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Guidance

# COVID-19: Epidemiological definitions of outbreaks and clusters in particular settings

Updated 9 September 2020

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## Overview

This guidance provides nationally agreed epidemiological definitions for coronavirus (COVID-19) outbreaks and clusters in particular settings. The definitions are to inform local alerts and action and to provide consistency.

The definitions should be used in conjunction with the communicable disease outbreak management - operational guidance

([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/343723/12\\_8\\_20\\_14\\_CD\\_Outbreak\\_Guidance\\_REandCT\\_2\\_\\_2\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/343723/12_8_20_14_CD_Outbreak_Guidance_REandCT_2__2_.pdf)), local outbreak management plans, COVID-19 specific national response systems and the COVID-19: infection prevention and control guidance

([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/893320/COVID-19\\_Infection\\_prevention\\_and\\_control\\_guidance\\_complete.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/893320/COVID-19_Infection_prevention_and_control_guidance_complete.pdf)).

## COVID-19 cases and SARS-CoV-2 infections

The guidance distinguishes between 'test-confirmed' and 'clinically suspected' COVID-19 cases. In an epidemiological context the term COVID-19 implies clinical illness such that the illness onset date may be ascertained and used to decide the period during which infection transmission probably occurred.

In particular settings, data on asymptomatic SARS-CoV-2 infections may be available through occasional or regular testing of whole groups of care staff, residents or other workers. These data on asymptomatic infections will help inform any outbreak or cluster risk assessment but will have limited value for describing when a cluster or outbreak may have begun or ended.

When 2 or more asymptomatic SARS-CoV-2 infections are ascertained through whole group testing, the local Health Protection Team (HPT) should consider whether transmission may be continuing in the setting. With appropriate qualifications, the specimen date for the first positive test from an individual with asymptomatic infection may be used to infer a possible transmission period.

## Definitions

### 1. Non-residential settings (for example a workplace, a school, a restaurant<sup>1</sup>)

#### Cluster criteria

Two or more test-confirmed cases of COVID-19 among individuals associated with a specific non-residential setting with illness onset dates within a 14-day period.

(In the absence of detailed information about the type of contact between the cases).

#### End of cluster

No test-confirmed cases with illness onset dates in the last 14 days.

#### Outbreak criteria

Two or more test-confirmed cases of COVID-19 among individuals associated with a specific non-residential setting with illness onset dates within 14 days, and one of:

- identified direct exposure between at least 2 of the test-confirmed cases in that setting (for example under one metre face to face, or spending more than 15 minutes within 2 metres) during the infectious period of one of the cases
- when there is no sustained local community transmission - absence of an alternative source of infection outside the setting for the initially identified cases

### **End of outbreak**

No test-confirmed cases with illness onset dates in the last 28 days in that setting.

**Note:** The threshold for the end of an outbreak is higher than the end of a cluster.

## **2. Domestic residential settings (households)**

### **Outbreak criteria**

Two or more test-confirmed cases of COVID-19 or clinically suspected cases of COVID-19 among individuals associated with a specific domestic household (though the individuals do not need to live together) with illness onset dates within 14 days.

**Note:** If there is a single test-confirmed case, this would initiate further investigation and risk assessment. An outbreak would be declared if the investigation ascertained a second COVID-19 case (test-confirmed or clinically suspected).

### **End of outbreak**

No test-confirmed cases with illness onset dates in the last 28 days within or associated with that domestic residential setting.

## **3. Institutional residential setting (for example a care home or place of detention)**

### **Outbreak criteria**

Two or more test-confirmed cases of COVID-19 or clinically suspected cases of COVID-19 among individuals associated with a specific setting with illness onset dates within 14 days.

**Note:** If there is a single test-confirmed case, this would initiate further investigation and risk assessment. An outbreak would be declared if the investigation ascertained a second COVID-19 case (test-confirmed or clinically suspected).

### **End of outbreak**

No test-confirmed cases with illness onset dates in the last 28 days in that setting.

## **4. Healthcare-associated COVID-19 (for example an inpatient setting)**

### **Outbreak criteria**

Two or more test-confirmed or clinically suspected cases of COVID-19 among individuals (for example patients, health care workers, other hospital staff and regular visitors, for example volunteers and chaplains) associated with a specific setting (for example bay, ward or shared space), where at least one case (if a patient) has been identified as having illness onset after 8 days of admission to hospital.

**Notes:**

a. [NHSEI CNO Letter \(Ref No 001559\) 19 May 2020](#): Interim data collection – hospital-onset COVID-19. This letter defines a ‘probable’ healthcare associated infection (HCAI) as having illness onset (or first positive specimen date) between 8 and 14 days after admission. A definite HCAI case has illness onset (or first positive specimen date) 15 or more days after admission.

b. Should the outbreak criteria above be met then it is probable that healthcare associated transmission has occurred. However, investigations of healthcare associated SARS-CoV-2 infection should also take into account COVID-19 cases categorised as ‘indeterminate healthcare associated’, that is illness onset on days 3 to 7 after admission ([NHSEI CNO Letter \(Ref No 001559\) 19 May 2020](#)).

**End of outbreak**

No test-confirmed cases with illness onset dates in the last 28 days in that setting.

Similar approaches can be taken for other clinical settings, such as day-care units including renal dialysis or chemotherapy settings. In these settings, and others such as primary care or emergency department visits, it will be difficult to assess the impact of one-off short contact visits (for example blood tests) compared to regular exposures. Deciding whether transmission has occurred or is continuing in such a setting will need an individualised risk assessment.

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1. Not exhaustive ↔