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TO:	Health Alert Network
FROM:	Denise Johnson, M.D., FACOG. FACHE, Acting Secretary of Health
SUBJECT:	UPDATE: Interim Infection Prevention and Control Recommendations for Healthcare Settings during the COVID-19 Pandemic
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This transmission is a “Health Update”: provides updated information regarding an incident or situation; unlikely to require immediate action.

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This HAN Update provides comprehensive information regarding infection prevention and control for COVID-19 in healthcare settings based on changes made by CDC on September 23, 2022. Major additions and edits in this version include:

- Vaccination status is no longer used to inform source control, screening testing, or post-exposure recommendations
- Updated circumstances when source control is recommended
- In general, asymptomatic patients no longer require quarantine following close contact with someone with SARS-CoV-2 infection and HCP do not require work exclusion following a higher-risk exposure. However, they should receive a series of three viral tests for SARS-CoV-2, wear source control for 10 days following the exposure, and monitor for signs and symptoms of COVID-19.
- Screening testing of asymptomatic healthcare personnel without a higher-risk exposure, including those in nursing homes, is at the discretion of the healthcare facility
- Long-term care facility specific Health Alerts (PA-HAN-626 and PA-HAN-627) are being archived; recommendations are now included in this update under Setting-Specific Considerations.

This update replaces PA-HAN-624, PA-HAN-626, and PA-HAN-627. New content is written in red. If you have additional questions about this guidance, please contact DOH at 1-877-PA- HEALTH (1-877-724-3258) or your local health department.

This guidance has been updated based on currently available information about COVID-19 and the current situation in Pennsylvania. **Updates were made to reflect the [high levels of vaccine-and infection-induced immunity and the availability of effective treatments and prevention tools](#). It applies to all persons regardless of COVID-19 vaccination status, unless otherwise indicated. This HAN replaces PA-HAN-624, PA-HAN-626, and PA-HAN-627 and applies to all U.S. settings where healthcare is delivered, including acute and long-term care hospitals, skilled nursing facilities, dialysis centers, outpatient medical and dental offices, ambulatory surgical centers, birth centers, and other long-term care facilities (LTCF).**

For the purposes of this guidance, LTCFs in Pennsylvania include, but are not limited to, skilled nursing facilities (SNF), personal care homes (PCH), assisted living residences (ALRs), Long-Term Structured Residence (LTSR), Residential Treatment Facility for Adults (RTFA), and Intermediate Care Facilities (ICF). See section 3E of this update for additional details.

If you have questions about this guidance, please contact DOH at **1-877-PA-HEALTH (1-877-724-3258)** or your local health department. This guidance is not intended for non-healthcare settings (e.g., schools) OR for persons outside of healthcare settings.

Defining Community Transmission of SARS-CoV-2

Select IPC measures (e.g., use of source control, screening testing of long-term care facility admissions) are influenced by levels of SARS-CoV-2 transmission in the community. [Community Transmission](#) is the metric currently recommended to guide select practices in healthcare settings to allow for earlier intervention before there is strain on the healthcare system and to better protect the individuals seeking care in these settings. The [Community Transmission](#) metric is different from the COVID-19 Community Level metric used for non-healthcare settings. Community Transmission refers to measures of the presence and spread of SARS-CoV-2. COVID-19 Community Levels place an emphasis on measures of the impact of COVID-19 in terms of hospitalizations and healthcare system strain, while accounting for transmission in the community.

1. RECOMMENDED ROUTINE INFECTION PREVENTION AND CONTROL (IPC) PRACTICES DURING THE COVID-19 PANDEMIC

DOH recommends using the following additional infection prevention and control practices during the COVID-19 pandemic, along with standard practices recommended as a part of routine healthcare delivery to all patients. These practices are intended to apply to all patients, not just those with suspected or confirmed SARS-CoV-2 infection (See Section 2 for additional practices that should be used when caring for patients with suspected or confirmed SARS-CoV-2 infection).

- A. Encourage everyone to remain [up to date](#) with all recommended COVID-19 vaccine doses.** HCP, patients, and visitors should be [offered resources and be counseled](#) about the importance of receiving the COVID-19 vaccine.
- B. Establish a Process to Identify and Manage Individuals with Suspected or Confirmed SARS-CoV-2 Infection**
 - Ensure everyone is aware of recommended IPC practices in the facility.
 - Post visual alerts (e.g., signs, posters) at the entrance and in strategic places (e.g., waiting areas, elevators, cafeterias) with instructions about current IPC recommendations (e.g., when to use source control and perform hand hygiene). Dating these alerts can help ensure people know that they reflect current recommendations.

- Establish a process to make everyone entering the facility, regardless of their vaccination status, aware of recommended actions to prevent transmission to others if they have any of the following three criteria:
 - 1) A positive [viral test](#) for SARS-CoV-2;
 - 2) [Symptoms of COVID-19](#); or
 - 3) Close contact with someone with SARS-CoV-2 infection (for patients and visitors) or a higher-risk exposure (for health care personnel (HCP)).
 - 4) For example:
 - a. Instruct HCP to report any of the 3 above criteria to occupational health or another point of contact designated by the facility so these HCP can be properly managed.
 - i. The definition of higher-risk exposure and recommendations for evaluation and work restriction of these HCP are in [PA-HAN-661](#).
 - b. Provide guidance (e.g., posted signs at entrances, instructions when scheduling appointments) about recommended actions for patients and visitors who have any of the above three criteria.
 - i. Patients should be managed as described in Section 2.
 - ii. Visitors:
 1. With confirmed SARS-CoV-2 infection or compatible symptoms should defer non-urgent in-person visitation until they have met the healthcare criteria to end isolation (see Section 2); this time period is longer than what is recommended in the community.
 2. Who have had close contact with someone with SARS-CoV-2 infection or were in another situation that put them at [higher risk for transmission](#), should defer non-urgent in-person visitation until 10 days after their close contact if they meet any of the criteria described in Section 2 (e.g., cannot wear source control).
 3. Additional information about visitation from the Centers for Medicare & Medicaid Services (CMS) is available at [Policy & Memos to States and Regions](#).

C. Implement Source Control Measures

[Source control](#) refers to use of respirators or well-fitting facemasks or cloth masks to cover a person's mouth and nose to prevent spread of respiratory secretions when they are breathing, talking, sneezing, or coughing. Further information about types of masks and respirators, including those that meet standards and the degree of protection offered to the wearer, is available at CDC's [Types of Masks and Respirators](#). People, particularly those at high risk for severe illness, should wear the most protective form of source control they can that fits well and that they will wear consistently.

Healthcare facilities may choose to offer well-fitting facemasks as a source control option for visitors but should allow the use of a mask or respirator with higher-level protection that is not visibly soiled by people who chose that option based on their individual preference. Additional information is available in the FAQ: [What should visitors use for source control \(masks or respirators\) when visiting healthcare facilities?](#)

Source control options for HCP include:

- A NIOSH-approved particulate respirator with N95 filters or higher;

- A respirator approved under standards used in other countries that are similar to NIOSH-approved N95 filtering facepiece respirators (note: these should not be used instead of a NIOSH-approved respirator when respiratory protection is indicated);
- A barrier face covering that meets [ASTM F3502-21 requirements](#) including Workplace Performance and Workplace Performance Plus masks; OR
- A well-fitting facemask.

When used solely for source control, any of the options listed above could be used for an entire shift unless they become soiled, damaged or hard to breathe through. If they are used during the care of a patient for which a NIOSH-approved respirator or facemask is indicated for personal protective equipment (PPE) (e.g., NIOSH-approved N95 or equivalent or higher-level respirator during the care of a patient with SARS-CoV-2 infection, facemask during a surgical procedure or during care of a patient on Droplet Precautions), they should be removed using proper doffing technique and discarded after the patient care encounter and a new one should be donned.

Additional information is available in the FAQ: [Can employees choose to wear respirators when not required by their employer?](#)

When SARS-CoV-2 [Community Transmission](#) levels are **high**, source control is recommended for everyone (e.g. staff, patients, visitors, etc.) in a healthcare setting when they are in areas of the healthcare facility where they could encounter patients.

- Even when [Community Transmission](#) levels are **high**, HCP could choose to remove source control when they are in well-defined areas that are restricted from patient access (e.g., staff meeting rooms, break rooms) if they do not otherwise meet the criteria described below. However, when [Community Levels](#) are **high**, source control is recommended for everyone in all areas of the facility.

When SARS-CoV-2 [Community Transmission](#) levels are **not high** (substantial or lower), healthcare facilities could choose **not** to require universal source control. However, even if source control is not universally required, it remains recommended for individuals in healthcare settings who:

- Have suspected or confirmed SARS-CoV-2 infection or other respiratory infection (e.g., those with runny nose, cough, sneeze); or
- Had [close contact](#) (patients and visitors) or a [higher-risk exposure](#) (HCP) with someone with SARS-CoV-2 infection, for 10 days after their exposure; or
- Reside or work on a unit or area of the facility experiencing a SARS-CoV-2 outbreak; universal use of source control could be discontinued as a mitigation measure once no new cases have been identified for 14 days; or
- Have otherwise had source control recommended by public health authorities.

Individuals might also choose to continue using source control based on personal preference, informed by their perceived level of risk for infection based on their recent activities (e.g., attending crowded indoor gatherings with poor ventilation) and their potential for developing severe disease. For example, if an individual or someone in their household is at [increased risk for severe disease](#), they should consider wearing masks or respirators that provide more protection because of better filtration and fit to reduce exposure and infection risk, even if source control is not otherwise required by the facility. HCP and healthcare facilities might also consider using or recommending source control when caring for patients who are moderately to severely immunocompromised.

D. Implement Universal Use of Personal Protective Equipment for HCP

If SARS-CoV-2 infection is not suspected in a patient presenting for care (based on symptom and exposure history), HCP should follow [Standard Precautions](#) (and [Transmission-Based Precautions](#) if required based on the suspected diagnosis).

As community transmission levels increase, the potential for encountering asymptomatic or pre-symptomatic patients with SARS-CoV-2 infection also likely increases. In these circumstances, healthcare facilities should consider implementing broader use of respirators and eye protection by HCP during patient care encounters. For example, facilities located in counties where [Community Transmission](#) is **high** should also consider having HCP use PPE as described below:

- NIOSH-approved N95 or equivalent or higher-level respirators should be used instead of a facemask for:
 - All aerosol-generating procedures (refer to [Which procedures are considered aerosol generating procedures in healthcare settings?](#)).
 - All surgical procedures that might pose higher risk for transmission if the patient has COVID-19 (e.g., that generate potentially infectious aerosols or involving anatomic regions where viral loads might be higher, such as the nose and throat, oropharynx, respiratory tract).
 - NIOSH-approved N95 or equivalent or higher-level respirators can also be used by HCP working in other situations where additional risk factors for transmission are present such as the patient is unable to use source control and the area is poorly ventilated. They may also be considered if healthcare-associated SARS-CoV-2 transmission is identified and universal respirator use by HCP working in affected areas is not already in place.
 - To simplify implementation, facilities in counties with **high community transmission** may consider implementing universal use of NIOSH-approved N95 or equivalent or higher-level respirators for HCP during all patient care encounters or in specific units or areas of the facility at higher risk for SARS-CoV-2 transmission.
- Eye protection (i.e., goggles or a face shield that covers the front and sides of the face) worn during all patient care encounters.

E. Optimize the Use of Engineering Controls and Indoor Air Quality

- Optimize the use of engineering controls to reduce or eliminate exposures by shielding HCP and other patients from infected individuals (e.g., physical barriers at reception/triage locations and dedicated pathways to guide symptomatic patients through waiting rooms and triage areas).
- **Take measures to limit crowding in communal spaces, such as scheduling appointments to limit the number of patients in waiting rooms or treatment areas.**
- Explore options, in consultation with facility engineers, to improve ventilation delivery and indoor air quality in all shared spaces.
 - Guidance on ensuring that ventilation systems are operating properly is available in the following resources:
 - [Guidelines for Environmental Infection Control in Health-Care Facilities](#)
 - [American Society of Heating, Refrigerating and Air-Conditioning Engineers](#); (ASHRAE) resources for healthcare facilities, which also provides [COVID-19 technical resources for healthcare facilities](#); and
 - [Ventilation in Buildings](#), which includes options for non-clinical spaces in healthcare facilities.

F. Perform SARS-CoV-2 Viral Testing

- Anyone with even mild symptoms of COVID-19, **regardless of vaccination status**, should receive a viral test as soon as possible.
- Asymptomatic patients with close contact with someone with SARS-CoV-2 infection, **regardless of vaccination status**, should have a series of **three** viral tests for SARS-CoV-2 infection.
 - **If the date of a discrete exposure is known**, testing is recommended immediately (but not earlier than 24 hours after the exposure) **and, if negative, again 48 hours after the first negative test and, if negative, again 48 hours after the second negative test. This will typically be at day 1 (where day of exposure is day 0), day 3, and day 5.**
 - **If the date of a discrete exposure is NOT known** (for example, a household exposure with an undefined start date), testing is recommended immediately and, if negative, **again 48 hours after the first negative test and, if negative, again 48 hours after the second negative test.**
- In general, testing is not necessary for asymptomatic people who have recovered from SARS-CoV-2 infection in the prior **30 days. Testing should be considered for those who have recovered in the prior 31-90 days; however, an antigen test instead of a nucleic acid amplification test (NAAT) is recommended.** This is because some people may remain NAAT positive but not be infectious during this period.
 - Guidance for work restrictions, including **recommended testing for HCP** with higher-risk exposures are in [PA-HAN-661](#).
 - Guidance for use of empiric Transmission-Based Precautions (quarantine) for patients with close contact with someone with SARS-CoV-2 infection are described in Section 2.
- Testing considerations for healthcare facilities with an outbreak of SARS-CoV-2 are described below (Section 1.G).
 - For nursing homes refer to CMS Guidance **available at [Policy & Memos to States and Regions](#).**
- **The yield of screening testing for identifying asymptomatic infection is likely lower when performed on those in counties with lower levels of SARS-CoV-2 community transmission. However, these results might continue to be useful in some situations (e.g., when performing higher-risk procedures or for HCP caring for patients who are moderately to severely immunocompromised) to inform the type of infection control precautions used (e.g., room assignment/cohorting, or PPE used) and prevent unprotected exposures. If implementing a screening testing program, testing decisions should not be based on the vaccination status of the individual being screened. To provide the greatest assurance that someone does not have SARS-CoV-2 infection, if using an antigen test instead of NAAT, facilities should use 3 tests, spaced 48 hours apart, in line with [FDA recommendations](#).**
 - In general, performance of pre-procedure or pre-admission testing is at the discretion of the facility. However, for residents admitted to long-term care facilities, admission testing is recommended as described in Section 3.
 - Performance of expanded screening testing of asymptomatic HCP without known exposures is at the discretion of the facility.

G. Create a Process to Respond to SARS-CoV-2 Exposures Among HCP and Others

Healthcare facilities should have a plan for how SARS-CoV-2 exposures in a healthcare facility will be investigated and managed and how contact tracing will be performed.

When an HCP is identified as infected with COVID-19, anyone who had prolonged close contact should be considered potentially exposed. The use of a [facemask](#) or source control and adherence to other recommended IPC measures by the HCP help to reduce, but not eliminate,

the risk of transmission. The following should be considered when determining which patients are at higher risk for transmission and might be prioritized for notification, evaluation, and testing:

- [Facemask](#) use by the patient – Mirroring the [risk assessment guidance for healthcare personnel](#), patients not wearing a facemask would likely be at higher risk for infection compared to those that were wearing a facemask.
- Type of interaction that occurred between the patient and infected provider – An interaction involving manipulation or prolonged close contact with the patient’s eyes, nose, or mouth (e.g., intubation, dental cleaning) likely poses higher risk of transmission to the patient compared to other interactions (e.g., blood pressure check).
- PPE used by infected HCP – HCP wearing a [facemask](#) (or respirator) and face shield that extends down below the chin might have had better source control than wearing only a facemask.
- Current status of patient – Is the patient currently admitted to a hospital or long-term care facility? These individuals, if infected, can be at higher risk for severe illness and have the potential to expose large numbers of individuals at risk for severe disease.

If healthcare-associated transmission is suspected or identified, facilities might consider expanded testing of HCP and patients as determined by the distribution and number of cases throughout the facility and ability to identify close contacts. For example, in an outpatient dialysis facility with an open treatment area, testing should ideally include all patients and HCP. Depending on testing resources available or the likelihood of healthcare-associated transmission, facilities may elect to initially expand testing only to HCP and patients on the affected units or departments, or a particular treatment schedule or shift, as opposed to the entire facility. If an expanded testing approach is taken and testing identifies additional infections, testing should be expanded more broadly. If possible, testing should be repeated every 3-7 days until no new cases are identified for at least 14 days.

Guidance for outbreak response in long-term care facilities is described in setting-specific considerations below.

Healthcare facilities responding to SARS-CoV-2 transmission within the facility should always notify and follow the recommendations of public health authorities. Outbreak reporting requirements for hospitals in Pennsylvania are given in [PA-HAN-540](#) or its successor.

2. RECOMMENDED INFECTION PREVENTION AND CONTROL (IPC) PRACTICES WHEN CARING FOR A PATIENT EXPOSED TO COVID-19 OR WITH SARS-CoV-2 INFECTION

Guidance in this section applies to all healthcare facilities and may be applicable in non-healthcare congregate settings.

The IPC recommendations described below apply to:

- Patients with symptoms of COVID-19 (even before results of diagnostic testing);
- Asymptomatic patients who have met the criteria for empiric Transmission-Based Precautions based on [close contact](#) with someone with SARS-CoV-2 infection; and
- Patients with SARS-CoV-2 infection.

However, quarantined patients and those with suspected infection should NOT be cohorted with patients with confirmed SARS-CoV-2 infection unless they are confirmed to have SARS-CoV-2 infection through testing.

A. Duration of Empiric Transmission-Based Precautions for Symptomatic Patients being Evaluated for SARS-CoV-2 Infection

The decision to discontinue empiric [Transmission-Based Precautions](#) by excluding the diagnosis of current SARS-CoV-2 infection for a patient with symptoms of COVID-19 can be made based upon having negative results from a viral test:

- If using NAAT (molecular), a single negative test is sufficient in most circumstances. If a higher level of clinical suspicion for SARS-CoV-2 infection exists, consider maintaining Transmission-Based Precautions and confirming with a second negative NAAT.
- If using an antigen test, a negative result should be confirmed by either a negative NAAT (molecular) or a second negative antigen test taken 48 hours after the first negative test.

If a patient suspected of having SARS-CoV-2 infection is never tested, the decision to discontinue Transmission-Based Precautions can be made based on time from symptom onset as described in the Isolation section below. Ultimately, clinical judgement and suspicion of SARS-CoV-2 infection determine whether to continue or discontinue empiric Transmission-Based Precautions.

B. Duration of Empiric Transmission-Based Precautions for Asymptomatic Patients following Close Contact with Someone with SARS-CoV-2 Infection

In general, asymptomatic patients do not require empiric use of [Transmission-Based Precautions](#) while being evaluated for SARS-CoV-2 following [close contact](#) with someone with SARS-CoV-2 infection. These patients should still wear source control and those who have not recovered from SARS-CoV-2 infection in the prior 30 days should be tested as described in the testing section.

Examples of when empiric Transmission-Based Precautions following close contact may be considered include:

- Patient is unable to be tested or wear source control as recommended for the 10 days following their exposure;
- Patient is moderately to severely immunocompromised;
- Patient is residing on a unit with others who are moderately to severely immunocompromised;
- Patient is residing on a unit experiencing ongoing SARS-CoV-2 transmission that is not controlled with initial interventions.

Patients placed in empiric Transmission-Based Precautions based on close contact with someone with SARS-CoV-2 infection should be maintained in Transmission-Based Precautions for the following time periods.

- Patients can be removed from Transmission-Based Precautions after day 7 following the exposure (count the day of exposure as day 0) if they do not develop symptoms and all viral testing as described for asymptomatic individuals following close contact is negative.
- If viral testing is not performed, patients can be removed from Transmission-Based Precautions after day 10 following the exposure (count the day of exposure as day 0) if they do not develop symptoms.

C. Patient Placement

- Place a patient with suspected or confirmed SARS-CoV-2 infection in a single-person room. The door should be kept closed (if safe to do so). The patient should have a dedicated bathroom.
 - If cohorting, only patients with the same respiratory pathogen should be housed in the same room. Multidrug-resistant organism (MDRO) colonization status and/or presence of other communicable disease should also be taken into consideration during the cohorting process.
- Facilities could consider designating entire units within the facility, with dedicated HCP, to care for patients with SARS-CoV-2 infection when the number of patients with SARS-CoV-2 infection is high. Dedicated means that HCP are assigned to care only for these patients during their shifts. Dedicated units and/or HCP might not be feasible due to staffing crises or a small number of patients with SARS-CoV-2 infection.
- Limit transport and movement of the patient outside of the room to medically essential purposes.
- Communicate information about patients with suspected or confirmed SARS-CoV-2 infection to appropriate personnel before transferring them to other departments in the facility (e.g., radiology) and to other healthcare facilities.

D. Personal Protective Equipment

- HCP who enter the room of a patient with suspected or confirmed SARS-CoV-2 infection should adhere to [Standard Precautions](#) and use a NIOSH-approved N95 or equivalent or higher-level respirator, gown, gloves, and eye protection (i.e., goggles or a face shield that covers the front and sides of the face). This is also known as Transmission-based Precautions for COVID-19.
- Respirators should be used in the context of a comprehensive respiratory protection program, which includes medical evaluations, fit testing and training in accordance with the Occupational Safety and Health Administration's (OSHA) Respiratory Protection standard ([29 CFR 1910.134](#)).
- Additional information about using PPE is available from CDC in [Protecting Healthcare Personnel](#).

E. Aerosol Generating Procedures (AGPs)

- Procedures that could [generate infectious aerosols](#) should be performed cautiously and avoided if appropriate alternatives exist.
- AGPs should take place in an airborne infection isolation room (AIIR), if possible.
- The number of HCP present during the procedure should be limited to only those essential for patient care and procedure support. Visitors should not be present for the procedure.

F. Visitation

- For the safety of the visitor, in general, patients should be encouraged to limit in-person visitation while they are infectious. However, facilities should adhere to local, state, and federal regulations related to visitation and act in accordance with their written policy. Visitation guidance for [nursing homes](#) and intermediate care facilities for individuals with intellectual disabilities and psychiatric residential treatment facilities is available [from CMS](#).
 - Counsel patients and their visitor(s) about the risks of an in-person visit.
 - Encourage use of alternative mechanisms for patient and visitor interactions such as video-call applications on cell phones or tablets, when appropriate.
- Facilities should provide instruction, before visitors enter the patient's room, on hand hygiene, limiting surfaces touched, and use of PPE according to current facility policy.

- Visitors should be instructed to only visit the patient's room. They should minimize their time spent in other locations in the facility.

G. Duration of Transmission-Based Precautions for Patients with SARS-CoV-2 Infection

The following are criteria to determine when Transmission-Based Precautions could be discontinued for patients with SARS-CoV-2 infection and are influenced by severity of symptoms and presence of immunocompromising conditions. Patients should self-monitor and seek re-evaluation if symptoms recur or worsen. If symptoms recur (e.g., rebound), these patients should be placed back into isolation until they again meet the healthcare criteria below to discontinue Transmission-Based Precautions for SARS-CoV-2 infection unless an alternative diagnosis is identified.

In general, patients who are hospitalized for SARS-CoV-2 infection should be maintained in Transmission-Based Precautions for the time period described for patients with severe to critical illness.

In general, patients should continue to wear source control until symptoms resolve or, for those who never developed symptoms, until they meet the criteria to end isolation below. Then they should revert to usual facility source control policies for patients.

Patients with mild to moderate illness who are not moderately to severely immunocompromised:

- At least 10 days have passed since symptoms first appeared; and
- At least 24 hours have passed since last fever without the use of fever-reducing medications; and
- Symptoms (e.g., cough, shortness of breath) have improved.

Patients who were asymptomatic throughout their infection and are not moderately to severely immunocompromised:

- At least 10 days have passed since the date of their first positive viral test.

Patients with severe to critical illness and who are not moderately to severely immunocompromised:

- At least 10 days and up to 20 days have passed since symptoms first appeared; and
- At least 24 hours have passed since last fever without the use of fever-reducing medications; and
- Symptoms (e.g., cough, shortness of breath) have improved.
- The test-based strategy for moderately to severely immunocompromised patients below can be used to inform the duration of isolation.

The exact criteria that determine which patients will shed replication-competent virus for longer periods are not known. Disease severity factors and the presence of immunocompromising conditions should be considered when determining the appropriate duration for specific patients. For a summary of the literature, refer to [Ending Isolation and Precautions for People with COVID-19: Interim Guidance](#).

Patients who are moderately to severely immunocompromised:

These patients may produce replication-competent virus beyond 20 days after symptom onset or, for those who were asymptomatic throughout their infection, the date of their first positive viral test.

- Use of a test-based strategy and (if available) consultation with an infectious disease specialist is recommended to determine when Transmission-Based Precautions could be discontinued for these patients.
- The criteria for the test-based strategy are:
 - Patients who are symptomatic:
 - Resolution of fever without the use of fever-reducing medications; and
 - Symptoms (e.g., cough, shortness of breath) have improved; and
 - Results are negative from at least two consecutive respiratory specimens collected ≥ 48 hours apart (total of two negative specimens) tested using an antigen test or NAAT.
 - Patients who are not symptomatic:
 - Results are negative from at least two consecutive respiratory specimens collected ≥ 48 hours apart (total of two negative specimens) tested using an antigen test or NAAT.

H. Discharge of Patients with COVID-19 from a Healthcare Facility

Patients should be discharged from the healthcare facility whenever clinically indicated.

- If discharged to home
 - [Isolation](#) should be maintained at home if the patient returns home before discontinuation of Transmission-Based Precautions. Information on ending home isolation can be found [here](#).
- If discharged to a skilled nursing facility or other long-term care facility (e.g., personal care home, assisted living facility)
 - The receiving facility should be made aware of the COVID diagnosis and information provided on the status of isolation (i.e., completed on day x).

I. Environmental Infection Control

- Dedicated medical equipment should be used when caring for a patient with suspected or confirmed SARS-CoV-2 infection.
 - All non-dedicated, non-disposable medical equipment used for that patient should be cleaned and disinfected according to manufacturer's instructions and facility policies before use on another patient.
- Routine cleaning and disinfection procedures (e.g., using cleaners and water to pre-clean surfaces prior to applying an EPA-registered, hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times as indicated on the product's label) are appropriate for SARS-CoV-2 in healthcare settings, including those patient-care areas in which aerosol generating procedures are performed.
 - Refer to [List N](#) on the EPA website for EPA-registered disinfectants that kill SARS-CoV-2; **the disinfectant selected should also be appropriate for other pathogens of concern at the facility (e.g., a *difficile* sporicidal agent is recommended to disinfect the rooms of patients with *C. difficile* infection).**
- Management of laundry, food service utensils, and medical waste should be performed in accordance with routine procedures.
- Once the patient has been discharged or transferred, HCP, including environmental services personnel, should refrain from entering the vacated room until sufficient time has elapsed for enough air changes to remove potentially infectious particles [more information (to include important footnotes on its application) on [clearance rates under differing ventilation](#)

[conditions](#) is available]. After this time has elapsed, the room should undergo appropriate cleaning and surface disinfection before it is returned to routine use.

3. SETTING-SPECIFIC CONSIDERATIONS

In addition to the recommendations described in the guidance above, here are additional considerations for the settings listed below.

A. Dialysis Facilities

Considerations for Patient Placement

- Patients on dialysis with suspected or confirmed SARS-CoV-2 infection or who have reported close contact should be dialyzed in a separate room with the door closed.
 - Hepatitis B isolation rooms can be used if: 1) the patient is hepatitis B surface antigen positive or 2) the facility has no patients on the census with hepatitis B infection who would require treatment in the isolation room.
- If a separate room is not available, patients with confirmed SARS-CoV-2 infection should be cohorted to a specific well-ventilated unit or shift (e.g., consider the last shift of the day). Only patients with confirmed SARS-CoV-2 infection should be cohorted together:
 - In the context of an outbreak or an increase in the number of confirmed SARS-CoV-2 infections at the facility, if a separate shift or unit is not initially available, efforts should be made to create specific shifts or units for patients with confirmed SARS-CoV-2 infection to separate them from patients without SARS-CoV-2 infection.

Additional Guidance for Use of Isolation Gowns

- When caring for patients with suspected or confirmed SARS-CoV-2 infection, gowns should be worn over or instead of the cover gown (e.g., laboratory coat, gown, or apron with incorporate sleeves) that is normally worn by hemodialysis personnel.

Cleaning and Disinfecting Dialysis Stations

- [Current procedures for routine cleaning and disinfection of dialysis stations](#) are appropriate for patients with SARS-CoV-2 infection.
- Internal disinfection of dialysis machines is not required immediately after use unless otherwise indicated (e.g., post-blood leak). It should be done according to the dialysis machine manufacturer's instructions (e.g., at the end of the day).

B. Emergency Medical Services

Considerations for vehicle configuration when transporting a patient with suspected or confirmed SARS-CoV-2 infection:

- Isolate the ambulance driver from the patient compartment and keep pass-through doors and windows tightly shut.
- When possible, use vehicles that have isolated driver and patient compartments that can provide separate ventilation to each area.
 - Before entering the isolated driver's compartment, the driver (if they were involved in direct patient care) should remove and dispose of PPE and perform hand hygiene to avoid soiling the compartment.
 - Close the door/window between these compartments before bringing the patient on board.

- During transport, vehicle ventilation in both compartments should be on non-recirculated mode to maximize air changes that reduce potentially infectious particles in the vehicle.
- If the vehicle has a rear exhaust fan, use it to draw air away from the cab, toward the patient-care area, and out the back end of the vehicle.
- Some vehicles are equipped with a supplemental recirculating ventilation unit that passes air through high-efficiency particulate air (HEPA) filters before returning it to the vehicle. Such a unit can be used to increase the number of air changes per hour (per NIOSH [Health Hazard Evaluation Report 95–0031–2601](#)).
- After patient unloading, allowing a few minutes with ambulance module doors open will rapidly dilute airborne viral particles.
- If a vehicle without an isolated driver compartment must be used, open the outside air vents in the driver area and turn on the rear exhaust ventilation fans to the highest setting to create a pressure gradient toward the patient area.
 - Before entering the driver’s compartment, the driver (if they were involved in direct patient care) should remove their gown, gloves and eye protection and perform hand hygiene to avoid soiling the compartment. They should continue to wear their NIOSH-approved N95 or equivalent or higher-level respirator.

Additional considerations when performing AGPs on patients with suspected or confirms SARS-CoV-2 infection:

- If possible, consult with medical control before performing AGPs for specific guidance.
- Bag valve masks (BVMs) and other ventilatory equipment should be equipped with HEPA filtration to filter expired air.
- EMS systems should consult their ventilator equipment manufacturer to confirm appropriate filtration capability and the effect of filtration on positive-pressure ventilation.
- If possible, the rear doors of the stationary transport vehicle should be opened, and the HVAC system should be activated during AGPs. This should be done away from pedestrian traffic.
- If possible, discontinue AGPs prior to entering the destination facility or communicate with receiving personnel that AGPs are being implemented.

C. Dental Facilities

- Dental healthcare personnel (DHCP) should regularly consult their state [dental board](#) and state or local health departments for current information and recommendations and requirements specific to their jurisdictions, which might change based on [level of community transmission in the county where their healthcare facility is located](#).
- Postpone all non-urgent dental treatment for 1) patients with suspected or confirmed SARS-CoV-2 infection until they meet criteria to discontinue Transmission-Based Precautions and 2) patients who have had close contact with someone with SARS-CoV-2 infection until they meet the healthcare criteria to end quarantine. **Because dental patients cannot wear a mask, in general, healthcare-based quarantine applies for exposed patients when they seek care in a dental setting.** Do not use community guidelines for isolation and quarantine, which are typically only for 5 days.
 - Dental care for these patients should only be provided if medically necessary. Follow all recommendations for care and placement for patients with suspected or confirmed SARS-CoV-2 infection. **Extra attention may be required to ensure HVAC ventilation to the dental treatment area does not reduce or deactivate during occupancy based on temperature demands.**
 - If a patient has a fever strongly associated with a dental diagnosis (e.g., pulpal and periapical dental pain and intraoral swelling are present) but no other symptoms

consistent with COVID-19 are present, dental care can be provided following the practices recommended for routine health care during the pandemic.

- When performing aerosol generating procedures on patients who are not suspected or confirmed to have SARS-CoV-2 infection, ensure that DHCP correctly wear the recommended PPE (including a NIOSH-approved N95 or equivalent or higher-level respirator and eye protection in counties with **high** levels of community transmission) and use mitigation methods such as four-handed dentistry, high evacuation suction, and dental dams to minimize droplet spatter and aerosols.
 - Commonly used dental equipment known to create aerosols and airborne contamination include ultrasonic scaler, high-speed dental handpiece, air/water syringe, air polishing, and air abrasion.
- Dental treatment should be provided in individual patient rooms whenever possible **with the HVAC in constant ventilation mode**.
- For dental facilities with open floor plans, to prevent the spread of pathogens there should be:
 - At least 6 feet of space between patient chairs.
 - **Adjunct use of portable HEPA air filtration systems to enhance air cleaning**
 - Physical barriers between patient chairs. Easy-to-clean floor-to-ceiling barriers will enhance effectiveness of portable HEPA air filtration systems (check to make sure that extending barriers to the ceiling will not interfere with fire sprinkler systems).
 - Operatories should be oriented parallel to the direction of airflow if possible.
 - Where feasible, consider patient orientation carefully, placing the patient's head near the return air vents, away from pedestrian corridors, and toward the rear wall when using vestibule-type office layouts.
 - Ensure to account for the time required to clean and disinfect operatories between patients when calculating your daily patient volume.

D. Long-term Care Facilities

- **Assign one or more individuals with training in IPC to provide on-site management of the IPC program**
 - This should be a full-time role for at least one person in facilities that have more than 100 residents or that provide on-site ventilator or hemodialysis services. Smaller facilities should consider staffing the IPC program based on the resident population and facility service needs identified in the [IPC risk assessment](#).
- Stay connected with the [healthcare-associated infection program in your state health department](#), as well as your local health department, and their notification requirements. When applicable, report SARS-CoV-2 infection data to National Healthcare Safety Network (NHSN) Long-term Care Facility (LTCF) COVID-19 Module. See Centers for Medicare & Medicaid Services (CMS) COVID-19 [reporting requirements](#).
- Managing admissions and residents who leave the facility:
 - In general, admissions in counties where [Community Transmission](#) levels are high should be tested upon admission; admission testing at lower levels of Community Transmission is at the discretion of the facility.
 - Testing is recommended at admission and, if negative, again 48 hours after the first negative test and, if negative, again 48 hours after the second negative test. Newly admitted residents should also be advised to wear source control for the 10 days following their admission. Residents who leave the facility for 24 hours or longer should generally be managed as an admission.
- Empiric use of Transmission-Based Precautions (quarantine) is generally not necessary for admissions or for residents who leave the facility for less than 24 hours (e.g., for medical appointments, community outings) and do not meet criteria described in Section 2.

- Placement of residents with suspected or confirmed SARS-CoV-2 infection:
 - Ideally, residents should be placed in a single-person room as described in Section 2.
 - If limited single rooms are available, or if numerous residents are simultaneously identified to have known SARS-CoV-2 exposures or symptoms concerning for COVID-19, residents should remain in their current location.
- Responding to a newly identified SARS-CoV-2-infected HCP or resident:
 - When performing an outbreak response to a known case, facilities should always defer to the recommendations of the jurisdiction's public health authority.
 - A single new case of SARS-CoV-2 infection in any HCP or resident should be evaluated to determine if others in the facility could have been exposed.
 - The approach to an outbreak investigation (see Figure 1) could involve either contact tracing (see Figure 2) or a broad-based approach (see Figure 3); however, a broad-based (e.g., unit, floor, or other specific area(s) of the facility) approach is preferred if all potential contacts cannot be identified or managed with contact tracing or if contact tracing fails to halt transmission.
 - Perform testing for all residents and HCP identified as close contacts or on the affected unit(s) if using a broad-based approach, regardless of vaccination status.
 - Testing is recommended immediately (but not earlier than 24 hours after the exposure) and, if negative, again 48 hours after the first negative test and, if negative, again 48 hours after the second negative test. This will typically be at day 1 (where day of exposure is day 0), day 3, and day 5.
 - Due to challenges in interpreting the result, testing is generally not recommended for asymptomatic people who have recovered from SARS-CoV-2 infection in the prior 30 days. Testing should be considered for those who have recovered in the prior 31-90 days; however, an antigen test instead of a nucleic acid amplification test (NAAT) is recommended. This is because some people may remain NAAT positive but not be infectious during this period.
 - Empiric use of Transmission-Based Precautions for residents (quarantine) and work restriction for HCP are not generally necessary unless residents meet the criteria described in Section 2 or HCP meet criteria in the [PA-HAN-661](#). However, source control should be worn by all individuals being tested.
 - In the event of ongoing transmission within a facility that is not controlled with initial interventions, strong consideration should be given to Empiric use of Transmission-Based Precautions (quarantine) for residents and work restriction of HCP with higher-risk exposures. In addition, there might be other circumstances for which the jurisdiction's public authority recommends these and additional precautions.
 - If no additional cases are identified during contact tracing or the broad-based testing, no further testing is indicated. Empiric use of Transmission-Based Precautions (quarantine) for residents and work restriction for HCP who met criteria can be discontinued as described in Section 2 and [PA-HAN-661](#), respectively.
 - If additional cases are identified, strong consideration should be given to shifting to the broad-based approach if not already being performed and implementing quarantine for residents in affected areas of the facility. As part of the broad-based approach, testing should continue on affected unit(s) or facility-wide every 3-7 days until there are no new cases for 14 days.
 - If [antigen testing](#) is used, more frequent testing should be considered.
 - **Indoor visitation during an outbreak response:**
 - Facilities should follow guidance from [CMS](#) about visitation.

- Visitors should be counseled about their potential to be exposed to SARS-CoV-2 in the facility.
- If indoor visitation is occurring in areas of the facility experiencing an outbreak, it should ideally occur in the resident's room. The resident and their visitors should wear well-fitting source control (if tolerated) and physically distance (if possible) during the visit.

E. Non-healthcare Congregate Settings

CDC has made some recent updates in guidance describing how to determine if a facility should be considered healthcare or a non-healthcare congregative setting. In Pennsylvania, facilities licensed by the Department of Human Services (DHS) should follow the guidance for healthcare facilities as described in this update if they fall under the definition of a long-term care facility, below.

For the purposes of this guidance, LTCFs in Pennsylvania include, but are not limited to, skilled nursing facilities (SNF), personal care homes (PCH), assisted living residences (ALRs), Long-Term Structured Residence (LTSR), Residential Treatment Facility for Adults (RTFA), and Intermediate Care Facilities (ICF). Additional DHS facility types which should be included under healthcare facility guidance include state run facilities (state hospitals), outpatient clinics, and partial hospitalization programs. Furthermore, while most DHS group home settings will typically follow community prevention strategies based on COVID-19 Community Levels as per CDC guidance, for settings in which individuals receive frequent and active healthcare interventions it may be more appropriate to follow guidance for healthcare settings.

For unlicensed congregate facilities, in general, whose staff provide non-skilled personal care* similar to that provided by family members in the home (e.g., group homes), should follow [community prevention strategies based on COVID-19 Community Levels](#), similar to independent living, retirement communities or other non-healthcare congregate settings. Residents should be counseled [about strategies to protect themselves and others](#), including recommendations for source control if they are immunocompromised or at high risk for severe disease. CDC has information and [resources for older adults](#) and for [people with disabilities](#).

In non-healthcare congregate settings, visiting or shared healthcare personnel who enter the setting to provide healthcare to one or more residents (e.g., physical therapy, wound care, intravenous injections, or catheter care provided by home health agency nurses) **should follow the healthcare IPC recommendations in this guidance**. In addition, if staff in a residential care setting are providing in-person services for a resident with SARS-CoV-2 infection, they should be familiar with recommended IPC practices to protect themselves and others from potential exposures including the hand hygiene, personal protective equipment and cleaning and disinfection practices outlined in this guidance.

*Non-skilled personal care consists of any non-medical care that can reasonably and safely be provided by non-licensed caregivers, such as help with daily activities like bathing and dressing; it may also include the kind of health-related care that most people do themselves, like taking oral medications. In some cases where care is received at home or a residential setting, care can also include help with household duties such as cooking and laundry.

DEFINITIONS:

Healthcare Personnel (HCP): HCP refers to all paid and unpaid persons serving in healthcare settings who have the potential for direct or indirect exposure to patients or infectious materials, including body substances (e.g., blood, tissue, and specific body fluids); contaminated medical supplies, devices, and equipment; contaminated environmental surfaces; or contaminated air. HCP 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).

Healthcare settings: refers to places where healthcare is delivered and includes, but is not limited to, acute care facilities, long-term acute-care facilities, inpatient rehabilitation facilities, nursing homes, home healthcare, vehicles where healthcare is delivered (e.g., mobile clinics), and outpatient facilities, such as dialysis centers, physician offices, dental offices, and others.

Source control: Use of respirators, well-fitting facemasks, or well-fitting cloth masks to cover a person's mouth and nose to prevent spread of respiratory secretions when they are breathing, talking, sneezing, or coughing. Source control devices should not be placed on children under age 2, anyone who cannot wear one safely, such as someone who has a disability or an underlying medical condition that precludes wearing one safely, or anyone who is unconscious, incapacitated, or otherwise unable to remove their source control device without assistance. Face shields alone are not recommended for source control. At a minimum, source control devices should be changed if they become visibly soiled, damaged, or hard to breathe through. Further information about source control options is available at: [Masks and Respirators \(cdc.gov\)](https://www.cdc.gov/masks/)

Cloth mask: Textile (cloth) covers that are intended primarily for source control in the community. **They are not personal protective equipment (PPE) appropriate for use by healthcare personnel as the degree to which cloth masks protect the wearer might vary.** Guidance on design, use, and maintenance of cloth masks is [available](#).

Facemask: OSHA defines facemasks as “a surgical, medical procedure, dental, or isolation mask that is FDA-cleared, authorized by an FDA EUA, or offered or distributed as described in an FDA enforcement policy. Facemasks may also be referred to as ‘medical procedure masks’.” Facemasks should be used according to product labeling and local, state, and federal requirements. FDA-cleared surgical masks are designed to protect against splashes and sprays and are prioritized for use when such exposures are anticipated, including surgical procedures. Other facemasks, such as some procedure masks, which are typically used for isolation purposes, may not provide protection against splashes and sprays.

Respirator: A respirator is a personal protective device that is worn on the face, covers at least the nose and mouth, and is used to reduce the wearer's risk of inhaling hazardous airborne particles (including dust particles and infectious agents), gases, or vapors. Respirators are certified by the CDC/NIOSH, including those intended for use in healthcare.

Airborne Infection Isolation Rooms (AIIRs):

- AIIRs are single-patient rooms at negative pressure relative to the surrounding areas, and with a minimum of 12 air changes per hour (6 air changes per hour are allowed for AIIRs last renovated or constructed prior to 1997).

- Air from these rooms should be exhausted directly to the outside or be filtered through a high-efficiency particulate air (HEPA) filter directly before recirculation.
- Room doors should be kept closed except when entering or leaving the room, and entry and exit should be minimized.
- Facilities should monitor and document the proper negative-pressure function of these rooms.

Immunocompromised: For the purposes of this guidance, moderate to severely immunocompromising conditions include, but might not be limited to, those defined in the CDC [Interim Clinical Considerations for Use of COVID-19 Vaccines](#).

- Other factors, such as end-stage renal disease, may pose a lower degree of immunocompromise. However, people in this category should still consider continuing to use of source control while in a healthcare facility.
- Ultimately, the degree of immunocompromise for the patient is determined by the treating provider, and preventive actions are tailored to each individual and situation.

Close contact: Being within 6 feet for a cumulative total of 15 minutes or more over a 24-hour period with someone with SARS-CoV-2 infection.

SARS-CoV-2 Illness Severity Criteria (adapted from the NIH COVID-19 Treatment Guidelines) The studies used to inform this guidance did not clearly define “severe” or “critical” illness. This guidance has taken a conservative approach to define these categories. Although not developed to inform decisions about duration of Transmission-Based Precautions, the definitions in the [National Institute of Health \(NIH\) COVID-19 Treatment](#) Guideline are one option for defining severity of illness categories. The highest level of illness severity experienced by the patient at any point in their clinical course should be used when determining the duration of Transmission-Based Precautions. Clinical judgement regarding the contribution of SARS-CoV-2 to clinical severity might also be necessary when applying these criteria to inform infection control decisions.

Mild Illness: Individuals who have any of the various signs and symptoms of COVID-19 (e.g., fever, cough, sore throat, malaise, headache, muscle pain) without shortness of breath, dyspnea, or abnormal chest imaging.

Moderate Illness: Individuals who have evidence of lower respiratory disease by clinical assessment or imaging, and a saturation of oxygen (SpO₂) ≥94% on room air at sea level.

Severe Illness: Individuals who have respiratory frequency >30 breaths per minute, SpO₂ <94% on room air at sea level (or, for patients with chronic hypoxemia, a decrease from baseline of >3%), ratio of arterial partial pressure of oxygen to fraction of inspired oxygen (PaO₂/FiO₂) <300 mmHg, or lung infiltrates >50%.

Critical Illness: Individuals who have respiratory failure, septic shock, and/or multiple organ dysfunction.

In pediatric patients, radiographic abnormalities are common and, for the most part, should not be used as the sole criteria to define COVID-19 illness category. Normal values for respiratory rate also vary with age in children, thus hypoxia should be the primary criterion to define severe illness, especially in younger children.

If you have additional questions about this guidance, please contact DOH at 1-877-PA- HEALTH (1-877-724-3258) or your local health department.

Categories of Health Alert messages:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of October 4, 2022 but may be modified in the future. We will continue to post updated information regarding the most common questions about this subject.

FIGURE 1: CHOOSING AN OUTBREAK RESPONSE METHOD FOR LONG-TERM CARE FACILITIES

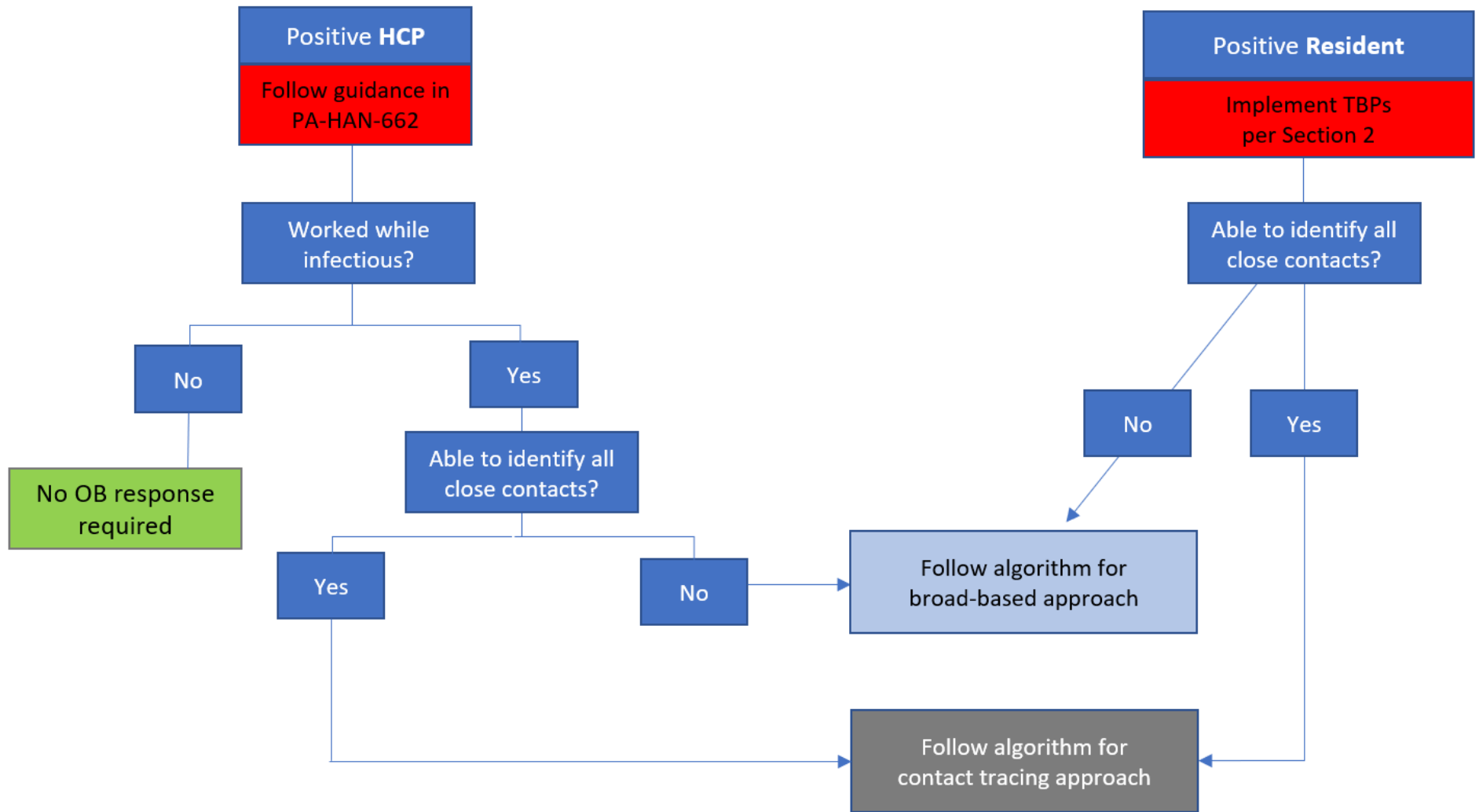


FIGURE 2: IMPLEMENTING A CONTACT-TRACING BASED APPROACH TO OUTBREAK RESPONSE FOR LONG-TERM CARE FACILITIES

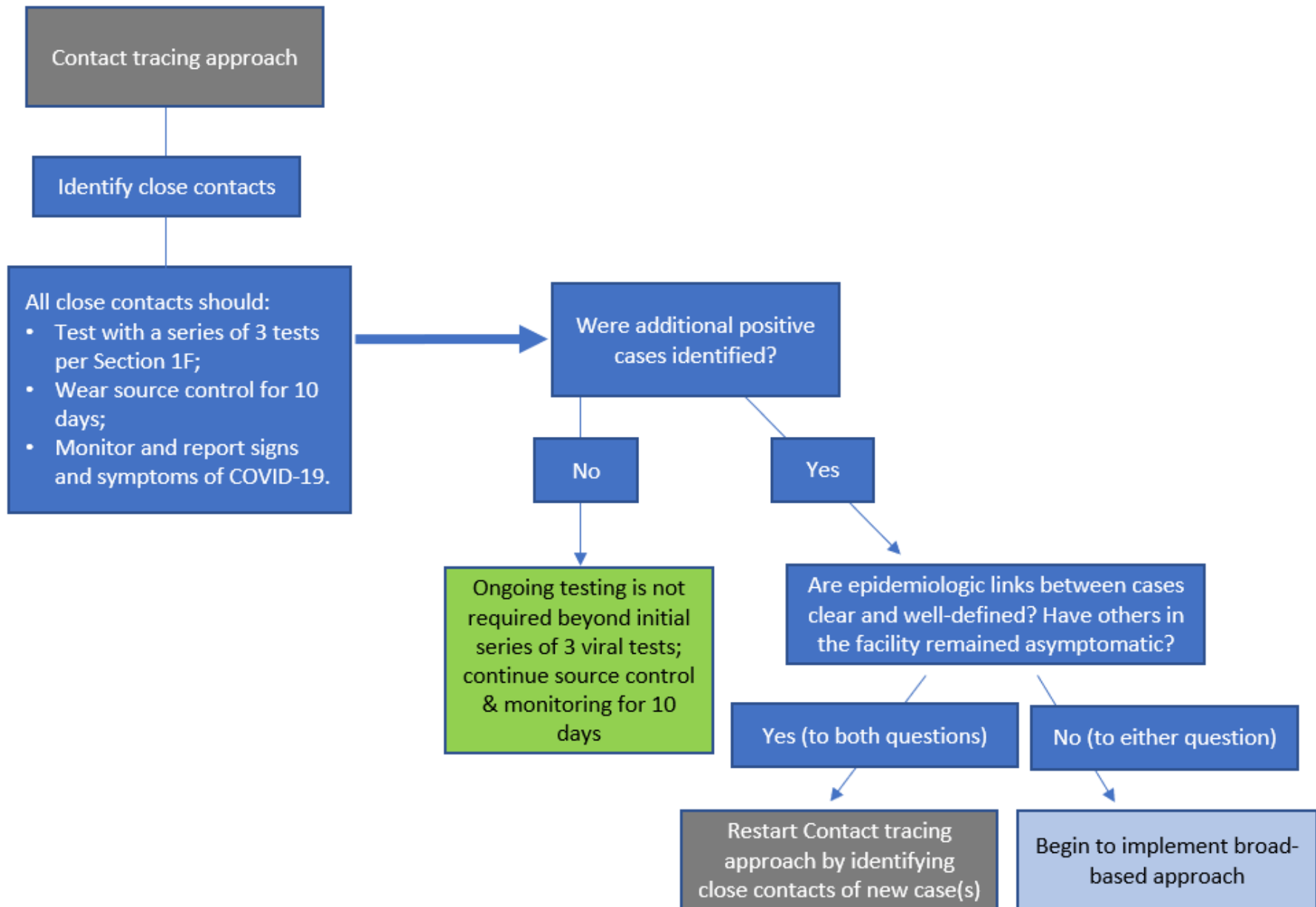


FIGURE 3: IMPLEMENTING A UNIT-BASED OR FACILITY-WIDE APPROACH TO OUTBREAK RESPONSE FOR LONG-TERM CARE FACILITIES

