Overview of Goals and Objectives of Rotation:
PVAMC Intensive Care Unit

MICU Director: Jennifer LeTourneau
Preceptors: Mark Deffebach, Dan O'Hearn, David Lewinsohn, Jim Tuchschmidt, Chris Slatore, Tom Prendergast, Mark Chesnutt, Jennifer LeTourneau

The VAMC Intensive Care Unit Rotation was developed with the goal of providing senior PCCM and CCM Fellows experience in administration, management, and organization of Intensive Care Units. Fellows are expected to develop 1) leadership skills 2) an understanding of the role of regulatory agencies in shaping ICU care 3) a culture of safety and 4) skills necessary for technology assessment/guideline implementation. In addition, Fellows are encouraged to learn the fundamentals of disaster management and responses to threats from emerging infectious diseases and biological and chemical weapons.

Medical Knowledge: ***Fellows are expected to demonstrate knowledge of established and evolving biomedical, clinical and social sciences, and the application of their knowledge to patient care and the education of others.***

ICU Organization:

- Review standards for special care units, Joint Commission on Accreditation of Healthcare Organization
- Provide a conceptual framework for ICU evaluation based on and defined by 3 different types of variables: performance (eg, appropriateness of care, effectiveness of care), outcome (eg, resource use, mortality), and process (eg, timeliness of treatment, work environment)
- Understand the principles and practices of performance improvement, including 1) case management 2) clinical practice guidelines 3) critical pathway development 4) Electronic data base
- Understand the ethical, economic, and legal aspects of critical illness
- Develop skills required to organize, administer, and direct a critical care unit and to work effectively as a member of a multidisciplinary team

Safety/Human Error:

- Contrast Error-Prone and High-Performing Organizations
- Describe risk factors for "line, tube, and drain (LTD) incidents."
- Explain how to minimize these incidents (placement, maintenance, or removal)
- Define "Prompt" physician visits and the effect they have on patient outcome
- Define incident, harm, near miss, adverse event & system factor and characterize the latter into patient, task, provider, ICU environmental, and institutional environment factors
- Review the basic principles underlying the 100,000 lives campaign

Disaster Management/Biological & Chemical Terrorism:

- Understand the principles of triage and resource allocation
- Develop the ability to recognize and manage critically ill patients from disasters, including those caused by chemical and biological agents
- Review the priorities in the care of the critically ill or injured

Patient Care: ***Fellows are expected to provide patient care that is compassionate, appropriate and effective for the promotion of health, prevention of illness, treatment of disease and at the end of life.***

- Develop a working knowledge of a fully integrated ICU clinical information system and comprehensive electronic medical record including computerized physician order entry(CPOE)
- Pre-round on MICU & CCU patients and review all radiographic, laboratory and microbiologic studies of each MICU patient

- Meet and evaluate all new ICU admissions, discuss assessment and plan with house staff and review the patient with the appropriate Critical Care Attending
- Review all angiographic studies of each CCU patient
- Oversee the care provided to MICU and CCU patients by the residents, students and other trainees of the MICU/CCU Team
- Participate in all Patient Care Conferences of MICU patients
- Implement Respiratory Therapy driven protocols and work collaboratively with RT to facilitate early (AM) weaning and/or extubation.
- Work with the ICU Clinical Pharmacy Specialists to develop cost-effective medication strategies and prospectively/retrospectively identify potential or actual adverse drug effects and drug-drug interactions
- Write a progress note on all patients who are complex or have a change in status requiring a high level of attention/interaction. This includes complex family dynamics.
- Insure the delivery of high-quality patient 24 hours a day
- Notify the Attending of the following:
  1) Changes in status of unstable patients
  2) Patients who may require intubation or an invasive procedure
  3) New admissions
- Ensure timely 1) completion of Transfer Orders and 2) verbal communication with floor housestaff for patients leaving the ICU
- Personally contact the accepting ward attending to discuss complex or worrisome patients
- Review indications for all invasive procedures with residents and students
- Teach procedural skills to residents and students, provide appropriate level of supervision for all invasive procedures, and determine most appropriate operator for the procedure
- Ensure informed consent is obtained and documented in the medical record of all patients
- Coordinate with USL every morning to determine which patients may leave ICU

Code Team and Rapid Response Team:

- Respond to all calls
- Supervise Team performance - ensure the highest level of patient care
- Debrief team members after RRT/Code

Practice based Learning: ***Fellows are expected to be able to use scientific evidence and methods to investigate, evaluate, and improve patient care practices.***

Fellows at all levels of training are expected to 1) identify areas for improvement and implement strategies to enhance knowledge, skills, attitudes and processes of care 2) analyze and evaluate practice experiences and implement strategies to continually improve the quality of patient practice 3) develop and maintain a willingness to learn from errors and use errors to improve the system or processes of care and 4)use information technology or other available methodologies to access and manage information, support patient care decisions and enhance both patient and physician education. Requirements for this competency include;

Junior Fellows:

- Participate in quality improvement and patient safety activities in the intensive care unit.
- Prepare a monthly report for presentation at Critical Care Morbidity and Mortality Conference
- Maintain a list of patients experiencing an untoward event (morbidity and mortality) during their ICU stay. Send a copy of this list to: Jennifer.Letourneau@va.gov.
- Review relevant literature surrounding occurrences and presenting findings to fellows and faculty at monthly M&M conference
- Provide limited “root cause” analysis of significant errors and developing relevant action plans
- Review key articles in the literature related to patient safety (see section on conferences) and presenting synopsis at M&M conference

- Demonstrate ability to access critical event and adverse drug reporting forms and participating in surveillance
- Use data from Administrative Quality Improvement projects to analyze care, identify areas for improvement, and implement practice reform
- Support ongoing basic and clinical science protocols in the ICU by participating in candidate identification or in proposing future projects
- Contribute to and support process improvements in the ICU by meeting with nursing or physician staff to assess current practice
- Participate in creating ICU specific data related to ventilator/ sepsis bundles and pulmonary improvement project
- Participate in development of protocols and guidelines pertinent to ICU care (i.e. VAP investigation and treatment approaches reflecting available resources and local antibiotogram)
- Participate and directing Multi-disciplinary rounds and be responsible for completion of daily goal sheets
- Do a quality improvement project under the guidance of Dr. LeTourneau: Jennifer.Letourneau@va.gov

Senior Fellows:

- Participate in ICU-related committee activities (if not already serving on other committees)
- Do a quality improvement project under the guidance of Dr. LeTourneau: Jennifer.Letourneau@va.gov

Professionalism: ***Fellows are expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, an understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.***

- Demonstrate respect, compassion, integrity, and altruism in relationships with patients, families, and colleagues
- Demonstrate sensitivity and responsiveness to the gender, age, culture, religion, sexual preference, socioeconomic status, beliefs, behaviors and disabilities of patients and professional colleagues
- Adhere to principles of confidentiality, scientific/academic integrity, and informed consent
- Recognize and identify deficiencies in peer performance
- Teach junior colleagues or peers
- Admit to and seek help in remedying errors
- Interact with nursing staff and other professionals as two-way educational opportunities when current approach does not appear to be effective
- Participation in relevant hospital committees

Interpersonal and Communication Skills: ***Fellows are expected to demonstrate interpersonal and communication skills that enable them to establish and maintain professional relationships with patients, families, and other members of health care teams.***

- Provide effective and professional consultation to other physicians and health care professionals and sustain therapeutic and ethically sound professional relationships with patients, their families, and colleagues.
- Use effective listening, nonverbal, questioning, and narrative skills to communicate with patients and families
- Counsel and educate patients and families
- Communicate effectively in times of dynamically changing conditions
- Interact with consultants in a respectful, appropriate manner
- Communicates clearly, correctly, and concisely in a written report, stressing the important issues and an articulate plan.

- Maintain comprehensive, timely, and legible medical records
- Use nomenclature and writing standards consistent with that of the institution
- Transfer care of the patient in a manner that ensures patients safety, comfort, and continuity
- Display support & empathy to patients and their families, as witnessed by attending staff or reported to staff
- Demonstrate respect for and recognition of particular skill sets possessed by other CC practitioners, such as CC nurses, RT, PT, OT, dieticians, pharmacists.
- Considers ethical issues and patient wishes in treatment decisions
- Organize and coordinate a teaching conference program for house staff and ICU nurses; learn how to prepare a high-quality presentation.

Systems-Based Practice: ***Fellows are expected to demonstrate both an understanding of the contexts and systems in which health care is provided, and the ability to apply this knowledge to improve and optimize health care.***

- Understand, access and utilize the resources, providers and systems necessary to provide optimal care
- Understand the limitations and opportunities inherent in various practice types and delivery systems, and develop strategies to optimize care for the individual patient
- Apply evidence-based, cost-conscious strategies to prevention, diagnosis, and management
- Collaborate with other members of the health care team to assist patients in dealing effectively with complex systems and to improve systematic processes of care
- Demonstrate the Critical Care Practitioner's role as patient/quality care advocate
- Establish multidisciplinary relationships needed to effect quality care
- Participate actively in coordinated multidisciplinary patient care plans
- Utilize established quality management procedures to facilitate care (e.g.,standing order sets)
- Participate actively in PCCM, multidisciplinary M&M or case conferences
- Develop and coordinate multidisciplinary patient care plans
- Interpret drug costs in context of outcomes (e.g., activated Protein C, rVIIa)
- Discuss the issues of patient safety including the medical systems that put patients at risk, medication, operations, transfusions & nursing ratios.
- Recognize, describe and ensure compliance with institutional and unit policies & procedures as well as regulatory policies from accreditation agencies, regulators, and payers
- Become familiar with the VA home page and how to access performance information

Instructional Methods:
Introductory Lecture Series, Web-Based Curriculum (RICU), Weekly Critical Care Fellows Conference, Multidisciplinary ICU lecture Series.

Methods of Assessment:

- Competency-based staff evaluations
- Ancillary care provider evaluations
- Critical incident reporting
- Conference attendance and participation
- Structured evaluations of airway management, central line placement,
- Completion of PACEP / ATS Primer on Hemodynamic Monitoring (First year Fellows)
- Web-Based Instruction on Bioterrorism (Second Year Fellows)
- Participation in quality improvement project (First and Second Year Fellows)

References:
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Improving the ICU:Part 2, Garland A, Chest 2005; 127:2165–2179

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Bench-to-bedside review: Dealing with increased intensive care unit staff turnover: a leadership challenge, Laporta DP, Burns J, Doig CP *Critical Care* 2005, 9 ttp://ccforum.com/inpress/cc3543

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ICU Incident Reporting Systems, Wu AW, et al. *Journal of Critical Care 2002;*17(2):86-94

Understanding and Responding to Adverse Events, Vincent C, NEJM 2003;348(11):1051- 1056

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Clinical Decision Making during Public Health Emergencies: Ethical Considerations, Lo B, Katz MH, Ann Intern Med. 2005;143:493-498

OSHA Best Practices for Hospital-Based First Receivers of Victims
http://www.osha.gov/dts/osta/bestpractices/firstreceivers_hospital.html

Human Performance/Education:

Evidence for the Effectiveness of Techniques To Change Physician Behavior, Smith WR, Chest 2000; 118:8S–17S

Improving Patient Safety in Critical Care Environments

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Institute of Healthcare Improvement http://www.ihi.org/ihi

IHI Innovation Series 2003:

- Move Your DotTM
- Measuring, Evaluating, and Reducing Hospital Mortality Rates
- Optimizing Patient Flow: Moving Patients Smoothly Through Acute Care Settings
- The Breakthrough Series: IHI's Collaborative Model for Achieving Breakthrough Improvement
- Improving the Reliability of Health Care
- Transforming Care at the Bedside

IHI Innovation Series 2004

- Improving the Reliability of Health Care
- Transforming Care at the Bedside
-

IHI Innovation Series 2005

- Seven Leadership Leverage Points for Organization-Level Improvement in Health Care
- Going Lean in Health Care
- Process for Running Effective Meetings
- Reducing Hospital Mortality Rates (Part 2)

IHI Innovation Series 2006

- A Framework for Spread

Transport:

Incidents relating to the intra-hospital transfer of critically ill patients:An analysis of the reports submitted to the Australian Incident Monitoring Study in Intensive Care, Beckmann IU, Gillies DM, Berenholtz SM, et al, Intensive Care Med 2004; 30:1579–1585

Websites:

Medical Response to Nuclear and Radiological Terrorism: National Center for Environmental Health and Public Health Training Network Satellite Broadcast
http://www.phppo.cdc.gov/PHTN/webcast/radiation-04/default.asp#

ACP Bioterrorism Resources http://www.acponline.org/bioterro/?idx#overview_gi

The Joint Commission International Center for Patient Safety http://www.jcipatientsafety.org/

The Emergency Case Research Institute- Dedicated to safety, cost-effectiveness, and quality of healthcare http://www.ecri.org/

Healthcare Improvement Skills Center http://www.improvementskills.org/

Agency for Healthcare Research and Quality http://www.ahrq.gov/

Joint Commission on Accreditation of Healthcare Organization http://www.jointcommission.org/

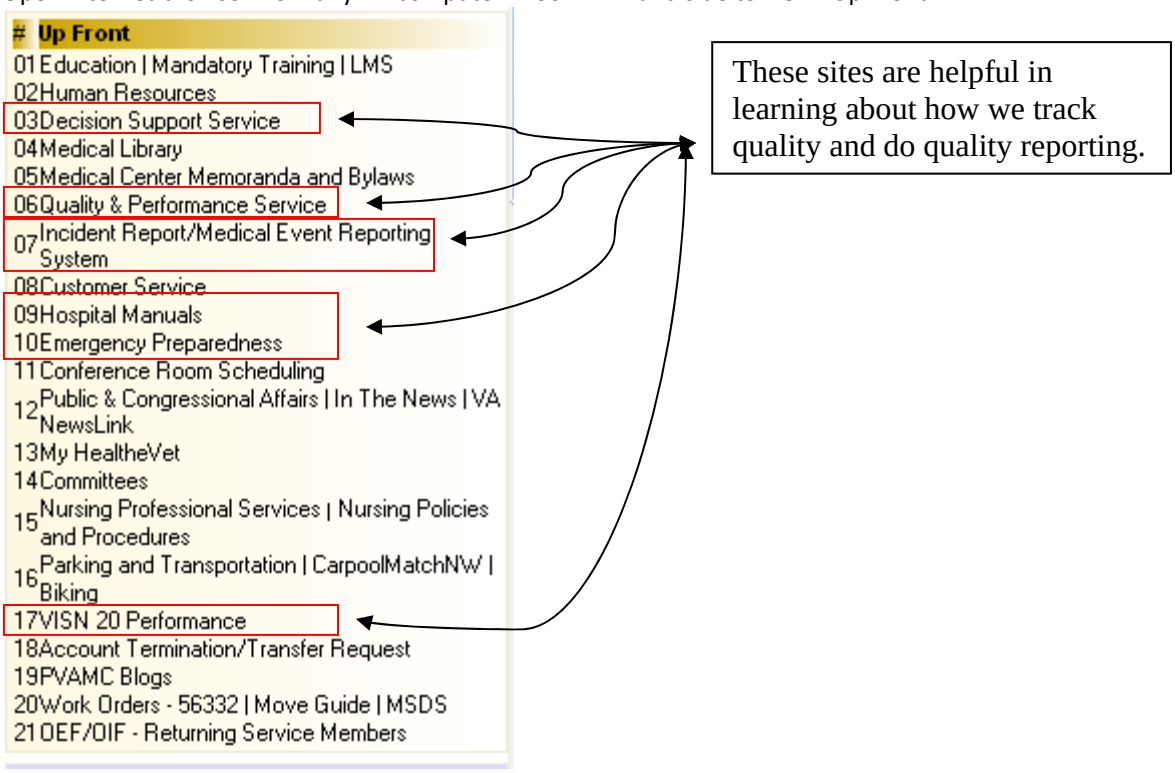
AHRQ:Mass Casualities-Overlooked community resources
http://www.hsrnet.net/ahrq/masscasualty/materials.htm

Public Health reporting for the State of Oregon
http://egov.oregon.gov/DHS/ph/acd/reporting/reportable.shtml

The Leapfrog Group http://www.leapfroggroup.org/

Centers for Medicare and Medicaid Services http://www.cms.hhs.gov/home/medicare.asp

Portland VAMC home page http://vaww.portland.med.va.gov/
Open internet browser from any VA computer – look in L hand side to view "Up Front"



Webcasts:

Radiological Terrorism-17 minute video http://www.bt.cdc.gov/radiation/justintime.asp

The Role of Public Health in a Nuclear or Radiological Terrorist Incident
http://www.phppo.cdc.gov/phtn/webcast/nuclear05/default.asp

The History of Bioterrorism http://www.bt.cdc.gov/training/historyofbt/

SARS: When a Global Outbreak Hits Home
http://www.publichealthgrandrounds.unc.edu/sars/ondemand/index.html

Example of Daily Schedule (Monday through Friday)

Before 0730 Pre-Round MICU/CCU and discuss discharge/transfer of MICU pt with USL
0830 - 0930 CCU Rounds
0930 – 1100 MICU Rounds
1100 – 1600 Patient care/conferences/resident education
1600 – 1700 Transition of care rounds
Night-time: Home call Monday – Friday with attending as back up. In-house presence as dictated by patient care and house staff education needs.

Work Space

The Fellow will have his/her own desk, file cabinet and book shelf space as well as computer access in 3D-173C. This room is across the hallway from the MICU Work Room and is not to be used by residents. The Fellow is encouraged to avoid using the MICU Work Room for computer access.

Educational conferences

	Monday	Tuesday	Wednesday	Thursday	Friday
0930-1000			VA Radiology conference, VA 2nd floor		
1200-1300	PCCM Research conference OHSU, BRB 381		Multidisciplinary Critical Care Conference, OHSU, SJH 4248		
1230-1330					PCCM Grand Rounds, VA bldg 101, Room 201
			PCCM Radiology conference, OHSU 10C		

Portland VA Medical Center Critical Care Staff

Director of Critical Care: Mark S. Chesnutt, MD

Cardiac Critical Care: Karen MacMurdy, MD, Director
Crispin Davies, MD — George Giraud, MD
Susan Grauer, MD — Greg Larsen, MD
Edward Murphy, MD — Merritt Raitt, MD
Elizabeth Lee, MD

Medical Critical Care: Jennifer LeTourneau, DO, Director
Mark Deffebach, MD — David Lewinsohn, MD, PhD
Daniel O'Hearn, MD — Jim Tuchschmidt, MD
Chris Slatore, MD — Tom Prendergast, MD

Surgical Critical Care: Christina Rehm, MD, Director
Robert Goldman, MD — Betsy Soifer, MD
Lars Hegnell, MD — Miko Enomoto, MD
Matthew Griffee, MD — Per Thorburg, MD

Clinical Manager: Laurie Meyer, RN, MS
Assistant Clinical Manager: Julie Bunke, RN, MS
Clinical Nurse Specialist: Jenny Richardson, RN, MS, CNRN
Computer Specialist: Linda Smith, RN
Respiratory Therapy: Tom Prendergast, MD, Medical director
Jeanne Brosette, RRT, BS, MBA, Supervisor