Introduction

This pathway is for use with children aged 2-18 years old with no underlying disease or co-morbidity who have a confirmed diagnosis of appendicitis (either non-perforated or perforated) by the General Surgery Team who require a surgical appendectomy or medical management. Patients are to be removed from this pathway if there are significant postoperative complications (eg. bowel obstruction or prolonged TPN) or a change in diagnosis.

Target Users

- General Surgery Surgeons, Residents, Fellow, Nurse Practitioners, and nurses on the inpatient units

Definitions

- **Non-perforated appendicitis**- Appendix is normal, injected, inflamed or suppurative. Presence of cloudy fluid +/- local fibrinous exudate, or gangrenous appendicitis but with no visible hole in appendix, abscess or free fecalith
- **Perforated appendicitis**- Visible hole in appendix, free fecalith, diffuse peritonitis with fibrinous exudate or abscess
- **Appendectomy**- Surgical removal of the appendix
- **Fever**- A fever is defined as any temperature reading greater than 38°C
### Appendicitis Management Pathway

**Recommendations - [Printable Version](#)**

1. **Quick ED with confirmed diagnosis of Appendicitis on ultrasound**
   - ED consult General Surgery team and initiate ED Appendicitis ordered.

2. **Are there signs of perforation: unilateral or bilateral peritonitis for children age 2-10?**
   - If yes, surgical management.
   - If no, proceed to medical management.

3. **Is perforation seen in ultrasound?**
   - If yes, surgical management.
   - If no, proceed to medical management.

4. **Intise surgical management**
   - Child placed on OR priority 2 list.
   - Initiate Ceftriaxone Meropenem IV as per departmental formulary.
   - Referral to Surgery.

5. **Initise medical management**
   - Initiating Appendicitis with IV Ceftriaxone Meropenem using departmental formulary.
   - Referral to Surgery.

6. **Is there a definite collection on ultrasound?**
   - If yes, I/E T to insert percutaneous drain for collection and determine length of time until drain removal.
   - Child will remain on IV Ceftriaxone Meropenem until drain is removed.

7. **Initial-Plus IV Ceftriaxone Meropenem**
   - Rule is formulary.

8. **Continued IV Ceftriaxone Meropenem**
   - Rule is formulary.

9. **Switch to oral Ceftriaxone (intravenous) (if available) in compliance with additional 2 days of oral antibiotics, days include patient stay on oral antibiotics. Rule is formulary.**

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*If the patient clinically worsens, consider upgrade to IV appendicitis management. If not ultrasound within the past 2-4 days, repeat in order to evaluate for changing infection. If collection found, refer algorithm for patient with a stable collection (IVET).

*Alternative oral antibiotic therapy with Ceftriaxone and Metronidazole may be considered instead of Intravenous beta lactam therapy.

*Antibiotic therapy should be reassessed based on any available microbiologic data (e.g. - if culture and are obtained from an abdominal abscess aspiration).

*Data is defined as any temperature reaching greater than 38°C (refer to Sepsis Clinical Pathway).*

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### Appendicitis Management Pathway

#### Version: 2

<table>
<thead>
<tr>
<th>Inpatient Perforated Appendicitis Care Pathway</th>
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<tbody>
<tr>
<td><strong>Goal 1:</strong></td>
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<tr>
<td>Hygiene &amp; Physical</td>
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<tr>
<td>Vital signs, temperature, pulse, respiration, oxygen saturation</td>
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<td><strong>IV Fluids:</strong></td>
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<tr>
<td>Fluids &amp; 0.9% NaCl with 20mmol KCl</td>
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<td>Pain assessment (focus on abdomen) every 4 hours</td>
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<tr>
<td><strong>Nursing:</strong></td>
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<tr>
<td>Assess risk for peritonitis</td>
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<tr>
<td>Watch for signs of peritonitis</td>
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<td>Monitor for signs of peritonitis</td>
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<tr>
<td><strong>Family Carer/Care Plan:</strong></td>
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<tr>
<td>Check for psychological readiness</td>
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Appendicitis Management Pathway

Related Documents

- E-formulary
- Sepsis Pathway
- Pain Management Guidelines
- Pain Assessment Guidelines
- Fluid & Electrolyte Guidelines

References

6. Children’s Hospital of Philadelphia: Appendicitis without Known GI Disease Clinical Pathway - Emergency
7. Children's Hospital of Philadelphia: Appendicitis Clinical Pathway - Inpatients
8. Cincinnati Children's Hospital: Emergency Appendectomy Clinical Pathway
14. Inpatient and Surgical Care: Appendectomy for Ruptured Appendix with Abscess or Generalized Peritonitis Care Guideline
Appendicitis Management Pathway


28. University Hospitals of Cleveland: Pediatric Appendicitis/Simple Laparoscopic/Open Technique Care Path


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Attachments:

appendicitis algorithm.docx
appendicitis algorithm.pdf
Non perforated appy pathway.pdf
Non perforated appy pathway.rtf
Perforated appy pathway.pdf
Perforated appy pathway.rtf