

# Pharmacology week 16 – Antimicrobial Agents part 2

Contributes to 'Antimicrobial Agents' which makes up 8% of the pharmacology MCQ matrix.

**Reference:** Katzung's Basic and Clinical Pharmacology, 14th edition. Chapters 44, 50



Antivirals, antiparasitics and antimycobacterials will be covered in week 17



Mechanisms of resistance comes up commonly in both MCQs and Vivas



Comparing agents within the macrolide group has been popular in the past

## Learning Outcomes LOA 1

- Metronidazole

## Learning Outcomes LOA 2

- Mechanisms of microbial resistance
- Macrolides
- Tetracyclines
- Lincosamides
- Other antimicrobial agents not otherwise specified

## Questions to consider

- For each drug class consider: mechanism of action, microbes against which they are effective, how the class is organised, pharmacokinetics and pharmacodynamics, adverse effects and mechanisms of resistance to the drug
- Compare and contrast azithromycin with the other macrolides (azithromycin is a popular viva topic)
- Why aren't tetracyclines used in the paediatric population?
- Why isn't chloramphenicol used more extensively?
- Why can't nitrofurantoin be used for infections outside of the urinary tract?

# Physiology week 16 – Revision and Catch-up



Use this week to revise cardiovascular physiology (weeks 3-6). It is the first of several catch up weeks in physiology



Resist the urge to skip physiology study... You need to keep momentum going



Practice drawing the diagrams/graphs whilst explaining the concept. If you can do this succinctly in 2-3 minutes you're probably Viva ready

# Pathology week 16 – Infectious Diseases part 2

Contributes to 'Infectious Diseases' which makes up 8% of the pathology MCQ matrix.

**Reference:** Robbins and Cotran Pathologic Basis of Disease, 9th edition. Chapter 8, 18



AIDS was previously considered as a disorder of immunity. Now look closely at the causative virus - HIV



Viral hepatitis is revisited in later weeks in liver pathology



Ensure you understand the lifecycle and disease process of malaria. Comparative presentations of the falciparum species has been asked previously

## Learning Outcomes LOA 1

- Specific viral infections
  - CMV
  - EBV
  - Hepatitis
  - HSV
  - Influenza
  - Measles
  - Mumps
  - Varicella
  - HIV

## Learning Outcomes LOA 2

- Viral infections (*not otherwise specified*)
- Malaria

## Learning Outcomes LOA 3

- General features of other infectious diseases: fungi, protozoa, helminths
- Emerging infectious diseases

## Questions to consider

- Outline the pathophysiology and morphology for each viral infection listed in chapter 8. Consider if any of them have 'special' mechanisms of causing disease or evading host defences. What diagnostic tests are available for them?
- What is the mode of transmission, incubation period, clinical presentation and potential outcome for ... virus?
- What is the life cycle and pathogenesis of the plasmodium species? What are the clinical manifestations of malarial disease?
- Give a brief consideration to the other infections detailed in chapter 8

# Anatomy week 16 - Head & Neck part 2

Contributes to 'Head, Neck & CNS' which makes up 20% of the anatomy MCQ matrix.

**Reference:** Moore and Dalley's Clinically Oriented Anatomy, 8th edition. Chapter 8  
**Supplemental Reference:** McMinn's clinical atlas of human anatomy 7th edition. Chapter 2



There are a lot of items listed here, however that is more to do with how specific the curriculum is being as opposed to the volume of knowledge required



Neuroanatomy comes up frequently in the clinical building blocks



Understand the order and direction of flow in the ventricles and cerebral vessels

## Learning Outcomes LOA 1

- Parts of the brain
- Ventricular system
- Arterial supply of the brain

## Learning Outcomes LOA 2

- Venous drainage of the brain
- Meningeal spaces
- Parotid region
- Maxillary nerve
- External nose
- Nasal cavities
- Vasculature and innervation of the nose
- External ear
- Middle ear

## Learning Outcomes LOA 3

- Cranial meninges
- Temporal region
- Infratemporal fossa
- Temporomandibular joint
- Pterygopalatine fossa
- Pterygopalatine part of the maxillary artery
- Paranasal sinuses
- Internal ear

## Questions to consider

- Describe the ventricular system of the brain and the flow of CSF
- Outline the arterial supply of the brain - which vessels supply which areas?  
What is the order of venous drainage of the brain?
- What is Keisselbach's plexus? Why is it relevant?
- What is the danger triangle of the face?
- Where can infections from the ear spread?