

The proof is in the pooing:
translating actions into
motions!

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Overview

- Background of the problem in critical care;
- Glasgow Royal Infirmary (GRI) solution;
- What now?

Background

- Diarrhoea and constipation are poorly represented in the literature, despite frequent presence in the critically ill patient.

Diarrhoea

- Reported incidences of between 15-50%;
- Differences in definitions of diarrhoea and standardisation;
- Numerous causes of diarrhoea in the critical care environment: feeding; drugs; antibiotics; fever or hypothermia; stress.

Consequences of diarrhoea in critical care

- Hemodynamic instability;
- Metabolic acidosis;
- Increase in hospital costs (staffing resources);
- Contamination of wounds and pressure sores;
- Faecal contamination of femoral inserted catheters;
- Distress for patient.

Constipation

- Incidences reported between 16-83%;
- General definition- 'failure of the bowel to open for 3 consecutive days';
- Causes of constipation in the critically ill patient include: opiate use; vasoactive drugs (dopamine); hypoperfusion and shock; stress; immobility; inadequate provision of fluids.

Consequences of Constipation in Critical Care

- Overgrowth of bacteria in the digestive tract (major cause of sepsis);
- Increased length of stay in ICU (Asai 2007);
- Prolonged time to wean from mechanical ventilation (Mostafa et al 2003);
- Nausea and vomiting;
- Obstruction and perforation of the bowel;
- Embarrassment and distress.

GRI solution

- Aim to improve bowel care in the unit.
- Three phase, mixed methods study implemented:
 - **Phase One-** Three month clinical audit and focus group;
 - **Phase Two-** Implementation of new protocol, updated documentation and education sessions for staff ;
 - **Phase Three-** Three month clinical audit and focus group.

Phase One: Clinical Audit

- Exclusion Criteria:
 - Diarrhoea on admission;
 - Patients admitted for three days or less;
 - Bowel surgery within 14 days of admission;
 - Patients who were NBM or not feeding enterally;
 - Patients requiring TPN;
 - Care withdrawn within the three day study period (LCP);
 - Patients second or subsequent admission within the three month period.

Phase One: Clinical Audit

- 26 Patients
- Median number of bowel care documentation days – 87% (range 20-100%)
- 57.7% incidence of constipation
- Median Number of Diarrhoea days 32.5% (range 0%-89%).








Phase One: Focus group

- Main themes generated:
 - Inadequacy of bowel care management;
 - Education and Experience;
 - Documentation and Communication;
 - Need for standardisation and raised awareness.

Phase Two: Implementation

- Change in documentation including CareVue charting and Daily Goals;
- Implementation of the Bowel Management Protocol (BMP);
- Draft BMP developed with pharmacy team and standard trust guidelines;
- Education sessions for staff.

Bristol Stool Chart

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear-cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, a mushy stool
Type 7		Watery, no solid pieces. Entirely Liquid

- Lewis, SJ. and Heaton, KW. (1997) Stool form scale as a useful guide to intestinal transit time. Scandinavian Journal of Gastroenterology; 32:920-924.

Phase Three: Clinical Audit

- 27 Patients
- Median Number of documentation days Increased from 87% to 100% ($p=0.0003$)
- Constipation incidence dropped from 57.7% to 37.0% ($p=0.13$)
- Median Number of diarrhoea days dropped from 32.2% to 17% ($p=0.18$).

Phase Three: Focus Group

- Main Themes Generated:
 - Positive impact of the interventions;
 - Standardisation;
 - Improvement in documentation and communication;
 - Further improvements to communication and documentation.

Limitations

- Small Scale Study
- Sampling strategies
- Newly Developed BMP

Conclusions

- Constipation and diarrhoea have major implications for the critically ill patient.
- Management of constipation and diarrhoea may be improved by the use of:
 - a standardised protocol;
 - careful attention to documentation and education of the MDT.

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