Medical Students' Clinical Survival Guide

The tricks of the trade revealed

It is easy for medical students to become engrossed in (and overawed by) clinical methods books such as those by MacLeod and Hutchinson, whilst having a poor understanding of what is required in practice 'on the ward'. The unfortunate result may be an intricate knowledge of obscurities, but lack of an overall scheme when asked to examine patients (as in Finals short cases), even late in the clinical course. This was certainly my experience as a student. Clearly, it is desirable to help students ascend beyond this stage as soon as possible, and it was with this aim that the present article was written.

How, then, may clinical skills be 'honed to perfection'? Undoubtedly, the best method is regular practice, preferably overseen (and criticised) by a senior colleague, but it is also important to have a mental 'checklist' for examining each body system, which can be rehearsed again and again until it is second nature. In this way, it should become possible to examine patients in a consistent, logical fashion without forgetting important details, even in the stressful environment of an examination.

I therefore thought it might be useful for students preparing for Finals in June (and anyone else for that matter!) to have published the lists that I used for this purpose. Though far from exhaustive, they will I hope serve as a brief, realistic aide-mémoire to short case examination, and provide that most important of things; a structure. It is recommended that these lists are supplemented with short 'clinical methods' books such as *Short Cases for the MRCP* by Charles Hind (Churchill Livingstone, 1992), and *A Medical Catechism* by John Rees (Hodder and Stoughton, 1986).

Cardiovascular Examination

Inspection

- General: (from the end of the bed) distress, tachypnoea, pallor, cyanosis (lips), malar flush [mitral stenosis]

- Hands: clubbing (if borderline say: 'I would consult a senior colleague for his opinion, and certainly exclude possible causes'), cyanosis (nail bed), warm/sweaty
- Face: anaemia (both lower lids at once. If unsure say: 'I would be suspicious of anaemia'), cyanosis (underside of tongue)
- Mouth: (briefly) state of teeth (caries may cause infectious endocarditis), tongue (glossitis), angular stomatitis
- Tibial oedema (or pre-tibial myxoedema)
- Radial pulse (rate, rhythm)
- Blood pressure (if no cuff say: 'I would like to know the patient's blood pressure'—they will probably tell you)
- Jugular venous pulse (remember to look for waves)
- Carotid pulse (eg 'strong pulse with normal waveform')

Palpation
- Apex beat [tapping in mitral stenosis], heaves (apex and parasternal), thrills

(Percussion)

Auscultation
- Listen to all four heart areas using both bell and diaphragm in each. (Make sure stethoscope is pressed into skin hard enough), and then around remainder of chest (explore carefully and take your time), finally returning to the mitral and aortic areas.
- Mitral: Listen, lie patient on left side, breath held in expiration, then listen again [radiation to axilla implies mitral regurgitation]. Is murmur louder? In general, left-sided heart murmurs are louder in expiration, and right-sided murmurs louder in inspiration
- Aortic: Sit forward, breath held in expiration [radiation to neck implies aortic stenosis]. Listen for carotid bruits. Listen for basal crepitations (especially late inspiratory crackles due to pulmonary oedema) at back of chest. At the same time test for sacral oedema, though 'officially' one needs to press for one minute!

Miscellaneous
- If stopped by examiners say: 'I would also like to...'
- Check for hepatic enlargement [pulsating and tender in tricuspid regurgitation], presence of all pulses, radiofemoral delay, oedema (and how far up it extends). Inspect and feel calves [deep venous thrombosis]. Auscultate for femoral bruits and abdominal bruits [abdominal bruits in renal artery stenosis]

Respiratory Examination

Inspection
- General: 'Inanimate' items eg sputum pot, oxygen, nebuliser, salbutamol, peak flow meter, chest drain [pleural effusion]
- Respiratory distress (accessory muscles used?), respiratory rate (increased?), pallor, cyanosis, chest shape (barrel chest?). Ask patient to hold arms outstretched arms straight and horizontal, wrists extended. [Flapping tremor implies CO_2retention]
- Hands and face: (as above)
- Lymphadenopathy (especially supraclavicular)

Palpation
- Trachea: put index fingers between sternomastoids to see if they go in the same amount (will do so if trachea central. A relatively comfortable method)
- Expansion: upper chest (keep fingers together, hands vertical). Lower chest (hands around chest as much as possible. Don't let hands move on their own)

Percussion
- Compare sides at each level (wrist action for percussion—needs practice). Percuss above clavicle, clavicle, then three levels to base (do not forget lateral aspect). When percussing the back it is easier if you can get behind patient rather than side on. Tactile vocal fremitus (use the palm of hand)

Auscultation
- Use diaphragm of stethoscope (listen for breath and added sounds)
- Whispering pectoriloquy

Miscellaneous
- Measure peak expiratory flow rate

Abdominal Examination

Inspection
- Hands: [Dupuytren's contracture]
- Eyes: [jaundice]
- Mouth: teeth, tongue, ulceration, pigmentation

- Thorax: Lymphadenopathy, check front and back of chest for spider naevi and gynaecomastia
- Abdomen: spider naevi, movement with respiration, symmetry, scars, testicular atrophy

Palpation
- Palm should be flat to the abdomen. May be useful to kneel to do this. Gentle palpation in clockwise direction in the four quadrants, then deeper palpation
- Specifically feel for liver, spleen and kidneys. To feel spleen roll patient onto right side. For kidneys, hand must be quite medially place and deep palpation required. Feel during inspiration
- Exclude aortic aneurysm (hands either side of umbilicus)

Percussion
- Liver: vertical height in mid-clavicular line normally cm (rest middle finger in rib space. Start from high up.
- Spleen: go above costal margin (finger in rib spaces as horizontal as possible, to feel level better)
- Flank dullness implies peritoneal fluid (ascites). Demonstrate shifting dullness and fluid thrill

Auscultation
- Listen for at least one minute in all four quadrants.
- Check for bruits [renal artery stenosis]

Miscellaneous
- Check hernial orifices (ask patient to cough).
- Palpate femoral pulse and exclude femoral aneurysm (can cause pain or acute abdomen, or may be confused with a hernia).
- Auscultate for bruit. Examine for scrotal swellings (note size and consistency). Finally, say: 'I would like to perform a rectal examination'. If appropriate also express desire to test for faecal occult blood

Neurological Examination (eg of the legs)

Motor
- Observation: posture, wasting, tremor, choreiform movements, fasciculation
- Tone: Reduced in lower motor neurone disease. Increased in extrapyramidal lesions (with lead pipe or cogwheel rigidity) and upper motor neurone disease (with spasticity; test by brisk knee flexion which feels like a clasp knife). Test each leg separately
- Power: On a scale of 0-5. Work down from 'top' (eg iliopsoas—hip flexion). Best method of ensuring accurate cooperation is to demonstrate a position and ask the patient to resist your efforts to move the limbs out of that position; try to keep to chosen method throughout.
- Reflexes: learn best limb positions for testing. Symmetry is essential. Use reinforcement if necessary. Test for ankle clonus
- Coordination: heel shin test

Sensory
- Demonstrate the sensations to be elicited at top of sternum, with the patient's eyes open. Subsequently ask him to close eyes and say 'yes' when something felt. If testing pain ask whether a painful sensation or just pressure is felt. Ask if the sensation changes at any time.
- Touch, pinprick, vibration (128 Hz), joint position sense. Romberg's test

Gait
- Remember to ask patient to walk about

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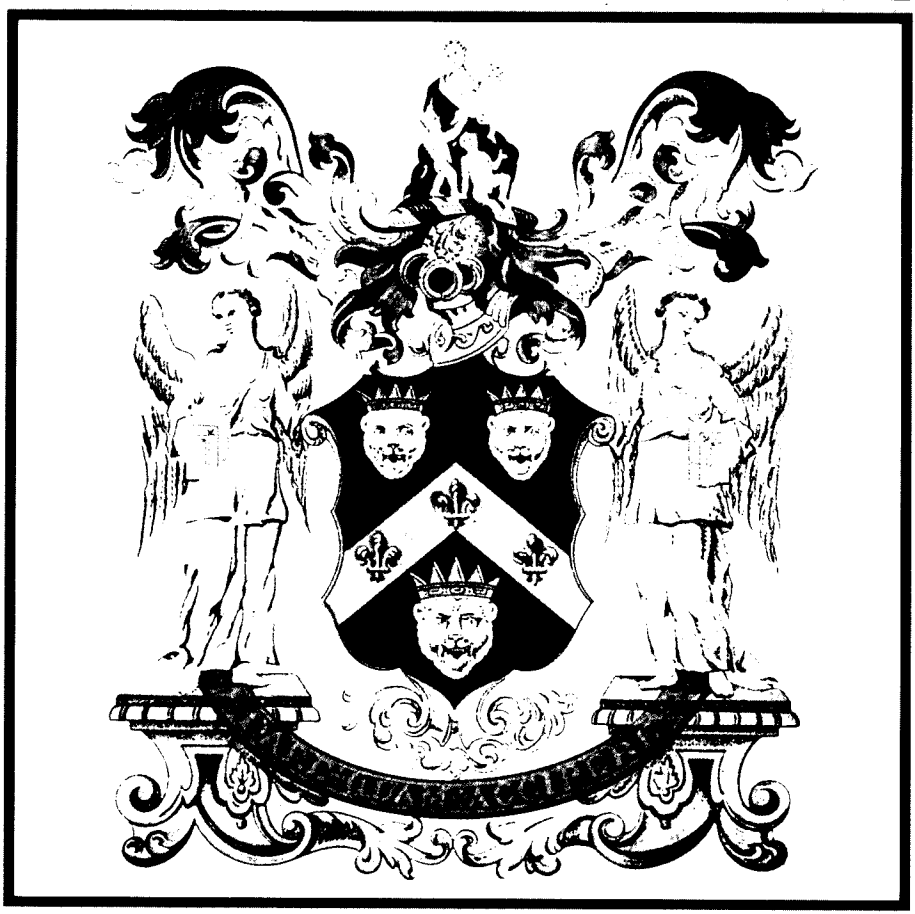
GUY'S

HOSPITAL GAZETTE



March 1993

- Short cases—a 'how to' guide
- EMSA—weekend French course
- Passive Smoking—Science Museum exhibition