PURPOSE

This purpose of this document is to provide a systematic approach to managing diarrhea for patients in PICU. This guideline pertains only to patients in PICU with nosocomial, acute diarrhea. This excludes patients presenting with diarrhea on admission.

POLICY STATEMENTS

Diarrhea acquired in the hospital setting can be caused by several etiologies:

- Osmotic diarrhea occurs when solutes are not well absorbed. These solutes draw fluid into the gastrointestinal system, leading to increased stool volume. Possible causes of osmotic diarrhea include hypertonic medications, hyperosmolar enteral feeds, and pancreatic enzyme deficiency.
- Malabsorptive diarrhea results from mechanical or biochemical malabsorption. Possible causes include bacterial overgrowth, intestinal villi inflammation, and intestinal mucosal edema (e.g. due to hypoalbuminemia).
- Secretory diarrhea occurs when either the intestines secrete too much water and electrolytes, or not enough is reabsorbed. It can be induced by bacterial toxins or bile salts.
- Infectious diarrhea is accompanied by fever and pus, blood or mucus in the stool. The source of infection can be contaminated food or feeds, or antibiotic use. Stool cultures can help identify bacterial organisms. The most common nosocomial antibiotic-associated bacteria is *Clostridium difficile*.
- Exudative diarrhea is caused by a change in gut mucosa and inflammation of the intestine, caused by treatments such as chemotherapy and radiation, and inflammatory diseases.

In general, enteral feeds should not be modified (i.e. diluted, reduced or held) until other possibilities have been systematically investigated (see Nosocomial Diarrhea Management Flowsheet). The literature does not support the view that enteral feeds are the primary source of diarrhea.

DEFINITIONS

Diarrhea:
There is no consensus in the literature as to what constitutes diarrhea. The patient’s baseline bowel pattern, including volume, colour, and frequency should be used for comparison.

SITE APPLICABILITY

BCCH – Pediatric Intensive Care Unit (PICU)
Nosocomial Diarrhea Management Flowsheet

**On bowel protocol?**
- **YES**: Discontinue bowel protocol
- **NO**

**Diarrhea longer than 48 to 72 hours?**
- **YES**
- **NO**: Continue current management

**DO NOT HOLD FEEDS**

**Medical hx contributing to diarrhea?**
- **YES**: Medical management as indicated
- **NO**

**Overflow stool due to fecal impaction?**
- **YES**: Conduct rectal check and abdominal x-ray. If stool present, then manually disimpact. Start PICU bowel protocol.
- **NO**

**Medications contributing to diarrhea?**
- **YES**
  - Promotility agents (domperidone, metoclopramide, etc.)
  - Antibiotics
  - Oral electrolytes (Mg, Na)
  - Sorbitol, liquid meds (in children ≥ 40 kg)
- **NO**

**Currently or recently on broad-spectrum antibiotics?**
- **YES**
- **NO**

**Enteral feeds contributing to diarrhea?**
- **YES**
  - Rate or volume too high
  - Hyperosmolar formula
  - Lack of soluble fibre
- **NO**: Consider GI consult, TPN
DOCUMENTATION

On admission, a medication reconciliation form is completed by the physician, including any medications the patient is normally on for regular bowel movements.

Document the patient’s stool output on the patient care flowsheet using the Bristol stool chart, as appropriate. Additional comments or concerns are to be documented in nursing notes.

Monitor serum potassium and calcium every 2 days.

Monitor fluid status.

Monitor frequency, size, consistency and colour of bowel movements.

REFERENCES

Bristol Stool Chart available on Medworxx.


