Rectal Bleeding in Children

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Background

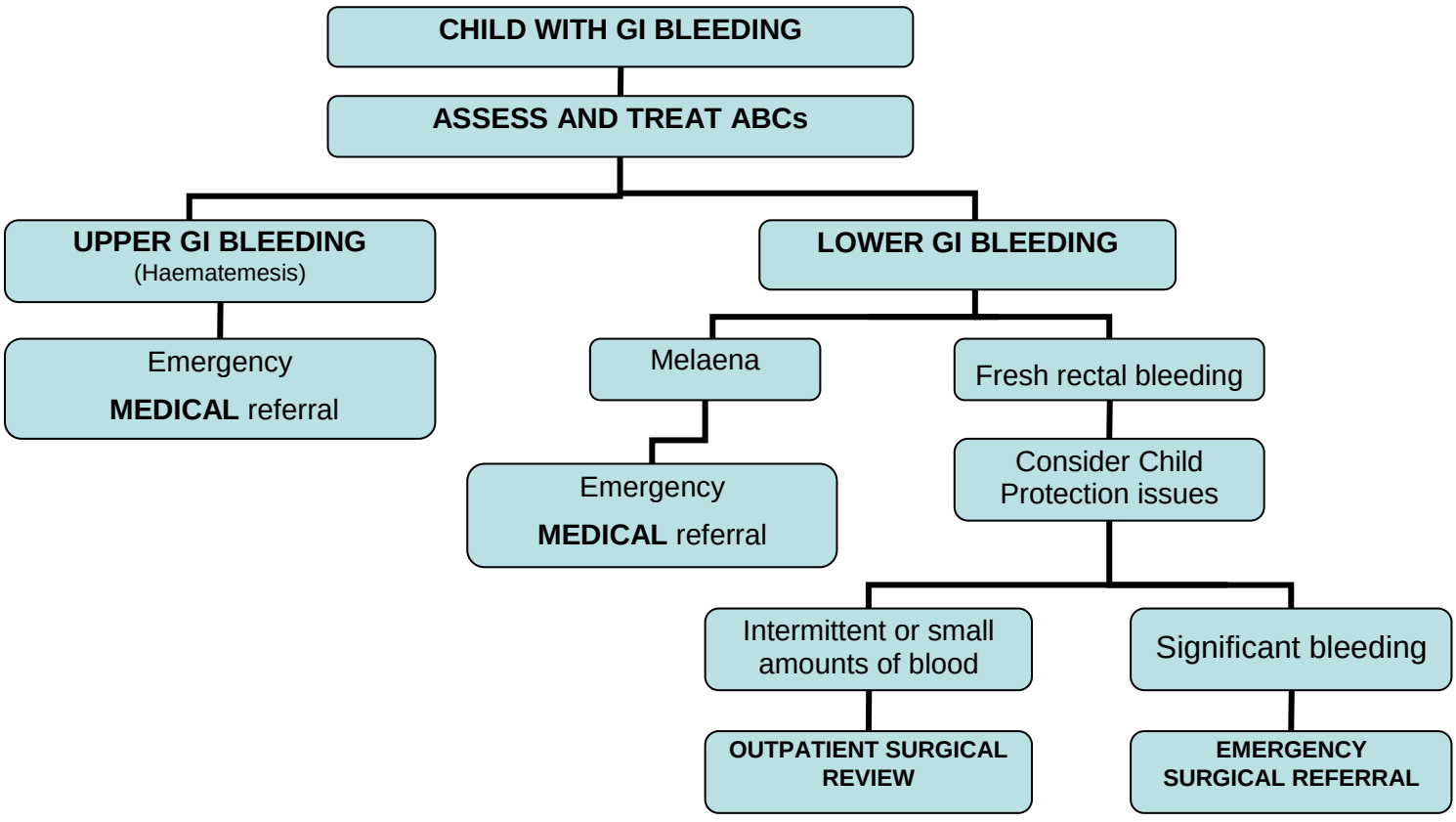
1. The spectrum of diseases that can present with rectal bleeding is very large. Initial assessment should address any need for resuscitation and a thorough history to narrow the differential diagnoses.
2. The common causes vary with the age of the child but there is considerable overlap within the age 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, discolouration 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, discolouration or mass
- Check perineum for fissure
- +/- PR to evaluate ongoing bleeding (usually done by surgeons)

INFANT 3 – 18 MONTHS

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)

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

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, discolouration 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

Gastritis: H Pylori. Steroids. NSAIDS. Zollinger Ellison. Crohn's disease. Systemic Illness

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
- 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
- Abdominal examination for distension, discolouration or mass
- Xray abdomen if distended
- Check perineum for fissure
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