



## Drugs - Painkillers and Antibiotics

1 What type of drugs could be given to somebody who has a cold caused by bacteria?

Explain the role of each.

- Painkillers - to reduce pain and headaches
- Antibiotics - to kill bacteria
- Anything other sensible answer e.g. cough medicine to suppress cough impulse

[ 4 marks ]

2 Why do doctors sometimes have to run a test before prescribing an antibiotic?

- There are many types of bacteria, and some antibiotics are specific for certain types

[ 1 mark ]

3 Why do antibiotics not always cure colds? Explain your answer

- Some colds are caused by viruses
  - Antibiotics don't kill bacteria because they are specific for bacteria
  - And virus hide inside cells
- The bacteria could be resistant
- The person may not take the full course

[ 3 marks ]

4 Name 2 painkillers

- Aspirin, paracetamol etc

[ 2 marks ]

5 Why it is difficult for scientists to develop drugs that kill viruses

- Viruses hide within cells, so hard to target
- Viruses are very hardy because they are not living cells and are very small
- Virus can evolve quickly

[ 2 marks ]

6 Why are doctors trying to reduce the amount of antibiotics that are used?

- To reduce the rise of antibiotic resistance
  - Which would mean that antibiotics didn't work for serious conditions
  - Which would increase the rate of deaths from infectious disease
- Antibiotics can have side effects

[ 2 marks ]

7 Why do you think some doctors give antibiotics even when they know they shouldn't?

- There is always a small risk that the person does need the antibiotics and could become ill or die without them
- They may feel pressure from the patient who asks repeatedly / want to maintain a good relationship

*[ 1 mark ]*

8 Other than in human health care, where are lots of antibiotics used?

- In animal agriculture, lots of antibiotics are given to animals to prevent disease

*[ 1 mark ]*

*[ Total 17 marks ]*