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 (eg. 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
- Persistent Small Bowel-Involvement
- Transient Small Bowel-Small Bowel Intussusception (not the cause of symptoms)
- Colonic Involvement

Observe in ED
- No General Surgery consult required; ED team to manage and discharge
- 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

Admit to General Surgery
- Monitor and repeat air enema
- Re-admit to hospital if air enema reduction unsuccessful
- If no enema reduction, proceed with surgical management

Table 1: Decision to admit/discharge
Patient should be observed for 2-4 hours in ER and may be discharged if:
- Live close to hospital
- Have a telephone to contact a Primary Care Provider
- Parental reliability
- VSS, Afebrile
- Normal physical exam
- Tolerating diet
- Voiding well
- No pain symptoms
- Idiopathic

**YES**
- Admit patient to hospital
- See Table 1

**NO**
- Discharge patient from hospital
- Call to Radiology to organize ultrasound
- Communicate POCUS findings in US imaging request
- IV insertion with appropriate pain medication provided
- Air enema order placed

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

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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 resorption); DAY #5-4 (with final resorption)</th>
<th>DISCHARGE: DAY 3 (to bowel resorption) DAY 5 (with final resorption)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Child/family are advised of pre-op bath</td>
<td>3. Out of bed</td>
<td>3. Ambulating</td>
<td>3. Ambulating</td>
</tr>
<tr>
<td>4. Adequate pain control</td>
<td>4. Incision intact, no drainage; dry and intact</td>
<td>4. Able to tolerate NG to drain/remove, camp/remove</td>
<td>4. Able to tolerate diet</td>
</tr>
<tr>
<td><strong>GOALS</strong></td>
<td><strong>GASTRO</strong></td>
<td><strong>DIET &amp; FLUIDS</strong></td>
<td><strong>STOMACH</strong></td>
</tr>
<tr>
<td>- Obtain history</td>
<td>- Complete pain assessment every 4 hours</td>
<td>- NPO until bowel function present, no abdominal distention, and no nausea/vomiting, then start clear fluids to diet as tolerated</td>
<td>- NG tube to low intermittent suction/straight drain</td>
</tr>
<tr>
<td>- Complete physical exam</td>
<td>- Ensure child has adequate pain control (refer to Pain Management Guidelines)</td>
<td>- Administer D5W/0.9% NaCl with 20mEq KCL/L at maintenance</td>
<td>- May put to straight drainage if clinically indicated (decreased output volume, non-bilious, no nausea)</td>
</tr>
<tr>
<td>- Assess vitals signs</td>
<td>- Monitor vital signs as per BP/ICU’s</td>
<td>- Normal saline bolus as indicated</td>
<td>- May remove when tolerates NG to straight drainage or clamp (no nausea/vomiting, no abdominal distention and no pain)</td>
</tr>
<tr>
<td>- Complete pain assessment (refer to Pain Assessment Guidelines)</td>
<td>- Complete wound assessment</td>
<td>- Refer to Fluid and Electrolyte Guidelines</td>
<td>- NG tube to low intermittent suction/straight drain</td>
</tr>
<tr>
<td>- Ensure child has adequate pain control (refer to Pain Management Guidelines)</td>
<td>- Assess stool color and consistency</td>
<td>- Refer to Fluid and Electrolyte Guidelines</td>
<td>- May put to straight drainage if clinically indicated (decreased output volume, non-bilious, no nausea)</td>
</tr>
<tr>
<td>- Obtain accurate in and out</td>
<td>- Complete wound assessment</td>
<td>- Assess stool color and consistency</td>
<td>- May remove when tolerates NG to straight drainage or clamp (no nausea/vomiting, no abdominal distention and no pain)</td>
</tr>
<tr>
<td>- Obtain weight and height</td>
<td>- Stay fluid</td>
<td>- No NG tube</td>
<td>- If needed, provide prescription for oral medication</td>
</tr>
</tbody>
</table>

**LABS & MEDICATION**

- Complete CFC with differential
- Coagulation, electrolytes, type and screen, and Sickie 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/Genamycin/metronidazole X 7 days if perforated
- Wean morphine infusion to off (decrease by 5-10 mcg every 24 hours)
- If pain/fever, administer acetaminophen as indicated
- Ketorolac/dopram every 6 hours as needed for pain

**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.
Evaluation Plan

- Length of stay (LOS) evaluation

References


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