Theatre of Debate
Covid and Me – GCSE Biology

AQA

4.3 Infection and Response;

4.3.1.7 Vaccination

Students should be able to explain how vaccination will prevent illness in an individual, and how the spread of pathogens can be reduced by immunising a large proportion of the population.
Evaluate the global use of vaccination in the prevention of disease.

4.3.1.9 Discovery and development of drugs

Students should be able to describe the process of discovery and development of potential new medicines, including preclinical and clinical testing.
New medical drugs have to be tested and trialled before being used to check that they are safe and effective.
New drugs are extensively tested for toxicity, efficacy and dose. Preclinical testing is done in a laboratory using cells, tissues and live animals. Clinical trials use healthy volunteers and patients.

- Very low doses of the drug are given at the start of the clinical trial.
- If the drug is found to be safe, further clinical trials are carried out to find the optimum dose for the drug.
- In double blind trials, some patients are given a placebo.

Edexcel

Topic 5 – Health, disease and the development of medicines

5.1 Describe health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, as defined by the World Health Organization (WHO)
5.2 Describe the difference between communicable and non-communicable diseases
5.3 Explain why the presence of one disease can lead to a higher susceptibility to other diseases
5.14 Explain the body's response to immunisation using an inactive form of a pathogen
5.20 Describe that the process of developing new medicines, including antibiotics, has many stages, including discovery, development, preclinical and clinical testing

OCR

Chapter B2 Keeping Healthy

B2.1

1. describe the relationship between health and disease
2. describe different types of diseases (including communicable and non-communicable diseases)
3. explain how communicable diseases (caused by viruses, bacteria, protists and fungi) are spread in animals and plants

B2.3

1. explain how the spread of communicable diseases may be reduced or prevented in animals and plants, to include a minimum of one common human infection, one plant disease and sexually transmitted infections in humans including HIV/AIDS

2. explain the use of vaccines in the prevention of disease, including the use of safe forms of pathogens and the need to vaccinate a large proportion of the population

B2.6

1. explain the use of medicines, including antibiotics, in the treatment of disease

4. describe the process of discovery and development of potential new medicines including preclinical and clinical testing