Surgical Intensive Care Unit Service Rotation Syllabus

I. Orientation Guide to the Service
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I. Orientation Guide to the Service

A. Composition of the Service: Lines of Supervision

1. The SICU Service includes a fellow, 3 junior residents (PGY-2) and a variable number of interns, medical students and physician's assistant students. Residents are supervised by a faculty member who is assigned on a weekly basis.

2. Residents are responsible for the day-to-day care of all emergency surgery patients in the ICU under the supervision of the emergency surgery chief resident (PGY-5 or PGY-4) and the faculty. Residents are also responsible for co-management of Blue, Green and Gold patients who reside in the ICU for greater than 24 hours. Residents are responsible for communicating to the individual directly senior to them all admissions, consultations, and significant changes in the condition of all patients. Initial communication should be with the emergency surgery chief resident for trauma and emergency surgery patients and the ICU fellow for Blue, Green and Gold patients.

B. Roles and Responsibilities of ICU team members

1. The SICU resident, working under the direction of the emergency surgery chief residents, will be responsible for the care of all patients on the emergency surgery service in the ICU. The SICU resident will respond to all trauma alerts and assist with management unless they are actively engaged in the care of a critical patient. The emergency surgery chief resident will notify the SICU resident when any other trauma patient is admitted to the ICU. The SICU resident will assist with writing orders, placing lines, resuscitating the patient and anything else that may be indicated. The SICU resident will notify the ward team when patients are being transferred out of the ICU. Notification will occur both verbally and by means of a standardized transfer note and will include all pertinent events occurring in the ICU as well as the plan. This communication must occur on the day the patient leaves the ICU. All transfer orders must be written on the day the patient physically leaves the ICU.

2. All general surgery patients (Blue, Green and Gold services) who stay in the ICU for longer than 24 hours will have a consultation from the ICU service. The primary service and the ICU service will co-manage these patients. The general surgery resident will be responsible for writing admission H & P's, admission orders, postoperative orders, and transfer orders. Major decisions will continue to be made by the primary service but the ICU service will assist with the routine management of the patients and will help address emergencies as they arise.

3. The SICU resident on call will receive the 1st call for all general surgery patients in the ICU. This will occur by means of a single pager known by the ICU nursing staff and the page operators (Pager #15579). The SICU resident is

responsible for communicating changes in the patients' status to the primary team utilizing the general surgery chief resident. The SICU fellow and attending will be available to address questions and emergencies and will round with the ICU team on Blue, Green and Gold patients every day.

4. The general surgery residents will provide a formal sign out to the SICU resident each day to insure that the primary team's plans are executed and to insure that the SICU resident is aware of the critical issues.

5. The post call ICU resident will be released from their duties following morning rounds after insuring that adequate sign out has been delivered. Residents who are neither post call or on call will be expected to provide comprehensive care for the patients they are following and to assist the on call resident with duties that arise while adhering to the 80 hour work week.

C. SICU Service Weekly Schedule

1. MONDAY

0600-0700 ICU rounds

0700-0930 Grand Rounds and Resident Conference-all students and residents. Old Library Auditorium.

1700-1800 General Surgery M&M Conference in 8th Floor Auditorium. (8B60) Post call resident excused

2. TUESDAY

0700-? ICU rounds

0900-1000 Multidisciplinary rounds

1230-1330 ICU Core Curriculum Lecture (Post-call resident excused), CD with pertinent literature supplied

3. WEDNESDAY

0600-0700 ICU rounds

0700-0800 Trauma conference

0800-0830 Trauma M & M

1230-1330 ICU Core Curriculum (Post-call resident excused), CD with pertinent literature supplied

4. THURSDAY

0700-? ICU rounds

1000 – 1100 Radiology rounds

5. FRIDAY

0700-? ICU rounds

Following rounds Trauma breakfast: Articles assigned by ICU fellow

D. Policies

1. All patients must have a history and physical examination both by a resident and an attending physician within 24 hours of admission.

2. All patients must have daily progress notes utilizing the standardized ICU form.

3. All patients undergoing operations should have a comprehensive pre-operative evaluation to insure that their work-up, orders, consent, and laboratory work is completed and satisfactory for them to proceed with surgery.

4. All patients undergoing surgery should have a post-operative check documented in their medical record on the evening of their operation. This will be performed by the primary team if the patient is on the general surgery service.

5. All patients transferred out of the ICU will have orders written on the day of transfer and a completed standardized transfer form. The SICU resident will also contact the intern or nurse practitioner on the ward and give verbal report.

6. All procedures performed in the ICU must be dictated by the responsible resident. If the critical portion of the procedure was supervised by an attending, it should be documented in the dictation.

7. Appropriate professional dress and demeanor are expected at all times.

8. Residents are required to comply with ACGME mandated duty hours standards.

9. Residents are expected to report to a senior resident or to an attending if they are sufficiently stressed or fatigued and they feel their duties to safe patient care may be compromised.

II. Curriculum

A. Competency specific objectives and evaluations tools

Domain	Objective	Evaluation Tool
Patient Care Goals: Learn the procedures and priorities necessary for care of the critically ill patient and appropriate interface with patient families and patient wishes.	Demonstrate a caring and respectful behavior towards patients and their families	Faculty, Fellow and Nursing Evaluations
	Gather essential, complete, and accurate information about their patients and present that information using a systems approach	Faculty rounds and chart review (fellow and faculty evaluations)
	Demonstrate ability to choose appropriate care interventions based on medical facts, patient preferences, and current scientific evidence	Teaching rounds and chart review (fellow and faculty evaluations)
	Demonstrate ability to counsel and educate patients and their families.	Nursing evaluations
	Demonstrate the ability to rapidly assess severely injured trauma patients in the Emergency Department	Fellow and faculty evaluations
	Know indications for and perform competently: Central line placement, Swann-Ganz Placement, Chest tube placement and Arterial line placement	Skills assessment (fellow and faculty evaluations)
	Demonstrate ability to prioritize competing care needs of patients on the service	Fellow and faculty evaluations

Medical Knowledge Goals: To understand the pathophysiology of patient diseases on the surgical critical care service, including emergent situations encountered. Know the means for ventilating patients as well as nutrition, volume and vasoactive medicines used. Understand the rationale for practices as outlined by evidence-based literature.	Demonstrate an understanding of the pathophysiology of diseases encountered in patients on this service	Teaching rounds (fellow and faculty evaluations) RICU Pre and Post Test
	Demonstrate knowledge of the management of intracranial, intraabdominal and extremity compartment syndrome	Teaching rounds (fellow and faculty evaluations)
	Demonstrate knowledge of complex ventilator modes and strategies, indications and routes of nutrition and indications for vasoactive medications versus fluid therapy, versus lasix therapy	Teaching rounds (fellow and faculty evaluations) RICU Pre and Post Tests
	Choose appropriate care interventions for patients on the service and support the choices by reference to current literature	Teaching rounds (fellow and faculty evaluations) Trauma Breakfast
Practice-Based Learning and Improvement Goals: Continue to learn from experiences on the service, how to better care for patients and expand upon clinical data base.	Demonstrate ability to analyze their own decisions and performance; describe areas of deficiency and strategies for improvement	Teaching rounds (faculty evaluations) Trauma morbidity and mortality
	Demonstrate use of literature (both text and on-line) to select treatment strategies for patients on the service	Teaching rounds (faculty evaluations) Trauma breakfast ICU Curriculum
	Facilitate learning of students on the service	Performance evaluations by students
	Demonstrate overall clinical competence	Faculty evaluations
Interpersonal and Communication Skills Goals: Be able to effectively communicate	Effectively communicate care plans to patients, families, nurses, and other health care personnel.	Multi-disciplinary rounds. Nursing evaluations

with all members of the team and ancillary services, to maximize care of the patient and create a courteous work environment.	Teach students the basics of ICU management, writing orders and progress notes	Performance evaluations by students
	Write orders and notes in a coherent, legible fashion	Chart review (faculty); Nursing evaluations
	Respond promptly and courteously to requests of staff; answer pages promptly	Nursing evaluations
Professionalism Goals: Be an exemplary surgeon in behavior.	Demonstrate respect for others Display tolerance to others' opinions Display sensitivity to diversity Accept responsibility for own actions Place needs of patients and team above own self-interest Teach and model responsible behavior	Nursing evaluations Student evaluations Faculty evaluations Trauma morbidity and mortality conference
Systems-Based Practice Goals: Understand the elements and structure of the intensive care service and how it benefits patient care.	Work cooperatively with other disciplines to provide efficient and effective patient care	Multi-disciplinary rounds Nursing, fellow and faculty evaluations
	Demonstrate ability to use pathways and protocols	Multi-disciplinary rounds Fellow and faculty evaluations
	Demonstrate the ability to work cooperatively with consulting services and primary general surgery services.	Nursing, fellow and faculty evaluations
	Demonstrate attention to cost-effective care in ordering tests and planning interventions	Nursing, fellow and faculty evaluations

B. Core Curriculum

1. Text – Marino 2nd edition
   -Chapter 1 Circulatory Blood Flow
   -Chapter 2 Respiratory Gas Transport
   -Chapter 3 The Threat of Oxidant Injury
   -Chapter 6 Gastrointestinal Prophylaxis
   -Chapter 7 Venous Thromboembolism
   -Chapter 9 Arterial Blood Pressure
   -Chapter 10 The Pulmonary Artery Catheter
   -Chapter 11 Central Venous Pressure and Wedge Pressure
   -Chapter 12 Thermodilution: Methods and Applications
   -Chapter 13 Tissue Oxygenation
   -Chapter 14 Hemorrhage and Hypovolemia
   -Chapter 15 Colloid and Crystalloid Resuscitation
   -Chapter 18 Hemodynamic Drugs
   -Chapter 20 Tachyarrhythmias
   -Chapter 21 Hypoxemia and Hypercapnia
   -Chapter 23 ARDS
   -Chapter 26 Principles of Mechanical Ventilation
   -Chapter 27 Patterns of Assisted Ventilation
   -Chapter 29 Discontinuing Mechanical Ventilation
   -Chapter 31 Infection, Inflammation and Multiorgan Injury
   -Chapter 32 Nosocomial Pneumonia
   -Chapter 32 Acid-Base Interpretations
   -Chapter 39 Acute Oliguria
   -Chapter 46 Nutrient and Energy Requirements
   -Chapter 47 Enteral Nutrition
   -Chapter 48 Adrenal and Thyroid Dysfunction

2. All residents will be required to complete the Adult Resident ICU course sponsored by the Society of Critical Care Medicine during their PGY2 year. This course consists of 23 powerpoint presentations related to basic ICU principles. Residents will be required to complete the pre-test at the beginning of the academic year and score greater than or equal to 60% on the post-test at the end of the year. The website for the course is: http://ricu.sccm.org/ Residents will be assigned a username and password at the beginning of the academic year.

3. Papers for trauma breakfast will be distributed at least 2 days prior to the conference. A resident or student will be given primary responsibility for reviewing each article.

University SICU Procedural Skills Performance Ratings

Resident_____ Training Level: □ PGY-1 □ PGY-2 □ PGY-3

Procedure

☐ Central Line Placement

☐ Arterial Line Placement

☐ Thoracostomy Tube Placement

☐ Pulmonary Artery Catheter Placement

Evaluation

On a 5 point scale in which 1=deficient and 5=outstanding, assess the resident on the following characteristics:

	1 2	3 4	5
1. Knowledge of the Procedure	Showed little evidence of preparation	Adequate job	Confident & well prepared
2. Technical Operative Skills	Fumbles; Does not know Anatomy	Average procedural skills	Technically gifted. Knows anatomy well
3. Adaptability to Unexpected Events	Is unable to react when the unexpected occurs	Can react appropriately to unexpected events	Able to work through complex and difficult procedures
4. Mastery of the Procedure	Shows little evidence of ability to take the initiative to perform the procedure	Knows the basics of the procedure, but would need some guidance to accomplish it	Could likely perform the procedure without guidance

Faculty_____ Date_____

DEPARTMENT OF SURGERY RESIDENT EVALUATION

Resident:_____ Dates:_____
Evaluated by:_____Rotation Site:_____

Use the scale of 1-5 (1=poor, 5=excellent) to rate the following areas regarding the resident's performance. If not applicable or unobserved, please indicate by using "N."

Unsatisfactory	**Marginal**	**Meets Satisfactory Level (Average OHSU Resident)**	**Above Average Level**	**Exceptional Performance**	**Not Observed**
1	**2**	**3**	**4**	**5**	**N**

MEDICAL KNOWLEDGE

•Anecdotal approach	1 2 3 4 5 N	•Evidence-based approach to care
•Limited knowledge base	1 2 3 4 5 N	•Extensive knowledge base
•Fragmented facts	1 2 3 4 5 N	•Well integrated knowledge base
•Unable to apply basic science knowledge to clinical care	1 2 3 4 5 N	•Easily and consistently applies basic principles to clinical care
•No evidence of reading the syllabus	1 2 3 4 5 N	•Firm grasp of syllabus material

PATIENT CARE

•Gathers incomplete, inaccurate patient history and examinations	1 2 3 4 5 N	•Gathers accurate and complete patient history and examinations
•Gathers incomplete, inaccurate clinical data	1 2 3 4 5 N	•Gathers accurate and complete clinical data
•Fails to synthesize clinical data to make decisions	1 2 3 4 5 N	•Synthesizes all available information in clinical decisions
•Takes no responsibility for accomplishing goals in patient care	1 2 3 4 5 N	•Innovative and resourceful in accomplishing goals in patient care
•Care plans unfocused, poorly managed	1 2 3 4 5 N	•Focused, concise, and complete patient care plans
•Shotgun approach to test ordering	1 2 3 4 5 N	•Well justified selection of clinical tests
•Rarely counsels or teaches patients	1 2 3 4 5 N	•Effectively counsels and educates patients
•Requires step-by-step direction for procedures	1 2 3 4 5 N	•Requires minimal supervision for procedures
•Unprepared for procedures	1 2 3 4 5 N	•Well prepared for procedures
•Deficient procedural skills	1 2 3 4 5 N	•Excellent procedural skills

PRACTICE-BASED LEARNING

•Fails to perform self-evaluation	1 2 3 4 5 N	•Consistently evaluates own performance for improvement
•Resists or ignores feedback	1 2 3 4 5 N	•Invites and embraces feedback
•Lacks critical analysis skills	1 2 3 4 5 N	•Critically reads and discusses literature
•Fails to use IT to enhance learning	1 2 3 4 5 N	•Effectively uses IT to enhance learning
•Rarely teaches or shares knowledge	1 2 3 4 5 N	•Facilitates learning of entire team
•Lacks clinical competence appropriate for level of training	1 2 3 4 5 N	•Has achieved clinical competence appropriate for level of training

INTERPERSONAL & COMMUNICATION SKILLS

•Poor listening and nonverbal skills	1 2 3 4 5 N	•Behavior sets standard for communication
•Writing is unfocused, illegible	1 2 3 4 5 N	•Writing is clear, concise
•Frequently unavailable to patients, nurses, peers	1 2 3 4 5 N	•Always available and cordial to all
•Does not earn respect of patients, peers	1 2 3 4 5 N	•Highly respected by all
•Frequently short, impatient	1 2 3 4 5 N	•Always listens, explains, values opinion of others
•Disorganized presentations	1 2 3 4 5 N	•Presentations lucid and well organized

PROFESSIONALISM

•Does not display respect for others	1 2 3 4 5 N	•Always demonstrates respect for others
•Lacks integrity, honesty	1 2 3 4 5 N	•Demonstrates integrity, honesty, consistency
•Insensitive to diversity	1 2 3 4 5 N	•Teaches/models responsible behavior
•Shirks responsibility	1 2 3 4 5 N	•Willingly accepts responsibility for others
•Disregards need for self-assessment	1 2 3 4 5 N	•Total commitment to self-assessment
•Places self-interest above patients and society	1 2 3 4 5 N	•Readily places needs of others above self-interest
•Rigid, stubborn	1 2 3 4 5 N	•Open minded

SYSTEMS-BASED PRACTICE

•Unable to access ancillary resources	1 2 3 4 5 N	•Highly effective with ancillary resources
•Provincial in approach, interactions	1 2 3 4 5 N	•Always involves other appropriate services and resources
•Fails to use pathways, protocols	1 2 3 4 5 N	•Consistently invokes pathways, protocols
•Causes excessive cost in patient care	1 2 3 4 5 N	•Cost effective in care delivery
•Rarely concerned with patient interests	1 2 3 4 5 N	•Considers, advocates for patient interests
•Unsupportive of staff, peers, team	1 2 3 4 5 N	•Supports/involves entire team in patient care

GLOBAL EVALUATION

Please provide a brief narrative description of critical incidents (both positive and negative) that support the above evaluation: