Introduction

The purpose of this pathway is to assist the health care team with clinical decisions regarding the management of a patient with intussusception.

Target Population:

- **Inclusion**: Children age 0-18 years old with no underlying disease or comorbidity who have been suspected to have or diagnosed with intussusception.
- **Exclusion**: to be removed from this pathway if child has significant comorbidities, significant postoperative/post procedure complications (e.g. bowel obstruction, bowel perforation, or prolonged TPN therapy) or a change in diagnosis.

Target Users:

- Emergency physicians, radiologists, surgeons, residents, fellows, nurse practitioners and nurses on the ward.
Child arrives in ED with suspected Intussusception

Does child meet the following criteria?

- Child is less than 6 months of age
- Length of illness is greater than 24 hours
- Vital signs are abnormal
- Child is dehydrated and lethargic
- History of red currant jelly stools
- Peritoneal signs or abnormal abdominal exam

**YES**

Urgent General Surgery consult, start IV and complete blood work

**NO**

Complete Imaging

- Ultrasound is the exam of choice pre and post treatment (Comprehensive US vs POCUS*: Point of Care Ultrasound)
- Abdominal x-ray is exam of choice when suspecting perforation or there is clinical peritonitis

Determine type of intussusception

- **Colonic Involvement**
  - Radiology to notify General Surgery and Emergency MRP to discuss ultrasound
  - Ensure adequate pain management and IV access
  - ED Nurse to accompany patient to Air enema

- **Transient Small Bowel-Small Bowel Intussusception (not the cause of symptoms)**
  - Observe in ED
  - No General Surgery consult required, ED Nurse to manage and discharge

- **Persistent Small Bowel-Small Bowel Intussusception**
  - Radiology to notify General Surgery and Emergency MRP to discuss ultrasound
  - Child returns to ED for N and blood work

- **Intussusception caused by post pyloric enteral tubes**
  - Follow the Management of GJ and Combination GJ/GTube-Related Intussusception pathway for guidance

Edible Intussusception Images captured and sent to PACS
- Call to Radiology to organize ultrasound +/- air enema
- Communicate POCUS findings in US imaging request
- IV insertion with appropriate pain medication provided
- Air enema order placed

**Table 1: Decision to admit/discharge**

Patient should be observed for 2-4 hours in ED and may be discharged if:

- Live close to hospital
- Have a telephone to contact a Primary Care Provider
- Parents reliable
- VSS, Afebrile
- Normal physical exam
- Tolerating diet
- Voiding well
- No pain symptoms
- Idiopathic

Ensure follow up with Primary Care Provider/Pediatrician (follow up with General Surgeon if intussusception recurs)

Patient should be admitted to the hospital when:

- Unwell (persistent obstructive symptoms eg. Abdominal pain, vomiting)
- Presenting with bowel obstruction
- Had high WBC count at presentation
- Live in a more remote location
- Ongoing rectal bleeding
- Lead point found
- Incomplete reduction of intussusceptions

Patient should have another Ultrasound to rule out recurrent intussusception when they are having:

- Recurrent pain
- Recurrent vomiting

**Printable version – Intussusception Management Pathway**

**Printable version – Tube Related Intussusception Care Pathway**
Patients scheduled for surgery typically receive pre and post-surgical care as described below

<table>
<thead>
<tr>
<th>PRE-OPERATIVE</th>
<th>IMMEDIATELY POST-OPERATIVELY</th>
<th>POST-OP DAY #1-2 (to bowel resection); DAY #5-14 (with total resection)</th>
<th>DISCHARGE: DAY 3 (to bowel resection); DAY 5 (with bowel resection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Child/parent are advised of pre-op bath</td>
<td>2. Infused</td>
<td>2. Infused</td>
<td>2. Infused</td>
</tr>
<tr>
<td>5. Expect oral intake</td>
<td>4. Incision int, no drainage, dry and intact</td>
<td>4. Infused, not drainage</td>
<td>4. Infused, not drainage</td>
</tr>
</tbody>
</table>

**GOALS**

- Obtain history
- Complete physical exam
- Assess vital signs
- Complete pain assessment (refer to Pain Assessment Guidelines)
- Ensure child has adequate pain control (refer to Pain Management Guidelines)
- Obtain accurate in and out
- Obtain weight and height

**PHYSICAL EXAM**

- Ensure that patient is NPO
- Administer 0.9% NaCl at maintenance
- Normal saline bolus as indicated
- Refer to Fluid and Electrolyte Guidelines

**DIET & FLUIDS**

- NPO until bowel function present, no abdominal distension, and no nausea/vomiting, then start clear fluids to diet as tolerated
- Administer 0.9% NaCl at maintenance
- Normal saline bolus as indicated
- Refer to Fluid and Electrolyte Guidelines

**NG TUBE**

- NG tube to low intermittent suction/straight drain
- May put to straight drainage if clinically indicated (decreased output volume, non-bloody, no nausea)
- May remove when tolerated NG to straight drainage or clamp no nasogastric, no abdominal distension, and no pain

**LABS & MEDICATION**

- Complete CBC with differential
- Coagulation, electrolytes, type and screen, and Sickle Cell screen (if indicated)
- Labs as clinically indicated
- IV morphine continuous infusion
- Acetaminophen as indicated for pain/fever
- Continue ceftriaxone IV for 24 hours post-op then reassess
- Ketorolac every 6 hours for pain management for 48 hours (age appropriate and clinically indicated)
- Ampicillin/gentamicin/metronidazole X 7 days if perforated
- Wear morphine infusion to off (decrease by 5-10 mg every 24 hours)
- If painfever, administer acetaminophen as indicated
- Ketorolac/diproprophen every 6 hours as needed for pain

If needed, provide prescription for oral medication

**PRINTABLE VERSION**

**Related Documents**

- Care of Patients Receiving Continuous Infusion of Opioids
- Care of Patients Receiving Patient Controlled and Nurse Controlled Analgesia
- SickKids e-formulary

**Implementation Plan**

- Education and awareness building by General Surgery Program (Surgeons, NPs, fellows, nurse educator) at: fellow orientation (once per year) nursing orientation (every 3 months), and residents’ orientation (every month).
- Surgeons to communicate any updates in practice to Division of General Surgery and Radiology.
- Radiologists to communicate any updates in practice to Division of General Surgery and Radiology.

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Evaluation Plan

- Length of stay (LOS) evaluation

References


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Attachments:

Intussusception final 2021.pdf

Pathway algorithm 2021.pdf