



Proposed Investigation/Reporting Thresholds and Outbreak Definition for COVID-19 in Acute Care Hospitals, Critical Access Hospitals, Long-Term Care Facilities (LTCFs) and Long-Term Care Acute Hospitals

BACKGROUND

The thresholds and outbreak definition presented below are based on available scientific resources and expert opinion and intended only as guidance, reflecting the local epidemiology of SARS-CoV-2 virus (COVID-19); for example, states and localities may have their own outbreak definitions and reporting requirements. The information provided here does not replace reporting of COVID-19 as part of state and local COVID-19 surveillance or [the Centers for Medicare & Medicaid Services \(CMS\) requirements for Nursing Homes to report to the National Healthcare Safety Network \(NHSN\)](#)¹. Suggested thresholds are intended to expedite facilities' investigation of COVID-19 cases and reporting to public health authorities, thus ensuring early detection of possible outbreaks and timely intervention to prevent the virus' spread. Detailed guidance for investigation of COVID-19 cases is available from Centers for Diseases Control and Prevention (CDC). Healthcare facilities should consult public health authorities if they have questions.

FOR ACUTE CARE HOSPITALS AND CRITICAL ACCESS HOSPITALS

Threshold for Additional Investigation by Facility

- ≥ 1 case of confirmed COVID-19 in a patient 7 or more days after admission for a non-COVID condition;
- ≥ 1 case of confirmed COVID-19 in Healthcare Personnel (HCP)*

Threshold for Reporting to Public Health

- ≥ 2 cases of confirmed COVID-19 in a patient 7 or more days after admission for a non-COVID condition, with epi-linkage[†];
- ≥ 2 cases of confirmed COVID-19 in HCP* with epi-linkage[‡]

* **Healthcare Personnel (HCP)** defined by CDC include, but are not limited to, emergency medical service personnel, nurses, nursing assistants, physicians, technicians, therapists, phlebotomists, pharmacists, students and trainees, contractual staff not employed by the healthcare facility, and persons not directly involved in patient care, but who could be exposed to infectious agents that can be transmitted in the healthcare setting (e.g., clerical, dietary, environmental services, laundry, security, engineering and facilities management, administrative, billing, and volunteer personnel)².

† **Epi-linkage among patients** is defined as overlap on the same unit or ward, or having the potential to have been cared for by common HCP within a 14-day time period of each other.

‡ **Epi-linkage among HCP** is defined as having the potential to have been within 6 feet for 15 minutes or longer while working in the facility during the 14 days prior to the onset of symptoms; for example, worked on the same unit during the same shift.

Outbreak Definition

- ≥ 2 cases of confirmed COVID-19 in a patient 7 or more days after admission for a non-COVID condition, with epi-linkage[†];
- ≥ 2 cases of confirmed COVID-19 in HCP* with epi-linkage[‡] who do not share a household, and are not listed as a close contact of each other outside of the workplace during standard case investigation or contact tracing.

FOR LONG-TERM CARE FACILITIES (LTCF) AND LONG-TERM ACUTE CARE HOSPITALS (LTACH)

Threshold for Additional Investigation by Facility

- ≥ 1 probable[§] or confirmed COVID-19 case in a resident or HCP*;
- ≥ 3 cases of acute illness compatible with COVID-19 in residents with onset within a 72h period

Threshold for Reporting to Public Health

- ≥ 1 probable or confirmed COVID-19 case in a resident or HCP*;
- ≥ 3 cases of acute illness compatible with COVID-19 in residents with onset within a 72h period

Outbreak Definition

- ≥ 1 facility-acquired** COVID-19 case in a resident

POINTS FOR CONSIDERATION

- An outbreak response or investigation may take many forms depending on the characteristics of the outbreak and healthcare setting. It can involve site visits and facility assessments, collection of additional data that are not captured in standard case investigation or contact tracing, lab-testing of potentially exposed patients and HCP, guidance related to infection control practices including cohorting, and other forms of technical assistance and phone-based consultations involving the affected facility and with public health jurisdictions responding to the outbreak. Detailed guidance for managing COVID-19 investigations in healthcare settings is available from CDC⁴.
- Hospitals may opt to investigate cases of confirmed COVID-19 in patients that are identified fewer than 7 days after admission for a non-COVID condition (for example, 4–5 days).
- Public health officials may weigh available evidence and consider local conditions when applying the hospital outbreak criteria; for example, by increasing the case threshold above 2 in the context of widespread community levels of COVID-19, or adjusting the criteria to reflect a combination of HCP and patient cases.

§ **Probable case** is defined as a person meeting clinical criteria AND epidemiologic evidence with no confirmatory laboratory testing performed for COVID-19; A person meeting presumptive laboratory evidence AND either clinical criteria OR epidemiologic evidence; A person meeting vital records criteria with no confirmatory laboratory testing performed for COVID-19³.

** **Facility-acquired** COVID-19 infection in a long-term care resident is defined as a confirmed diagnosis 14 days or more after admission for a non-COVID condition, without an exposure during the previous 14 days to another setting where an outbreak was known or suspected to be occurring.

- Public health officials may wish to offer additional guidance to long-term care facilities about reporting cases or clusters of suspected COVID-19, tailored to the type of long-term care facility (e.g., Nursing Home vs. Assisted Living vs. Group Home or other type), including general guidance on reporting of residents with severe respiratory infection that results in hospitalization or death (not limited to those with suspected or confirmed COVID-19).
- Public health officials may collaborate with healthcare facilities to inform the public and potentially exposed patients through public notification. Detailed guidance for outbreak notification is available from the Council for Outbreak Response: HAI/AR Pathogens (CORHA)⁵. Note that CMS requires Nursing Homes to report COVID-19 facility data to the CDC National Healthcare Safety Network (NHSN) and to residents, their representatives, and families of residents; CMS posts these data in a public use file available on <https://data.cms.gov/>¹.

REFERENCES

1. Centers for Medicare & Medicaid Services. Interim Final Rule Updating Requirements for Notification of Confirmed and Suspected COVID-19 Cases Among Residents and Staff in Nursing Homes. Available at <https://www.cms.gov/files/document/qso-20-29-nh.pdf>
2. Centers for Disease Control and Prevention. CDC Infection Control, Appendix 2. Terminology. Available at <https://www.cdc.gov/infectioncontrol/guidelines/healthcare-personnel/appendix/terminology.html>
3. Centers for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19) – 2020 Interim Case Definition. Available at <https://www.cdc.gov/nndss/conditions/coronavirus-disease-2019-covid-19/case-definition/2020/>
4. Centers for Disease Control and Prevention. Managing Investigations During an Outbreak <https://www.cdc.gov/coronavirus/2019-ncov/php/contact-tracing/contact-tracing-plan/outbreaks.html>
5. The Council for Outbreak Response: Healthcare-Associated Infections and Antimicrobial-Resistant Pathogens. CORHA Interim Framework for Healthcare-Associated Infection Outbreak Notification. Available at <https://corha.org/resources/corha-interim-framework-for-healthcare-associated-infection-outbreak-notification/>
6. Centers for Disease Control and Prevention. Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 (COVID-19) in Healthcare Settings. Available at <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html>
7. Centers for Disease Control and Prevention. Preparing for COVID-19 in Nursing Homes. Available at <https://www.cdc.gov/coronavirus/2019-ncov/hcp/long-term-care.html>

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* The Council for Outbreak Response: Healthcare-Associated Infections and Antimicrobial-Resistant Pathogens (CORHA) <https://corha.org/>