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

Urgent General Surgery consult, start IV and complete blood work

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-Small Bowel Intussusception
  - Open 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

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
- Parental reliability
- 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

Follow the Management of GJ and Combination G/G Tube-Related Intussusception pathway for guidance

Intussusception caused by post pyloric enteral tubes

Permanent Small Bowel-Small Bowel Intussusception

Transient Small Bowel-Small Bowel Intussusception (not the cause of symptoms)

Air Enema

Determine whether patient will be admitted vs. observed
See Table

Completely reduced?

Intussusception Care Pathway

Intussusception Management Pathway

Intussusception Tube Related Intussusception Care Pathway

Printable version – Intussusception Management Pathway

Printable version – Tube Related Intussusception Care Pathway

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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 (if bowel resection)</th>
<th>POST-OP DAY #5-3 (if bowel resection)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Child/family are advised of pre-op bath. Wipes to be used upon arrival. Refer to procedure document</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, int, no drainage; dry and intact</td>
<td>4. Able to tolerate NG to drainage camp/remove</td>
<td>4. Able to tolerate diet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. Incision dry &amp; intact</td>
<td>5. Incision dry &amp; intact</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
- Admit IV 0.9 % NaCl at maintenance
- Normal saline bolus as indicated
- Refer to Fluid and Electrolytes Guidelines

**DIET & FLUIDS**

- NPO until bowel function present, no abdominal distention, and no nausea/vomiting, then start clear fluids to diet as tolerated
- Administer 0.9 % NaCl 0.2 mL/kg at maintenance
- Normal saline bolus as indicated
- Refer to Fluid and Electrolytes 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 camp no nausea/vomiting, no abdominal distention, and no pain

**LABS & MEDICATION**

- Labs as clinically indicated
- IV morphine continuous infusion
- Acetaminophen as indicated for pain/fever
- Continue ceftriaxone IV for 24 hours post-op then reassess

**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.

Related Documents

- Care of Patients Receiving Continuous Infusion of Opioids
- Care of Patients Receiving Patient Controlled and Nurse Controlled Analgesia
- SickKids e-formulary
Evaluation Plan
- Length of stay (LOS) evaluation

References

Guideline Group and Reviewers

Guideline Group Membership

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Attachments:

- Intussusception final 2021.pdf
- Pathway algorithm 2021.pdf