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 suppurrative. 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
Recommendations - [Printable Version](#)

Appendicitis Algorithm

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### Appendicititis Management Pathway

#### Version: 2

**Inpatient Non-Perforated Appendicitis Care Pathway**

<table>
<thead>
<tr>
<th>PRE-CURRENT</th>
<th>POST OPERATIVELY</th>
<th>DISCHARGE WITHIN 24 HOURS POST OP</th>
</tr>
</thead>
</table>
| 1. Hydration maintained  
2. Adequate pain control  
3. Patient prepared for OR  
4. If patient is admitted, sign consent for appendectomy. | 1. Alkaline  
2. Adequate pain control  
3. Ambulating  
4. Able to tolerate diet (either fluids to regular diet)  
5. Incision intact, no drainage, dry and intact | 1. Alkaline  
2. Adequate pain control  
3. Ambulating  
4. Aims to tolerate diet  
5. Incision dry and intact  
6. Child caregiver teaching |
| **GOALS** | **RECUMEN** | **EVALUATE** |
| Obtain history  
Complete physical exam  
Assess vital signs  
Complete pain assessment (refer to Pain Assessment Guidelines)  
Obtain accurate in and out | Complete pain assessment every 4 hours  
Ensure child has adequate pain control (refer to Pain Management Guidelines)  
Monitor vital signs per Bedside Protocols (refer to Toren Clinical Pathway)  
Obtain accurate in and out  
Complete wound assessment  
Complete abdominal assessment | Complete fluids to regular diet as tolerated  
IV to maintenance; TKVO once adequate oral fluid intake  
Blurry as indicated  
Refer to Fluid and Electrolyte Guidelines |
| **MEDICATION** | **ACTIVITY & EDUCATION** |  |
| Ceftazolin (IV)  
If allergy, then Ceftriaxone or Cefazolin & Metronidazole. Refer to the antimicrobial  
If pain medication is needed, morphine/acetaminophen IV/PO. Refer to the antimicrobial | Activity as tolerated  
Surgery consent  
Pre-procedures for child and caregiver  
Review parental involvement in care (pre and post-operatively) |  |
| **DIET** |  |
| Diet:  
Advance diet as tolerated |  |
| **PAIN** |  |
| Pain:  
Acetaminophen and ibuprofen (if not contraindicated) for 48 hours then as needed  
Review need for pain management |  |
| **INCISION CARE** |  |
| Incision care:  
Leave skin staples off or can remove after 10 days  
Once suture strips removed, may wash incision with soap and water |  |
| **SIGNS & SYMPTOMS OF WOUND INFECTION** |  |
| Fever  
Redness around incision  
Drainage from incision  
Increasing pain around incision |  |
| **BATHING** |  |
| Bathing:  
May shower or bath, 48 hours after surgery |  |
| **ACTIVITY** |  |
| Activity:  
Ambulate in hallway  
May return to normal daily activities as patient feels able |  |

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Appendicitis Management Pathway

Inpatient Perforated Appendicitis Care Pathway

<table>
<thead>
<tr>
<th>DAY OF ADMISSION</th>
<th>DAY 1</th>
<th>DAY 2 - #2</th>
<th>DAY 3</th>
<th>DAY 4</th>
<th>DAY 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TREATMENT**

- **IV fluid:** 5% D5W or 5% D5W with 0.9% NaCl with 20 ng/mL KCl
- **Blood transfusion:** RBCs as clinically indicated with 3.9% NS or Lactated Ringer’s
- **Antibiotics:** Ceftriaxone 2g IV, Vancomycin 1g IV

**ACTIVITY**

- **Ambulating:**
  - Day 1: Wheels to bed
  - Day 2: Stand with assistance
  - Day 3: Full ambulation

**INFECTION CONTROL**

- **Pre-op procedures for patient and child:**
  - Consent for surgery signed

**FAMILY CAREGIVERS’ EDUCATION**

- **Activity:**
  - Ambulate in hallway at least 3 times

**PAIN MANAGEMENT**

- **Antibiotics:** Ceftriaxone 2g IV, Vancomycin 1g IV
- **Wound care:**
  - Change dressings every 4 to 6 hours for 48 hours
  - Reassess wound with physician

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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

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Appendicitis Management Pathway

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

Guideline Group and Reviewers

Guideline Group Membership:
1. Monping Chiang, NP, General and Thoracic Surgery
2. Dr. Joshua Ramjist, Fellow, General and Thoracic Surgery
3. Dr. Augusto Zani, Surgeon, General and Thoracic Surgery
4. Dr. Annie Fecteau, Surgeon, General and Thoracic Surgery

Internal Reviewers:
1. Kealey Clarke, RN, Quality Leader- 5B General Surgery
2. Sabrina Boohan, Clinical Pharmacist- 5B General Surgery

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3. Christine McGovern, Sr Clinical Manager- 5B General Surgery

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