VIEWPOINT

Paediatric short case examination

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Abstract: The short case is a highly artificial scenario, in which the examination candidate is given little or no history and instructed to examine one system or one aspect of a patient and draw conclusions. Despite their artificiality, short cases test clinical skills which senior paediatricians value and consider essential qualities of a competent physician. This article presents some general suggestions on an approach to doing short case examinations.

Key words: assessment; clinical examination; competency.

This article discusses a general approach to short case examination (see Table 1). This is the first in a series of articles in which examiners give their perspective on how to examine specific systems.1−9 These will be personal views, not prescriptive and certainly not all-inclusive. The short case is not difficult; after all, it is what a clinician does every day. The main problem for most candidates is learning to remain calm in an examination environment and performing to their ability. Once mastered, the short case examination hones necessary skills, and doing them is almost enjoyable.

Be Prepared

Candidates are understandably anxious about exposing their clinical skills to the scrutiny of colleagues. This anxiety is best alleviated by adequate preparation. The most important preparation is to do a large number of short cases, preferably as near as possible under examination conditions with an experienced examiner. Acknowledge your weak areas and concentrate on them. If you hate cardiac cases, do not hope you will not get one in the examination; attend cardiology out-patients and do cardiology short cases until you gain confidence.

There is a limited number of clinical scenarios for short cases. Candidates should think of the more common ones (e.g. heart, chest, abdomen, gait, cranial nerves, developmental) and have a plan of action. It is very obvious to examiners whether or not a candidate has a practical, systematic approach to clinical examination and can elicit relevant signs in an accurate and timely fashion.

Be Kind and Respectful

A friend who introduced himself as a paediatrician was stunned when this elicited the response, ‘So you don’t like children’. Paediatricians generally like children and care about them. Senior paediatricians look kindly on candidates who show they care. Candidates can show this by introducing themselves to the parent and also to the child. Take note of the child’s name and use it. Even if the patient is an infant, you can still make eye contact, smile at them and talk to them. You will find it easier to examine the infant if you have developed a rapport first, although you may decide that it is better to examine infants and toddlers on their mother’s lap. Ask if the child is in pain. Watch their face when examining them and stop if you think you are hurting them. While it is important to expose a child adequately, so as not to miss signs, a good candidate will be demonstrably sensitive to issues of privacy and embarrassment. Obviously, you would not undress an adolescent in an insensitive manner, but young children may also be sensitive to their nakedness. Always ask if the child and/or parent minds before asking them to remove clothing or doing so yourself. Even if they agree, do not leave them exposed but cover their nakedness as soon as you finish examining them.

Use language carefully. Talk to children initially as if they understand everything you are saying, at least until you have assessed their cognitive status adequately. For example, assume that a child with cerebral palsy or chorea is cognitively normal unless it becomes clear they do not comprehend your questions or instructions.10 Use age-appropriate language: It is important to talk to a child with short stature according to their age not their size. Do not talk disparagingly about disability: Emphasise what the child can do rather than what they cannot. Use appropriate euphemisms or technical terms where necessary (e.g. cognitive or motor impairment). Be interested in the child and pay attention to their needs throughout the examination.

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Be Observant

The first look is often the most informative one, so do not rush in. Visible clues are often available to the alert clinician before commencing the physical examination. Do not get tunnel vision. Stand back and look carefully at the child and at the surroundings. It is surprising how many candidates fail to notice or comment on a child’s appearance. Are they dysmorphic, well or ill-looking, appropriately grown, adequately nourished? Always request the child’s height, weight and head circumference. Look for aids such as ankle-foot orthoses or for machines such as drip stands or nebulisers.

Continue to be observant throughout the examination. Pick up clues. If the child coughs, was it dry or moist? If the child vocalises, comment on the nature (sounds, words, sentences) and their significance. Put yourself in the best position to observe abnormalities. Within the confines of respecting the child’s privacy, do not just lift clothes, but take them off to expose the relevant area: for example, the chest for respiratory or cardiac examination (or you will miss asymmetry or scars), the abdomen ‘from nipples to knees’ for abdominal examination and the legs for gait examination (or you will miss asymmetry or calf hypertrophy).

Be Clean

Hand hygiene is important. Either wash your hands outside the room and tell the examiner, or wash them quickly before examining the patient. If you spend 2 min washing your hands, it is wasted: You do not get extra time.

Be Slick

When saying be slick, I mean be neat and efficient. Slickness goes with practice, so you are unlikely to be slick unless you have prepared adequately. Advising slickness is not a licence to be slapdash. Time is limited in a short case, however, as in clinical practice. Candidates fail cases more often by going too slow than by going too fast. Do a slick clinical examination. Some candidates like to comment as they go along; others prefer to wait until the end. There is no correct way; do what you find works best. When you have finished the physical examination, present your findings and conclusions concisely. If you have been describing signs as you go along, do not reiterate these. Summarise the findings briefly and their significance (e.g. ‘this patient has acyanotic congenital heart disease with a pansystolic murmur and no clinical signs of heart failure or ventriculomegaly’).

Be Bright

Think about what you are finding as you go along and its significance. After summarising your examination findings, you need to give a differential diagnosis. The first diagnosis you give should be the one you think most likely. The other differential diagnoses should be in approximate order of probability. Make sure your suggested diagnosis is consistent with your findings. If not, either your examination finding or the diagnosis is wrong (you are allowed to ask if you can re-examine if you are unsure of a sign). For example, a child with a wide pulse pressure will not have aortic stenosis and a child with a narrow pulse pressure will not have aortic incompetence or a patent ductus arteriosus.

If you are floundering, it may help to categorise. For example, you are asked to examine a child’s abdomen and find the child is jaundiced and has hepatosplenomegaly. What is the likely cause and other differential diagnoses? It is most likely that the child has chronic liver disease, and you should look for peripheral stigmata such as clubbing, palmar erythema, leuconychia and spider naevi. Abdominal signs such as ascites and caput medusa suggest portal hypertension and support the diagnosis of chronic liver disease, but their absence does not exclude it. If the child has an appropriate abdominal scar, your primary diagnosis is extrahepatic obstruction due to extrahepatic biliary atresia or a choledochal cyst, or possibly a liver transplant. If there is no scar, does the child have the triangular facial features of Alagille syndrome to support a diagnosis of intrahepatic biliary atresia? If so, you could offer to auscultate the heart for the murmur of peripheral pulmonary stenosis. Other causes of chronic liver disease include metabolic diseases (alpha-1-antitrypsin deficiency, Wilson’s disease), inflammatory diseases (autoimmune hepatitis, sclerosing cholangitis) and cystic fibrosis. Haematological causes of jaundice and hepatosplenomegaly include chronic haemolysis such as thalassaemia or hereditary spherocytosis (although the latter more commonly gives isolated splenomegaly). Chronic haemolysis would be supported by pallor and some children have a scar, often laparoscopic nowadays, of biliary surgery for gallstones. Leg ulcerers are a rarer complication of chronic haemolysis; you could show off by looking for them. Always consider oncological causes, particularly if there are other clues such as alopecia, pallor or a central line. Infection is unlikely: Acute hepatitis causes tender liver enlargement, while chronic hepatitis due to hepatitis B or C rarely causes chronic liver disease in childhood. Storage disorders often cause hepatosplenomegaly, but jaundice is uncommon. The examiners are hoping for a thoughtful and considered discussion of the patient’s signs and of possible diagnoses.

Don’t Panic

This is easy for an examiner to say. However, if things do not seem to add up, try to work out what you have found, how sure you are of the findings and whether or not the findings add up. If in doubt, discuss your findings and interpretation out loud. Examiners want candidates to pass and may be able to come up with helpful suggestions. Listen to the examiner, who is more likely trying to help than hinder. Sometimes, no one knows the diagnosis. FRACP examiners see short cases without knowing the diagnosis or reading any notes; they may just want...
candidates to elicit clinical signs and to make a reasonable interpretation of their significance. It may be as simple as distinguishing lower motor neurone from upper motor neurone signs in a neurology case or remembering to test for sensation. Most candidates fail through not doing a routine short case examination well enough. Finally, remember that if you do mess up one short case, it constitutes a small proportion of the total mark, so keep going and do not panic.

Conclusions
Accurate clinical examination of children is a valuable skill that will last your whole career. You should take pride in examining children well and in finding and interpreting clinical signs. When you are good at this, you will find doing short cases surprisingly enjoyable.

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References