Rectal Bleeding in Children

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Publication date: October 2016 – updated from November 2012 by Mr S Paramalingam
Review date: November 2014

Background

1. The spectrum of diseases that can present with rectal bleeding is very large. Initial assessment should address any need for resuscitation and a thorough history to narrow the differential diagnoses.

2. The common causes vary with the age of the child but there is considerable overlap within the age groups.

3. The correct management pathway will depend on the suspected diagnosis and the severity of the bleeding:

   a. Minor bleeding, no acute problem - outpatient or GP management
   b. Major bleeding or acute abdominal / systemic problem – inpatient management

   The usual referral pathways are shown in the tables below.

4. SPECIAL NOTE: The perianal region should be carefully examined in all cases of reported PR bleeding and the possibility of child abuse should be borne in mind. Any supporting evidence for child sexual abuse (e.g. bruising) should trigger an immediate request for expert advice and assistance as per the BSUH NHS Trust Child Protection policy.

Management pathway
NEONATE – 3 MONTHS

**HISTORY**
- Colour of blood – fresh or altered? (Examine nappy blood if possible)
- Amount and frequency of blood
- Any association with stooling
- Any change in stools – hard/soft/diarrhoea
- Maternal and birth history
- Vitamin K given at birth?
- Feeding history - breast, formula, change in milk

**EXAMINATION**
- Check ABCs + hydration
- Temperature
- General examination for anaemia / petechiae / bruising
- Abdominal examination for distension, discoloration or mass
- Check perineum for fissure
- +/- PR to evaluate ongoing bleeding (usually done by surgeons)

**DIFFERENTIAL DIAGNOSES and key indicators**

**Swallowed maternal blood**: Feeding difficulties, painful feeding, cracked nipples

**Coagulopathy**: lack of Vit K, maternal medication, hereditary factors

**Bacterial enteritis**: Sepsis, poor feeding

**Milk protein allergies**: Blood mixed with stool, recent change of feed, vomiting

**Anal fissures**: Bright red blood that streaks the stool or causes spots of blood in the nappy, tear at the mucocutaneous line (most commonly located dorsally in the midline)

**Gastric ulcers**: Stress in the third trimester, ingested NSAIDS, steroids

**Rarer causes**: volvulus, necrotizing enterocolitis (especially if preterm), Hirschsprung’s enterocolitis, Meckel’s diverticulum, intussusception, arteriovenous malformations

**MAJOR OR ONGOING BLEEDING**
- Resuscitate as required, correct ABCs
- Take blood for Hb if anaemic/shocked, consider x-match
- Consider need for antibiotics for sepsis
- Urgent surgical opinion
- X-ray abdomen if distended

**MINOR BLEEDING**
- Check ABCs + hydration
- Temperature
- General examination for anaemia / petechiae / bruising
- Abdominal examination for distension, discoloration or mass
- Check perineum for fissure
- +/- PR to evaluate ongoing bleeding (usually done by surgeons)
### DIFFERENTIAL DIAGNOSES and key indicators

**Lower GI sources:**

- **Intussusception:** most likely cause of lower GI bleeding in infants aged 6-18 months. Colicky pain, vomiting, abdominal mass and distention
- **Meckel's Diverticulum:** Painless. Profuse unheralded may lead to drop in Hb
- **Bacterial enteritis:** Sepsis, poor feeding
- **Milk protein allergies:** Blood mixed with stool, recent change of feed, vomiting
- **Anal fissures:** Bright red blood that streaks the stool or causes spots of blood in the nappy, tear at the mucocutaneous line (most commonly located dorsally in the midline)
- **Gangrenous bowel:** malrotation with volvulus, or other cause of volvulus
- **Bleeding Polyp:** intermittent painless bleed.
- **Rarer causes:** Hirschsprung’s enterocolitis, arteriovenous malformations

**Upper GI sources:**

- **GORD Oesophagitis** – Pain on feeding, arching back
- **Gastritis:** H Pylori, Steroids, NSAIDS, Zollinger Ellison, Crohn’s disease, Systemic Illness

### HISTORY

- Colour of blood – fresh or altered? (Examine nappy blood if possible)
- Amount and frequency of blood
- Associated vomiting (bilious?)
- Pain (colicky?)
- Any association with stooling
- Any change in stools – hard/soft/diarrhoea
- Feeding history - breast, formula, change in milk
- Medications

### EXAMINATION

- Check ABCs + hydration
- Temperature
- General examination for anaemia / petechiae / bruising
- Abdominal examination for distension, discolouration or mass
- Signs of obstruction
- Check perineum for fissure
- +/- PR to evaluate ongoing bleeding (usually done by surgeons)

### MAJOR OR ONGOING BLEEDING

- Resuscitate as required, correct ABCs
- Take blood for Hb if anaemic/shocked, consider x-match
- Consider need for antibiotics for sepsis
- Urgent surgical opinion
- X-ray abdomen if distended
- If intussusception considered refer to guidelines - IV access, hydrate, contact surgeons urgent USS

### MINOR BLEEDING

- Check ABCs + hydration
- Temperature
- General examination for anaemia / petechiae / bruising
- Abdominal examination for distension, discolouration or mass
- Xray abdomen if distended
- Check perineum for fissure
- +/- PR to evaluate ongoing bleeding (usually done by surgeons)
**OLDER CHILDREN**

### HISTORY
- Colour of blood – fresh or altered? (Examine nappy blood if possible)
- Amount and frequency of blood
- Associated vomiting (bilious?)
- Pain (colicky?)
- Any association with stooling
- Any change in stools – hard/soft/diarrhoea
- Medications

### EXAMINATION
- Check ABCs + hydration
- Temperature
- General examination for anaemia / petechiae / bruising
- Abdominal examination for distension, discoloration or mass
- Signs of obstruction
- Check perineum for fissure
- +/- PR to evaluate ongoing bleeding (usually done by surgeons)

### DIFFERENTIAL DIAGNOSES and key indicators

**Lower GI sources:**
- **Juvenile Polyp:** The most common cause of lower GI bleeding in children older than 2 years, intermittent painless bleed.
- **Infectious Diarrhoea:** Profuse diarrhoea with bleeding. Recent antibiotics.
- **Inflammatory Bowel Disease:** Bleeding is more typical in UC than Crohn, but can occur in either- typically as bloody diarrhoea. Diagnosis usually occurs prior to GI bleeds
- **Anal fissures:** Bright red blood that streaks on paper, tear at the mucocutaneous line (most commonly located dorsally in the midline). History of constipation and painful defecation or withholding
- **Vascular lesions Meckel's Diverticulum:** profuse un heralded may lead to drop in Hb
- **Gangrenous bowel:** malrotation with volvulus, or other cause of volvulus
- **Rarer causes:** Hirschsprung’s enterocolitis, arteriovenous malformations, intussusception

**Upper GI sources:**
- **Oesophageal varices:** From portal hypertension e.g. portal vein thrombosis
- **Duodenal ulcers:** Pain after eating through to back.
- **Mallory-Weiss tears:** Retching history, alcohol use
- **GORD Oesophagitis** – Heartburn, Neurologically impaired

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- Xray abdomen if distended
- If intussusception considered refer to guidelines - IV access, hydrate, contact surgeons urgent USS

### MINOR BLEEDING
- Check ABCs + hydration, temperature
- General examination for anaemia / petechiae / bruising
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