

APPENDICITIS EVALUATION

Inclusion Criteria

- Any child 0-18 years of age with history or exam findings concerning for appendicitis

Exclusion Criteria

- Known inflammatory bowel disease
- Prior appendectomy

If PAS is ≥ 8 , strongly consider Pediatric Surgery consult prior to imaging.

If unable to perform US at your facility, consider transfer in lieu of CT imaging

Index of Suspicion or Pediatric Appendicitis Score (PAS) *

* If labs/CBC have already been completed

| PEDIATRIC APPENDICITIS SCORE (PAS) | |
|--|---|
| RLQ tenderness | 2 |
| RLQ pain with cough, percussion, hopping | 2 |
| Fever | 1 |
| Nausea/vomiting | 1 |
| Anorexia | 1 |
| Migration of pain to RLQ | 1 |
| Leukocytosis (WBC > 10,000) | 1 |
| Neutrophilia (ANC > 7500) | 1 |

Moderate-High Suspicion or PAS ≥ 4

MALES

- US Abdomen – Limited
- If not done, labs: CBC, CMP
- Consider UA, STI testing (if age appropriate)
- Analgesia, IVF as indicated

FEMALES

- US Abdomen – Limited
- US Pelvis, non-OB
- If not done, labs: CBC, CMP, UA
- Serum/urine HCG, consider STI testing (if age appropriate)
- Analgesia, IVF as indicated

Low Suspicion or PAS ≤ 3

Consider alternative diagnosis and/or discharge home with PCP follow up in < 24 hours with strict return precautions OR continued observation with serial exams

Appendix Normal

Disposition options:

- Discharge home after PO trial once pain well controlled
- If unable to discharge, consider alternative diagnoses and/or admit to Pediatrics for serial exams after Surgery consult

No surgical admission or intervention anticipated

Appendix Not Seen or Equivocal for Appendicitis

Consult Surgery for recommendations regarding disposition and/or additional imaging (eg, MRI or CT abdomen/pelvis)

- Admit to Surgery for serial abdominal exams
- NPO, start MIVF
- NO antibiotics

Appendicitis or Perforation

- Once there is a **final** radiology report, consult Surgery for admission/OR
- Start antibiotics (see chart, page 2):
 - Metronidazole 10 mg/kg/dose IV Q8h (max 500 mg)
 - Ceftriaxone 50-75 mg/kg/dose IV Q24h (max 2000 mg)
 - OR, if severe cephalosporin allergy
 - Metronidazole 10 mg/kg/dose IV Q8h (max 500 mg)
 - Ciprofloxacin 10-15 mg/kg/dose IV Q12h (max 400 mg)
- NPO, start maintenance IV fluids
- Continue appropriate pain management

Additional Imaging?

No appendicitis

Appendicitis

* REFERRING FACILITIES *

(Transfer Center: 504-842-2313)

- If a CT abdomen-pelvis is performed at a referring facility and is **positive**, please contact **OMC Pediatric ED** for consultation/possible direct admission.
- If a CT abdomen-pelvis is performed at a referring facility and is **negative**, please contact **OMC Pediatric ED** for consultation/ED-to-ED transfer.

ANTIMICROBIAL DOSING CHART:

| Indication | Common Pathogens | Preferred Therapy | Severe Cephalosporin Allergy | Duration |
|--------------|---|---|---|--|
| Appendicitis | Escherichia coli Bacteroides fragilis Streptococcus anginosus Pseudomonas aeruginosa | Ceftriaxone (IV) 50-75 mg/kg/dose Q24h (Max dose 2,000 mg) PLUS Metronidazole (IV/PO) 10 mg/kg/dose Q8h (Max dose 500 mg) | Ciprofloxacin (IV) 10-15 mg/kg/dose Q12h (Max dose 400 mg) PLUS Metronidazole (IV/PO) 10 mg/kg/dose Q8h (Max dose 500 mg) | <u>Uncomplicated</u> : Pre-op dosing only <u>Perforated</u> : Duration of therapy variable and based on clinical course |
| | | <i>For perforated appendicitis, switch to oral when clinically appropriate:</i> Amoxicillin-Clavulanate (PO) 20-25 mg/kg/dose Q12h (Max dose Amoxicillin 800 mg liquid / 875 tablet) Use 7:1 formulations: <ul style="list-style-type: none"> • Amoxicillin 400 mg/Clavulanate 57 mg • Amoxicillin 875 mg/Clavulanate 125 mg | <i>For perforated appendicitis, switch to oral when clinically appropriate:</i> Ciprofloxacin (PO) 10-20 mg/kg/dose Q12h (Max dose 500 mg) PLUS Metronidazole (PO) 10 mg/kg/dose Q8h (Max dose 500 mg) | |

References:

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9. St Peter S, Little D, Calkins C, et al. A simple and more cost-effective antibiotic regimen for perforated appendicitis. *J Pediatr Surg* 2006;41:1020-4.
10. St Peter S, Tsao K, Spilde T, et al. Single daily dosing ceftriaxone and metronidazole vs standard triple antibiotic regimen for perforated appendicitis in children: a prospective randomized trial. *J Pediatr Surg* 2008;43:981-5.