



Entrustable Professional Activities

EPA 1 for Pediatric Rheumatology

EPA 1: Demonstrate Competence in the Utilization of Immunomodulatory Therapy for Pediatric Rheumatology Patients

Supervision Scale for This EPA

1. Trusted to observe only
2. Trusted to execute with direct supervision and coaching
3. Trusted to execute with indirect supervision and discussion of information conveyed for most simple and some complex cases
4. Trusted to execute with indirect supervision but may require discussion of information conveyed for a few complex cases
5. Trusted to execute without supervision

Description of the Activity

Pediatric systemic inflammatory disorders are managed with immunomodulatory treatment. Utilization of these medications and understanding their risk-benefit profiles is a core element of patient management.

The specific functions which define this EPA include:

1. Applying medical knowledge that includes: the mechanisms of action, the different forms and formulations, indications for usage, relative costs, risks, benefits, and the potential complications of immunomodulatory therapy
2. Understanding cost and financial implications of medication usage in the context of the individual and broader population
3. Utilizing evidence-based literature, subspecialty guidelines, drug agency approvals, and black box warnings to guide therapy
4. Interpreting laboratory results or data related to the administration and/or contraindication of immunomodulatory therapy
5. Educating the patient, family and broader medical community on the indications and utility of immunomodulatory therapy
6. Advocating at the local, regional, and national level for access to immunomodulatory therapy for all children who would benefit
7. Contributing to quality improvement efforts to optimize the effective utilization of these therapies and participating in collaborative research efforts regarding immunomodulatory therapy
8. Providing/recommending appropriate referrals to other health care providers necessary for adjunctive evaluation and/or management

Judicious Mapping to Domains of Competence

- Patient Care
- Medical Knowledge
- Practice-Based Learning and Improvement
- Interpersonal and Communication Skills



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

Competencies Within Each Domain Critical to Entrustment Decisions

PC 6:	Using optimal clinical judgment
PC 7:	Developing management plans
PC 9:	Counseling patient and families
MK 2:	Practicing EBM
PBLI 4:	Analyzing practice
SBP 3:	Incorporating cost awareness into care
SBP 4:	Advocating for quality
PPD 8:	Dealing with uncertainty

Context for the EPA

Rationale: Pediatric rheumatologists must be able to appropriately utilize immunomodulatory therapy for patients with rheumatic conditions (systemic inflammatory, autoinflammatory, and autoimmune conditions). An understanding of the indications, mechanism of action, risks, benefits, and potential complications of immunomodulatory therapeutic agents is essential in order to provide optimal patient care.

Scope of Practice: Care is provided in the ambulatory and inpatient setting. The pediatric rheumatologists also serve as a resource for telephone, electronic, and remote consultation, and care is occasionally supervised in-home or at remote sites. The patient population includes all patients with rheumatic, inflammatory, and autoimmune diseases, and associated musculoskeletal conditions followed regularly in the pediatric rheumatology clinic and patients evaluated as requested consultations. Patients will range in age from newborns to young adults. This document is intended to address the scope of knowledge and skills of the pediatric rheumatologist, with the understanding that the pediatric rheumatologist will often need to create and lead multidisciplinary teams, require evaluation and management input from other health care professionals, and participate in quality improvement efforts.

Curricular Components That Support the Functions of the EPA

1. Applying medical knowledge that includes: the mechanisms of action, different forms and formulations, indications for usage, relative costs, risks, benefits, and the potential complications of immunomodulatory therapy

This includes the following therapies:

- Anti-cytokine therapy
- B-cell inhibitors
- Calcineurin inhibitors
- Cytotoxic agents
- Disease-Modifying Antirheumatic Drugs (DMARDs)



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- Glucocorticoids
- T-cell stimulation inhibitors
- Intracellular signaling pathway inhibitors
- Immunoglobulin therapy
- Plasma therapies and pheresis therapies

Immunomodulatory therapy may be used for the following common conditions:

- Juvenile arthritis
 - Systemic lupus erythematosus and related disorders
 - Idiopathic inflammatory myositis
 - Vasculitis
 - Sclerodermas and related disorders
 - Autoinflammatory diseases
 - Idiopathic uveitis
 - Overlap syndromes
2. Understanding cost and financial implications of medication usage in the context of the individual and broader population
 - Knows the cost of immunomodulatory therapies
 - Considers cost when making therapeutic decisions
 - Understands the effect of prescribing costly immunomodulatory therapy on the broader health care financing system
 3. Utilizing evidence-based literature, subspecialty guidelines, drug agency approvals, and black box warnings to guide therapy
 - Develops a clinical question regarding specific therapy using the PICO format
 - Searches the literature for evidence related to therapy focusing on the highest-grade evidence available
 - Interprets the evidence in light of its grade
 - Applies the evidence when utilizing immunomodulatory therapy given the particular context for that patient
 - Communicates and collaborates with experts when evidence is limited or absent
 4. Interpreting laboratory results or data related to the administration and/or contraindication of immunomodulatory therapy
 - Knows how normal laboratory values are affected by rheumatic, inflammatory, and autoimmune diseases, and associated musculoskeletal conditions
 - Knows how each of the immunomodulatory therapies may affect laboratory values
 - Interprets the laboratory values of patients receiving immunomodulatory therapy to determine risk of adverse effects and to help assess overall risk/benefit ratio
 - Monitors adherence to and effectiveness of treatment



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5. Educating the patient, family and broader medical community regarding the indications and utility of immunomodulatory therapy
 - Reviews with patient and family the previous treatments, their efficacy, and their adverse effects
 - Gathers and provides information on all available treatment options
 - Invites questions from the patient and family
 - Includes patient and family in a shared decision-making process
 - Discusses patient and family level of comfort for risks and benefits of therapy
 - Explains the risks of suboptimal adherence to immunomodulatory therapy
 - Demonstrates the need to periodically reassess the patient and family level of comfort with immunomodulatory therapy, and the adherence to the therapy
 - Educates primary care providers on the indications and potential complications resulting from the use of immunomodulatory therapies, and the impact of immunomodulatory therapy on routine well-child care
 - Communicates with other members of the team, consultants, and other providers regarding the rationale, risks, and benefits of instituting immunomodulatory therapy
 - Discusses the inherent uncertainty regarding the potential risks and benefits that may accompany the decision to institute immunomodulatory therapy
6. Advocating at the local, regional, and national level for access to immunomodulatory agents for all children who would benefit
 - Knows the resources available for patients and families with financial and social burdens and how that may limit their access to appropriate care
 - Effectively negotiates with third-party payers for patients who would benefit from immunomodulatory therapy
7. Contributing to quality improvement efforts to optimize the effective utilization of these therapies and participating in collaborative research efforts regarding immunomodulatory therapy
 - Analyzes one's practice systematically using quality improvement methods to improve the effective utilization of immunomodulatory therapy
 - Collaborates with other providers on quality improvement and other research efforts aimed at studying the effectiveness and safety of immunomodulatory therapy
 - Communicates improvement strategies effectively with other team members and leads the team in implementing these strategies
8. Providing/recommending appropriate referrals to other health care providers necessary for adjunctive evaluation and/or management
 - Refers patients with lupus nephritis, vasculitis with glomerulonephritis, and hypertension to a nephrologist
 - Refers patients with juvenile idiopathic arthritis or others at risk for ocular inflammation to an ophthalmologist
 - Refers patients with cutaneous manifestations of lupus, dermatomyositis, scleroderma, or vasculitis to a dermatologist
 - Refers patients with neurologic manifestations of rheumatic diseases (e.g., seizures, cerebritis, transverse myelitis) to a neurologist



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- Consults with pharmacists for patients in complex clinical situations potentially requiring dosing or other therapeutic adjustments (e.g., renal failure, individuals receiving pheresis, instances of potential medication interaction)
- Collaborates and communicates effectively with other subspecialists and providers to co-manage patients receiving immunomodulatory therapy

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