

How to reduce risk of COVID-19 transmission in outpatient settings

April 8, 2020

Ryan M. Kilpatrick, M.D.; H. Cody Meissner, M.D., FAAP

Article type: [ID Snapshot](#)

Topics: [COVID-19](#), [Infectious Diseases](#), [Public Health](#), [Respiratory Tract](#)

Editor's note: *This is the second of two articles on reducing transmission of respiratory viruses. Read the first article at <https://bit.ly/2Jl1goL>. For the latest news on coronavirus disease 2019, visit <https://www.aapublications.org/news/2020/01/28/coronavirus>.*

The Centers for Disease Control and Prevention (CDC) has issued **recommendations** for infection prevention in outpatient settings for patients with suspected or known coronavirus disease 2019 (COVID-19). These patients should be isolated in a well-ventilated triage area with private room, if possible. Patients with respiratory symptoms should receive priority triage.

Face masks should be provided to arriving patients with respiratory symptoms, and they should be isolated in an examination room with the door closed, if possible. Some symptomatic patients could opt to wait in a personal vehicle until evaluation.

People with evidence of a respiratory infection in a physician's office or emergency department should follow respiratory hygiene, cough etiquette and hand hygiene throughout the encounter. Because of possible fecal spread, a dedicated bathroom should be available, if possible.

The number of staff providing care to an infectious person should be limited. During triage, health care personnel should adhere to recommendations regarding hand hygiene and use of barriers to limit contact with suspected patients.

Face masks are used in several settings. First, masks are placed on a symptomatic person to reduce spread of infectious secretions to other people. Second, masks are worn by a health care provider to prevent accidental contamination of a wound by organisms in a provider's respiratory secretions. Third, masks are worn by health care providers to protect themselves from splashes of bodily fluids, primarily large particles. Masks also keep fingers away from the mouth or nose.

Face mask refers to both surgical masks, which are fluid resistant, and procedure or isolation masks, which are not fluid resistant.

Surgical masks are not designed to offer protection against small airborne particles. Contaminated air can pass through the gap between the face and the edge of the mask, thereby avoiding the filter material of the mask.

In contrast to a surgical mask, an N95 respirator (N95 filtering face piece respirator) is designed to reduce exposure to at least 95% of a wide range of small and large particles (95% of test particles as small as 0.3

microns). An N95 respirator requires test fitting to ensure a tight fit with minimal leakage around the edges. N95 respirators or higher should be used instead of a surgical mask when an aerosol-generating procedure is to be performed such as during sputum induction, open suctioning of the airways, pulmonary function testing, cardiorespiratory resuscitation and autopsy procedures.

A powered air purifying respirator (PAPR) is slightly more protective than an N95 respirator because the blower creates positive pressure inside the face piece, reducing inward leakage of potentially contaminated air. A PAPR may have a tight fitting half or full face piece or a loose fitting face piece, hood or helmet.

Which of the following statements are false?

a) In a common waiting room setting, when space permits, a coughing person should sit at least 6 feet away from others.

b) It is not necessary to perform hand hygiene after removing gloves because transfer of infectious material to bare hands is unlikely.

c) It is not necessary to designate an area where patients with fever and respiratory symptoms can be seen.

d) Periods of increased respiratory infection activity can be identified when there is increased absenteeism in schools and work settings and increased office visits by patients with upper respiratory tract infection symptoms.

e) The concept of standard precautions assumes every person is infected or colonized with an infectious agent that could be transmitted in a health care setting.

Answer: b and c are false

The onset and duration of viral shedding and period of contagion for a person infected with SARS-Cov-2 has not been established with certainty. Detection of SARS-CoV-2 RNA (the virus that causes COVID-19) using a sensitive polymerase chain reaction assay may identify RNA in the respiratory tract for weeks after illness onset, similar to Middle East respiratory syndrome coronavirus (MERS-CoV) and severe acute respiratory syndrome coronavirus 1 (SARS-CoV-1).

Detection of viral RNA does not necessarily mean a person is infectious. This is because the amount of virus may be too small to result in transmission (not an infectious dose) or it may detect nonviable virus.

The AAP issued a report titled "[Initial Guidance: Management of Infants Born to Mothers with COVID-19](#)" along with a [Q&A](#).

Dr. Kilpatrick, an AAP resident member, is a PGY-3 pediatric resident at Floating Hospital for Children and will be starting neonatology fellowship at Duke University Medical Center in July. Dr. Meissner is professor of pediatrics at Floating Hospital for Children, Tufts Medical Center. He also is an ex officio member of the AAP Committee on Infectious Diseases and associate editor of the AAP Visual Red Book.

Resource

- [Additional ID Snapshot columns](#)