Abdominal Radiograph Interpretation

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Demographics

- Patient: name, DOB, hospital number, age, sex
- Previous films

Radiograph detail

- Date
- Type (supine, upright, lateral decubitus)
- Adequacy
  - Area
  - Rotation
  - Penetration

Abnormalities

- Briefly mention obvious abnormalities
- **Bowel**
  - **Small bowel**
    - Identify by: pliae circularis/valvulae conniventes (around the whole circumference), central position
    - Should be <3cm in diameter (enlarged in obstruction)
  - **Large bowel**
    - Identify by: haustra (due to longitudinal and transverse muscularis), transverse bands don't go all the way across (due to 3 longitudinal muscles), peripheral position, large size
    - Should be <6cm in diameter (enlarged in obstruction)
  - **Faeces** (mottled appearance)
  - **Gas** (normal in fundus and large bowel only): extra-luminal gas indicates perforation
  - **Fluid levels** seen in perforation/infection
- **Other organs**
  - **Soft tissue shadows** (may be seen)
    - Liver
    - Spleen
    - Kidneys
    - Gall bladder
    - Psoas shadow – lost in retroperitoneal inflammation or ascites)
  - **Calcification** of pancreatic (chronic pancreatitis), abdominal aorta (atherosclerosis) or renal stones
- **Bone** (spine and pelvis): Pagets, metastasis, OA, vertebral fractures

To complete

- "To complete my analysis, I would examine previous films and determine the clinical history"
- "If there is any possibility of perforation, I would like an erect chest x-ray to look for air under the diaphragm"
- Summarise and note differentials

Common Abnormalities

- Large bowel obstruction: distension >6cm
- Small bowel obstruction: distension >3cm, no gas in large bowel, fluid levels if erect
- Volvulus
- Chronic pancreatitis: pancreatic calcification
- Urinary stones

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