

Pediatric Appendicitis Treatment Guideline

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Assessment of Appendicitis:

Acute Uncomplicated	Complicated
Early in disease time course	Late in disease time course (> 72 hours)
Mild inflammation	Includes localized acute inflammation (phlegmon)
Without perforation or abscess	Extends beyond the hollow viscus of origin into peritoneal space

Microbiology:

Common Pathogens	Uncommon Pathogens – empiric coverage not recommended
Enterobacterales: E. coli (most common), K. pneumoniae, Enterobacter spp.	Enterococcus spp.
Anaerobes: Bacteroides fragilis	Pseudomonas aeruginosa
Streptococcus spp.	

Considerations for Obtaining Cultures:

Culture Source	Considerations
Situationally Recommended	
Blood cultures	 Recommended for patients with suspected appendicitis (complicated or uncomplicated) who: Are febrile AND hypotensive, tachypneic, or delirious
Intra-abdominal cultures	 Not recommended in patients with uncomplicated appendicitis undergoing an appendectomy Recommended in patients with complicated appendicitis who are having a procedure for source control Recommended for immunocompromised patients



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Non-Operative Management (NOM) of Early Appendicitis:

Inclusion	Exclusion	
 Age ≤ 18 years WBC ≤ 18,000 cells/µL Onset of pain ≤ 48 hours prior to antibiotic administration Imaging consistent with early, uncomplicated appendicitis Diameter of appendix ≤ 1.1 cm No abscess, perforation, phlegmon, appendicolith, or fecalith Risk/benefit discussion: high rate of recurrence Up to 34% of patients have recurrence and require an appendectomy within 1 year⁸ Patients who fail NOM have higher rates of perforation and healthcare utilization⁹ 	 Sepsis Immunocompromised Unreliable follow-up Pregnancy Previous appendicitis treated with NOM 	
Management		
 Initiate <u>IV antibiotics</u> + NPO status for 24 – 48 hours Stepdown to <u>oral antibiotics</u> upon documented clinical improvement Discharge after tolerating regular diet and oral antibiotics Provide caretaker education on monitoring and return precautions Continue antibiotics to complete a total of 7 – 10 days 		
Failure of Non-Operative Management:		
 Defined as clinical worsening or lack of improvement: Tenderness is similar to presentation, spread to further quadrants, or is now generalized Sepsis - febrile, tachycardia, hypotension, altered mental status Ongoing nausea/vomiting, unable to tolerate PO Persistent, unimproved pain Management of NOM failure: Repeat abdominal imaging OR for appendectomy Follow <u>operative pathway</u> 		



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References

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