INTRO TO OSCES

Study Hub OSCE

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Final Year UCL student

Structure of the talk

- What is an OSCE?
- How best to prepare for OSCEs
- Top tips
- Common OSCE stations
- Example mark schemes
- Recommended resources

What is an OSCE?

- A way of assessing your clinical practical and communication skills, as well as how well you manage under pressure
- Typically have 5-10 minutes per station
- Typically 6 stations per exam (depending on university)

How best to prepare?

- 1. Make a list of what could come up
- 2. Practice, practice, practice!
- 3. Have a structure for approaching each type of station
- 4. Go to hospital placement and get involved!
- 5. Practice under times conditions

Top Tips (on the day)

- WASH. YOUR. HANDS.
- Dress smart (with bare below elbows)
- Be nice, polite, assertive and confident!
- Don’t ignore props/people – clues for what you need to do
- Keep Calm and Carry On when you mess up a station
- Be prepared for the unexpected
- Easy marks often forgotten:

- ICE in history station
- Call for help in DR ABC
- Be alert for ‘breaking bad news’
- Don’t forget to offer blood pressure in cardio exam

Common OSCE stations

- DR ABC stations
- Practical clinical skills
- Taking a history
- Examinations
- Statistics
- Data interpretation (eg ECG, lung function tests)
- Communication skills, (eg motivation interviewing, breaking bad news, assessing capacity, explaining a procedure)
- Prescribing

DR ABC OSCEs

In the chat, tell me what DR ABCDE stands for:

- Danger
- Response
- Airway
- Breathing
- Circulation
- Disability: PEARL, blood glucose, GCS/AVPU
- Expose: look for rashes, wound sites, breaks, etc

Example DR ABC stations (not exhaustive and dependent on your year)

- Acute coronary syndrome (STEMI/NSTEMI)
- Acute upper GI bleeding
- Anaphylaxis
- Asthma attack
- DKA
- Meningitis
- Pneumonia
- Status epilepticus

Wash hands and put on gloves

Shout for help

Approach with care

D: Assess for danger

R: Evaluate patient response

A: Airway

If the patient is talking then the airway is patent

If not - put your face sideways by the patient:

Look for:

- Obstructions in the airway
- Chest movements
- Cyanosis

Feel for:

- Breath on your cheek

Listen for:

- For breath sounds
- Stridor (inspiratory)
- Wheeze (expiratory)
- Gargling

If there is no patent airway - call for help! Give your name, location and the event.

Treat:

- Remove any solid obstructions with Magill forceps
- Remove liquid obstructions with a Yankauer sucker
- Consider airway manuveres such as a head-tilt/chin-lift or jaw-thrust
- If required insert an airway adjunct such as a nasopharyngeal tube or if GCS<8 use a Guedel (orophayngeal) airway (you should have called for expert by this stage)

Reassess!

B: Breathing

Look for:

- Respiratory distress
- Use of accessory muscles
- Cyanosis
- Gasping, pursed lips, nasal flaring
- Tracheal tug (more common in children)
- Sweating
- Thoracic wounds/scars

Feel for:

- Tracheal deviation
- Asymmetry in chest expansion
- Change in percussion note (?effusion)

Listen for:

- Asymmetry of breath sounds
- Added sounds
- Crepitations in lung bases
- Wheeze

Measure:

- **Pulse oximetry**
- **Respiratory rate**
- Consider an ABG
- Consider a chest radiograph
- Consider a peak flow if asthma related distress

Treat:

- Give 85% oxygen >10 l/min via an oxygen mask and reservoir bag
- If the patient has COPD, give 35% oxygen via a Venturi variable valve mask and reservoir bag until you have an ABG (reassess)
- Aim to keep sats >94% unless known CO_2 retainer
- Monitor effectiveness with ABGs
- If anaphylaxis with bronchospasm - consider adrenaline/steroids
- If infection - consider antibiotics
- If wheeze - consider salbutamol
- Consider asking for further help, e.g.: do you need to consider non-invasive ventilation/intubation

Reassess!

C: Circulation

Look for:

- Pallor (anaemia?)
- Visible blood loss
- Cyanosis
- Sweating
- **Jugular venous pressure**

Feel for:

- Peripheral perfusion (is the hand cold?)
- Peripheral capillary refill
- Pulse rate and character
- Peripheral oedema

Listen for:

- Heart sounds (gallop/third heart sound of failure/significant murmur)

Measure:

- **Temperature**
- **Heart rate**
- **Blood pressure**
- **Urine output**
- **Central capillary refill time**

Treat:

- **2 wide bore IV cannulae** in the ante-cubital fossae
- Take bloods as necessary (eg **FBC, U&Es, LFTs, Cross-match, Clotting,** Cultures, Toxicology screen, Calcium, Magnesium)
- IV fluids: fast if signs of shock (250mls stat fluid challenge)
- Blood if active blood loss (if urgent, O -ve until cross-matched blood arrives)
- Antipyrexial medication (paracetamol) if appropriate
- Consider catheterisation, and strict fluid input/output chart

Reassess!

- Take care with fluids in: **cardiogenic shock** (raised JVP, crackles, swollen ankles, sacral oedema), **renal failure** (check U&Es and refer to renal team), **post renal failure**

Reference: http://m.osce-aid.co.uk/stations/osce_abcde.pdf

D: Disability

Consciousness:

- **AVPU: alert**/responds to **voice**/responds to **pain/unresponsive**
- Formal GCS if response impaired
- **Blood glucose level** (**D**on't **E**ver **F**orget **G**lucose!) - if low give PO/IV glucose, if high consider sliding scale

E: Exposure

- Top to toe examination
- Look for any signs of haemorrhage, bruising, infection, injury, etc.
- Examine for gross neurological deficit
- Check for pupillary response and papilloedema

Next step:

- Continuous reassessment
- Discuss with seniors and ITU (if not already involved)
- Look at patient's notes and charts
- Gather collateral history - 'AMPLE'
  - **A**llergies
  - **M**edications
  - **P**ast medical history
  - **L**ast oral intake
  - **E**vents leading up to deterioration
- Review results of routine investigations (including biochemistry, microbiology, haematology, radiology, ECG, ABG)

Practical skills' OSCEs (again not exhaustive!)

- Venepuncture
- ABG
- Cannulation
- Taking blood pressure
- Setting up an ECG
- Urine dipstick (yes that was actually one of my OSCEs!)
- Bladder catheterization
- ABPI measurement

NB: all these stations tends to be on plastic models

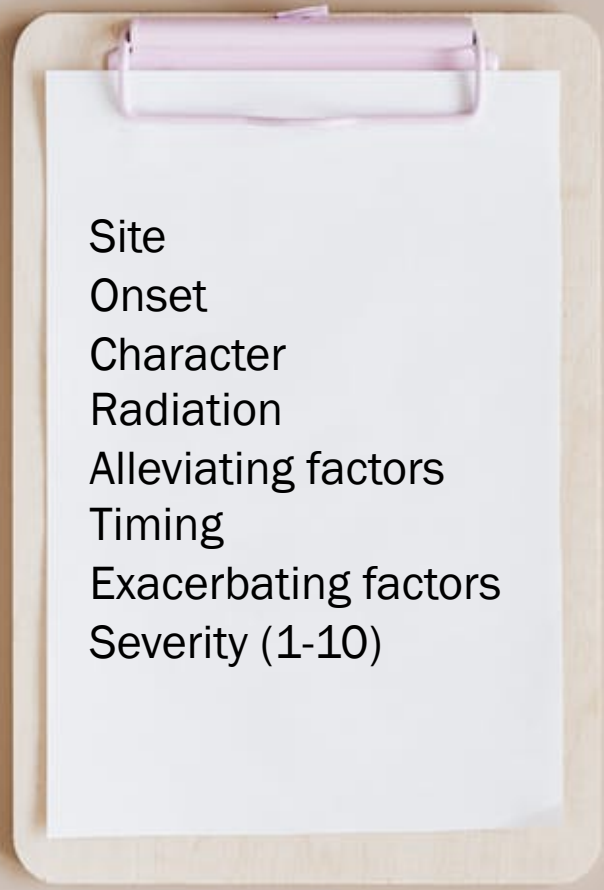
- ABPI measurement
- Examining pregnant abdomen
- Scrubbing up
- Manual handling
- Suturing
- Setting up an infusion
- Drug administration (IM/IV/SC)
- Basic/advanced life support
- Gynae speculum exam
- Otoscopy
- Ophthalmoscopy

History-taking OSCEs

In the chat, tell me the steps in taking a history:

- Presenting complaint (why have they come in **now?**)
- History of presenting complaint
- Past Medical History
- Drug history
- Family history
- Social history (smoking+alcohol, living, occupation)
- **ICE!!!**

Be prepared to present a synopsis of your history to the examiner, have differentials in mind, and answer any questions they have.



Let’s do an example…

Loss of Consciousness History Taking

INTRODUCTION		
1	Introduces themselves	
2	Confirms patient details	
3	Establishes presenting complaint using open questioning	
HISTORY OF PRESENTING COMPLAINT		
4	Preceding triggers for LOC	
5	Prodromal symptoms	
6	Palpitations	
7	Chest pain	
8	Jerking/twitching during LOC?	
9	Duration of LOC	
10	Tongue biting / other injuries	
11	Urinary or faecal incontinence	
12	Cyanosis	
13	How long till full recovery after LOC?	
14	Relieving factors	
15	Elicits patient's ideas, concerns and expectations	
PAST MEDICAL HISTORY		
16	Syncope	
17	Epilepsy/seizures	
18	Arrhythmia	
19	Hypertension	
20	Hypercholesterolaemia	
21	Coronary artery disease	
22	Parkinson's diseaase	
23	Diabetes	
24	Recent head trauma	
25	Pacemaker	
26	Recent surgery	
DRUG HISTORY		
27	Prescribed medication	
28	Medications that can cause hypoglycaemia (e.g. Gliclazide)	
29	Anticonvulsants / Beta-blockers / Diuretics and antihypertensives / Benzodiazipinese	
30	Beta-blockers	
31	Diuretics and antihypertensives	
32	Benzodiazipines	
33	Recent changes to medications	
34	Compliance with medication	
35	Over the counter medication	
36	ALLERGIES	
FAMILY HISTORY		
37	Cardiovascular disease	
38	Epilepsy	
39	Diabetes	
SOCIAL HISTORY		
40	Smoking history	
41	Alcohol intake	
42	Recreational drug use	
43	Occupation	
44	Home situation (e.g. who do they live with)	
45	Level of functional independence	
46	Driving status	
SYSTEMIC ENQUIRY		
47	Screens for symptoms in other body systems	
CLOSING THE CONSULTATION		
48	Thanks patient	
49	Summarises salient points of the history	
KEY COMMUNICATION SKILLS		
50	Active listening	
51	Summarising	
52	Signposting	

Ref: geekymedics.com

Examinations (again probably not exhaustive)

- **3 core: cardiovascular, respiratory, abdomen**
- Gastro: Per rectum (PR) exam, hernia exam, stoma examination
- MSK exams: hand, elbow, shoulder, spine, hip, knee, foot
- Neuro: cranial nerve exam, Upper limb neuro, Lower limb neuro, cerebellar exam, Parkinson's disease exam
- O+G: pregnant abdomen, bimanual exam
- Paediatrics: 6-week check, developmental milestones
- Urology: genital exam, prostate digital rectal exam (DRE)
- Other: Thyroid exam, hydration status, lymph node exam, peripheral vascular exam, breast
- (GALS, PGALS for screening)

Cardiovascular examination

Instructions - "*Perform a full cardiovascular examination on this patient*"

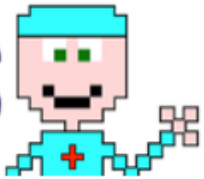
1	Washes hands	
2	Introduces self & explains examination	
3	Gains consent	
4	Positions and exposes patient appropriately	
5	Performs general inspection	
6	Inspects & assesses hands - *clubbing / temperature / CRT*	
7	Assesses radial pulse - *rate / rhythm / radial-radial delay / collapsing pulse*	
8	Assesses brachial pulse & offers to record blood pressure	
9	Assesses carotid pulse appropriately	
10	Observes JVP & checks for hepatojugular reflux	
11	Inspects eyes - *Xanthelasma / Corneal arcus / Conjunctival pallor*	
12	Inspects mouth for central cyanosis	
13	Inspects precordium	
14	Palpates for heaves, thrills and apex beat	
15	Auscultates all heart valves appropriately whilst feeling carotid pulse	
16	Auscultates carotids, left sternal edge & axilla for radiation of murmurs	
17	Performs accentuation manoeuvres	
18	Auscultates lung bases, inspects for sacral oedema & assess peripheral oedema	
19	Thanks patient	
20	Washes hands	

EXAMINER

"*Summarise your findings, suggest further investigations and offer a differential diagnosis*"

20	Accurately summarises salient findings	
21	Suggests appropriate further investigations	
22	Suggests appropriate differential diagnosis	

GEEKY MEDICS



Ref: geekymedics.com

Information Giving: let's do one together

- You are a GP. Mr X is a 50 year old man with mild hypertension, taking ramipril. He has recently done some reading online about a study showing acupuncture may be beneficial for mild hypertension.
- Please read this abstract and answer Mr X's questions.

Acupuncture for patients with mild hypertension: A randomized controlled trial

Hui Zheng [1], Juan Li [2], Ying Li [1], Ling Zhao [1], Xi Wu [1], Jie Chen [1], Xiang Li [1], Yin-Lan Huang [3], Xiao-Rong Chang [4], Mi Liu [4], Jin Cui [5], Rui-Hui Wang [6], Xu Du [6], Jing Shi [7], Tai-Pin Guo [8], Fan-Rong Liang [1]

Affiliations + expand

PMID: 30737889 DOI: 10.1111/jch.13490

Free article

Abstract

Acupuncture may be beneficial for patients with mild hypertension, but the evidence is not convincing. We aimed to examine the effect of acupuncture on blood pressure (BP) reduction in patients with mild hypertension. We conducted a multicenter, single-blind, sham-controlled, randomized trial in eleven hospitals in China. The trial included 428 patients with systolic blood pressure (SBP) from 140 to 159 mm Hg and/or with diastolic blood pressure (DBP) from 90 to 99 mm Hg. The patients were randomly assigned to receive 18 sessions of affected meridian acupuncture (n = 107) or non-affected meridian acupuncture (n = 107) or sham acupuncture (n = 107) during 6 weeks, or to stay in a waiting-list control (n = 107). All patients received 24-hour ambulatory blood pressure monitoring at weeks 6, 9, and 12. We included 415 participants in the intention-to-treat analysis. The two acupuncture groups were pooled in the analysis, since they had no difference in all outcomes. SBP decreased at week 6 in acupuncture group vs sham acupuncture vs waiting-list group (7.2 ± 11.0 mm Hg vs 4.1 ± 11.5 mm Hg vs 4.1 ± 13.2 mm Hg); acupuncture was not superior to sham acupuncture (mean difference 2.7 mm Hg, 95% CI 0.4 to 5.9, adjusted P = 0.103) or waiting-list control (2.9 mm Hg, 95% CI -0.2 to 6.0, adjusted P = 0.078). However, acupuncture was superior to sham acupuncture (3.3 mm Hg, 95% CI 0.2 to 6.3, adjusted P = 0.035) and waiting-list control (4.8 mm Hg, 95% CI 1.8 to 7.8, P < 0.001) at week 9. Acupuncture had a small effect size on the reduction of BP in patients with mild hypertension.

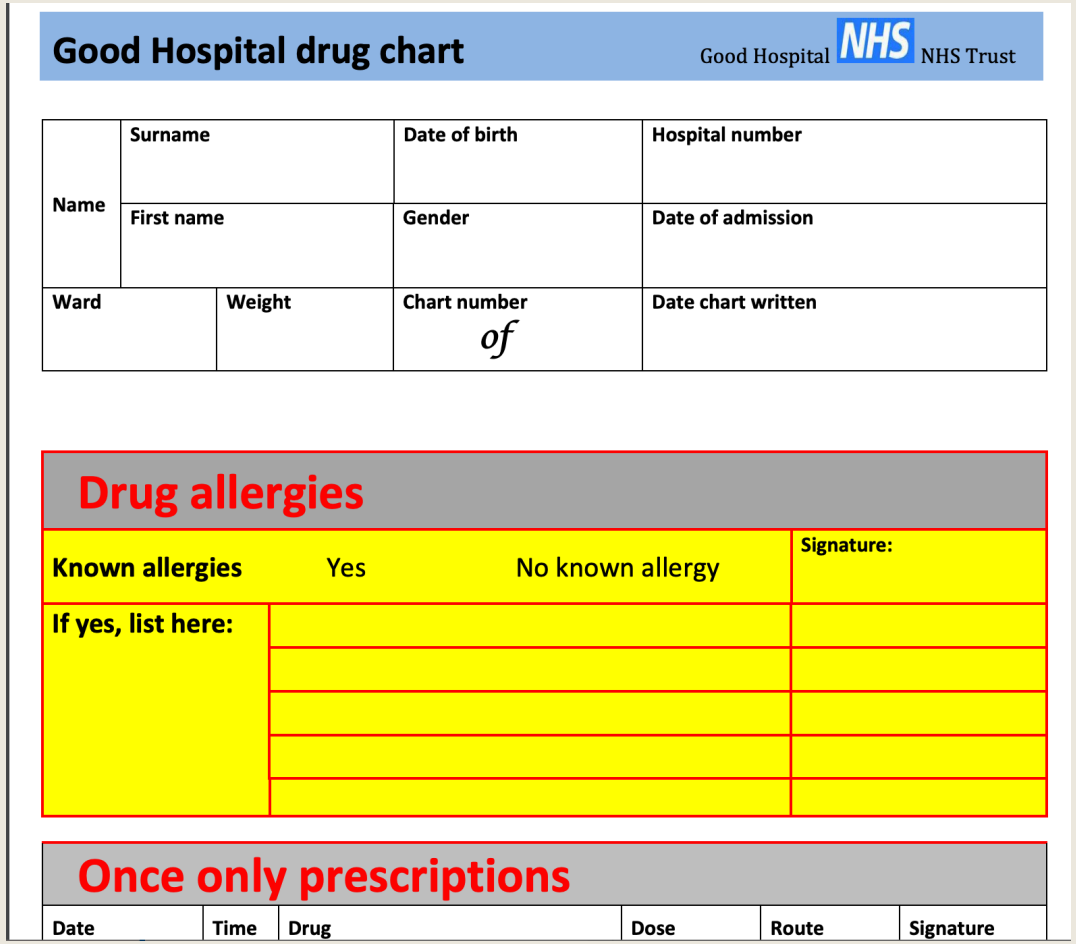
Keywords: acupuncture; blood pressure variability; mild hypertension; randomized controlled trial.

Example questions for the abstract

- What is this paper telling you? (in one sentence)
- What is a randomised control trial?
- Explain what is meant by the 95% confidence interval?
- Based on this paper, should Mr X stop his ACE-inhibitor and try acupuncture instead?

In stats OSCEs, be prepared to give definitions on sensitivity, specificity, negative predictive value, positive predictive value, number needed to treat, incidence, prevalence, etc, but you should not have to do any real calculations

Prescribing: key points



Good Hospital drug chart — Good Hospital NHS NHS Trust

Name	Surname	Date of birth	Hospital number
	First name	Gender	Date of admission
Ward	Weight	Chart number *of*	Date chart written

Drug allergies

Known allergies	Yes / No known allergy	**Signature:**
If yes, list here:		

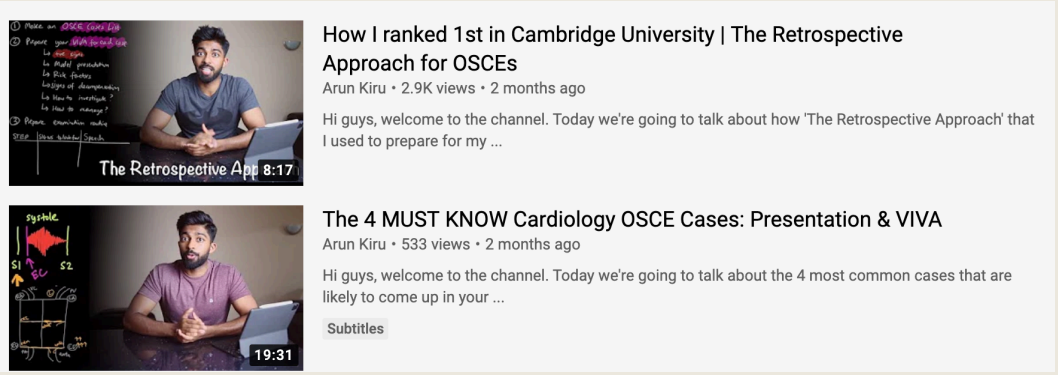
Once only prescriptions

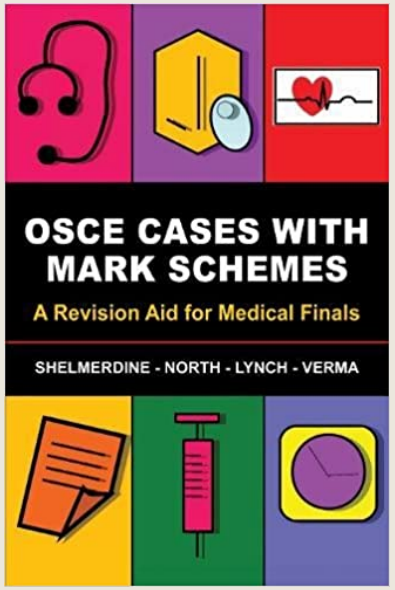
Date	Time	Drug	Dose	Route	Signature

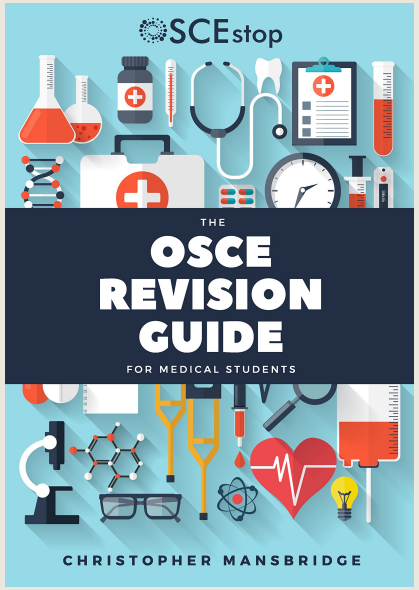
- ALWAYS FILL IN THE PATIENT'S DETAILS (including DOB, name, hospital number)
- ALWAYS ALWAYS FILL IN ALLERGIES
- Remember to sign and put 'your bleep number'
- Be familiar with the drug chart your university uses
- Remember important contraindications, eg:
  - Do not co-prescribe beta-blockers and verapamil
  - Check allergies! Avoid giving cephalosporins to penicillin-allergic patients (10% cross reaction)
  - Avoid giving NSAIDs to patients with asthma
- Going the extra mile:
  - Consider VTE prophylaxis where appropriate
  - Consider PPI with NSAIDs
  - Consider anti-constipation medication (eg senna) and anti-emetics with opiates

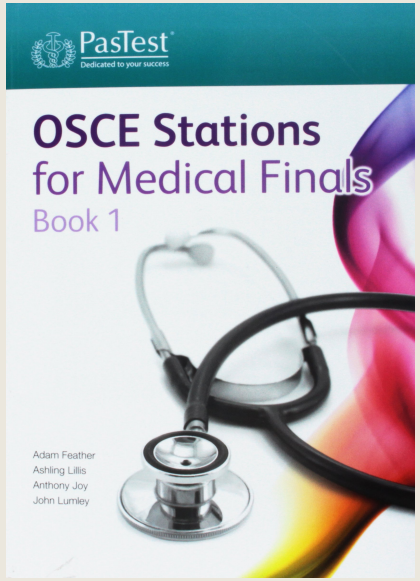
Recommended resources

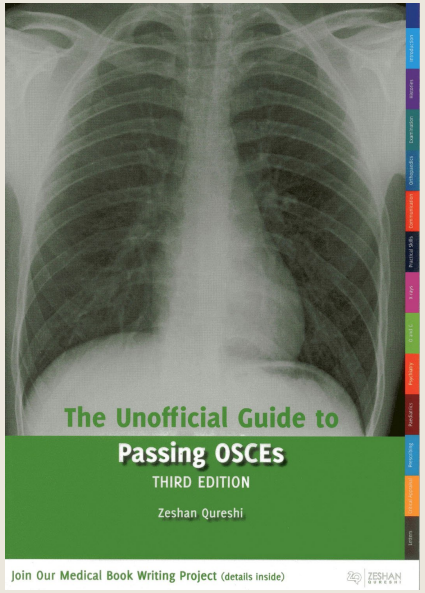
- Geeky Medics
- OSCE stop, OSCE aid
- YouTube Arun Kiru
- Back of Oxford Handbook has great algorithms for DR ABCs
- Lots of OSCE books (check your uni library):











FEEDBACK?

Example prescribing stations

- Prescribe an end-of-life syringe driver
- Prescribe medications for an acute asthma attack
- Prescribe antibiotics for a UTI
- Prescribe fluids!

Top tip: For communication/prescribing stations, be prepared to discuss the side-effects of common medications, eg statins, warfarin, contraceptives.

Thank you!