



# University of Missouri Pediatric Service Line

Pediatric Emergency • Clinical Practice Guidelines

## Pediatric Acute Appendicitis Guideline

Child with history/exam concerning for acute appendicitis  
(see exclusion criteria)<sup>a</sup>

Obtain US abdomen RLQ

Consider transabdominal US pelvis if female

IV access, labs,<sup>b</sup> UA, urine HCG if female

Apply Pediatric Appendicitis Score (PAS)<sup>c</sup>

**Normal appendix  
on US**

**Equivocal US**

**Acute appendicitis  
on US**

**PAS < 4**

**PAS ≥ 4**

Apply Refined Low Risk  
Appendicitis Score<sup>d</sup>

**Low Risk**

Consider alternative  
diagnoses  
and work up

Do NOT obtain  
advanced imaging  
for appendicitis  
unless  
recommended by  
pediatric surgery

Yes

No

Consult  
pediatric surgery

Advanced  
imaging per  
pediatric surgery

Consult  
pediatric surgery

Give ceftriaxone  
and  
metronidazole  
(Use PowerPlan:  
**'PED SURG  
Appendicitis  
PreOp'** for antibiotic  
dosing)



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## Footnotes:

- Exclusion criteria: adults > 18 years, recent abdominal/bowel surgery, known diagnosis of IBD, suspected severe sepsis
- CBC with differential should be obtained in evaluation of possible appendicitis. CMP should be obtained if vomiting and/or concern for dehydration. CRP can be obtained for additional evidence of inflammation. Lipase should be obtained if epigastric pain/tenderness.
- Pediatric Appendicitis Score (PAS):<sup>1</sup>

Pediatric Appendicitis Score (PAS) Low Risk < 4; High Risk ≥ 7	
Nausea/vomiting	1
Anorexia	1
Migration of pain to RLQ	1
Fever	1
Cough/percussion/hopping tenderness	2
RLQ tenderness	2
Leucocytosis (WBC > 10,000)	1
Neutrophilia (ANC > 7,500)	1

- Refined Low Risk Appendicitis Score:<sup>2</sup>

Refined Low Risk Appendicitis Score
Absence of maximal tenderness in RLQ <i>or</i> RLQ tenderness w/o pain on walking, jumping or coughing <i>and</i> ANC < 6750/mm <sup>3</sup>
<b>NPV 95% for identifying children without appendicitis</b>

## References:

- Kharbanda AB, et al. Development and Validation of a Novel Pediatric Appendicitis Risk Calculator (pARC), *Pediatrics*. 2018; 141(4):e20172699.
- Kharbanda AB, et al. Validation and refinement of a prediction rule to identify children at low risk for acute appendicitis. *Arch Pediatr Adolesc Med*. 2012; 166(8):738-44
- Children's Hospital of Philadelphia Emergency Department Clinical Pathway for Evaluation/Treatment of Children with Suspected Appendicitis, 2024.