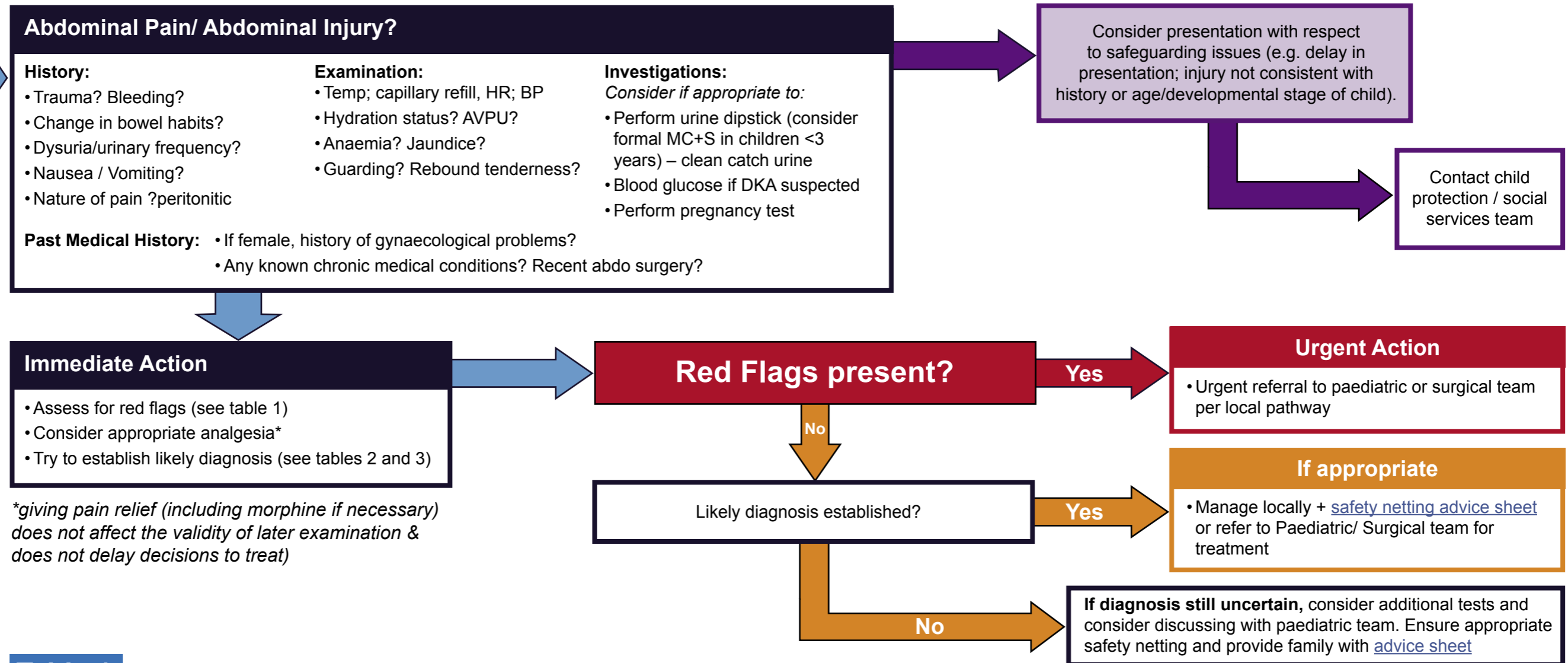


# Acute Abdominal Pain Pathway

Clinical Assessment/ Management tool for Children



## Management - Primary Care and Community Settings



**Table 1**

Medical Red Flags	Surgical Red Flags	Red Flags (medical or surgical)
<ul style="list-style-type: none"> <li>• Septic appearance (fever, tachycardia, generally unwell)</li> <li>• Respiratory symptoms (tachypnoea, respiratory distress, cough)</li> <li>• Generalised oedema - suspect nephrotic syndrome</li> <li>• Significant dehydration (clinically or &gt;5% weight loss)</li> <li>• Purpuric or petechial rash (suspect sepsis meningococcal disease if febrile)</li> <li>• Jaundice</li> <li>• Polyuria / polydipsia (suspect diabetic ketoacidosis)</li> </ul>	<ul style="list-style-type: none"> <li>• Peritonitis (guarding, rebound tenderness, constant dull pain exacerbated by movement)</li> <li>• Suggestion of bowel obstruction (colicky abdo pain, bilious vomiting, resonant bowel sounds)</li> <li>• History of recent significant abdominal trauma</li> <li>• History of recent abdominal surgery</li> <li>• Irreducible hernia</li> <li>• Testicular pain – consider torsion, esp after puberty</li> <li>• “Red currant jelly” stool</li> </ul>	<ul style="list-style-type: none"> <li>• Severe or increasing abdominal pain</li> <li>• Blood in stool</li> <li>• Abdominal distension</li> <li>• Bilious (green) or blood-stained vomit</li> <li>• Palpable abdominal mass</li> <li>• Child unresponsive or excessively drowsy</li> <li>• Child non-mobile or change in gait pattern due to pain</li> </ul>

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**Table 2**

Differential Diagnosis	Most important features
<b>Gastroenteritis</b>	Diarrhoea and / or vomiting, other family members affected
<b>Infantile colic</b>	Young healthy infant with episodes of inconsolable cry and drawing up of knees, flatus
<b>Appendicitis</b>	Fever, anorexia, migration of pain from central to RIF, peritonism (clinical or history suggestive), tachycardia, raised CRP (or CRP rise after 12 hours)
<b>Mesenteric adenitis</b>	High fever, pain often RIF and fluctuating severity. Concomitant or antecedent URTI. Generally occurs age 5-10 years. Can be hard to distinguish from appendicitis but no peritonism, site of pain typically not constant and child may be hungry. Far more common than appendicitis.
<b>Intussusception</b>	Mostly < 2 yrs, pain intermittent with increasing frequency, vomits (sometimes with bile), drawing up of knees, red currant jelly stool (late sign)
<b>Meckel's diverticulum</b>	Usually painless rectal bleeding. Symptoms of intestinal obstruction. Can mimic appendicitis
<b>Constipation</b>	Positive history. Pain mainly left sided/ supra pubic. If acute look for organic causes (ie obstruction)
<b>UTI</b>	Fever, dysuria, loin/ abdominal pain, urine dipstick positive for nitrites/ leucocytes – send formal MC+S if age < 3 years
<b>Testicular torsion</b>	More common after puberty. Sudden onset, swollen tender testis. No relief/ increase of pain after lifting testicle suggests torsion rather than bacterial epididymitis.
<b>Irreducible hernia</b>	Painful enlargement of previously reducible hernia +/- signs of bowel obstruction
<b>HSP</b>	Diffuse / colicky abdominal pain, non-blanching rash (obligatory sign), swollen ankles/ knees, haematuria/ proteinuria
<b>HUS</b>	Unwell child with bloody diarrhoea and triad of: anaemia, thrombocytopenia & renal failure
<b>Lower lobe pneumonia</b>	Referred abdominal pain + triad of: fever, cough and tachypnoea
<b>Diabetic ketoacidosis</b>	Known diabetic or history of polydipsia/ polyuria and weight loss, BM >15, metabolic acidosis (HCO <sub>3</sub> <15) and ketosis
<b>Sickle cell crisis</b>	Nearly exclusively in black children. Refer to sickle cell disease guideline for differentiation with non-crisis causes
<b>Trauma</b>	Always consider NAI. Surgical review necessary
<b>Psychogenic</b>	Older child with excluded organic causes

**Table 3**

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

Glossary of Terms	
ABC	Airways, Breathing, Circulation
APLS	Advanced Paediatric Life Support
AVPU	Alert Voice Pain Unresponsive
B/P	Blood Pressure
CPD	Continuous Professional Development
CRT	Capillary Refill Time
ED	Hospital Emergency Department
GCS	Glasgow Coma Scale
HR	Heart Rate
MOI	Mechanism of Injury
PEWS	Paediatric Early Warning Score
RR	Respiratory Rate
WBC	White Blood Cell Count