

# Diagnosis of abdominal tumours in children and young people

A summary for healthcare professionals



## Consider an abdominal tumour in any child presenting with:

- Abdominal mass
- Abdominal pain
- Haematuria
- Abdominal distension

## Associated symptoms:

- Weight loss
- Pallor/petechiae
- Fever
- Malaise
- Jaundice
- Hepatosplenomegaly
- Bone pain
- Neurological symptoms

## Ask about common predisposing factors

- Hemihypertrophy
- WAGR syndrome
- Denys Drash syndrome
- Hypospadias
- Cryptorchidism
- Aniridia
- Beckwith Wiedemann
- Hereditary retinoblastoma

## Assess with:

### History:

- Associated symptoms
- Any predisposing factors
- Family history

### Examination of:

- Abdomen
- Spine
- Weight
- Neurological examination
- Urine dipstick
- Blood pressure

## Assessment pitfalls

- Symptoms are usually progressive and can cause other seemingly unrelated symptoms due to pressure on other structures, such as respiratory distress, spinal cord compression or bowel obstruction.
- In primary care, requesting an ultrasound should not delay referral/discussion with paediatrics

## Referral from primary care

- High risk of tumour – SAME DAY referral to secondary care
- Lower risk\* - discuss with paediatrics via telephone to advise best route to be seen

## Imaging

- High risk of tumour: URGENT ultrasound imaging
- Lower risk\*: ultrasound imaging within 4 weeks

\*abdominal tumour in differential diagnosis, low Index of suspicion

## Abdominal mass

- Abdominal masses due to a tumour may arise either within the abdominal cavity or in the retroperitoneum.
- Ask about the presence of other symptoms of an abdominal tumour (abdominal pain, haematuria, abdominal distension, weight loss, fever, malaise, jaundice, bone pain, neurological symptoms, and bowel, bladder or erectile dysfunction).
- Be aware that diagnostic delay has been linked to a failure to examine a child who presents with non-specific symptoms.
- Be aware that abdominal masses can cause neurological symptoms due to pressure on the spinal cord. Such pressure may lead children to present as “off legs” or to refuse to weight bear. Examine the abdomen when a child or young person presents with refusal to weight bear.

### Ultrasound imaging required:

- A palpable abdominal mass.
- Suspected hepatomegaly or splenomegaly.

### Diagnostic pitfalls:

- Failure to perform a thorough abdominal examination in a baby who is distressed/crying.
- Failure to examine the abdomen when a child has presented with refusal to weight bear or walk.

## Abdominal pain

- Abdominal pain is a common childhood presentation and in the majority of cases will not be due to an abdominal tumour.
- Ask about the presence of the other symptoms of an abdominal tumour (haematuria, abdominal distension, weight loss, fever, malaise, jaundice, bone pain, neurological symptoms and bowel/bladder/erectile dysfunction).
- Examine the abdomen in a CYP with abdominal pain to elicit any masses or hepatomegaly.
- Be aware that if the tumour is retroperitoneal, the presenting complaint may be back pain. Examine the abdomen in a CYP presenting with back pain.

### Ultrasound imaging required:

- Persistent\* abdominal pain WITH one or more other symptoms attributable to an abdominal tumour.

### Diagnostic pitfalls:

- Attributing abdominal pain to constipation despite no improvement with laxatives. Assess response to laxatives by reviewing the CYP at regular intervals and taking a full history and examining their abdomen.
- Failing to examine the abdomen in a child complaining of back pain.

\* Persistent = present on most days for more than 2 weeks

## Haematuria

- A renal tumour can present with macroscopic or microscopic haematuria. Ask about the presence of the other symptoms of an abdominal tumour (abdominal pain, mass, weight loss, fever, malaise, jaundice, bone pain, neurological symptoms and bowel/bladder/erectile dysfunction) in a CYP presenting with haematuria in the absence of another known cause.
- Do a careful abdominal examination to elicit any potential retroperitoneal mass.
- Follow local haematuria in children guideline to support clinical decision making.

### Ultrasound imaging required:

- Unexplained persistent\* macroscopic haematuria
- Haematuria WITH one or more other symptoms attributable to an abdominal tumour

### Diagnostic pitfalls:

- Attributing persistent haematuria to a UTI despite no improvement with antibiotics

\* Persistent = present on most days for more than 2 weeks

## Abdominal distension

- Abdominal distension is incredibly common in childhood, especially in pre-school children and in most cases is not due to an abdominal tumour.
- Ask about the presence of other symptoms of an abdominal tumour (abdominal pain, haematuria, weight loss, fever, malaise, jaundice, bone pain, neurological symptoms and bowel/bladder/erectile dysfunction).
- Examine the abdomen, spine and peripheral nervous system in a child or young person presenting with abdominal distension.
- Abdominal tumours causing abdominal distension tend to progress and do not improve.

### Ultrasound imaging required:

- Increasing abdominal distension.
- Abdominal distension with one or more other symptoms attributable to an abdominal tumour.

### Diagnostic pitfalls:

- Attributing distension to constipation despite no improvement with laxatives.
- Failure to examine the abdomen at review of a child with constipation.

[www.cclg.org.uk/childcancersmart/abdominal](http://www.cclg.org.uk/childcancersmart/abdominal)