

**St. Michael's**

Inspired Care.  
Inspiring Science.

# High Fecal Output Management

**Nutrition & Pharmaceutical  
Approaches**

**- A Pocket Reference -  
16 CCN**

*High fecal output occurs when there is insufficient bowel (or insufficient working bowel) to maintain fluid and/or nutritional requirements.*

*While individual patient experiences may differ, this typically manifests as greater than 1500ml of stool loss/24 hours.*

## Guiding Principles

- Patients will be supported with IV hydration and/or nutritional supplementation while high fecal outputs are managed
- Referral to Dietitians and Pharmacists are required
- Pharmaceutical and dietary interventions should occur simultaneously
- All interventions should be tried for a minimum of 72 hours before moving onto the next step
- Individualized care plans and patient engagement are critical to success

## Goals of Care

- Provide adequate protein, energy, vitamins, minerals, fluids and electrolytes to maintain or improve nutritional status
- Decrease or eliminate the need for parenteral nutrition or intravenous fluids when possible
- Implement appropriate drug therapy
- Reduce fecal output to less than 1500ml daily
- Maintain minimum of 1 litre urine output daily
- Re-establish activities of daily living/usual routines

## Nutrition Interventions: Patients with Ostomies/Fistulas

### Step I

- Ostomy diet<sup>7</sup>
- No caffeine<sup>12</sup>
- 6 meals per day<sup>3</sup>
- Gatorade 2 (G2)<sup>®</sup>

### Step II - Add

- Low osmotic diet<sup>12</sup>, low lactose<sup>8</sup>

### Step III - Add

- 1 gram of NaCl with 250ml of low simple sugar beverages<sup>5</sup>
- Eliminate all other fluids
- Add 3 salt packages to meal trays (1g NaCl)
- Separate liquids from solid food by 45 minutes<sup>12</sup>

### Step IV

- Change all liquids to: Gastrolyte<sup>®</sup> or SMH Oral electrolyte solution<sup>3</sup>

## Nutrition Interventions: Patients with Colon

### Step I

- Low roughage, high bulk diet<sup>11</sup>
- No caffeine<sup>12</sup>
- 6 meals per day<sup>3</sup>
- Gatorade 2 (G2)<sup>®</sup>

### Step II - Add

- Low osmotic diet<sup>12</sup>, low lactose<sup>8</sup>

### Step III - Add

- 1 gram of NaCl with 250ml of low simple sugar beverages<sup>5</sup> up to 6g NaCl/d
- Eliminate all other fluids
- Add 3 salt packages to meal trays (1g NaCl)
- Separate liquids from solid food by 45 minutes<sup>12</sup>

### Step IV

- Change all liquids to: Gastrolyte<sup>®</sup> or SMH Oral electrolyte solution<sup>5</sup>

# Pharmaceutical Interventions

## Step I

- All patients with extensive small bowel resection should be on PPI<sup>1,5,10</sup>
- Initiate as oral tablets; if there is a concern with absorption, change to IV
- SMH formulary: pantoprazole, esomeprazole
- Review all liquid medications to avoid sugar alcohols

## Step II - Add

- Imodium<sup>®</sup> (loperamide) 4mg po tid ac<sup>1,4,9</sup> & hs
- For patients with a colon, psyllium 1 tsp bid (titrate dose to effect max. 1 tbsp bid)<sup>2,12</sup>

## Step III - Add

- Lomotil<sup>®</sup> (diphenoxylate/atropine) 1 tab po tid ac & hs

## Step IV

- Increase Lomotil<sup>®</sup> to 2 tabs tid ac & hs AND increase loperamide<sup>9,12</sup> to 8mg tid ac & hs

## Step V

- Initiate octreotide<sup>10</sup> 25mcg sc bid ac

## Step VI

- Increase octreotide to 50mcg sc tid ac

## Step VII

- Increase octreotide to 100mcg sc tid ac

## NOTE

- For patients with bile acid diarrhea AND those with <100cm of SB resected AND an intact colon, consider cholestyramine<sup>6,7,12,13</sup> 4 g po daily

## Helpful Hints - Nutrition

### Diet Definitions

#### Ostomy

- low in insoluble fibre (e.g. avoids wheat bran, fruit skins, raw vegetables)
- higher in some soluble fibre (e.g. includes oatmeal, unsweetened applesauce)
- low in gas forming foods (e.g. avoids broccoli, cauliflower)

#### Low Osmotic Diet

- low in simple sugars (e.g. avoids sugar, fruit juices)
- low in insoluble, high in soluble fibre
- limits quantity of some liquids (e.g. milk)

#### Low Lactose

- Provides lactose free milk
- Allows yogurt, cheese, pudding and other smaller quantities of lactose

#### Low Roughage, High Bulk

- low in insoluble fibre (e.g. avoids wheat bran, fruit skins, raw vegetables)
- higher in some soluble fibre (e.g. includes oatmeal, unsweetened applesauce)

#### Low Simple Sugar Beverages

- e.g. ORS (oral replacement solution), G2<sup>®</sup>, diet drinks, water, herbal tea
- 3 packages of salt added to meal trays provides an additional 1 g of sodium chloride per day

## Helpful Hints- Pharmacy

- Avoid liquid drug products (eg, syrups): sweeteners (sorbitol) may exacerbate outputs
- Administer medications 30 min before meals to increase absorption
- Imodium is the preferred opioid for slowing outputs
- Lomotil is preferred to Codeine to slow output
- Octreotide is more beneficial in net secretors: those with outputs  $> 3$  L/24 h<sup>10</sup>
- Oral PPI's require  $>50$  cm of small bowel for absorption
- Dilute psyllium in 1 cup of water
  - Dose of psyllium should be titrated to effect (until a thickening/gelling like effect is seen in the ostomy/fistula output)
- If trialing cholestyramine, other medications should be taken 1 h before or 4 h after or as great an interval as possible
- Once a patients outputs are under control, it may be advisable to trial scaling back or reducing the dose of anti-diarrheal medications
- Once stable on the appropriate dose of octreotide you may consider converting to a long acting product.

## References

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