Introduction

Gastroschisis is a congenital abdominal wall defect that allows herniation of abdominal content, most often including the intestines and stomach, outside of the body without a protective sac or layer\(^1\). Worldwide, the incidence of gastroschisis has risen to approximately 2 to 5 infants per 10,000 live births\(^1,2\). In most cases of simple, uncomplicated gastroschisis the outcomes are favorable, with high survival and low morbidity rates\(^1,2,4\). However, standardized management of these infants in the postnatal period is key for several reasons, including: improving management of fluids and electrolytes, ensuring safe reduction of the defect, achieving earlier return of bowel function, and reducing infection risks\(^1,2,7\). Importantly, each of these factors greatly influence the length of hospital stay in the Neonatal Intensive Care Unit (NICU).

This document was developed by an interdisciplinary group of clinician from SickKids to help guide the management of infants with gastroschisis in the NICU. The goal is to allow patients and families to: experience a smoother hospitalization; achieve the best outcomes; and support a timelier transition out of intensive care, an environment that is not conducive to optimal developmental care and parent-child bonding.

The clinical pathway was created, revised and finalized using research knowledge, clinical experience, and consensus agreement of a group of neonatal and surgical clinicians. The pathway is a general guideline and does not represent a professional care standard governing providers’ obligations to parents. Care must always be revised to meet individual patient needs.

Target Population

- Neonates admitted to the Hospital for Sick Children Neonatal Intensive Care Unit (NICU) with a diagnosis of uncomplicated Gastroschisis and a completed Gestation of >35 weeks.
- Neonates born prior to 35+0 weeks Gestational Age or found to have anatomical findings that may influence the care trajectory (i.e. several inflammation/matting or intestinal atresia) should not have their NICU hospitalization guided by this pathway.

Target Users

- Registered Nurses, NP’s, Physicians, Surgeons and Dieticians involved in the care of identified neonates.
### Recommendations

#### Gastroschisis Care Pathway

**Version: 1**

<table>
<thead>
<tr>
<th>DAY OF ADMISSION (0-24 HOURS P/B)</th>
<th>DAY 2-4 POST BIRTH</th>
<th>DAY 5-7 POST BIRTH</th>
<th>DAY 8-14 POST BIRTH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Appropriate airway management</td>
<td>• Ensure appropriate respiratory support (if required)</td>
<td>• Appropriate respiratory support</td>
<td>• Await return of bowel function</td>
</tr>
<tr>
<td>• Protection of exposed bowel</td>
<td>• Reduction of bowel into abdomen via SIs</td>
<td>• Closure of abdominal wall</td>
<td>• Initiate feeds when ready. Score for oral feeding readiness</td>
</tr>
<tr>
<td>• Appropriate fluid management</td>
<td>• Maintain adequate fluid balance and nutritional support</td>
<td>• Aim to intubate within 48 hours of procedure</td>
<td>• Engage parents in care provision</td>
</tr>
<tr>
<td>• Application of silo</td>
<td>• Secure stable IV access</td>
<td>• Maintain adequate fluid balance and nutritional support</td>
<td>• Transition to GS</td>
</tr>
<tr>
<td>• Evaluation of vital signs and lab work</td>
<td>• Engage parents in neurodevelopment</td>
<td></td>
<td></td>
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</tbody>
</table>

#### Details

- **Social Worker referral if indicated**
- **ICA consulted if PICC line insertion and resuscitation completed**
- **Complete lateral view abdomen X-ray when SI placement is complete**
- **Introduce team and review plan of care**
- **Address SI placement, closure planning, need for PICC line and TPN**
- **Encourage pumping and storage of breast milk**

#### Family/Caregiver

- **Update parents regarding neonate clinical status and expectations for the next 48 hours**
- **Discuss with parents anticipated method of abdominal wall closure**
- **Encourage pumping and storage of breast milk**
- **Review transition planning to GS**
- **Obtain consent if surgery anticipated**

#### Clinical Practice Guideline

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Implementation of CPG

Facilitators to implementation

- Targeted LOS to be posted at each neonate’s bedside to remind staff of pathway utilization
- Surgical Nurses Interest Group will act as resources to implement pathway
- Neonatal NP Group will advocate for pathway utilization and remind team to review daily

Organizational barriers to implementation

- Adoption by staff in early stages

Potential economic impact

- Decreased LOS and non-value add days in NICU

Key review criteria/indicators for monitoring and audit purposes

- LOS, non-value add days, patient experience

Related Documents

- Pain Management Guidelines for Post-op Patients in the NICU

References


Gastroschisis Care Pathway

Guideline Group and Reviewers

Guideline Group Membership:

1. Hazel Pleasants-Terashita, RN(EC), NP NICU/General Surgery
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Internal Reviewers:

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Attachments:

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