# Acute Abdominal Pain Pathway

NHS Buckinghamshire, Oxfordshire and Berkshire West Integrated Care Board

## Clinical Assessment / Management Tool for Children – Oxfordshire Patient Pathway

**Patient presents**

### Abdominal Pain / Abdominal Injury?

**History:**
- Trauma? Bleeding?
- Change in bowel habit?
- Dysuria / urinary frequency?
- Nausea / Vomiting?
- Nature of pain ?peritonitic

**Examination:**
- Temp; capillary refill, HR; BP
- Hydration status? AVPU?
- Anaemia? Jaundice?
- Guarding? Rebound tenderness?
- Bowel sounds?
- Testicular examination

**Investigations:**
- Perform urine dipstick (consider formal MC+S in children <3 years) – clean catch urine
- Perform blood glucose if DKA suspected or history of significant vomiting

*Consider if appropriate to:*
- Perform pregnancy test

**Past Medical History:**
- If female, history of gynaecological problems?
- Any known chronic medical conditions? Recent abdo surgery?

**Consider presentation with respect to safeguarding issues (e.g. delay in presentation; injury not consistent with history or age/developmental stage of child).**

### Immediate Action

- Assess for red flags (see table 1)
- Consider appropriate analgesia*
- Try to establish likely diagnosis (see tables 2 and 3)
- Exercise additional caution when assessing children and young people with complex needs whose symptoms and signs can be more difficult to interpret

**giving pain relief (including morphine if necessary) does not affect the validity of later examination & does not delay decisions to treat)*

### Red Flags present?

**Yes** →

### Urgent Action

- Urgent SAME DAY REFERRAL to General Paediatrics or Paediatric Surgery

**No** ↓

**Likely diagnosis established?**

**Yes** →

### If appropriate

- Manage locally + provide safety netting advice sheet
- Consider scheduling review in 24-48 hours
- If diagnosis requires secondary care management discuss with General Paediatrics or Paediatric Surgery to arrange review if required

**No** →

**If diagnosis still uncertain, consider discussing with General Paediatrics or Paediatric Surgery. Ensure appropriate safety netting and provide family with advice sheet**

## Table 1

| Medical Red Flags | Surgical Red Flags | Red Flags (medical or surgical) |
|---|---|---|
| • Septic appearance (fever, tachycardia, generally unwell)<br>• Respiratory symptoms (tachypnoea, respiratory distress)<br>• Generalised oedema – suspect nephrotic syndrome<br>• Significant dehydration (clinically or >5% weight loss)<br>• Purpuric or petechial rash (suspect sepsis and/or meningococcal disease if febrile)<br>• Jaundice<br>• Polyuria / polydipsia (suspect diabetic ketoacidosis) | • Peritonitis (guarding, percussion tenderness, constant dull pain exacerbated by movement)<br>• Suggestion of bowel obstruction (colicky abdominal pain, abdominal distension, bilious vomiting, resonant bowel sounds)<br>• History of recent significant abdominal trauma<br>• History of recent abdominal surgery<br>• Irreducible hernia<br>• Testicular pain – consider torsion, esp after puberty<br>• “Red currant jelly” stool | • Severe or increasing abdominal pain<br>• Blood in stool<br>• Frank haematuria<br>• Abdominal distension<br>• Bilious (green) or blood-stained vomit<br>• Palpable abdominal mass<br>• Child unresponsive or excessively drowsy<br>• Child non-mobile or change in gait pattern due to pain<br>• Ongoing moderate to severe pain despite analgesia |

### Consider Paediatric Urgent Care Pathway

Alternatives to hospital admission when GPs are considering referral:
- Oxford Paediatric Advice/Referral Line Tel: 01865 227533, Option 1 for HGH and Option 2 for JRH.
- If no response Tel: 01865 741166, Bleep 9403 for HGH or 1711/4734 for JRH Paediatrician on call
- Children’s Community Nursing (CCN) Team via single point of access Tel: 01865 902700

### Useful numbers for clinicians in the community

**John Radcliffe Hospital** Tel: **01865 741166**
**Horton General Hospital** Tel: **01295 275500**
**Royal Berkshire Hospital** Tel: **0118 322 5111**
**Great Western Hospital** Tel: **01793 604020**
**Stoke Mandeville Hospital** Tel: **01296 315000**

This guidance has been reviewed and adapted by the Children’s Hospital at Home Working Group, with representatives from Oxford University Hospitals NHS Foundation Trust, Oxford Health Foundation Trust and General Practice, with consent from the Hampshire development groups.

This document was arrived at after careful consideration of available evidence, including, but not exclusively, NICE, SIGN, EBM data and NHS evidence as applicable. This pathway is to support clinicians in decision making and management.

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### Table 2

| Differential Diagnosis | Most important features |
| --- | --- |
| **Appendicitis** | Fever, anorexia, migration of pain from central to RIF, peritonism (clinical or history suggestive), tachycardia |
| **Constipation** | History of infrequent, large or hard stools. Pain mainly left sided / supra pubic. If acute look for organic causes (i.e. obstruction). New onset constipation is unusual in teenagers. |
| **Diabetic ketoacidosis** | Known diabetic or history of polydipsia/ polyuria and weight loss, BM >15 and ketosis |
| **Gastroenteritis** | Diarrhoea and/or vomiting, other family members affected |
| **Haemolytic Uraemic Syndrome (HUS)** | Unwell child with bloody diarrhoea, pallor, oliguria or abnormal bruising/bleeding |
| **Henoch Schoenlein Purpura (HSP)** | Diffuse/colicky abdominal pain, non-blanching rash (obligatory sign), swollen ankles/knees, haematuria/ proteinuria |
| **Infantile colic** | Young healthy infant with episodes of inconsolable cry and drawing up of knees, flatus |
| **Intussusception** | Mostly < 2 yrs, pain intermittent with increasing frequency, vomits (sometimes with bile), drawing up of knees, lethargy, may be calm/well between episodes, redcurrant jelly stool (late sign) |
| **Irreducible hernia** | Painful enlargement of previously reducible hernia +/- signs of bowel obstruction |
| **Lower lobe pneumonia** | Referred abdominal pain and triad of: fever, cough and tachypnoea |
| **Meckel's diverticulum** | Usually painless rectal bleeding. Symptoms of intestinal obstruction. Can mimic appendicitis |
| **Mesenteric adenitis** | Generally occurs age 5-10 years. There is often a current or recent URTI. Can be hard to distinguish from appendicitis but no peritonism. Site and severity of pain typically not constant and child may be hungry. |
| **Non-specific recurrent abdominal pain** | With excluded organic causes. Non-specific recurrent abdominal pain |
| **Pancreatitis** | Central severe pain. Nausea. Unusual in children but important to not miss. |
| **Sickle cell crisis** | Refer to sickle cell disease guideline for differentiation with non-crisis causes |
| **Testicular torsion** | More common after puberty. Sudden onset, swollen tender testis. Have low threshold for discussing all testicular pain with paediatric surgical team |
| **Trauma** | Always consider NAI. Surgical review necessary |
| **UTI** | Fever, dysuria, loin/abdominal pain, urine dipstick positive for nitrites/ leucocytes – Investigate and manage as per UTI pathway |

### Table 3

| Female gynaecological pathologies | |
| --- | --- |
| **Menarche** | On average 2 yrs after first signs of puberty (breast development, rapid growth). Average age in UK is 13 yrs |
| **Mittelschmerz** | One sided, sharp, usually < few hours, in middle of cycle (ovulation) |
| **Pregnancy** | Sexually active, positive urine pregnancy test |
| **Ectopic pregnancy** | Pain usually 5-8 weeks after last period, increased by urination/ defaecation,. Late presentations associated with bleeding (PV, intra-abdominal) |
| **Pelvic inflammatory disease** | Sexually active. Risk increase with: past hx of PID, IUD, multiple partners. Fever, lower abdo pain, discharge, painful intercourse |
| **Ovarian torsion** | Sudden, sharp, unilateral pain often with nausea/ vomiting. Fever if necrosis develops |

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