Module 19: Child Health

Common paediatric conditions presented in primary care

An accurate history is essential in the assessment of ‘walk-in’ presentations, writes Linda Latham

“Would you take a look at Johnny while I’m here, nurse? He’s had a fever all night. While I was already booked in for my smear, I thought you may as well check him out to put my mind at ease.”

And so it begins – another ill-defined mother and child consultation in general practice.

Important points to remember when documenting the care delivered to a child in this situation is that the child has not been booked in for a routine appointment. The approach to care is altogether different from that required at a routine appointment. A level of suspicion equal to that of Sherlock Holmes is necessary.

The temptation to finish the consultation with the mother and ask her to bring the child back if he hasn’t improved should be avoided, even if the waiting room is heaving with patients. Johnny is now the focus of the consultation and a desultory ‘quick check over’ is not safe practice.

There is a range of problems that present in primary care, from the normal to the complex, and the circumstances of consulting with any child are never ideal; the child is often crying and parents often stressed.

This type of consultation should be documented as an ‘unscheduled’ or ‘walk-in’ consultation and the approach to care for the advanced nurse practitioner (ANP) starts with a thorough history-taking. The consultation between healthcare provider and mother and child can be informative, but the parent can often provide distracting background information. An accurate history may have to be teased out throughout the consultation. Care to deduce the relevant facts is critically important and requires skill. Sherlock would advise: “Form no theories, just simply observe and draw inferences from your observations. It is a capital mistake to theorise before one has data. Insensibly one begins to twist facts according to theories, instead of theories to suit facts.”

Obtaining an accurate history requires questions about the child’s immunisation status. A full physical face-to-face assessment follows. Common paediatric conditions present typically with some clues to the diagnosis. If pyrexia is present it is useful to use the National Institute for Clinical Excellence (NICE) guidelines for assessment using the traffic light system as guidance.1

Children under two months of age have unique risks for serious bacterial infections, as such their management is usually carried out in collaboration with the GP.

Common symptoms

Cough

Cough and wheeze are the most common symptoms that spur parents to attend with their children. ‘Thriving, happy wheezing’ is frequently observed in a child, usually under one-year, who has a chronic, persistent or intermittent wheeze, heard without a stethoscope. Typically, the infant is happy, but the parent is distressed.

This consultation is lengthy as the decision that ‘the best medicine is often none at all’ may take some time. A cough in a child under three years can sometimes point, during winter, to a common cold, an inhaled foreign body or bronchiolitis. Bronchiolitis is caused by the respiratory syncytial virus (RSV) and is most serious in infants and young children up to three years. This diagnosis often gets wrongly translated by the parents as ‘bronchitis’ signalling for them a chest problem of enormous magnitude.

Care when discussing, explaining and initiating the correct treatment is paramount. Reassurance and advice given should range from conservative management such as steaming, to when to consult expert opinion if a fever develops. A secondary failure to feed is of concern and it is important for the parent to recognise when respiratory distress is evident.

Cough has to be described succinctly and can be nocturnal, persistent, recurrent, exercise-induced or producing a wheeze – usually heard with a stethoscope. In children with asthma, these are important symptoms and nocturnal cough is often described as a ‘barking cough’ heard best during the night – the reason why parents consult the next day. This cough is persistent and recurs at certain times of the year.

Asthma is a diagnosis that is often circumvented or avoided by parents due to their concern about such a label. Asthma is treated primarily in the community. The fact that it affects 10% of all children should be discussed carefully before inhaler technique is demonstrated. Initiating a trial of a bronchodilator is often indicated once the diagnosis has been ascertained. Follow-up care is essential to determine if the child is responding to treatment.

Absence of cough is also a clue to the diagnosis of tonsillitis in a child who typically presents with a sore throat, hoarse voice and inability to eat. The Toronto scoring approach is a reasonable approach to care. The rationale for prescribing an antibiotic for a child with tonsillitis becomes easier if a decision pathway can be explained to the parent when a child scores four or five. It is also helpful when explaining why an antibiotic is not indicated.

Otitis

Ear pain (or otalgia) ranks as one of the leading complaints among children evaluated in the primary care or emergency setting. Most patients will have one of three common diagnoses: acute otitis media, otitis externa or otitis media with discharge. These are generally not serious conditions.2 The parent often states that the baby is ‘pulling at their ear’ or has a concern that the child is irritable and has difficulty sleeping. Examination of the ear should rule the differential of a foreign body.

Antibiotics should not be used routinely for acute otitis media. The ‘wait-and-see’ approach helps to lower the total number of antibiotics used by patients and prevent growing resistance.

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Antibiotics may be useful for some patients where the benefits might outweigh the risks of adverse effects, including children who are: under two years, systemically unwell or suffering recurrent infections.6

**Rashes**

Skin rashes are very common presentations in all age groups and cause great concern to parents. Many parents attend for much-needed reassurance to rule out the worry of meningitis. Rashes can be bacterial (impetigo), viral (herpes), fungal (ringworm) or parasitic (scabies), and can also be caused by a drug reaction or allergy. Again, history taking is extremely important as often the associated symptoms, in addition to the rash, help to establish the diagnosis. A history of a bite, exposure to other ill children or adults, recent antibiotic use, environmental exposures, or prior immunisations can all help to build up the picture.

Seborrhoelic dermatitis (cradle cap) is very common in babies and treated effectively with ketacnazoloe shampoo and cream. Common skin complaints are dry skin conditions, such as atopic eczema, which is often associated with asthma or hay fever in an infant. In children younger than two years, the rash can begin on the face, scalp, hands and feet. It is often a crusting, bubbling or oozing rash. In older children and adults, the rash is more commonly seen on the inside of the knees and elbows, as well as the neck, hands and feet.6 In a severe case, rashes may occur anywhere on the body. Most patients can be managed by prescribing avoidance measures, good skin care, antihistamines and conservative topical medications.7 Children with more severe disease may require more aggressive therapies and should be managed in collaboration with the GP, who may refer to a dermatologist.

**Viral illnesses**

A frequent seasonal skin complaint presenting during the summer and autumn months is the aptly named hand, foot and mouth disease. It is usually caused by viruses belonging to human enteroviruses A (HEVA), especially coxsackie viruses A16, which in the majority of patients cause a mild self-limiting illness.8 Vesicles appear in the mouth and on distal extremities. The aim is to ease symptoms such as a painful mouth, which can be very uncomfortable, until the illness goes away (normally within a week or so).9

Explaining this diagnosis is often aided by a patient information leaflet (available on the GP notebook site), which include images of the condition and written information on how best to manage the virus at home.

Similar management can be used with another viral condition called fifth disease, which is caused by human parvovirus B19. It often affects children in springtime. The first sign of the disease is usually bright red cheeks, which look as though the child has been recently slapped on both sides of the face. Following this, a rash appears on the arms, legs and middle of the body. The rash fades from the centre outwards, giving it a lacy appearance. Over a period of one to two weeks, the rash goes away but may return for several weeks brought on by sunlight, heat, exercise, fever or emotional stress.

Viral illness such as chickenpox (varicella) is common. Unfortunately, measles (paramyxovirius) has returned to Ireland, partly due to confusion about the MMR vaccine and subsequent poor uptake.10

**Diarrhoea and vomiting**

Diarrhoea and vomiting are very common presentations in general practice and are usually viral in origin. Some are caused by bacterial or protozoal infections. The approach to care is multifaceted. It is critical to explain how dehydration can occur rapidly and to manage rehydration. Good communication with parents should again be supported by written information to suit their needs.12

It takes accurate history taking and effective consultation skills to arrive at a diagnosis. Always consider the possibility of a differential diagnosis and know your limitations – if in doubt, collaborate!13

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**Table 1 Sore throat score approach**

<table>
<thead>
<tr>
<th>Step one: Determine the sore throat score</th>
<th>Criteria</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature &gt;38°C</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>No cough</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Tender, anterior cervical nodes</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Tonsil swelling or exudate</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Age &lt;15 years</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Age 45 or older</td>
<td></td>
<td>-1</td>
</tr>
</tbody>
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**Likelihood of GAS infection* Suggested management**

<table>
<thead>
<tr>
<th>Total score</th>
<th>Likelihood of GAS infection*</th>
<th>Suggested management</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1 or 0</td>
<td>2-3%</td>
<td>No culture or antibiotic required</td>
</tr>
<tr>
<td>1</td>
<td>4-6%</td>
<td>No culture or antibiotic required</td>
</tr>
<tr>
<td>2</td>
<td>10-12%</td>
<td>Culture all; treat patient with positive result</td>
</tr>
<tr>
<td>3</td>
<td>27-28%</td>
<td>Culture all; treat patient with positive result</td>
</tr>
<tr>
<td>4 or 5</td>
<td>38-63%</td>
<td>Treat (penicillin or erythromycin)</td>
</tr>
</tbody>
</table>

GAS = group A streptococcal infection derived from a general practice setting

References

5. Antibiotics in Acute Otitis Media General Practice Notebook. Available at: www.gpnotebook.co.uk/simplespage.cfm?ID=1576665032