical abilities and decision making

Level of Supervision

Physician

- Critical care faculty, Trauma faculty
- Surgery chief resident
- Senior surgery ICU residents

Educational Resources

- Text books, ICU library, text book recommended: The ICU Book, (ICU Book, (Marino/ Lippincott))
- Journals
- Online resources
- Faculty and staff

Social Justice

West Virginia University is committed to social justice. We concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color, or national group. Any suggestions as to how to further such a positive and open environment in this rotation will be appreciated and given serious consideration.

Prepared by Abd Alrahman Benni, David Graf, Stephen Howell (resident) on Dec 1, 2006

Approved by the Anesthesiology Education Committee on 2-26-2007