Post Operative Appendicitis Algorithm
For All Categories (1, 2A, 2B & 2C)
Clinical Practice Guideline

Immediate Post-Operative Care for All Appendicitis Categories

**Category 1**
- No post-operative antibiotics
- Same day discharge

**Category 2A**
- IV antibiotics for 24hrs post-operatively
  (See page 3 for medication charts)

**Category 2B & 2C**
- Total course of antibiotics: 7 days IV + PO
  (See page 3 for medication charts)

**Patient meets D/C Criteria**

**YES**
- Discharge home

**NO**
- Continue to reevaluate for d/c criteria

**Discharge Criteria**
- Afebrile
- Tolerating regular diet
- Adequate pain control with oral medications
  (See page 2 Medication charts)
- Benign abdominal exam by attending surgeon/designee
- Ambulation without assistance (250 feet)

**Discharge Instructions**
- Follow-up in 3-4 weeks via telephone, telemedicine, or clinic visit (including pathology review)
- Pain control: Acetaminophen, Ibuprofen, +/- Gabapentin (See page 2 Medication charts)

**Categories**
- **CATEGORY 1 (SIMPLE):** Acute appendicitis, localized peritonitis, w/o gangrene, w/o perforation, w/o abscess.
- **CATEGORY 2A: Gangrenous Appendix** – Acute appendicitis, localized peritonitis, with gangrene, w/o perforation, w/o abscess.
- **CATEGORY 2B: Focal perforation** – Hole clearly in appendix, focal collection of pus in the right gutter or pelvis, small perfor created during extraction, etc.
- **CATEGORY 2C: Gross contamination** – Purulence throughout abdomen/pelvis, fecal contamination, grossly perforated. Pus outside of RLQ, diffuse peritonitis, floating fecalith.

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## Post-operative Medications

<table>
<thead>
<tr>
<th>Pain Control</th>
<th>Advancing Oral Pain Regimen</th>
<th>Polyethylene Glycol 3350 (Miralax) Dosing</th>
</tr>
</thead>
</table>
| **Acetaminophen**: 10mg/kg/dose PO q4hr (max 500mg) or 15mg/kg/dose IV* (max 1000mg) q6hrs for pain | *Once pain controlled and tolerating PO, change these medications from IV to PO:*  
• Ketorolac to Ibuprofen 10mg/kg/dose PO q6hr PRN (max 400mg/dose)  
• Morphine to: Hydrocodone with Acetaminophen  
Hydrocodone 0.2mg/kg/dose PO q6hr PRN pain (max 5mg Hydrocodone per dose)  
• Consider Gabapentin as a discharge medication | *When tolerating regular diet and if no stool for 24 hours, consider starting Miralax (max 17gm PO):*  
• 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) |
| Ketorolac: 0.5mg/kg/dose IV q6hrs (max 30 mg/dose) Max 20 doses | | |
| Morphine: 0.1mg/kg/dose IV q3hr PRN pain if acetaminophen or toradol is not effective (max 5mg/dose) | | |
| Gabapentin: 10mg/kg/dose PO TID (max 300mg) | | |

* Criteria for IV Acetaminophen use:  
  i. Complicated appendectomies who have been readmitted or perforated appendectomies that are high risk for ileus  
  ii. Post-op ileus  
  iii. Patient with history of multiple abdominal surgeries/multiple adhesions needing to be NPO >24 hours
### Post-operative Antibiotics

<table>
<thead>
<tr>
<th>Indication</th>
<th>Antibiotics</th>
<th>Dose &amp; Schedule</th>
<th>Max Single Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complicated Appendicitis (2A, 2B &amp; 2C)</td>
<td>Ceftriaxone And Metronidazole</td>
<td>75mg/kg q 24h IV</td>
<td>2000mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 mg/kg q 24h IV</td>
<td>1500mg</td>
</tr>
<tr>
<td>Complicated Appendicitis (2A, 2B &amp; 2C) with severe penicillin (PCN) allergy&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Ciprofloxacin And Metronidazole</td>
<td>15 mg/kg q 12hr IV</td>
<td>400mg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30 mg/kg q 24h IV</td>
<td>1500mg</td>
</tr>
</tbody>
</table>

**Complicated (2B & 2C) Appendicitis Step UP Therapy**<sup>*</sup>

<table>
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</tr>
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<tbody>
<tr>
<td>Complicated (2B &amp; 2C) Appendicitis</td>
<td>Piperacillin/tazobactam (Zosyn)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>100mg/kg q8h IV</td>
<td>4000mg</td>
</tr>
</tbody>
</table>

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

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

*May step-up to Piperacillin/tazobactam 72 hours post-operatively for failure of Ceftriaxone/Metronidazole therapy or earlier for signs of sepsis*