EBOLA IN CONTEXT: UNDERSTANDING TRANSMISSION, RESPONSE AND CONTROL

# **WEEK** **2** STEP 2.9 CASE FATALITY RATES

This quiz will check your understanding of concepts that have been outlined regarding case fatality rates.

## Question 1

The case fatality rate is usually expressed as a percentage. Assume there are known to be 1025 confirmed cases of disease, 203 probable cases, and 362 suspected cases. What is the case fatality rate of confirmed cases if 615 confirmed cases have died?

## Answer

Select one:

1. 55%
2. 70%
3. 60%
4. 40%

## Question 2

Which one of these statements is correct?

## Answer

Select one:

1. Suspected cases should not contribute to the calculation of the case fatality rate unless they die
2. The case fatality rate in the Ebola epidemic can be calculated by dividing the total number of deaths that have occurred before a certain date by the number of cases notified by that date
3. If many Ebola infections give rise to only mild symptoms and are not recognised as Ebola then case fatality rates will be overestimated
4. The mortality rates among patients in hospitals gives the most accurate estimate of the case fatality rate

# Feedback and correct answers

## Question 1

1. 55%

Feedback: Remember that the case fatality rate in this instance is the number of confirmed cases who have died, divided by the total number of confirmed cases.

1. 70%

Feedback: Remember that the case fatality rate in this instance is the number of confirmed cases who have died, divided by the total number of confirmed cases.

1. **60% (CORRECT)**

**Feedback: The case fatality rate in this instance is the number of confirmed cases who have died, divided by the total number of confirmed cases. Thus, 615 / 1025 = 0.60, and a case fatality rate of 60%.**

1. 40%

Feedback: Remember that the case fatality rate in this instance is the number of confirmed cases who have died, divided by the total number of confirmed cases.

## Question 2

1. Suspected cases should not contribute to the calculation of the case fatality rate unless they die

Feedback: If suspected cases are included in the numerator (deaths) they should also be included in the denominator (number of cases).

1. The case fatality rate in the Ebola epidemic can be calculated by dividing the total number of deaths that have occurred before a certain date by the number of cases notified by that date

Feedback: At any point in time some cases will still be under treatment. The case fatality rate should be calculated from those with known outcomes.

1. **If many Ebola infections give rise to only mild symptoms and are not recognised as Ebola then case fatality rates will be overestimated (CORRECT)**

**Feedback: The case fatality rate should include all cases of Ebola in the denominator and all deaths from Ebola in the numerator. If mild cases are not included in the denominator (because they are not recognised as Ebola) then the calculated case fatality rate would be too high.**

1. The mortality rates among patients in hospitals gives the most accurate estimate of the case fatality rate

Feedback: Patients who die before reaching hospital are excluded from these figures so they tend to underestimate the case fatality rates

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