

ADDITIONAL MATERIAL FOR YEAR 1 CLINICAL CONTACT IN GP

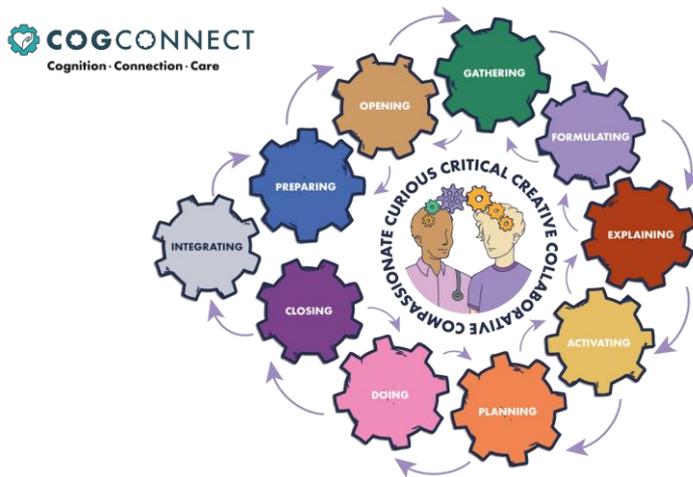
19/2/26 – am/ pm - group B

Theme: Respiratory. Consultation skill: formulating

Formulating – student resources from Effective Consulting teaching

The following pages are extracted from the students’ digital notebook (OneNote - our toolkit for teaching and learning about clinical encounters). **GP TEACHERS DO NOT HAVE TO READ THIS BUT IT MAY FURTHER INFORM TEACHING.**

FORMULATING involves clinical reasoning, decision making and hypothesis generating. Formulating is clearly based on information gathered; if necessary, please see the previous session guide for the info the students are given about gathering information.



<p>PREPARING <i>Am I prepared?</i></p> <ul style="list-style-type: none"> ☐ Preparing oneself ☐ Preparing the space ☐ Checking the medical record 	<p>OPENING <i>Are we off to a good start?</i></p> <ul style="list-style-type: none"> ☐ Establishing the agenda ☐ Establishing relationships ☐ Initial observations
<p>GATHERING <i>Have we covered all the relevant areas?</i></p> <ul style="list-style-type: none"> ☐ Sources of understanding ☐ History ☐ Clinical examination 	<p>FORMULATING <i>What is going and what is next?</i></p> <ul style="list-style-type: none"> ☐ Bias checking ☐ Considering the options ☐ Red flag signs and symptoms
<p>EXPLAINING <i>Have we reached a shared understanding?</i></p> <ul style="list-style-type: none"> ☐ Chunking ☐ Checking ☐ Visual Aids 	<p>ACTIVATING <i>Is the patient better placed to engage in self-care?</i></p> <ul style="list-style-type: none"> ☐ Identifying problems and opportunities ☐ Rolling with resistance ☐ Building self-efficacy
<p>PLANNING <i>Have we created a good plan forward?</i></p> <ul style="list-style-type: none"> ☐ Encourages contribution ☐ Proposing options ☐ Attends to ICE (IE) 	<p>CLOSING <i>Have I brought things to a satisfactory end?</i></p> <ul style="list-style-type: none"> ☐ Summary ☐ Patient questions ☐ Follow Up
<p>DOING <i>Have I provided a safe and effective intervention?</i></p> <ul style="list-style-type: none"> ☐ Formal and informal consent ☐ Due regard for safety ☐ Skillfully conducted procedure 	<p>INTEGRATING <i>Have I integrated the consultation effectively?</i></p> <ul style="list-style-type: none"> ☐ Clinical record ☐ Informational needs ☐ Affective progressing

Formulating

Clinical reasoning sits within Effective Consulting as one of our three domains. Of the 5 core values with which we expect students to approach every clinical encounter (curiosity, compassion, creativity, criticality, collaboration) clinical reasoning encompasses curiosity (the why and what), creativity (new solutions) and criticality (the judicious application of evidence-based medicine). Arguably, how doctors reason and make decisions is one of our most critical skills. Clearly, Clinical Reasoning is a broad church. **Formulating** (the focus of this fortnight) is **the place where clinical reasoning meets the patient**. Formulating should be seen as a chance for doctors (and medical students) to stop and think, and to make links between prior knowledge and new knowledge. It should be a place of reflection in action, with the patient at its centre.

Until now, clinical reasoning has rarely been formally taught at medical schools, but we want doctors who are both knowledgeable, and able to make good decisions, so it makes sense to support and facilitate the acquisition of reasoning skills alongside the acquisition of medical knowledge.

In order to formulate well, one needs to have:

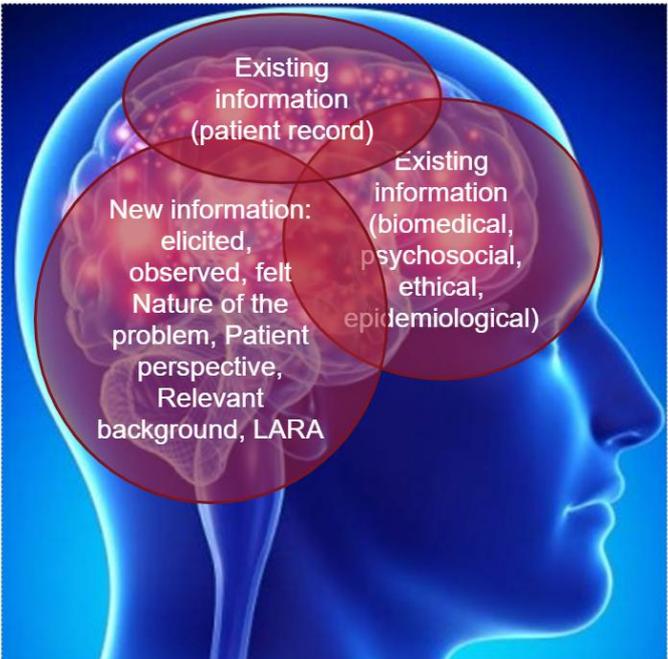
- Prepared the consultation well
- Opened the consultation well
- Gathered appropriate information
 - Information from clinical (hi)stories
 - Nature of the current medical problem
 - Patient's perspective on the problem
 - Relevant background and lifeworld
 - Information from Clinical Examination
 - Information from Bedside tests
 - Information from other sources (notes/relatives/colleagues/letters)

Here is a short video example of formulating in action <https://youtu.be/YNFFyS1ykOw>

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FORMULATING

- Creating links between information sources (new and existing)
- Using evidence based history and examination
- Critically appraising information and tests
- Critical reflection and metacognition
- Cognitive debiasing



Once a doctor has gathered information from the history, examination, and other sources such as test results, the doctor needs to consider what to do next. The doctor should ask themselves if they

understand what is going on and what it means for the patient? They may ask themselves questions like:

- a. What do I think the main problem is?
- b. What do I think the diagnosis is? (Or even 'is there a diagnosis'? Note, this is not necessarily the same as the main problem)
- c. What else could it be?
- d. Is there anything that doesn't fit?
- e. What must I not miss?
- f. Is there more than one thing going on?
- g. Do I need more information?
- h. What is the patient most worried about? Is that the same as what I'm worried about?
- i. Why do I think what I think (what is the underlying anatomy/physiology, what is the symptomatology, what's the likelihood of a condition)?

Experienced doctors may not seem to need to ask these questions. This is only because they can rely more on "Type 1" intuitive thinking and pattern recognition (or they are not verbalising their thinking!)—but they only got to this stage by seeing many patients and learning from their tutors. You will not be able to make good differential diagnoses yet because you don't yet know what all the options are. But you can begin to learn about how your tutors make the diagnoses and decisions by asking and encourage your tutors to "think out loud" about the patients you meet. We would encourage you to see formulating as a phase of the consultation to STOP and THINK. You may find the mnemonic below helpful.

STOP!4WHAT? - a Mnemonic for clinical reasoning in the consultation

STOP!	Self-consciously pause in the consultation, allowing yourself a moment to consider (during or just after a summary can be a good time)
What?	What do you know? Mental summary of history, observation, examination findings.
So What?	What do I think is going on here? Consider aetiologies: predisposing, precipitating, and perpetuating factors. Differential diagnoses and / or salient problems.
What else?	What else do I need to consider? Actively think of alternate diagnoses and other problems. Consider common biases and how they might be impacting your thinking. What do you not want to miss?
What Next?	What should we do now? Judicious consideration of possible tests, treatments, referrals, and human factors. Consider EBM, AND the person in front of you.

A template for formulating using STOP!4What?

Students won't have a printed copy of this, although it is in their electronic notebooks. You may want to print it for them to use whilst observing consultations, or to clarify their thoughts after meeting a patient at home.

STOP!

Self-consciously pause in the consultation, allowing yourself a moment to consider:

WHAT?

What do I think the nature of the medical problem is?

What do I think the relevant background and lifeworld information is?

What do I think the patient thinks about what's going on? (ICEIE)

SO WHAT?

What do I think is going on here? Why? What's the underlying anatomy? What's the underlying physiology? What conditions am I aware of that this could be? Could I write a problem list or come up with some differential diagnoses?

WHAT ELSE?

What else do I need to consider? Actively think of alternate diagnoses and other problems. Consider common biases and how they might be impacting your thinking. What do you not want to miss? Red Flags? Important but rare?

WHAT NEXT?

What should we do now? Consideration of possible tests you might want to request (and why?). What treatments options are there? Does this person require referral / admission / discharge? Are there any other factors to consider? Consider Evidence Based Medicine AND the person in front of you.

Next steps: how will you communicate all of this? To the patient? To a colleague?

Considering common bias

Think about these different types of bias and how they may affect how healthcare professionals assess and manage their patients.

Type of Bias	Meaning
Ascertainment bias	When we see what we expect to see– a self-fulfilling prophecy
Availability bias	When things are at the forefront of your mind because you have seen several cases recently or have been studying a condition
Commission bias	The tendency towards action rather than inaction
Confirmation bias	The tendency to look for confirming evidence rather than disconfirming evidence (to refute your hypothesis) even if the latter is clearly present.
Premature closure	The tendency to prematurely shut down the decision-making process and accept a diagnosis before other possibilities have been explored
Unpacking principle	Failing to 'unpack' all the available information and so things get missed or discounted
Visceral bias	The influence of either negative or positive feelings towards a patient which can affect our decision making.

Risk Factors for Cardiorespiratory disease

Considering the likelihood of diagnoses – using risk factors in formulating

Think back to the 'gathering' of information which included the risk factors below. A number of these are specifically relevant to respiratory disease as well and remember that some primarily cardiac conditions can present with shortness of breath or other respiratory symptoms.

- Smoking
- High blood pressure
- Blood lipids
- Other conditions such as Diabetes, Rheumatoid arthritis, Depression
- Older age
- Family history
- Stress
- Indian subcontinent or Afro-Caribbean ethnicity

As you can see, some risk factors are modifiable e.g. smoking, in other words the patient can do something about them such as stop smoking or take medication or change their lifestyle to reduce their blood lipids and blood pressure. Other risk factors such as family history or age are not modifiable. Doctors identify risk factors to help predict the likelihood of someone developing disease and focus on the modifiable risk factors to try and prevent disease occurring (primary prevention). When you are meeting a patient, think about HOW you ask questions to get into these topics. Some of this will be part of your clinical history e.g. "do you smoke", some will be related to 'non-medical' aspects of lifestyle and others will be related to lifeworld (the experience of the patient and their environment for example, adverse childhood events, poor housing, living in a 'nutritional desert'). HOW do you ask someone things like this? You will have practiced this in your EC Lab. Give it a go with real patients in GP.

This information is important when formulating diagnoses (i.e. a smoker is more likely to have lung problems than a non-smoker), and your management plan may include tackling such risk factors. Clinical Tools have been developed which take into account symptom load, and risk factors, and can calculate the risk of someone having (for example) an undiagnosed Cancer. [QCancer](#) is an example of this. Your GP tutor may have this software embedded in their clinical system.