MBChB Year 2 Clinical contact in GP – Pharmacology and Therapeutics 3rd December 2026

Overview of the Pharmacology session in GP Clinical Contact

The Intended Learning Outcomes for this session are:

Undertake a clinical consultation (clerking) & gather information relevant to the patient presentation
Perform and document a medication history including the patient perspective and concordance
Describe & perform a clinical examination relevant to the patient presentation including vital signs
Practise a patient focused explanation relevant to the patient presentation
Describe and practise the use of an otoscope to look in the ears and throat (see notes below)

Common to all sessions:

- Please refer to the Year 2 GP Teacher Guide , which covers the information common to all sessions.
- Please see GP2 Session Plans also online to help you structure time with your group.

Allow time for:

- Identifying one or two learning points/things to look-up for next time.
- If possible, allow some time to reflect on the sessions so far. How are the students finding the sessions? Anything they would like to do differently?

(Expert) patients

Suitable patients for the block are those who are:

- taking prescribed +/- over-the-counter medication +/- other "remedies", especially if due a medication review and/or take medication that requires monitoring*
- willing to have students examine them

*Patients on multiple medications or medications that need regular review may be particularly helpful to see together. Consider encouraging patients to bring all their medicines with them to the review, to better determine what drugs are being taken and how (a "brown bag" review).

Context for the session: What else students will have covered in the two-week Pharmacology block:

In **Case-Based Learning** a 42-year-old man found lying on a concrete floor having last been seen 36 hours earlier. He was conveyed by ambulance to the Emergency Department where he was managed as an accidental opioid overdose (injection of heroin) with naloxone. Students consider the metabolism and excretion of opioids, and the effect of kidney function on drug excretion. They will also consider acid-base balance and hyperkalaemia.

Lectures, workshops and practicals cover:

- Introduction to prescribing
- What is a drug? How do drugs act?
- Receptors, agonists, antagonists
- How drugs get into the body, how drugs move around the body and how the body excretes drugs
- Basic pharmacokinetics and dosing
- The safety and harms of medicines
- Drug dependency and addiction

Students are expected to become aware of common medications (e.g., ACE inhibitors, steroids, PPIs, oral hypoglycaemics), their indications and risks and benefits

There are also numeracy skill sessions, a pharmacology practical on aspirin administration and excretion, and a guest lecture on the importance of drug-receptor interactions and pharmacokinetics to heroin users.

In their **Effective Consulting** lab session, they will learn how to:

- Gather a focused medication history
- Describe how to give an effective explanation and explain “blood pressure” to a patient
- Discuss how to set professional boundaries

Specifics for Pharmacology and Therapeutics in GP clinical contact

Introduction

Medication can yield great benefits for patients, but they are also associated with significant risks. Polypharmacy is an important factor associated with increased medication errors and adverse drug reactions. Students will see lots of prescribing during their training, and it is useful to be aware of the process of prescribing from an early stage.

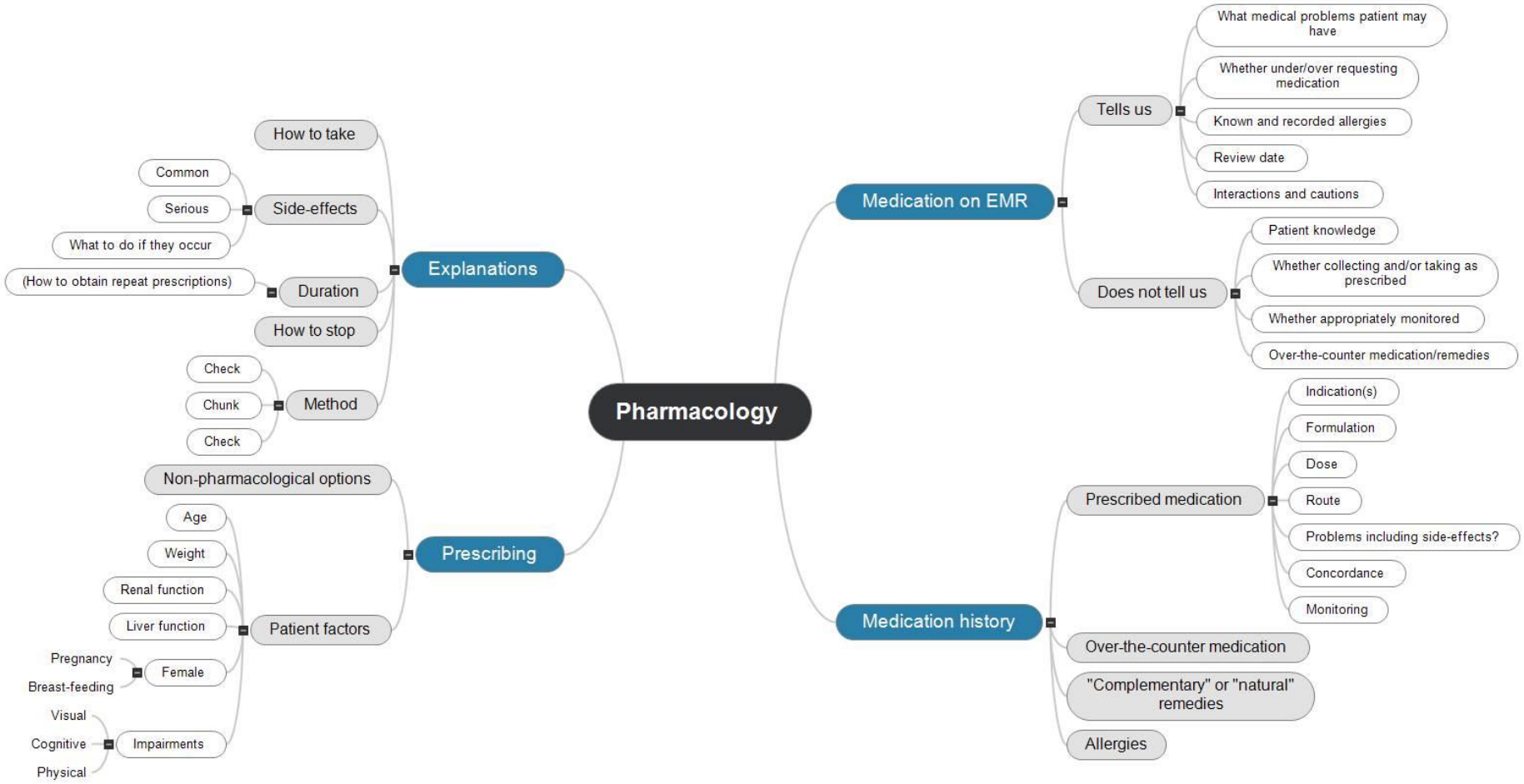
As with the previous sessions:

- refer to the Year 2 GP Teacher Guide 2026-27, which covers all the information common to all sessions.
- use the Session Plan as a guide on how to use your time with your group

Allow plenty of time for:

- introductions (reflecting on any learning/action points from previous session)
- student-led interaction with patient(s), and
- summarising at the end/planning for the next session

Brainstorm


Pharmacology
Explanations
How to take
Side-effects
Common
Serious
What to do if they occur
Duration
(How to obtain repeat prescriptions)
How to stop
Method
Check
Chunk
Check
Prescribing
Non-pharmacological options
Patient factors
Age
Weight
Renal function
Liver function
Female
Pregnancy
Breast-feeding
Impairments
Visual
Cognitive
Physical
Medication on EMR
Tells us
What medical problems patient may have
Whether under/over requesting medication
Known and recorded allergies
Review date
Interactions and cautions
Does not tell us
Patient knowledge
Whether collecting and/or taking as prescribed
Whether appropriately monitored
Over-the-counter medication/remedies
Medication history
Prescribed medication
Indication(s)
Formulation
Dose
Route
Problems including side-effects?
Concordance
Monitoring
Over-the-counter medication
"Complementary" or "natural" remedies
Allergies

Start by asking the students/getting them to discuss:

Preparation – using the medication history as background information. Before we see a patient, part of preparation is to review the notes. What does the medication section of the electronic medical record tell us (and not tell us) about a patient's medical history and medication?

The medication section of the electronic medical record can tell us:

- What medical problems a patient may have. We can surmise several conditions from the medication someone takes, if there is no/limited other history available
- If someone is over or under-requesting their medication
- Known allergies (if reported and recorded)
- Potential interactions between medications, cautions and contraindications to prescribing and alerts about monitoring
- When the last medication review was done, or when a review is due

The medication section of the electronic medical record cannot tell us:

- What the patient knows about their medication – why it has been prescribed, what the potential benefits or risks of harms are
- Whether they are collecting their prescriptions/taking the tablets as prescribed
- What non prescribed medication (or herbal remedies) the patient is using

Obtaining a medication history. When you talk to a patient about their medication, what do we need to find out and why? When is a medication history particularly important?

Issues to highlight:

- Problems with medications or side-effects are a common reason for consultations in primary care or hospital admissions, e.g. certain medications may be the cause for abnormal blood tests – low sodium, raised potassium, deteriorating renal function or abnormal liver function
- Medications can give clues to the medical history e.g. a patient may be on a statin for raised cholesterol or cardiovascular disease.
- Concordance. If someone isn't responding to treatment it may be because they are not taking their medication as prescribed? Explore adherence, the patient's experience of taking medicines, and factors affecting shared decision making

Prescribing. "When I am considering prescribing a medication what do you think I need to consider?" The process can be broken into eight stages (See stages of prescribing table in student information).

- Firstly, consider if medication is necessary - what non-pharmacological options are available?
- Consider patient factors such as age, weight, renal or hepatic impairment and if the patient is pregnant, planning pregnancy or breastfeeding.
- Consider practical aspects: Are there any cognitive, visual or physical impairments that would make taking medication difficult? Children or the elderly may struggle with tablets, and some medications taste awful or are difficult to administer (e.g. some inhalers may be

difficult to use for a patient with arthritis or other condition affecting hand strength or coordination)

Explanations. What does a patient need to know about their medication when you prescribe?

- Do they know how to take the medication?
- Common side effects and what to do if they occur
- Serious side effects and signs of allergy and what to do if they occur
- When they run out what should they do? Some medications, e.g. steroids, should not be stopped suddenly
- Does the patient know when to come back for review and how to order repeat prescriptions?

Who can get free prescriptions?

https://www.nhs.uk/nhs-services/prescriptions-and-pharmacies/who-can-get-free-prescriptions/

You can get free NHS prescriptions if, at the time the prescription is dispensed, you are:

- Under 16
- Aged 16–18 and in full-time education
- Aged 60 or over
- Pregnant or had a baby in the last 12 months (with a valid **Maternity Exemption Certificate**)
- Holding a valid **Medical Exemption Certificate** (for certain long-term conditions)
- Holding a **War Pension exemption certificate**
- A prisoner or on remand

People who are in receipt of certain benefits or have certain medical conditions may also be entitled to free NHS prescriptions if they have a valid medical exemption certificate (MedEx).

See this link:

- NHS Prescription Charges and Free Prescriptions Explained | GOVexplained

Optional/ additional tasks

Talk through a paper FP10/electronic prescribing.

Talk about your own experiences of prescribing/patients with problems with their medication; how you decide what is going on and how to manage?

As well as talking to patient(s) about their medication, introduce students to sources of information to support safe medicines management. Show them:

- British National Formulary (BNF) and how to access it (paper version, app, website).
- BNSSG local formulary
- electronic Medicines Compendium which includes patient information leaflets and the detailed Summary of Medical Characteristics

Assign pairs of students a commonly used medication to look up in the BNF. Give them 5 mins to find out its common indications, dosing regime, side effects and contraindications. Get them to summarise their findings to the group, asking questions such as:

- What do you already know about this drug?
- How does this drug work?
- How is this drug used?
- What does a drug need to do to help in this problem, e.g. heart failure? Try linking to physiology
- Name two side effects
- What would it be important to explain to a patient about this drug?

Examining the ear (from Macleod)

Explain to the patient what you are going to do/doing

Inspection: Pinna skin, shape, size, position, scars from previous surgery/trauma, deformity.

Palpation:

- Gently pull on the pinna and push on the tragus to check for pain.
- Gently palpate over the mastoid bone behind the ear to assess for pain or swelling.

Otoscopy

- Use the largest otoscope speculum that will comfortably fit the meatus.
- Hold the otoscope in your right hand for examining the right ear (left hand to examine left ear).
- Rest the ulnar border of your hand against the patient's cheek to enable better control and to avoid trauma if the patient moves
- Gently pull the pinna upwards and backwards to straighten the cartilaginous external auditory canal. Use the left hand to retract the right pinna.
- Inspect the external auditory canal through the speculum, noting wax, foreign bodies or discharge. You should identify the tympanic membrane and the light reflex antero-inferiorly.

Student information on Pharmacology and Therapeutics history and examination

Please see link here for the resources students are provided with for Pharmacology & Therapeutics

Effective Consulting Year 2 – Medication History (Resources for Pharmacology & Therapeutics) 2026-27

You do not need to "teach" this but if the students do see a patient with a presentation related to pharmacology or therapeutics, it is useful to know what they are taught centrally about how to approach the history.