

4.04 EDUCATION

Introduction

Pediatric hospitalists can serve many roles in education, including teaching others in clinical settings, creating curriculum, directing educational programs, and serving in formal roles in both undergraduate and graduate medical education administration. Additional educational opportunities include training future hospitalists and directing continuing medical education programs. Pediatric hospitalists are teachers, educating hospital staff, learners (medical students, other health profession students, residents, and fellows), community clinicians, organizations, patients and the family/caregivers, and colleagues. Hospitalists in community and university/children's hospital systems serve a pivotal role in teaching learners and/or other healthcare providers on the hospital wards and via hospital related didactic or simulation sessions. In addition to educating others, lifelong learning requires hospitalists to engage in ongoing education targeting personal goals and career plans. Education is therefore essential for all pediatric hospitalists, with specific competencies addressed in the context of the specific learner-educator environment.

Knowledge

Pediatric hospitalists should be able to:

- Explain why a continuum of competencies throughout a professional career is required and illustrate the benefits and challenges of this expectation.
- Review the use of education for patients and the family/caregivers, attending to daily discussions around clinical care and transition of care needs.
- Cite examples of using of evidence-based medicine literature review for education, including discussions on ward rounds, journal club, and self-learning.
- List resources and activities for continuous learning to maintain current knowledge and skills.
- Compare and contrast teaching from supervision of learners.
- Compare and contrast different teaching and learning preferences, attending to elements such as sensory modes (visual, auditory, kinesthetic/motor), group size, setting, and other factors.
- Define common terms and phrases used in adult learning theory, including assessing learner needs, establishing learner goals, active learning, self-directed learning, reflection, and others.
- Discuss how the principles of adult learning theory can be used in leading daily learning activities in clinical and didactic settings.
- Cite the value of ongoing self-directed learning and continued use of an individualized learning plan at all career stages.
- Describe how competencies and performance indicators are used in the evaluation of physicians at all career stages.
- Describe the pediatric competencies currently required by regulatory agencies such as the Liaison Committee of Medical Education (LCME), Accreditation Council for Graduate

Medical Education (ACGME), and the American Board of Pediatrics (ABP).

- Describe the six mandated ACGME competency domains: patient care, medical knowledge, practice-based learning and improvement, interpersonal skills and communications, professionalism, and systems-based practice.
- Articulate how pediatric hospitalists can use each of the six core competencies to educate in the context of the inpatient setting and the larger healthcare system.
- Explain how learners benefit from knowing their learning goals at the beginning of an educational experience.
- Compare and contrast the advantages and limitations of the following evaluation methods: oral exams, written tests, global evaluations, direct observations with checklists, and multi-source (360 degree) evaluations.
- Describe the elements of effective feedback.
- Define "formative feedback" and "summative evaluation," identifying the similarities and differences in each.
- Describe the common effects of evaluation on the motivation and learning priorities of learners.
- Review the steps involved in curriculum development, including performing a needs assessment, creating competency-based goals and objectives, selecting teaching activities to match learning objectives, creating a learner assessment and a program evaluation, and securing resources.
- Summarize how a curriculum can be applied to a single learning activity, a longitudinal curriculum, or a comprehensive educational program.

Skills

Pediatric hospitalists should be able to:

- Orient learners to inpatient ward rotation expectations, including learning goals and objectives, patient care and team responsibilities, systems, policies, and procedures for the rotation.
- Integrate use of established clinical pathways and educate learners on their correct use.
- Educate learners about the important blend between service and education.
- Identify and abate potential issues related to patient safety, professionalism, and communication that may occur when learners are involved in care teams.
- Identify learner needs and deliver education to best match the individual or learner group.
- Determine the level of a learner's ability and allow graduated autonomy in clinical decision-making.
- Utilize "teachable moments," such as case-based learning and role modeling, in the context of teaching in the inpatient setting.
- Demonstrate efficient and flexible use of time when adaptively teaching and using self-directed learning activities.
- Demonstrate basic skills in teaching and supervision methods, including bedside teaching, teaching during rounds, and case-based discussions.
- Provide role modeling, with priming, articulation of thought process, and debriefing.

- Create and deliver didactic teaching on relevant topics in pediatric hospital medicine.
- Teach a specific skill or procedure in the clinical and/or simulation environments.
- Utilize basic skills in questioning, including broadening, justifying, hypothetical, and alternative.
- Educate patients and the family/caregivers about the diagnostic testing, management plan, and prognosis in an interactive, family centered manner.
- Promote and facilitate learner reflection on own performance at clinical encounters to enhance learning.
- Provide frequent, effective feedback based upon direct observation of learners' clinical, communication, technical skills, and professionalism.
- Write effective learner summative evaluations that reflect verbal feedback given.

Attitudes

Pediatric hospitalists should be able to:

- Realize the importance of promoting a climate of continuous learning by acknowledging personal knowledge gaps and prompting learners to teach each other.
- Model effective and empathetic communication with patients and the family/caregivers when educating.
- Encourage learners to be self-directed and to learn independently.
- Exemplify professional behavior by being prompt, prepared, available, and approachable in educational efforts.
- Acknowledge the value of building and maintaining teamwork by providing reinforcing as well as corrective feedback.

- Role model effective balance of clinical care, communication, and teaching needs during family centered rounds.

Systems Organization and Improvement

In order to improve efficiency and quality within their organizations, pediatric hospitalists should:

- Participate with training programs to create, maintain, and implement education in the hospital setting.
- Collaborate with hospital administrators to maintain adequate learner supervision to ensure patient safety, while encouraging development of autonomous practice.
- Lead, coordinate, or participate in multidisciplinary initiatives to promote quality improvement, patient safety, cost effective care, evidence-based medicine, and effective communication around inpatient pediatric care.
- Collaborate with hospital administration and training program directors to balance teaching, patient care responsibilities, and patient safety and maximize the effectiveness of each.
- Collaborate with hospital administration to ensure adequate teaching facilities.

References

1. Ende J. Feedback in clinical medical education. *JAMA*. 1983;250:777-781.
2. Fromme HB, Bhansali P, Singhal G, Yudkowsky R, Humphrey H, Harris I. The qualities and skills of exemplary pediatric hospitalist educators: a qualitative study. *Acad Med*. 2010;85(12):1905-1913. <https://doi.org/10.1097/ACM.0b013e3181fa3560>.
3. Thomas PA, Kern DE, Hughes MT, Chen BY. *Curriculum Development for Medical Education: A Six-Step Approach*. Baltimore, MD: Johns Hopkins University Press; 2016.