## **Complicated Appendicitis: Post Operative Management Clinical Practice Guideline**



FINAL 12/15/16

### **Appendectomy with a Complicated Appendix (Category 2)**

(PERFORATED OR GANGRENOUS)

#### **Initial Post-operative Management**

#### **Antibiotic Therapy**

See table on pg. 2 for dosing schedule

- Ceftriaxone
- Metronidazole

Avoid PICC if other access is available

#### IF PCN ALLERGY USE

Ciprofloxacin & Metronidazole

#### Nutrition/GI

(NG not recommended)

- Clears and advance as tolerated
- When tolerating regular diet start Miralax PO (max 17 gm) prn no stool for 24 hours (see dosing pg.2)
- Advance to oral pain medications\* once tolerating reg. diet

#### Pain Control\*

- •Acetaminophen: 10mg/kg/dose po q4hr (max 500mg) for pain
- •Toradol: 0.5mg/kg/dose IV q 6hrs (max 30 mg/dose) Max 20 doses
- Morphine: 0.1mg/kg/dose IV q 3hr PRN pain if acetaminophen or toradol is not effective (max 5mg/dose)
- Gabapentin 10 mg/kg/dose po TID (max 300mg)

#### **Activity/Consults**

(Routine Labs not recommended)

- OOB on surgical day X1 minimally & ambulate 3x qd
- Consult Child Life
- Consult PT as needed
- Consult Nutrition as needed
- Avoid placing a foley; if used in surgery remove on POD 1

#### Evaluate Fever Curve (including daily T-max), Pain response, and GI response to diet **Every Day** Is patient mproved?<sup>1</sup> If tolerating PO, begin Oral **Antibiotics** 1 Fever Curve improved, Pain decreased ≥ POD 7? Ciprofloxacin & & Ileus resolved, monitor T max daily Metronidazole (see dosing table, pg. 2) Start Oral antibiotics when tolerating PO, Obtain Imaging NO Reassess in 24 hrs Abscess reassess labs in 24hrs US/CT/MRI & Check WBC, CRP Present? per surgeon discretion Yes Discharge<sup>2</sup> Assess daily Home and Abscess Management WBC < 12 & CRF if patient is WBC < 12 & complete the (Obtain cultures from abscess when draining) trending down? Improved<sup>1</sup> CRP trending 5 day course of antibiotics Nο ?nwob Continue Drain in IR NO WBC > 12 Antibiotics Is/Are any of or Operating Yes reassess in the abscesses Room Repeat Imaging 48-72 hrs Discharge<sup>2</sup> home and complete a 7 day course of antibiotics from last **Abscess** Continue to intervention Yes Drain in IR YES Drain in OR assess daily (Drain/OR/IR) Resolved? abscesses? **Discharge Criteria**

#### \*ADVANCING ORAL PAIN REGIMEN:

Once pain controlled and tolerating po change:

- Toradol to Ibuprofen 10mg/kg/dose po q 6hr prn (max 400mg/dose)
- Morphine to: Hydrocodone with Acetaminophen 325 mg 0.2mg hydrocodone/kg/dose po q6hr PRN pain (max 5mg hydrocodone/dose):
- If discharged on narcotics also order Miralax qd X 5 days
- Consider Gabapentin as a discharge medication
- Return to OR/IR for drainage
- Consider ID Consult
- Assess susceptibility of organism to antibiotic
- Patient is off Guideline
- Afebrile (< 38° C) > 24 hrs
- Tolerating regular diet
- o 50% of 3 consecutive meals
- Adequate pain control with oral medications
- Pain score is 3 or less within 1 hr. after oral medication administered
- Benign Abdominal Exam by attending surgeon/designee
- Ambulation without assistance (250 feet)
- If discharging home with a drain, include drainage care instructions

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Empiric IV Therapy for Appendicitis					
Indication	Antibiotics	Dose & Schedule	Max Single Dose		
Complicated Appendicitis (CA)	Ceftriaxone +	75mg/kg q 24h IV	2000mg		
	Metronidazole	30 mg/kg q 24h IV	1500mg		
Complicated Appendicitis with severe penicillin allergy <sup>1</sup>	Ciprofloxacin +	15 mg/kg q 12hr IV	400mg		
	Metronidazole	30 mg/kg q 24h IV	1500mg		
Complicated Appendicitis with Sepsis					
Complicated Appendicitis with sepsis	Piperacillin/tazobactam <sup>2</sup>	100mg/kg q8h IV	4000mg		

<sup>&</sup>lt;sup>1</sup>Type 1 allergy defined by urticaria or anaphylaxis

<sup>&</sup>lt;sup>2</sup>Metronidazole does not need to be added to a regimen with piperacillin/tazobactam since anaerobic coverage is adequate with piperacillin/tazobactam

PO Stepdown Therapy				
Indication	Antibiotic	Dose & Schedule	Max Single Dose	
Complicated Appendicitis (CA)	Ciprofloxacin +	15mg/kg q 12h po	500mg	
	Metronidazole	10mg/kg q 8h po	500mg	

### **MIRALAX DOSING**

When tolerating regular diet start **Miralax** po (max 17 gm) prn no stool for 24 hours

#### AND

If discharged on narcotics also order Miralax qd X 5 days

- Age 1-5 years 4.25 grams (1/4 capful)
- Age 6-11 years 8.5 grams (1/2 capful)
- Age 12 and up 17 grams (1 whole capful)