

Symptoms & signs of acute abdominal pathology may be masked by altered level of consciousness or the presence of shock.

Repeat assessment after resuscitation and after an appropriate time interval is essential

### **SHOCK / SEVERE DEHYDRATION :**

- A shocked infant / small child will usually have pallor, lethargy, tachycardia and peripheral shutdown (capillary refill > 2 secs & cold mottled peripheries).
- Hypotension is a late & often preterminal sign of shock in children. Do not wait for hypotension before commencing fluid therapy.

### **PAIN RELIEF**

- Severe abdominal pain should be relieved as soon as possible
- Severe pain is best relieved by IV narcotics in small aliquots titrated to effect
- Narcotics are proven to be safe and effective in the management of pain in children, however as with adult they should be monitored for signs of hypoventilation

### **GASTROENTERITIS:**

- In a child with acute abdominal pain and vomiting, a diagnosis of gastroenteritis should only be considered when other medical or surgical conditions have been excluded.

### **BILE-STAINED VOMITUS:**

- A definite green colour in the vomit.
- It indicates mechanical obstruction until proven otherwise.
- Sometimes gastric contents can have a yellow tinge (not bile staining).

### **BLOODY STOOL:**

- May indicate infective diarrhoea.
- If mixed with mucus ( ' red currant jelly ' ) may suggest intussusception.

### **MALES:**

- Pain from torsion of the testes may be referred to the abdomen.
- Check the inguinoscrotal region carefully.

### **FEMALES:**

- Ectopic pregnancy is a life threatening condition.
- A post-menarchal adolescent girl is pregnant until proven otherwise
- Be discrete with questions about sexual activity & obtain permission before doing pregnancy test.

### **APPENDICITIS**

- Must be considered in any child with severe abdominal pain.
- In the very young child, in whom the risk of perforation is higher, the presenting symptoms are less specific.
- The diagnosis is clinical – discuss with surgeons re need for CT abdo, no other laboratory or radiological tests are routinely required.

### **INTUSSUSCEPTION**

- The peak age for **intussusception** is 6-12 months.
- Plain AXR may show signs of bowel obstruction, with decreased gas in the right colon.
- The diagnosis is confirmed by air insufflation or barium enema, with reduction usually possible by the same means (unless signs of peritonitis - risk of perforation).

### **MIDGUT VOLVULUS**

- **Midgut volvulus** is commonest in the newborn period, but can occur in later childhood. Predisposing factors include malrotation and abnormal mesentery.

### **Pneumonia**

- Signs may be minimal, if fever, cough, and/or tachypnoea – Chest XRay should be considered

- Some less common diagnoses need to be considered in patients with certain underlying chronic illnesses. **Hirschsprung's disease** can be complicated by enterocolitis, with sudden painful abdominal distension and bloody diarrhoea. These patients can become rapidly unwell with dehydration, electrolyte disturbances, and systemic toxicity, and are at risk of colonic perforation. Primary bacterial **peritonitis** can occur in children with **nephrotic syndrome, splenectomy and those with VP shunts**.