Medical Intensive Care Rotation Description PGY1

Preceptor
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Learning Experience Description
The purpose of the MICU rotation is to allow the PGY1 resident to become familiar with aspects of critical care medicine. The resident will further expand his/her knowledge base and refine his/her pharmacotherapeutic skills in the identification and resolution of drug therapy problems in critically ill medical patients. The resident will fully assume patient care responsibility and assure positive drug therapy outcomes.

The MICU team consists of critical care physician team (attending, fellow, residents, interns, & medical students), dietician, and clinical pharmacist.

Common disease states/therapeutic issues of which the resident will be expected to gain understanding through literature review, topic discussion, and direct patient experience include:
- Prophylaxis and management of DVT/PE/HIT
- Gastrointestinal stress ulcer prophylaxis
- Gastrointestinal Bleeding
- Drug Overdose/Toxicology
- Analgesia, sedation, and neuromuscular blockade for critically-ill patients
- Adrenal Insufficiency in critically-ill patients
- Severe Sepsis
- Hemodynamic instability / Shock syndromes
- Management of selected infectious diseases
- Arrhythmias / ACLS guidelines
- Acid-base management
- Fluid and electrolyte management
- Principles of mechanical ventilation
- Pulmonary disease processes

Learning Experience Goals
R1.4: Demonstrate ownership of and responsibility for the welfare of the patient by performing all necessary aspects of the medication-use system.
R1.5: Provide concise, applicable, comprehensive, and timely responses to requests for drug information from patients and healthcare providers.
R2.1: As appropriate, establish collaborative professional relationships with members of the health care team.
R2.2: Place practice priority on the delivery of patient-centered care to patients.
R2.3: As appropriate, establish collaborative professional pharmacist-patient relationships
R2.4: Collect and analyze patient information.
R2.5: When necessary, make and follow up on patient referrals.
R2.6: Design evidence-based therapeutic regimens.
R2.7: Design evidence-based monitoring plans.
R2.8: Recommend or communicate regimens and monitoring plans.
R2.9: Implement regimens and monitoring plans.
R2.10: Evaluate patients’ progress and redesign regimens and monitoring plans.
R2.11: Communicate ongoing patient information.
R3.1: Exhibit essential personal skills of a practice leader.
E6.1: Identify a core library, including electronic media appropriate for the practice setting.
E2.5: Resolves conflicts through negotiation.
E7.2: Communicates effectively.
E7.3: Balance obligations to oneself, relationships; and work in a way that minimizes stress.
E7.4: Manage time to effectively fulfill practice responsibilities.

Daily Schedule
Daily rounds begin at 8:00am Monday through Friday, unless otherwise noted. The resident is expected to arrive early enough to review patients and identify issues to be addressed during morning rounds. The preceptor may choose to participate in morning rounds with the resident until the resident demonstrates and/or communicates that he/she is comfortable rounding alone. If not directly visible, the preceptor will be available via pager to assist with any issues that may arise. Following rounds, the resident will present each patient in greater detail, highlighting issues addressed on rounds in addition to any follow-up needs. The resident will be expected to support his/her recommendations and verbalize monitoring plans.

- Attend IRB meetings with preceptor as requested
- Attend Fox and Hedgehogs therapeutic discussions (Tuesdays 11:45am, PRB 206)
- Attend Medical Grand Rounds (Thursdays 7:45am, Light Hall)
- Attend Pharmacy Therapeutic Exchange (Thursdays 12:00pm, PCR)
- Attend pulmonary conferences (11:50am-1:00pm, Pulmonary Conference Rm B1308, MCN)

Learning Experience Requirements/Responsibilities
- Effectively use the institution’s technology and automation systems (StarPanel, HEO, HMM, AdminRx) to collect, analyze, and monitor patient data relating to pharmacotherapy (R6.1)
- Review MICU patients on the aminoglycoside and warfarin dashboards, and document in Star Panel as necessary (R2.4, R2.7, R2.10)
- Collect and assess patient laboratory values and vital signs daily. (R2.4; R1.4)
- Generate patient-specific databases (e.g. past medical history, prior therapy, etc.) that allows the resident to make rationale drug therapy recommendations. Additionally, the resident should assess the patient’s medication history for
Review the patient’s drug therapy to determine the appropriateness of the drug, its indication, the dosage regimen, route/method of administration, compliance, the presence of any therapeutic duplications, therapeutic outcomes, cost, and avoidance of adverse drug events and other negative interactions each day. (R2.4; R2.6)

Round with the medical team each morning and provide pharmacotherapeutic recommendations. (R1.4; R2.1; R2.2; R2.3; R2.8; R2.10; R2.11; R3.1; E7.2; E2.5)

Design therapeutic regimens to achieve the pharmacotherapeutic goals for the patients utilizing evidence-based medicine. (R2.6)

Design monitoring plans that effectively measure the achievement of pharmacotherapeutic goals and take into account patient-specific factors (R2.7; R2.8; R2.9; R2.10)

Ensure the continuity of pharmaceutical care to and from the acute setting. (R2.11)

Review patients with preceptor daily and assure all aspects of patient care as it relates to pharmacy are addressed. (R1.4; E7.4; E7.3; E7.2; R3.1; E6.1; R2.12-2.11)

Document clinical activities performed by the resident and report adverse drug events. Obtain familiarity with and assure compliance to institutional policies and procedures for drug use evaluation guidelines and restricted drugs. (R2.12; E7.2; R2.11; R2.12)

Provide timely responses to drug information requests from your team, nursing staff, other pharmacists, preceptor, and other health care providers. (E6.1; R1.5)

Counsel patients on new treatment regimens. (R2.8; R2.9; E7.2)

Prioritize rotation responsibilities and additional requirements of the residency program (e.g. set up time for residency project at beginning of the month) (R3.1; E7.3; E7.4)

Exhibit professional behavior (e.g. appropriate dress/language, prepared for rounds/discussions, etc.) throughout the month. (R3.1)

**Required Criteria Based Assessments and Rotation Assignments:**
- Care Plan with Self Evaluation (R2.1-2.10; E7.2; E6.1)

**Optional: (PGY1 Residency Requirements)**
- Drug Therapy Problem Solving with Self Evaluation (R1.2; R1.4; RE 2.5)
- Patient Counseling with Self Evaluation (E7.2)
- Documentation with Self Evaluation (R2.12)
- Researched Drug Information (R1.5)

- Reading for the MICU rotation includes:
  - Acute Coronary Syndromes: Evolving Practices (PSAP BCPS Book 1)
  - Acute Heart Failure and Cardiogenic Shock (PSAP BCPS Book 1)
  - Hemorrhagic Stroke (PSAP BCPS Book 3)
  - Health Care Professional Information on the Web (PSAP BCPS Book 4)
Lower Respiratory Tract Infections in Primary Care (PSAP BCPS Book 5)
- Community-Associated Methicillin-Resistant Staphylococcus Aureus (PSAP BCPS Book 5)
- Update on the Treatment of Endocarditis (PSAP BCPS Book 5)
- Nosocomial Pneumonia (PSAP BCPS Book 5) – required reading
- Chronic Obstructive Pulmonary Disease (PSAP BCPS Book 6)
- Acute Respiratory Distress Syndrome (PSAP BCPS Book 6)
- Central Nervous System Syndromes in Critically Ill Adults (PSAP BCPS Book 6)
- Endocrine Syndromes in the ICU (PSAP BCPS Book 6)
- Pulmonary Arterial Hypertension (PSAP BCPS Book 6)
- Current guidelines for treatment of endocarditis found at http://circ.ahajournals.org/cgi/reprint/111/23/e394

**Method of Evaluation**

Evaluation of residents will be based on the Resident Learning System (RLS). Evaluation will consist of a summative evaluation upon rotation completion, in addition to any criteria-based checklists submitted by the resident. The specific goals and objectives, on which the resident will be evaluated, will be provided at the beginning of the rotation. Residents will be requested to complete a self-evaluation for all evaluations. Residents will also be required to complete a learning experience evaluation and a preceptor evaluation. Evaluations are completed in the evaluation database. All work to be evaluated on rotation must be turned in for review no later than the last day of the rotation.