The unwell child

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The unwell child

• Objectives
  – To be able to recognise the unwell child
  – To be able to assess and manage common acute paediatric presentations.
At your tables

• Discuss Case 1, Mia
## NICE Clinical Features of a UTI

<table>
<thead>
<tr>
<th></th>
<th>&lt; 3 months</th>
<th>Older infants and preverbal children</th>
<th>Verbal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most common</strong></td>
<td>Fever, vomiting, lethargy, irritability</td>
<td>Fever</td>
<td>Frequency, dysuria</td>
</tr>
<tr>
<td><strong>Moderately common</strong></td>
<td>Poor feeding, failure to thrive</td>
<td>Abdominal pain, loin tenderness, vomiting, poor feeding</td>
<td>Dysfunctional voiding, changes to continence, abdominal pain, loin tenderness</td>
</tr>
<tr>
<td><strong>Least common</strong></td>
<td>Abdominal pain, jaundice, haematuria, offensive urine</td>
<td>Lethargy, irritability, haematuria, offensive urine, failure to thrive</td>
<td>Fever, malaise, vomiting, haematuria, offensive or cloudy urine</td>
</tr>
</tbody>
</table>
### Urine dipstick to diagnose UTI

<table>
<thead>
<tr>
<th>DIPSTICK</th>
<th>Nitrite POSITIVE</th>
<th>Nitrite NEGATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leucocyte esterase POSITIVE</td>
<td>UTI, send MSU and start treatment</td>
<td>Treat if UTI clinically likely but may indicate infection elsewhere</td>
</tr>
<tr>
<td>Leucocyte esterase NEGATIVE</td>
<td>Suspect UTI if freshly voided sample, send for MSU, start treatment</td>
<td>No UTI</td>
</tr>
</tbody>
</table>

- Caution under 3 years
  - Urgent microscopy and culture is the investigation of choice
At your tables

• Discuss Case 2, Ellie
## Normal ranges in children (APLS)

<table>
<thead>
<tr>
<th>AGE</th>
<th>HR</th>
<th>RR</th>
<th>SYSTOLIC BP</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>110-160</td>
<td>30-50</td>
<td>70-90</td>
</tr>
<tr>
<td>1-2</td>
<td>100-150</td>
<td>25-35</td>
<td>80-95</td>
</tr>
<tr>
<td>2-5</td>
<td>95-140</td>
<td>25-30</td>
<td>80-100</td>
</tr>
<tr>
<td>5-12</td>
<td>80-120</td>
<td>20-25</td>
<td>90-110</td>
</tr>
<tr>
<td>&gt;12</td>
<td>60-100</td>
<td>15-20</td>
<td>100-120</td>
</tr>
</tbody>
</table>
At your tables

• Discuss Case 3, Toby
At your tables

• Discuss Case 4, Sophie
Bronchiolitis (NICE 2015)

• Diagnosis
  – < 2 years old, usually 3-6 months
  – Persistent cough and
  – Either tachypnoea or chest recession (or both) and
  – Wheeze or crackles (or both)

• Pulse oximetry in every child presenting with suspected bronchiolitis
Bronchiolitis (NICE 2015)

• Refer immediately
  – Apnoea (observed or reported), severe respiratory distress or central cyanosis or persistent sats < 92%
  – Looks seriously unwell

• Consider referral
  – RR > 60
  – Difficulty feeding (50-75%), clinical dehydration

• Risk factors for severe illness
  – Chronic lung disease, prematurity, < 3 months age, immunodeficiency, neuromuscular disorders, congenital heart disease
At your tables

• Discuss Case 5, Lilly
At your tables

• Discuss Case 6, Joseph
Volvulus and midgut rotations

- Volvulus
  - Complete twisting of a loop of bowel around its mesenteric attachment, can happen at any site

- Malrotation causes symptoms of obstruction, but if volvulus develops obstruction typically complete

- 60% present by age 1 month, 80% by 12 months but can occur at any age
Summary

• Record observations when assessing children
  – Heart rate, respiratory rate in particular
• Tachycardia in the absence of a temperature is concerning
• Follow the NICE guidance for the diagnosis of UTI in children
• Babies < 3 months with bronchiolitis are at higher risk of serious illness