

CHILDREN'S SERVICES

Guidelines for Acute Abdominal Pain in Children

All children under the age of 5 who present with acute abdominal pain should be seen by Paediatrics in the first instance,

The diagnosis is based on history, examination and selected investigations as clinically indicated.

Vomiting generally precedes pain in medical conditions; the opposite tends to be true in surgical conditions

Surgical opinion is necessary if a surgical cause is suspected or the cause is not obvious after thorough evaluation

Common conditions in children

Gastroenteritis
Urinary tract infection
Constipation
DKA
Pneumonia
HSP
Appendicitis
Intussusception
Volvulus
Strangulated hernia
Testicular torsion

Clinical Evaluation

History

Pain history
Precipitating or relieving factors
Recent trauma
Associated symptoms: D&V, constipation, pyrexia, urinary symptoms, cough, polyuria, polydipsia, rash, joint pain.
Gynaecological history: menstrual history, sexual activity, and contraception.
Past medical history, family history, drug use

Physical Examination

General appearance, hydration status, degree of pain, temperature, pulse, blood pressure, respiratory rate, oxygen saturation

NB if tachycardia remains after analgesia and/or antipyretics this is an ominous sign and serious pathology must be suspected. This may be a sign of compensated shock, which can decompensate if not treated (see APLS handbook).

Abdominal examination:

Observation

Movement of abdomen, scars from previous surgery, bruising, rashes, distension, visible masses, herniae, visible peristalsis/reverse peristalsis

Palpation

Tenderness, guarding, rebound (percussion tenderness less traumatic to elicit), masses, organomegaly, hernial orifices, femoral pulses, external genitalia, anus, and bowel sounds.

Rectal and pelvic examinations are rarely needed in children and should only be done by the physician or surgeon with ongoing responsibility for the child.

Any bruising in abdominal trauma is significant, as a great deal of force is required to produce bruising on the abdomen.

Other systems should be examined; ENT and cervical lymph nodes, chest, musculoskeletal (HSP, hip pathology), peripheral oedema or rash with HSP

Investigations (if clinically indicated)

- Urinalysis-UTI, HSP, DKA
- Venous blood gas-Lactate, pH, BSL
- FBC-Infective causes, blood loss, sickle cell anaemia
- U&E, LFT, amylase, CRP
- Group and save
- Pregnancy test
- Plain film of abdomen-constipation, obstruction, calculi
- CXR-pneumonia
- Erect chest and supine abdomen – bowel perforation
- Ultrasound-intussusception, pyloric stenosis.
- CT- trauma
- Ultrasound is frequently requested by surgeons, though it is not specific for appendicitis

Indications for Surgical Consultation (SHO may see, but not discharge a child without discussion with Registrar or Consultant)

- **Any child who is not settling with analgesia, or in whom there is no obvious aetiology**
- **Severe or progressive pain**
- **Evidence of peritonitis or bowel obstruction**
- **Significant trauma or blood loss**

Management

Initial resuscitation

ABC & DEFG (don't ever forget glucose)

O2 via face mask if necessary

Analgesia- Paracetamol, Ibuprofen, intra-nasal diamorphine, IV morphine

NG tube if necessary

IV fluids – 20ml/kg 0.9% saline for shock (10+10 for trauma)
0.9% saline + 5% dextrose for maintenance

Any child with abdominal pain who requires a fluid bolus, or who requires more than simple analgesia, should be seen by the attending Consultant

Treat underlying cause - refer to Surgeons in SPH or St George's for very young children

Reference:

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