

## **PEDS8027**

### Pediatric ICU AI

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#### **Course Goals**

1. Provide patient care that is compassionate, appropriate and effective for the treatment of health problems.
  2. Recommend and interpret common diagnostic tests and vital signs.
  3. Provide complete, well-organized documentation of a clinical encounter.
  4. Provide a complete, well-organized oral presentation of a pediatric patient.
  5. Recognize a pediatric patient requiring urgent or emergent care and seek help appropriately.
  6. Communicate effectively with patients, families and all members of the health care team.
  7. Demonstrate professionalism by showing compassion, integrity and respect for others, responsiveness to patient needs and accountability to course requirements.
  8. Demonstrate the medical knowledge necessary to care for common pediatric conditions.
  9. Provide high-quality care and advocate for patients within the context of the health care system.
  10. Use evidence-based medicine and self-directed learning in the care of patients and education of others.
  11. Develop the attitudes and skills necessary for self-reflection that leads to improvement in practice.
  12. Participate in and contribute to the work of the healthcare team around continuity of care during transitions between providers or settings.
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#### **Clinical Learning Objectives**

##### **Clinical**

##### *Interpersonal and Communication Skills*

1. Elicit and recognize the perspectives and needs of families and provide care for patients within their social and cultural context.
2. Write organized, appropriately focused, and accurate patient notes, including admission, progress, cross-cover, and discharge notes and summaries.
3. Deliver organized, appropriately focused, and accurate oral patient presentations.
4. Communicate effectively with patients and families across a broad range of socioeconomic and cultural backgrounds.
5. Demonstrate relationship-building skills in each clinical encounter and inter-professional exchange.
6. Gather patient information using active verbal and non-verbal listening skills, clarifying and summarizing statements, and open-ended and closed-ended questions.
7. Share information with the patient and family in a way that facilitates their understanding.
8. Include the family in the decision-making process to the extent they desire.
9. Provide education and patient instructions to patients and families, using written or visual methods, taking into account their health literacy level.
10. Recognize the situations in which interpreter services are needed and demonstrate how to use these services effectively.
11. Communicate information accurately and efficiently to all care team members, including the primary care provider.
12. Convey concise, pertinent information at the time of hand-offs.
13. Frame a question for a consultant and communicate the patient information and clinical question effectively.
14. Participate in the education of patients, families, and the health care team.

##### *Interprofessional Collaboration*

1. Demonstrate the appropriate utilization of consultants, including social workers, nutritionists, and physical therapists during hospitalization.

### *Medical Knowledge for Practice*

1. Recognize variations in common laboratory findings and vital signs, such as: heart rate, respiratory rate, and blood pressure; BUN and creatinine; cerebrospinal fluid; complete blood count and differential; and chest x-ray.
2. Describe the diagnostic evaluation and management of hospitalized patients with the following conditions: abdominal pain or distention; altered mental status (e.g., irritability, lethargy, seizure); fluid, electrolyte and acid-base disturbances; fever (including in immunocompromised patients); and respiratory distress.
3. Identify criteria for admission to the intensive care unit (ICU) and discharge from the hospital.
4. Describe the impact of chronic illness on a patient's clinical findings and management.
5. Describe the signs and symptoms that suggest deterioration (including signs of shock and respiratory failure) or improvement of a patient's clinical condition.
6. Describe principles of pain assessment and management.
7. List drugs of choice and rationale for their use in common pediatric illnesses.
8. Calculate doses of medication based on age, weight, body surface area, and diagnosis.
9. Calculate fluid and electrolyte requirements for children based on weight, caloric expenditure, diagnosis, and fluid status.
10. Describe the indications, contraindications, risks and benefits of the following procedures: arterial puncture; intravenous catheter insertion; lumbar puncture; nasogastric tube insertion; urethral catheterization; and venipuncture.
11. Recognize opportunities of preventive services in hospitalized patients.
12. Describe the elements of informed consent.
13. Describe the epidemiology, pathophysiology, and clinical findings of common pediatric conditions that require hospitalization.
14. Describe how age and development influence clinical findings and epidemiology of common pediatric conditions.

### *Patient Care*

1. Independently collect both focused and comprehensive, developmentally appropriate patient histories.
2. Independently perform both focused and comprehensive, developmentally appropriate physical exams.
3. Synthesize information to formulate a differential and primary diagnosis.
4. Identify the reason for the patient's admission.
5. Suggest appropriate diagnostic tests for the patient's chief complaint and other medical problems.
6. Modify the primary diagnosis based upon interpretation of diagnostic studies.
7. Develop a prioritized management plan with the health care team and describe a rationale for the clinical plan.
8. Identify patient discharge needs and include in daily plan.
9. Summarize interval patient information and rationale for ongoing clinical management.
10. Manage time effectively in completing patient care tasks.
11. Identify relevant clinical information necessary for hand-offs.
12. Reassess patients continuously (e.g., when assuming care, throughout the day and throughout the hospital course).
13. Formulate appropriate orders.
14. Prepare prescriptions.
15. Recognize how clinical uncertainty affects patient care.
16. Practice appropriate infection control measures while caring for patients.
17. Develop a prioritized and inclusive problem list.
18. Demonstrate family-centered approach to patient care (e.g., incorporating patient and family perspectives into the management plan).
19. Coordinate transition from ICU to non-ICU units including identifying medical needs and arranging follow-up.
20. Recognize patients requiring immediate attention by supervising physician.

### *Personal and Professional Development*

1. Acknowledge own uncertainty.
2. Recognize the impact of stress, fatigue, and illness on learning and performance.
3. Develop a plan for improvement.
4. Improve one's own practice by soliciting and incorporating feedback.
5. Identify strengths, deficiencies, and limits in one's knowledge and clinical skills through self-evaluation.
6. Develop a plan for improvement.

#### *Practice-Based Learning and Improvement*

1. Use information technology to optimize learning.
2. Demonstrate evidence-based clinical practice.
3. Critically appraise relevant literature.
4. Incorporate evidence from the literature into patient care.
5. Access appropriate resources to answer clinical questions.

#### *Professionalism*

1. Identify one's own reactions to patients and families, recognize when these reactions interfere with effective communication, and manage these reactions properly.
2. Demonstrate personal accountability to patients, colleagues, and staff in order to provide the best patient care.
3. Demonstrate integrity, compassion, respect, altruism, and empathy when interacting with all members of the health care team, patients and their families.
4. Provide culturally effective care.
5. Adhere to institutional guidelines, including those regarding attire, language, documentation, and confidentiality.
6. Maintain appropriate professional boundaries with patients, families, and staff.
7. Recognize and appropriately act on unprofessional behavior demonstrated by others.
8. Demonstrate punctuality and ability to complete patient care tasks efficiently.
9. Identify the perspectives of patients, families, self and other healthcare team members.
10. Analyze how perspectives may conflict and converge.
11. Demonstrate altruism in negotiating a plan of care.
12. Identify the important role of culture in the care of each patient.
13. Demonstrate a patient-based approach to cultural competence.
14. Elicit the cultural factors that may influence care of the patient.
15. Recognize how one's own beliefs affect patient care.

#### *Systems-Based Practice*

1. Recognize the role of systems solutions in improving patient safety.
2. Recognize the impact of health insurance status on patient care and availability of services.
3. Recognize the existence of health care disparities and their impact on patient care.
4. Recognize, address, and work to prevent errors and near-misses.

### **Cross Cover Logs**

#### *Systems-Based Practice*

1. Keep a log of all patient care tasks that you perform during periods of cross cover for your patients and patients who you cross cover.

### **Direct Communication Observation**

#### *Interpersonal and Communication Skills*

1. Practice your advanced communication and shared-decision making skills related to high value, cost-conscious medicine. Engage in a conversation with a family, patient, or consultant that focuses on an aspect of high value

care while being observed by a faculty member.

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## Didactic Learning Objectives

### Cross Cover Experience

1. Demonstrate cross coverage on every call shift.
2. Organize and prioritize responsibilities to provide care that is safe, effective and efficient.
3. Demonstrate trustworthiness that makes colleagues feel secure when you are responsible for the care of patients.

### Cross Cover Reflective Writing

1. Reflect about a specific scenario encountered with a patient you cross-covered overnight, either an experience that went well or was particularly challenging.

### High Value Care and Cross Cover Small Group Discussion

1. Discuss and share your High Value Care reflective writing piece and Fishbone Diagram with peers and faculty.
2. Discuss and share your cross cover reflection.

### High Value Care, Cost-Conscious Medicine Curriculum and Educational Modules

1. Explain what is high value, cost-conscious medicine.
2. Rate high value care (HVC) as important to the future of our healthcare system and patient care.
3. Demonstrate effective communication skills for discussing high value care with patients, families and consultants.
4. Rate communication about high value, cost-conscious medicine with patients, families, and consultants as critical and beneficial to patient care.

### HVC Reflective Writing

1. Reflect on a patient encounter or experience where high value medicine may OR may not have been discussed or provided to a patient/family.

### Mid-Point Feedback

1. Discuss an example utilizing feedback; the circumstances regarding the situation; how the feedback and outcome changed behavior; and self-reflection surrounding the feedback.

### Quality Improvement Assignment

1. Identify a patient hospitalization that lead to an unintended consequence regarding patient care.
2. Use a Fishbone Diagram, a visual Quality Improvement (QI) tool, also known as a "Cause-and-Effect Diagram," to identify and analyze the individual and system factors that contributed to the unintended consequence or problem.
3. Identify potential system-based solutions that could prevent similar medical problems or consequences in the future.