Domain of Competence: Patient Care

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THE PATIENT CARE domain contains the greatest number of competencies of the 7 domains of competence considered by pediatrics. Combined with a historical emphasis on the central nature of patient care to physician practice, it may be tempting to assume the number of competencies in this domain means it is the most important or is sufficient to stand alone. On the contrary, looking beyond patient care to the other domains is essential to meeting the Institute of Medicine goals of providing care that is safe, effective, efficient, patient centered, timely, and equitable.[1] Further, the competencies in the domain of patient care are far from independent. Indeed, much overlap exists between many of the patient care competencies and competencies in other domains, such as interpersonal and communication skills, professionalism, personal and professional development, and medical knowledge.

Looking within the domain of patient care, there is a focus on competencies that go beyond the traditional emphasis on taking a history, performing a physical examination, and managing a patient's illness. In an era of focus on patient safety and duty hours limitation, transfer of care emerges as a critical competency. While clinical reasoning may already be considered a foundational aspect of patient care, we hope to draw attention to it in both curriculum and assessment of learners through defining explicit milestones for this competency. Finally, optimal patient care goes beyond competencies addressing the relationship between the physician and the patient and family. It is also includes the relationship between supervisors and trainees, necessitating competencies focusing on role modeling what it means to provide patient-centered care and the dance between the supervisor and the supervisee that balances safe care of the patient with the professional growth of the learner.[2]

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Competency 1. Gather essential and accurate information about the patient

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BACKGROUND: EARLY DEVELOPMENT OF INFORMATION-GATHERING SKILLS

In the early stages of clinical reasoning, learners must rely upon their knowledge of basic pathophysiology and principles learned in their preclinical training when they gather information about patients. This knowledge allows them to use analytic reasoning to generate mental maps, which are representations of how things are related and linked to one another. In this situation, mental maps represent the way in which components of a patient's history and physical examination are linked to one another as well as to the possible diagnoses.[1–5] With limited clinical experience, these mental maps can be both overly extensive and inappropriately convoluted, including information of no or

limited clinical relevance to the patient's current presentation. At the same time, the lack of clinical experience may result in neglecting important features of the history and examination. The end result is often limited connections between the pieces of information gathered.

Intermediate Development of Information-Gathering Skills

As they gain exposure to clinical practice, learners begin to link signs and symptoms of their current patient to patterns of signs and symptoms they have seen in previous patients. With increasing clinical experience, learners use these prior clinical encounters to help them filter and group the information gathered into more specific diagnostic categories and then gradually advance to creating illness scripts. These scripts are based on recognizing patterns of signs and symptoms seen in previous clinical encounters and can be thought of as mental scaffolding representing the characteristic features of specific illnesses.[1–6] Illness scripts are unique to each physician and become more robust with advancing clinical experience. As an example, the early development of an illness script for group A streptococcal pharyngitis may include fever, throat pain, and oropharyngeal erythema with exudates on examination. With further clinical experience, this illness script may advance to include the additional features of headache, abdominal pain, malaise, tender anterior cervical lymphadenopathy, and palatal petechiae. With still further experience, this illness script may advance to include features such as Pastia lines and circumoral pallor. As illustrated in this example, illness scripts become more robust and discriminating as they develop, allowing the physician to become more facile and exacting in gathering essential and accurate information about his patients.

Advanced Development of Information-Gathering Skills

As clinical expertise continues to develop, practitioners move from using prototypical illness scripts to creating more robust and elaborate scripts that incorporate specific characteristics of individual patients to form "instance" scripts.[1] Recognition and use of these subtle variations in disease and patient characteristics help to discriminate features of similar illnesses and enhance the precision and accuracy with which clinical information is gathered, thereby avoiding premature closure in the development of a differential diagnosis.[1,2] In the example of pharyngitis, this clinician would be open to the unexpected and may consider the possibility of a pseudomembrane when tonsillar exudate appears atypical. The clinician may subsequently suspect a diagnosis of diphtheria, even though many clinical characteristics overlap with group A streptococcal pharyngitis (throat pain, fever, headache, malaise, nausea, and cervical lymphadenopathy).

In the progression of information gathering, it is important not to misperceive pattern recognition as a higher-order cognitive process than analytic reasoning. Rather, the increased use of pattern recognition with advancing clinical experience simply represents the natural progression of information-gathering skills.[2] However, even master clinicians engage in analytic reasoning when presented with rare cases not previously encountered in practice.

DEVELOPMENTAL MILESTONES:

- Relies on a template to gather information that is not based on the patient's chief complaint, often either gathering too little or too much information in the process. Recalls clinical information in the order elicited,[7] with the ability to gather, filter, prioritize, and connect pieces of information being limited by and dependent upon analytic reasoning through basic pathophysiology alone.
- Relies primarily on analytic reasoning through basic pathophysiology to gather information, but the ability to link current findings to prior clinical encounters allows information to be filtered, prioritized, and synthesized into pertinent positives and negatives as well as broad diagnostic categories.
- Gathers information while it is simultaneously filtered, prioritized, and synthesized into specific diagnostic considerations (using advanced development of pattern recognition that leads to creation of illness scripts to accomplish this). Data gathering is driven by real-time development of a differential diagnosis early in the information-gathering process.[8]
- Gathers essential and accurate information to reach precise diagnoses with ease and efficiency when presented with most pediatric problems (using well-developed illness scripts to accomplish this), but still relies on analytic reasoning through basic pathophysiology to gather information when presented with complex or uncommon problems.
- Demonstrates effortless gathering of essential and accurate information in a targeted and efficient manner when presented with all but the most complex or rare clinical problems (using robust illness and instance scripts to accomplish this—instance scripts add specific details of individual patients to illness scripts). Able to discriminate among diagnoses with subtle distinguishing features.

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