Paediatric Scenarios

COMMON CHILDHOOD PROBLEMS

**Scenario 1: Growth concerns**

David, aged 15, is referred to the general paediatric clinic because he and his mother are concerned about his growth. He reports that until the last two years or so he was average height compared with his peers. More recently, he has seen his friends ‘shoot up’ in height and fill out, and he has been left behind, although they have similar diets. He used to play Sunday league football, but has been dropped as he is now unable to compete with the larger, more physically mature boys of his age, with their well developed muscles. He is now being bullied at school because of his size.

David is fit and healthy. Neither he nor his mother expresses any concerns about his general health. He has never been admitted to hospital and does not take any routine medications. Careful questioning finds no symptoms suggestive of respiratory, gastrointestinal, renal, or cardiovascular disease.

David was born following an uncomplicated pregnancy and birth, and weighed 3.5 kg at full-term. There were no perinatal concerns, and he was discharged from hospital at 6 hours of age. He was developmentally appropriate and is doing well in mainstream education.

David lives with his parents and 13 year-old brother, who is taller than him. His father is 172.5 cm and his mother 154.3 cm tall. His mother started her periods aged 13 years, and thinks that his father grew well into his 20s, not starting shaving until aged 22.

On examination, David looks very immature, more like a 12 year-old boy than a 15-year-old, and lagging behind on the growth chart. Examination is otherwise unremarkable. On assessment of his pubertal status, he has no axillary hair or pubic hair growth. His testes are measured to be 6 ml on the right and left, and the genitalia are prepubertal in appearance.

David’s paediatrician, Dr Glenister, reassures him that there is unlikely to be any underlying problem and that he is simply taking after his father. (Dr Glenister is mindful of the effects of deprivation on childhood growth, but doubts its relevance here.) David says very little throughout the consultation and his mother tends to answer most of the questions. The paediatrician plans some basic blood tests: a full blood count, ESR, biochemistry profile and CRP, antibodies to tissue transglutaminase, and thyroid function tests. He also requests an X-ray of David’s hand and wrist for assessment of skeletal maturity. Although he initially refuses, David eventually agrees to have the blood tests and X-ray.

Two weeks later, David presents to Accident and Emergency. He reports that he took 25 paracetamol tablets 5 hours previously. He has felt nauseated and been vomiting for the last 2 hours. The FY2 takes blood for paracetamol levels and starts treatment with acetylcysteine. David asks the FY2 not to inform his parents about his over-dose, as “they will be mad at me”. 


When Dr Glenister contributes to the local review of strategy to meet the health care needs of adolescents with psychological problems, he has patients like David in mind.

**Scenario 2: Childhood shortness of breath**

James, 9 years old, is seen in the A&E department because of worsening shortness of breath. His parents say that he is often wheezy but never this bad. His GP diagnosed asthma in the summer and prescribed him salbutamol as a dry powder inhaler, which James felt helped his symptoms considerably. James has a baby sister who is well. Both his parents suffer from hay fever, and his father had bad eczema as a child (needing hospital treatment). Neither parents smoke, but his grandparents continue smoking when he stays with them. His parents are aware of the dangers of passive smoking, but are a bit hazy about the evidence for saying that it ‘causes’ such childhood problems. They do not want to upset his grandparents, needing them to look after him.

In A&E, James is having difficulty speaking, his chest is “quiet” on auscultation, and his peripheral oxygen saturation is 86% on an oximeter. The FY2 asks James to blow into a peak flow meter, but the triage nurse suggests that this may exacerbate his condition and gives him a nebuliser (salbutamol and ipratropium bromide, mixed together). Following this, he is able to talk more easily and has a clear wheeze heard throughout his chest. He is given 40mg of soluble prednisolone and transferred to the ward. On the way, he has a chest X-ray. This is reported as showing marked hyperinflation but no evidence of collapse or consolidation.

After two days on the ward, he has made a good recovery and is able to go home. He and his mother see an asthma nurse specialist, who discusses his new medication (regular inhaled corticosteroid delivered through a large volume spacer and a bronchodilator to use as required), and gives him a plan for managing his asthma at home. The nurse attempts to involve both James and his mother in the consultation, but James is very lively and talkative, and monopolises most of the nurse’s attention. Outpatient follow-up is arranged with the asthma nurse specialist in six weeks. On leaving the hospital, James tells his mother that he would like to be a ‘medical researcher’ when he leaves school – just like the woman who spoke to a couple of children on his ward. His mother is concerned about the ethics of clinical research involving the participation of children – did their mothers know? She is very aware of the sensitivities about ‘children and research’, especially given all the media coverage about lapses in professional practice in recent years.

The researcher was conducting a cross-sectional study surveying children’s versus parents’ perceptions of living with childhood asthma, related to the child’s social development, sense of identity, and relationship with carer. There was a related longitudinal study of possible determinants of remission of childhood asthma.

**Scenario 3: Toddler shaking with fever**

Li is a 14-month-old Chinese boy. He is brought to the A&E department by his mother, a biology teacher, who says that he has been unwell for 48 hours with a fever, lethargy, and ‘shaking’ episodes. She is concerned that he may be having
“fits”. He was seen by his GP, who found no specific cause for his fever. (While the GP is aware of some cultural differences in the management of fever, she does not think that this is relevant here - his mother had remembered a leaflet about “...don’t ignore the signs”.) The GP notices a faint rash, but she is not confident that it was due to a viral illness and asks for a review by the medical on-call team.

Li has previously been well and is up-to-date with his immunisations (...his mother appreciates the rationale for the immunisation schedule, and that, relatively, many people need immunising to benefit a few). Li has a 6 year-old brother who appears well, and is at school.

On examination, he is well wrapped up, his temperature is 38.7°C, and he is flushed, miserable, and irritable when handled. He has a widespread erythematous rash, which his mother says is spreading. His heart rate is 160/minute, and capillary refill time is normal. There is no obvious focus of infection. He remains irritable and febrile despite antipyretic measures. The admitting team decide to do a septic screen and treat him with intravenous antibiotics. He is transferred to the ward.

The next day the medical microbiologist contacts the medical team to tell them that Gram-negative diplococci have been found growing in his blood. He reminds the team that that the immediate contacts should be offered prophylaxis, and that this disease is subject to the Notifications of Infectious Diseases (NOIDs) surveillance system. When several linked cases emerge, the consultant in communicable disease control at the Health Protection Unit convenes an outbreak team, following the principles of prevention and management of communicable disease.