



## QUESTION WORKBOOK

# Infectious disease: transmission and control

Pathogens, disease and immunity · Unit B11

AQA not examined as a topic · OCR A 4.1.1 · Edexcel A 6.6, 6.11, 6.13  
Edexcel B 2.2 iv, 3.2 iv, 6.4 ii, 6.5 i, 6.6 i · CAIE 10.1

15 questions · 52 marks

NAVY SCREEN EDITION

Every question in this book has a code beside its number.  
Type [inklearning.co.uk/q/](https://inklearning.co.uk/q/) followed by the code to open that question online.  
© 2026 Ink Learning Ltd. All rights reserved.  
[inklearning.co.uk/biology/](https://inklearning.co.uk/biology/) · [youtube.com/@InkPhysics](https://youtube.com/@InkPhysics)

**SECTION A** · Short, 1 to 2 marks**A1**

IDT-Q15

State the general category of transmission route by which HIV passes between people, and state the general category by which tuberculosis passes between people.

[2]

**SECTION B** · Standard, 3 to 5 marks**B1**

IDT-Q1

Tuberculosis is spreading in a low-income country, and cases that have stopped responding to the usual antibiotics are appearing. Discuss the biological, social and economic measures a control programme should use.

[5]

**B2**

IDT-Q2

Describe how malaria is transmitted from an infected person to an uninfected person.

[4]

**B3**

IDT-Q3

Explain why antiretroviral drugs control an HIV infection without curing it, and explain why there is still no vaccine against HIV.

[4]

---

---

---

---

**B4**

IDT-Q4

A camp built after a flood has one water source, no latrines and has just reported its first cases of cholera. Suggest why cholera spreads so quickly under these conditions, and suggest one measure that would break the chain of transmission.

[4]

---

---

---

---

**B5**

IDT-Q8

Compare why a measles vaccine can give lifelong protection with why a malaria vaccine, developed decades later, still gives only partial protection.

[4]

---

---

---

---

**B6**

IDT-Q9

Compare the transmission of *Mycobacterium tuberculosis* with the transmission of *Mycobacterium bovis*, and compare the control measure that targets each route.

[4]

---

---

---

---

**B7**

IDT-Q10

A country wants to reduce the number of new HIV infections. Suggest three different measures it could introduce, each acting on a different route or stage of transmission.

[4]

---

---

---

---

**B8**

IDT-Q5

Name the pathogen that causes cholera, name the four species of *Plasmodium* that cause malaria, and name the two species of *Mycobacterium* that cause tuberculosis.

[3]

---

---

---

**B9**

IDT-Q6

Explain why tuberculosis spreads readily through overcrowded, poorly ventilated housing.

[3]

---

---

---

**B10**

IDT-Q7

In one district there are 4000 pregnancies a year in women infected with HIV. Untreated, 25 per cent of these result in transmission to the child; with antiretroviral treatment in pregnancy the figure falls to 0.8 per cent. Calculate the number of infections prevented each year if every pregnancy is treated, and calculate that as a percentage reduction. [3]

**B11**

IDT-Q11

In 1854, John Snow mapped cholera deaths in Soho and found them clustered around the Broad Street pump; when its handle was removed, the outbreak collapsed, although the bacterium responsible was not identified for another thirty years. Explain what this shows about controlling an infectious disease. [3]

**B12**

IDT-Q12

Artemisinin is given to treat malaria in combination with a second antimalarial drug, rather than on its own. Explain why. [3]

**B13**

IDT-Q13

A course of antibiotics for tuberculosis is biological, finishing the course is social, and being able to afford time off work for clinic visits is economic. Suggest why a control programme needs measures from all three categories rather than the biological measure alone.

[3]

---

---

---

**B14**

IDT-Q14

Untreated tuberculosis can remain dormant inside macrophages for decades before causing illness. Explain how a later untreated HIV infection can cause this dormant tuberculosis to become active disease.

[3]

---

---

---

---

**THIS BOOK ONLINE**

Scan the code, or type the address, to open the questions in this book online:

[inklearning.co.uk/biology/practise/questions/infectious-disease-transmission-and-control/](https://inklearning.co.uk/biology/practise/questions/infectious-disease-transmission-and-control/)