

EVALUATION FOR SUSPECTED ACUTE APPENDICITIS PEDIATRIC EMERGENCY MEDICINE

© BCH Emergency Department

1. Perform Complete H&P:

- History: include duration and course of symptoms, fever, vomiting, oral intake, diarrhea, bloody stools, urinary symptoms, GYN history, exposures, sick contacts, rash, sore throat, travel history.
- PE: Include vital signs, abdominal exam, GU exam, complete skin exam. (Exit algorithm if alternative dx made or exclusion criteria met)

2. Lab evaluation:

- CBC, UA
- Consider CMP, lipase, bHCG

3. Pediatric Appendicitis Score (PAS):

- Cough/percussion/hopping tenderness in the right lower quadrant: **2 pts**
- Anorexia: **1 pt**
- Temp $\geq 38^{\circ}\text{C}/100.4^{\circ}\text{F}$: **1 pt**
- Nausea/emesis: **1 pt**
- RLQ tenderness: **2 pts**
- Migration of pain: **1 pt**
- WBC $\geq 10,000$: **1 pt**
- ANC $> 7,500$: **1 pt**

4. Ultrasound Criteria:

- Consider ultrasound evaluation of the ovaries in post-pubertal females.
- Concern for acute appendicitis and an intermediate PAS 3-6 without meeting any exclusion criteria.

5. UCSF IDMP Antibiotics:

- [Link to BCH UCSF acute appendicitis management algorithm](#)

6. Inflammation/Equivocal Ultrasound:

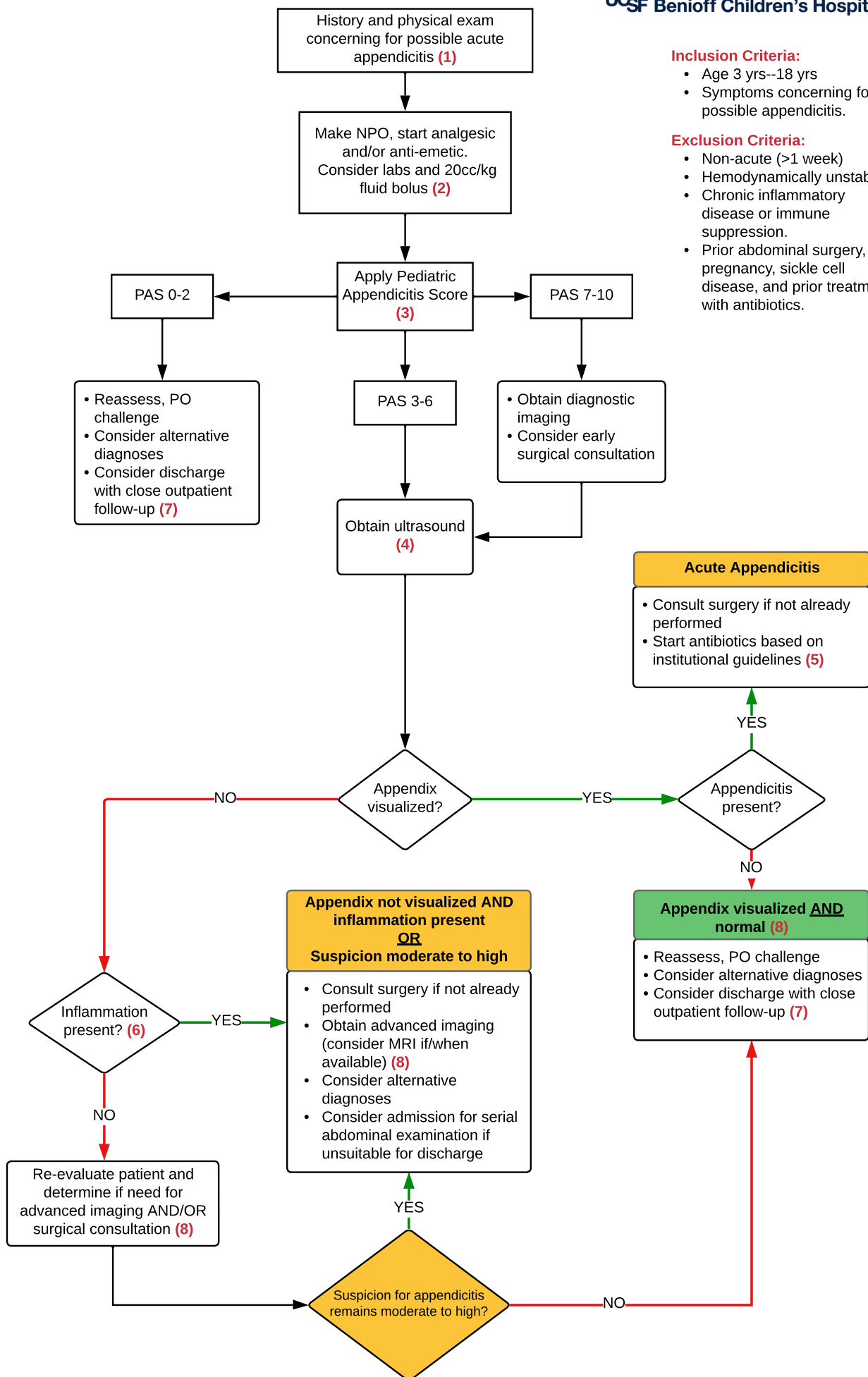
- May request attending read
- **Inflammation:** extraluminal free fluid, periappendiceal fat inflammation, hyperemia

7. Discharge Criteria:

- Considered alternative ddx
- Nontoxic
- Tolerating PO
- Reasonable follow up plan for abdominal re-evaluation.
- Consider PMD contact and coordination.

8. Imaging limitations

- If imaging findings discordant with clinical picture, strongly consider attending radiology consultation **AND** consultation with surgery.



Inclusion Criteria:

- Age 3 yrs--18 yrs
- Symptoms concerning for possible appendicitis.

Exclusion Criteria:

- Non-acute (>1 week)
- Hemodynamically unstable.
- Chronic inflammatory disease or immune suppression.
- Prior abdominal surgery, pregnancy, sickle cell disease, and prior treatment with antibiotics.

Date of Development:

Reviewed and Updated:

Disclaimer: This algorithm functions as a guideline for clinical care under the direction of Pediatric Emergency Medicine Board Certified Attendings.

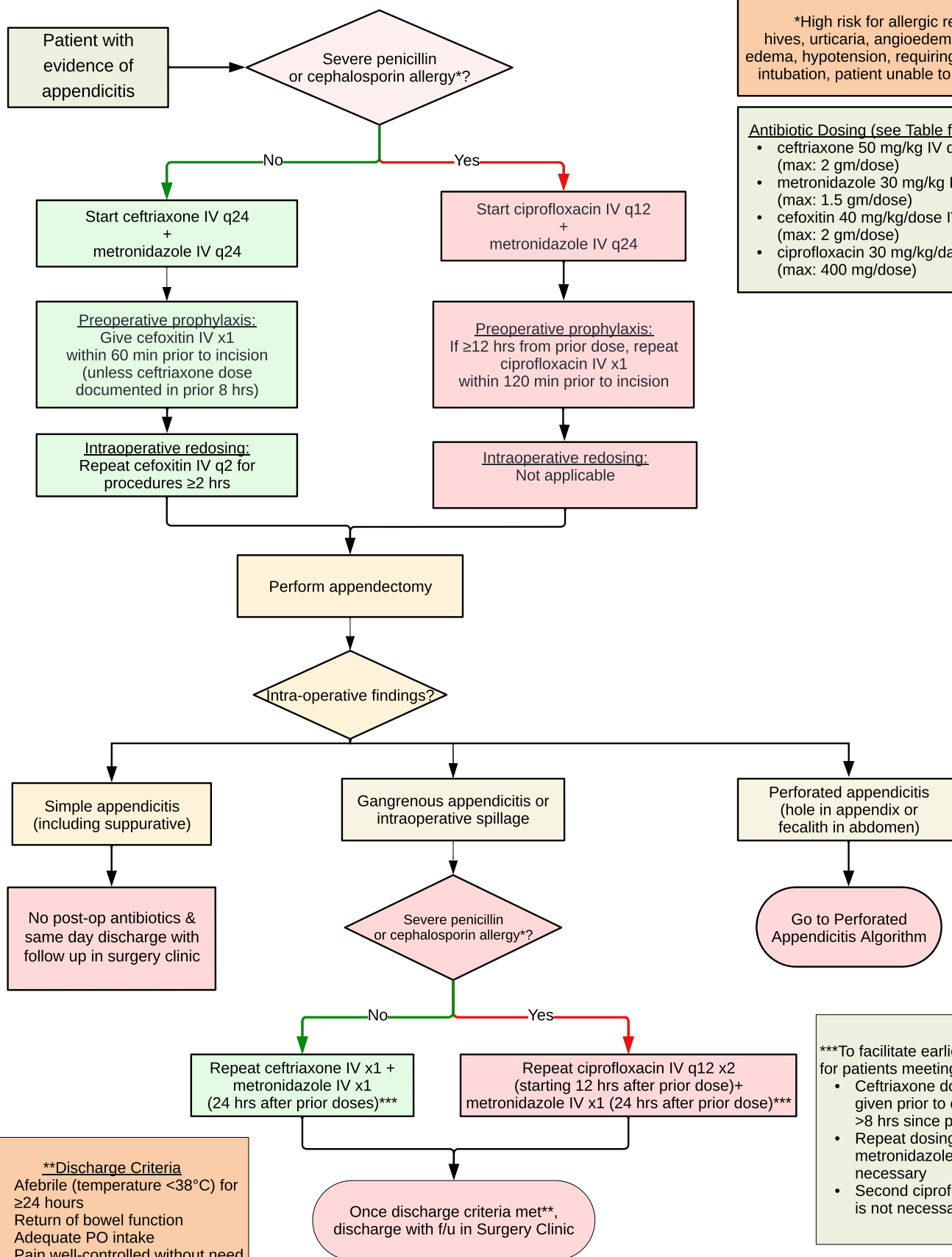
Appendicitis Clinical Algorithm

This algorithm was developed for immunocompetent children.
It serves as a guideline only and should not replace clinical judgment.

*High risk for allergic reaction
hives, urticaria, angioedema laryngeal edema, hypotension, requiring epinephrine, intubation, patient unable to give history

Antibiotic Dosing (see Table for more info):

- ceftriaxone 50 mg/kg IV q24 (max: 2 gm/dose)
- metronidazole 30 mg/kg IV q24 (max: 1.5 gm/dose)
- cefoxitin 40 mg/kg/dose IV (max: 2 gm/dose)
- ciprofloxacin 30 mg/kg/day IV div q12 (max: 400 mg/dose)



****Discharge Criteria**

- Afebrile (temperature <38°C) for ≥24 hours
- Return of bowel function
- Adequate PO intake
- Pain well-controlled without need for IV medications

*****To facilitate earlier discharge for patients meeting criteria:**

- Ceftriaxone dose may be given prior to discharge if >8 hrs since prior dose
- Repeat dosing of metronidazole is not necessary
- Second ciprofloxacin dose is not necessary

The pediatric appendicitis clinical algorithms are shared between BCH Oakland and BCH San Francisco, developed via application of evidence and consensus among Pediatric Surgery, Pediatric Emergency Medicine and Pediatric Antimicrobial Stewardship.

Perforated Appendicitis Clinical Algorithm

This algorithm was developed for immunocompetent children.
It serves as a guideline only and should not replace clinical judgment.

