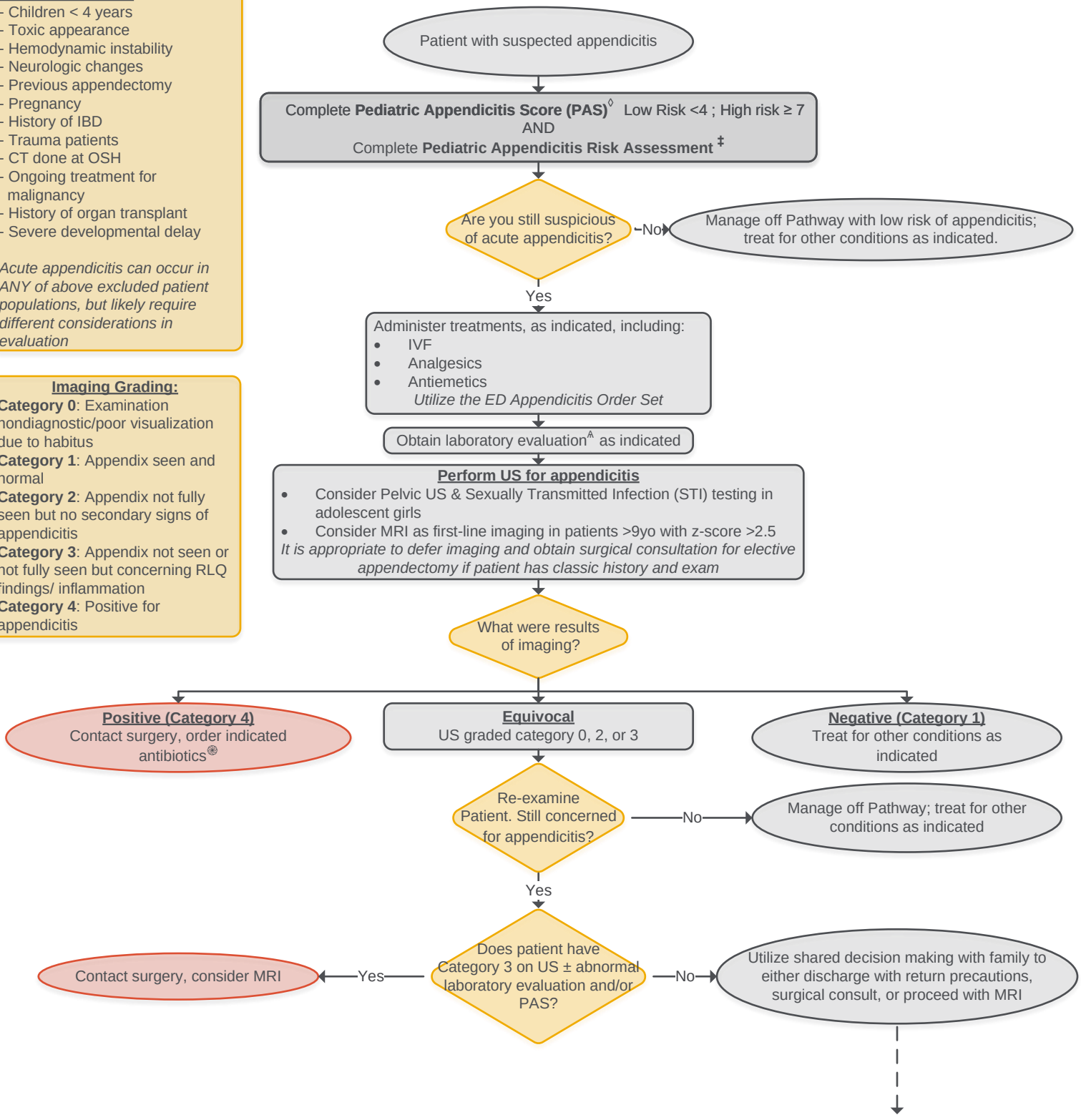
APPENDICITIS PATHWAY
EMERGENCY DEPARTMENT

Exclusion Criteria:
- Children < 4 years
- Toxic appearance
- Hemodynamic instability
- Neurologic changes
- Previous appendectomy
- Pregnancy
- History of IBD
- Trauma patients
- CT done at OSH
- Ongoing treatment for malignancy
- History of organ transplant
- Severe developmental delay

Acute appendicitis can occur in ANY of above excluded patient populations, but likely require different considerations in evaluation

Imaging Grading:
Category 0: Examination nondiagnostic/poor visualization due to habitus
Category 1: Appendix seen and normal
Category 2: Appendix not fully seen but no secondary signs of appendicitis
Category 3: Appendix not seen or not fully seen but concerning RLQ findings/ inflammation
Category 4: Positive for appendicitis



CLINICAL EFFECTIVENESS

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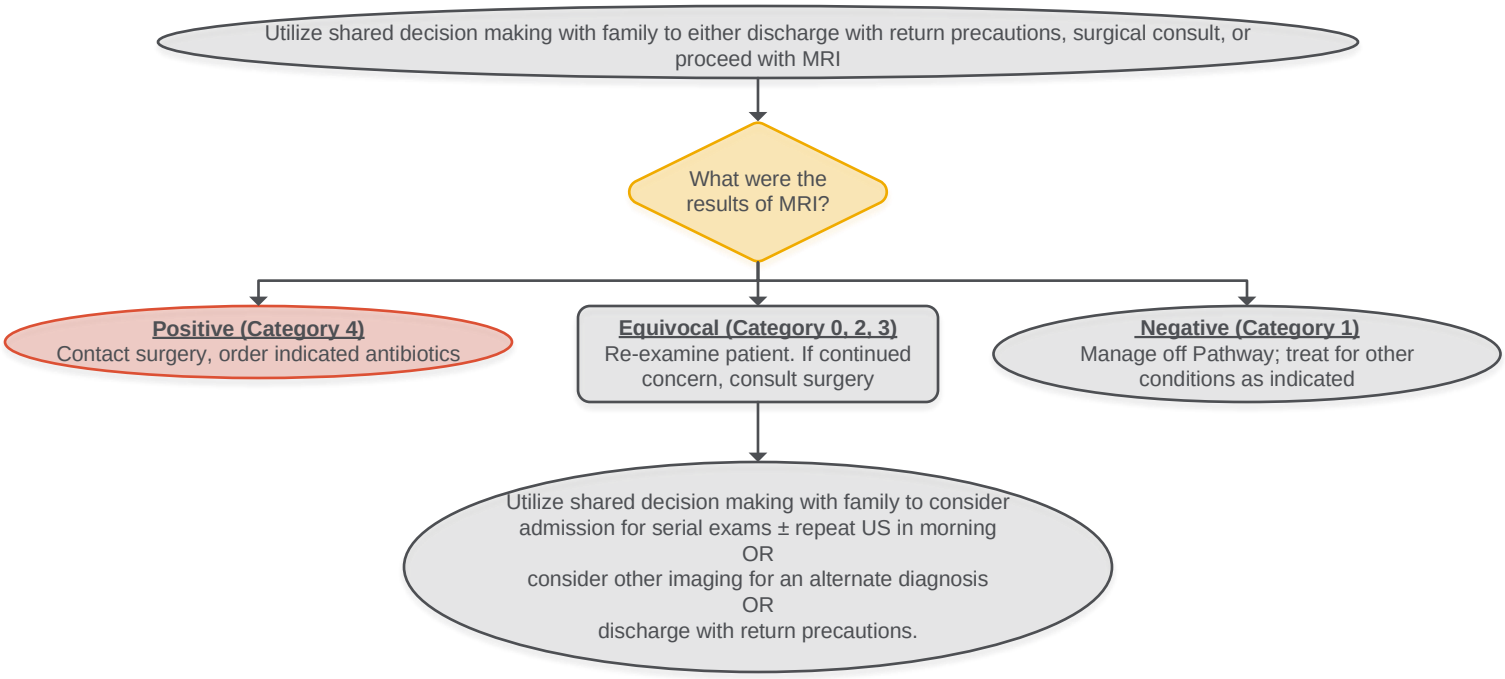

Patient Risk Assessment‡

High probability acute appendicitis	Symptoms <48hrs
	Migration of pain from periumbilical region to RLQ
	Anorexia, nausea, vomiting
	Pain preceding vomiting
	Pain with movement (cough, car ride, jumping, heel tap)
	RLQ tenderness with or without tenderness
Equivocal acute appendicitis	Presenting with focal abdominal tenderness (usually right sided) with some of the features of high probability acute appendicitis
Suspicious for complex appendicitis (perforation/abscess)	Systemic toxicity (also exclusion criteria)
	Fever
	Prolonged symptoms >48-72hrs
	Urinary or rectal urgency
	Palpable RLQ mass
	WBC, ANC, CRP consistent with marked inflammation

Pediatric Appendicitis Score◊
Low Risk <4; High Risk ≥7

Nausea/vomiting	1
Anorexia	1
Migration of pain to RLQ	1
Fever	1
Pain with movement	2
RLQ tenderness	2
WBC >10,000	1
ANC >7,500	1
An experienced physician's clinical impression performs comparably to this score	

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Preoperative Antibiotics[@]

Indicated for ALL patients with Acute Appendicitis (to be given at time of category 4 diagnosis or in discussion with Surgeon)

Healthy non-allergic patients without suspicion of perforation, abscess or phlegmon	Cefoxitin IV 40mg/kg/dose (max 2,000mg) (Must be adjusted in renal impairment)
Healthy patients without suspicion of perforation, abscess or phlegmon **with cephalosporin allergy**	Levofloxacin IV 6 month to < 5 years: 10mg/kg/dose BID (max 750mg) ≥ 5 years: 10mg/kg once daily (max 750mg) **AND** Metronidazole IV 30mg/kg/dose once daily (max 1,500mg)
Patients with suspicion of perforation, abscess or phlegmon	Piperacillin/Tazobactam IV 100mg/kg/dose (max 3,000mg) (Must be adjusted in renal impairment)
Patients with suspicion of perforation, abscess or phlegmon with **severe penicillin allergy**	Levofloxacin IV 6 month to < 5 years: 10mg/kg/dose BID (max 750mg) ≥ 5 years: 10mg/kg once daily (max 750mg) **AND** Metronidazole IV 30mg/kg/dose once daily (max 1,500mg)
Patients who are immunocompromised or very ill	Piperacillin/Tazobactam IV 100mg/kg/dose (max 3,000mg) (Consider Infectious Disease consult)

Laboratory Evaluation[^]

All patients May choose to defer blood tests in patients without other indications for PIV	CBC with ANC[1]
	CRP[2]
	UA[3]
As clinically indicated	CMP
	Lipase, amylase
	Urine HCG (all female patients >11yrs/or menstruating females)
	Urine GC/Chlamydia, vaginal swab for Trichomonas
Ill patients	Blood Culture
	Coagulation Studies
	Lactate
	Procalcitonin
	Type and Screen (not indicated for routine appendectomy)

[1,2]WBC >11,000 **AND/OR** CRP >1.0 is found in 95% of non-perforated appendicitis and 100% of perforated, abscess or phlegmon appendicitis
Therefore, if both are normal, consider an alternate diagnosis
If one or the other is elevated, it adds little value to the diagnostic evaluation beyond PAS score
[2]UA in appendicitis may occasionally demonstrate sterile pyruia
Leukouria without bacteria or nitrates present should not dissuaded one from the diagnosis of appendicitis