



# Entrustable Professional Activities

## EPA 1 for Pediatric Infectious Diseases

### EPA 1: Promoting Antimicrobial Stewardship Based on Microbiological Principles

#### Supervision Scale for This EPA

1. Trusted to participate only
2. Trusted to lead with direct supervision and coaching
3. Trusted to lead with supervisor occasionally present to provide advice
4. Trusted to lead without supervisor present but requires coaching to improve member and team performance
5. Trusted to lead without supervision to improve member and team performance

#### Description of the Activity

A key role for subspecialists is to utilize antimicrobial agents to target specific pathogens, effectively treating infectious diseases in children across the pediatric age ranges while minimizing adverse reactions, cost, and the emergence of antimicrobial resistance within individuals and populations.

The specific functions which define this EPA include:

1. Understanding the mechanisms of action, pharmacokinetic (PK), pharmacodynamic (PD), and pharmacogenomic properties, and potential adverse reactions of antimicrobial agents
2. Utilizing antimicrobial PK and PD properties to optimize dosing in healthy children and also in special populations (e.g., patients with cystic fibrosis, renal, or hepatic dysfunction)
3. Recognizing and managing common drug interactions between antimicrobials and between antimicrobials and other therapeutic agents
4. Utilizing therapeutic drug monitoring to optimize outcomes and minimize adverse reactions in the inpatient and outpatient settings
5. Determining the appropriate length of antimicrobial therapy and implementing IV to oral conversions
6. Utilizing institutional antibiograms to recommend optimal empiric antimicrobial therapy for common infectious disease syndromes
7. Describing different antimicrobial stewardship methods (e.g., pre-approval, prospective-audit-and-feedback)
8. Knowing the relative advantages, disadvantages, and costs of various antimicrobial stewardship interventions
9. Knowing the relationship between antimicrobial use and resistance, selection of antimicrobial resistant pathogens, and adverse patient outcomes
10. Applying data gathering and epidemiologic principles to plan and implement surveillance and outcomes assessment of antimicrobial stewardship programs
11. Participating in the development of antimicrobial stewardship activities or clinical guidelines



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### Judicious Mapping to Domains of Competence

#### Patient Care

- ✓ Medical Knowledge
- ✓ Practice-Based Learning and Improvement
- ✓ Interpersonal and Communication Skills

#### Professionalism

- ✓ Systems-Based Practice
- ✓ Personal and Professional Development

### Competencies Within Each Domain Critical to Entrustment Decisions\*

MK 2:	Practicing EBM
PBLI 4:	Analyzing practice
ICS 3:	Communicating with health professionals
ICS 4:	Working as a member of a health care team
ICS 5:	Consultative role
SBP 3:	Incorporating cost awareness into care
SBP 5:	Working interprofessional teams
PPD 6:	Providing leadership to improve care

\*Based on original Pediatrics Subspecialty Milestones ©2015 ACGME/ABP. All rights reserved.

### Context for the EPA

**Rationale:** Pediatric infectious disease (ID) specialists have a responsibility to promote judicious use of antimicrobials across a variety of health care settings with the optimal agent(s) for the right length of time. This is a critical EPA to ensure appropriate use of antimicrobials thereby helping to reduce unnecessary antibiotic exposure, resistance, and adverse drug events in patients receiving antimicrobial therapy.

**Scope of Practice:** This document is intended to address the scope of knowledge and essential skills that must be mastered by the pediatric ID physician in order to provide antimicrobial stewardship in both healthy and immunocompromised patients, in inpatient and outpatient health care settings, and in the population at large. These activities range from detailed knowledge regarding a wide range of antimicrobials to an understanding of and ability to utilize different stewardship methods in various health care settings. Communication, another core skill, occurs with a broad constituency: patients, families, other health care providers, public health authorities, policymakers, and the media.