

## CLINICAL PROBLEM SOLVING:

Clinical Problem Solving questions will be drawn from the following topic areas:

- Cardiovascular
- Dermatology / ENT / Eyes
- Endocrinology / Metabolic
- Gastroenterology / Nutrition
- Infectious disease / Haematology / Immunology / Allergies / Genetics
- Musculoskeletal
- Paediatrics
- Pharmacology / Therapeutics
- Psychiatry / Neurology
- Reproductive (male and female)
- Renal / Urology
- Respiratory

They may relate to:

- Disease factors
- Making a diagnosis
- Investigations
- Management plans
- Prescribing
- Emergency care

### Example Questions

These example questions illustrate two of the question formats that may be used. Other question formats may also be used when appropriate. You will be asked to mark your answers on a separate sheet by filling in lozenges and we have provided you with a similar sheet for these practice exercises. (Answers are NOT available)

1. A 25 year old woman has a muco-purulent discharge, pelvic pain, cervicitis and urethritis.

Which is the **SINGLE** most likely cause for her symptoms? Select **ONE** option only.

- A. Bacterial vaginosis
- B. Candida albicans
- C. Chlamydia Trachomatis
- D. Herpes simplex
- E. Trichomaniasis

<b>Reduced Vision</b>			
A.	Basilar migraine	F.	Central retinal vein occlusion
B.	Cerebral tumour	G.	Optic neuritis (demyelinating)
C.	Cranial arteritis	H.	Retinal detachment
D.	Macular degeneration	I.	Tobacco optic neuropathy
E.	Central retinal artery occlusion		
<p>For each patient below, what is the most likely <b>diagnosis</b>?                      Select <b>ONE</b> option only from the list above.                      Each option may be selected once, more than once or not at all.</p>			
<p><b>2.</b> A 75 year old man, who is a heavy smoker, with a blood pressure of 170/105, complains of floaters in the left eye for many months and flashing lights in bright sunlight. He has now noticed a "curtain" across his vision.</p>			
<p><b>3.</b> A 70 year old woman complains of shadows that sometimes obscure her vision for a few minutes. She has felt unwell recently with loss of weight and face pain when chewing food.</p>			
<p><b>4.</b> A 45 year old woman, who is a heavy smoker, with blood pressure of 170/110, complains of impaired vision in the right eye. She has difficulty discriminating colours and has noticed that her eye aches when looking to the side.</p>			

**Answer Sheet**

1.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
2.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
3.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
4.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U

## PROFESSIONAL DILEMMA QUESTIONS:

### Ranking questions

With this type of question you will be presented with scenarios followed by a number of possible options. Unless the scenario says otherwise, consider yourself a second year Foundation doctor (F2 or FY2) working a rotation.

Rank each option in order from the most appropriate (ranked as 1) to the least appropriate (ranked as 5) given the circumstances described in the scenario. NB There can be no tied ranks. Mark your ranking for each option against the appropriate letter on the answer sheet.

If you thought A was the most appropriate option in response to Question 1, B the second most appropriate, C the third, D the fourth and E the least appropriate option, you would complete the answer sheet as follows (you may not use the same rank more than once):

Question	Ranking					
		Most			Least	
1	A		2	3	4	5
	B	1		3	4	5
	C	1	2		4	5
	D	1	2	3		5
	E	1	2	3	4	

### Example A

You are a second year foundation doctor (F2 or FY2) working in general practice. At the baby clinic the nurse gives you a syringe with fluid already drawn up, an immunisation (MMR), to give to a baby. After the parent and child have gone home you realise that the syringe contained only the diluent; the ampoule of active powder is intact.

Rank in order the following actions in response to this situation (1= Most appropriate; 5= Least appropriate).

- A. Contact the parent immediately and explain what has happened.
- B. Inform the practice manager of the nurse's mistake.
- C. Fill in a critical incident form.
- D. Send a further appointment for the baby.
- E. Take no action.

**Example B**

A 55 year old woman with ischaemic heart disease has smoked 20 cigarettes per day for 40 years. She requests nicotine replacement patches. She has had these previously but has been inconsistent in their use and has often continued to smoke while using the patches.

Rank in order the following actions in response to this situation  
(1= Most appropriate; 5= Least appropriate).

- A. Emphasise the dangers of smoking but do not prescribe.
- B. Enquire about the difficulties she has with stopping smoking and any previous problems with patches
- C. Insist on a period of abstinence before prescribing any further patches.
- D. Prescribe another supply of patches and explain how they should be used.
- E. Suggest that nicotine replacement therapy is not suitable for her but explore alternative therapies.

Discussion of Example A

A is the best answer. The parents should be informed of the mistake immediately so that they are aware the baby has not received the immunisation and can make appropriate arrangements. D is the next best answer. The need to repeat the immunisation is addressed, however this does not share with the parents what has happened or the reason for the appointment and so is not such a good answer. It is good to fill in a critical incident form so that the causes of the error are investigated but this does not address the need to repeat the immunisation so C is next best answer. B is not a good response because it does not address the baby's need and it would be better to discuss the error directly with the nurse to find out what had happened. E is not a good response because you are the only person who knows the baby has not received the immunisation and if you take no action this will not be redressed.

Discussion Example B

B is the best response to this situation. This patient clearly wishes to stop smoking but is experiencing difficulties in doing so. A discussion about the problems she faces may help her to make her next attempt more successful. E is also a good response but it assumes the nicotine replacement therapy is not suitable for her, whereas it may be the right approach and she may need more help in using it effectively. D is a possible approach but given her previous failures with the patches it may need more than this for her to succeed. A is unlikely to help her. She clearly already wants to stop smoking or she would not be making repeated attempts with the patches and this option does not include any alternative approach to stopping. C is a very poor response. If she is unable to stop smoking with the patches she is unlikely to do very well without.

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Here are some more examples of ranking questions for you to try (Answers are NOT available)

1. A good friend, whose father has been admitted to the hospital you are working in, asks you to find details of his illness as the hospital will not tell her anything over the telephone. She is on holiday abroad and needs to know whether to return home early.

Rank in order the following actions in response to this situation. (1= Most appropriate; 5= Least appropriate).

- A. Decline politely, explaining that this would be a breach of hospital rules.
- B. Ask your friend to confirm in writing or email with the hospital that you have her permission to ask for information.
- C. Ask your consultant for advice on what is the best option.
- D. Tell your friend that you will ask her father whether he will discuss his case with you in these circumstances.
- E. Tell your friend that you will discuss her situation with her father's consultant.

2. You are reviewing a routine drug chart for a patient with rheumatoid arthritis during an overnight shift. You notice that your consultant has inappropriately prescribed methotrexate 7.5mg daily instead of weekly.

Rank in order the following **immediate** actions in response to this situation. (1= Most appropriate; 5= Least appropriate).

- A. Ask the nurses if the consultant has made any other drug errors recently.
- B. Correct the prescription to 7.5mg weekly.
- C. Leave the prescription unchanged until the consultant ward round the following morning.
- D. Phone the consultant at home to ask about changing the prescription.
- E. Inform the patient of the error

3. One evening when you are just coming to the end of your shift, you receive a message from Dr Spencer, a consultant on another ward. She wants to discuss aspects of the care you provided to one of her patients when you were covering the medical wards a couple of days ago.

Rank in order the following actions in response to this situation. (1= Most appropriate; 5= Least appropriate).

- A. Ring Dr Spencer's extension to see if she is still at work.
- B. Ring Dr Spencer the next morning.
- C. Check whether your own consultant is aware of any issues.
- D. Ring Dr Spencer's ward to see if the nurse in charge is aware of any issues
- E. Leave a message for Dr Spencer acknowledging that you have received her request

Mark the ranking for each option:

Question		Ranking				
		Most				Least
1	A	1	2	3	4	5
	B	1	2	3	4	5
	C	1	2	3	4	5
	D	1	2	3	4	5
	E	1	2	3	4	5
2	A	1	2	3	4	5
	B	1	2	3	4	5
	C	1	2	3	4	5
	D	1	2	3	4	5
	E	1	2	3	4	5
3	A	1	2	3	4	5
	B	1	2	3	4	5
	C	1	2	3	4	5
	D	1	2	3	4	5
	E	1	2	3	4	5

**Multiple Best Answer**

In these questions you will be presented with scenarios followed by a number of possible options. For each scenario select the options which together are the most appropriate response to the situation given the circumstances described.

You will be asked to choose two or three options. Mark the letters for the options you have chosen on the answer sheet. Make sure you have chosen the correct number of options.

If you thought the two most appropriate options in response to question 4 were A and B you would complete the answer sheet as follows:

Question	Options							
4	<input checked="" type="radio"/>	<input checked="" type="radio"/>	C	D	E	F	G	H

**Example C**

You are looking after Mrs Sandra Jones, who is being investigated in hospital. You are asked by her family not to inform Mrs Jones if the results confirm cancer.

Choose the THREE most appropriate actions to take in this situation.

- A. Ignore the family's wishes.
- B. Agree not to tell Mrs Jones.
- C. Explain to the family that it is Mrs Jones' decision.
- D. Ask Mrs Jones whether she wishes to know the test results.
- E. Ask Mrs Jones whether she wishes you to inform the family.
- F. Inform Mrs Jones that her family do not wish her to have the results.
- G. Give the results to the family first.
- H. Give the results to the next of kin first

Suggested responses for Example C

As Mrs Jones is the patient it is her decision whether she should hear her results, not the family's. Indeed it is Mrs Jones choice whether the family should be informed of the results at all. This should be explained to the family. Therefore the correct responses are C, D and E. Together these actions are the most appropriate response to the situation.

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Here are some more examples of multiple best answer questions for you to try  
(Answers are NOT available)

4. A woman due for discharge after surgery for an ectopic pregnancy asks to speak to a doctor about her future fertility.

Choose the TWO most appropriate actions to take in this situation.

- A. Explain she could be infertile.
- B. Tell her she is at increased risk of an ectopic pregnancy and requires early assessment in future pregnancies.
- C. Reassure her that her future fertility might not be affected.
- D. Give a gynaecology follow up appointment for 12 months if she does not get pregnant.
- E. Reassure her that one of your friends had an ectopic but subsequently had a normal pregnancy within a few months

5. A patient has a history of drug abuse and has been in and out of prison over the past 3 years. He has been trying to obtain a prescription for diazepam. You are a Foundation year 2 (FY2) doctor in general practice and he has been booked in to your surgery as an extra patient. He is a large man with many tattoos.

Choose the THREE most appropriate actions to take in this situation.

- A. Give the patient a prescription for a small amount of diazepam.
- B. See the patient and explain that you are not allowed to prescribe the diazepam as it is against the practice prescribing policy.
- C. See the patient and explain that he needs to provide a urine specimen for a toxicology screen before you can prescribe diazepam.
- D. Provide a prescription for the same dose and quantity that the last doctor provided.
- E. Tell the reception staff that you will not see this patient as an extra.
- F. Tell the reception staff that you will only see this patient as an extra if you have a chaperone.
- G. Arrange for the patient to be reviewed in a day or two by a partner\*.
- H. Ask a partner\* to see the patient today.

\* *Senior Colleague*

Mark your chosen options:

Question	Options							
4	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	<input type="radio"/> G	<input type="radio"/> H
5	<input type="radio"/> A	<input type="radio"/> B	<input type="radio"/> C	<input type="radio"/> D	<input type="radio"/> E	<input type="radio"/> F	<input type="radio"/> G	<input type="radio"/> H