DEFINITION

- Exposure (Close Contact) to a person with confirmed or suspected COVID-19.
- Confirmed patients have a positive COVID-19 lab test.
- Suspected patients are those whom a HCP suspects of having COVID-19, based on symptoms and exposure (CDC definition). Also called Person Under Investigation (PUI).
- Includes international and domestic travel from other locales where there is major community spread.

Updated protocol version: 4/1/2020
Author: Bart Schmitt, MD, FAAP

Note to Triager - Guideline Choice for Suspected COVID-19:

- During major community spread of COVID-19, patients with fever and/or cough can be presumed to have COVID-19. Use the COVID-19 guidelines for these patients, not Cough or Fever guidelines.
- The best COVID-19 guideline choice also depends on the public health department (PHD) recommendations and testing availability in the patient's community.
- If PHD does not recommend testing on all suspected COVID-19 patients and/or if testing is not readily available, use the Coronavirus (COVID-19) Diagnosed or Suspected guideline.
- If PHD recommends testing on all suspected COVID-19 patients and testing is readily available, use the Coronavirus (COVID-19) Exposure guideline.

CLOSE CONTACT (EXPOSURE) to COVID-19 Definition:

HOUSEHOLD CLOSE CONTACT:

- Living in the same house (household contacts) or visiting with a person with confirmed or suspected COVID-19.

OTHER CLOSE CONTACT:

- Being within 6 feet (2 meters) of a confirmed or suspected COVID-19 case for a prolonged period of time (CDC). Examples of such close contact include kissing or hugging, sharing eating or drinking utensils, carpooling, close conversation, or performing a physical examination (relevant to health care providers). A prolonged close conversation is probably at least 10 minutes.
- OR having direct contact with infectious secretions of a confirmed COVID-19 case (e.g., being coughed on) (CDC)
- Living in or travel from a city, country or other geographic area where there is documented person-to-person transmission (community spread) of confirmed COVID-19 carries a small risk. This risk increases in areas of major community spread as listed by the CDC (see travel advisories at www.cdc.gov/coronavirus). This is due to the increased chance of unknowingly experiencing close contact with a COVID-19 sick patient.

NOT CLOSE CONTACT (LOW RISK EXPOSURE):

- Being in the same school, church, workplace or building as one person with COVID-19 carries a small risk. This risk increases once sustained community spread occurs.
- Walking by a person who has COVID-19 carries no risk.

TRIAGE ASSESSMENT QUESTIONS
Call EMS 911 Now
- Severe difficulty breathing (e.g., struggling for each breath, can only speak in single words, bluish lips)
  
  R/O: severe respiratory distress

- Sounds like a life-threatening emergency to the triager

See More Appropriate Protocol
- [1] Child has symptoms of COVID-19 (fever, cough or SOB) AND [2] lab test positive OR diagnosed by HCP
  Go to Protocol: Coronavirus (COVID-19) - Diagnosed or Suspected (Pediatric)

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  Go to Protocol: Breathing Difficulty (Respiratory Distress) (Pediatric)

  Go to Protocol: Cough (Pediatric)

  Go to Protocol: Colds (Pediatric)

Go to ED Now
  R/O: Coronavirus pneumonia. Referral to ED: call ahead

- Child sounds very sick or weak to the triager
  Reason: severe acute illness or serious complication suspected. Referral to ED: call ahead.

Discuss with PCP and Callback by Nurse Today
- [1] Fever or cough occurs AND [2] within 14 days of close contact with confirmed or suspected COVID-19 patient
  R/O: Coronavirus infection. PCP will decide if testing is indicated and where to go.

  R/O: Coronavirus infection. PCP will decide if testing is indicated and where to go.

- [1] Living in high risk area (hot spot) for COVID-19 community spread (identified by local PHD) AND [2] fever or cough occurs
  R/O: Coronavirus infection. PCP will decide if testing is indicated and where to go.

Home Care

Reason: Needs home isolation.


Reason: Asymptomatic for 14 days. Risk of developing COVID-19 infection has passed. Reassure and discontinue isolation.

[1] Living in high risk area for COVID-19 community spread (identified by local PHD) BUT [2] no cough, fever or breathing difficulty

Reason: follow local PHD directives regarding staying at home, etc.


Reason: lower risk. May need home isolation.

Caller concerned that COVID-19 exposure occurred BUT does not meet CDC criteria for close contact

Reason: unrealistic fear of exposure and needs reassurance

COVID-19 testing, questions about

COVID-19 prevention, questions about

COVID-19, questions about

Reason: no exposure, no travel to high-risk areas. Refer most callers to CDC website: www.cdc.gov/coronavirus

HOME CARE ADVICE

COVID-19 Exposed Patient Who Develops Symptoms: How to Manage

1. Triage Nurse Should Refer Patient to Approved Testing Site:
   • Tell the patient: From what you have told me, you may have the COVID-19 infection. You need to be tested and possibly examined. This is only available in special sites.
   • Caution for triager: if you are not sure the patient needs testing, call the ED, health department or other identified resource for a phone consultation.
   • Telemedicine: if available, assess the patient's status and needs via telemedicine visit.
   • The best source of care will depend on your local health system and community resources.
   • Use your nursing judgment and knowledge of current public health department recommendations.
   • If you are not sure where to refer the patient, call your local health department for help.

2. Triage Nurse Should Phone Ahead to Referral Site:
   • Wherever you refer the patient for testing or a medical evaluation, it is important to phone ahead first.
   • Tell them you are sending a patient exposed to COVID-19 and who now has symptoms (fever OR cough).
   • Reason: so healthcare workers at site can make plans to prevent spread of COVID-19 to others.
   • Also determine the safest means of transportation.

3. Patient to Announce Possible COVID-19 Exposure on Arrival:
• Tell the first healthcare worker you meet that your child may have been exposed to COVID-19.
• Tell them your child has symptoms and have been referred for COVID-19 testing.

4. **Cover Your Mouth and Nose - Wear a Mask:**
   - Cover your child's mouth and nose loosely with a disposable tissue (e.g., Kleenex, toilet paper, paper towel) or wash cloth.
   - Have your child wear a disposable breathing mask if you have one.
   - Ask for a mask on arrival.

5. **Isolation Is Needed Until Diagnosis is Made:**
   - Isolate your child at home. Reason: You are contagious and can spread your infection to others.
   - Do **Not** allow any visitors.
   - Do **Not** go to school or work.
   - Do **Not** go to church, child care centers, shopping, or other public places.
   - Avoid close contact with others (hugging, kissing).
   - Avoid public transportation or ride sharing.

6. **Fever Medicine:**
   - For fever above 102° F (39° C), give acetaminophen (e.g., Tylenol) or ibuprofen.
   - Note to triager about ibuprofen concerns: Discuss only if caller brings up concerns about ibuprofen. Response: The CDC, WHO, AAP and other experts continue to support the use of ibuprofen (if needed) for patients with COVID-19. They found no scientific evidence to support the claim that ibuprofen made this disease worse.

7. **Call Back If:**
   - Breathing difficulty occurs
   - Your child becomes worse

**COVID-19 Exposed Person with No Symptoms: Home Quarantine**

1. **Reassurance and Education - Exposure and No Symptoms:**
   - Although your child may have been or was exposed to COVID-19, your child does not currently have any symptoms of that infection. COVID-19 infections start within 14 days following the last exposure.
   - Since it's been less than 14 days, your child is still at risk for getting sick with COVID-19.
   - You need to watch for symptoms until 14 days have passed. Check your child's temperature two times a day.
   - Stay at home with your child until you talk with your child's doctor or the local public health department. They will tell you when it is safe to return to school or work.

2. **Note to Triager - Notify the Local Public Health Department:**
   - The triage nurse or HCP should notify the local public health department.
   - The patient should stay at home and avoid contact with others until they have talked with the public health department.
   - People exposed to a patient with confirmed COVID-19 but without any symptoms of their own, need to be followed closely by a health care provider in conjunction with the local health department.

3. **Measure Temperature:**
   - Measure your child's temperature 2 times each day, until 14 days after exposure to COVID-19.
   - Report any fevers or respiratory symptoms to your child's HCP or the local health department.
   - Early detection of symptoms is the only way to prevent spread of the disease.

4. **Isolation Recommendations:**
   - **Isolation will definitely be needed if your child develops a cough or fever within 14 days of**
COVID-19 exposure.
- For patients without symptoms, home quarantine also is usually required. Follow the current directives of your local health department.
- Isolate your child at home.
- Home isolation of younger children can be very difficult. Many families also have limited options. Therefore, each triager should individualize the recommendations for isolation after discussing it with the caller.
- Do Not allow any visitors.
- Do Not go to school or work.
- Do Not go to church, child care centers, shopping, or other public places.

5. Day 15 or Later After Close Contact and No Symptoms:
- The COVID-19 infection starts within 14 days of an exposure.
- Your child developed no symptoms of respiratory infection (such as fever or cough) during the 14 days after an exposure.
- Your child should be safe from getting COVID-19.
- If your child has been on home isolation, it can be discontinued.

6. Call Back If:
- Fever occurs
- Cough or other symptoms occur
- You have other questions or concerns

COVID-19 Testing Questions

1. COVID-19 Testing - Who Needs It:
- Tests for COVID-19 are only done on people who are sick (have a fever OR cough) AND also have a health history that puts them at definite risk for having COVID-19. That mainly means close contact with someone who has lab confirmed or suspected COVID-19 disease.
- As community spread increases, who needs testing change.
- When cases of COVID-19 are everywhere, testing becomes pointless on mildly ill patients. Testing will mainly be helpful for patients who need admission to the hospital.
- Testing requires a doctor's order (as with all medical tests).
- Testing is performed on fluid collected on a throat swab and/or nasal swab.
- Swab specimens are then sent to a lab.
- The results become available in 24-72 hours. Faster tests are being developed.
- Caution: Once there is widespread community transmission, testing is not done on exposed people who don't have serious symptoms.

2. Criteria for True COVID-19 Exposure (CDC):
- The risk of getting COVID-19 requires one of the following to have occurred:
  - Close contact with a person who is a lab-test-confirmed COVID-19 AND contact occurred while they were ill.
  - Close contact with a person who is under investigation for COVID-19 AND contact occurred while they were ill.

3. Travel History from or Living in High-Risk Area (As Identified by CDC):
- Living in or travel from a city, country or other geographic area where there is documented person-to-person transmission (community spread) of confirmed COVID-19 is a lower risk factor compared to close contact.
- However, it does increase the risk of unknowingly experiencing close contact with a COVID-19 sick patient.
- You will not need COVID-19 testing unless you develop fever or a cough.
- For high-risk travel, you will need to measure your temperature 2 times each day for the 14 days since leaving that area. Report any fever or cough to your PCP.
Follow public health directives in regards to home isolation.

4. **Activities that Do Not Cause COVID-19 Infections:**
   - Being in the same school, church, workplace or building as one person with COVID-19 carries a small risk. This risk increases once sustained community spread occurs.
   - Walking by a person who has COVID-19
   - Close contact with a person who was exposed to COVID-19 more than 14 days ago and never developed any symptoms

5. **Caller Remains Worried After Education and Reassurance:**
   - Transfer the call to the PCP. Or have them call the local public health department within 24 hours.
   - Discourage them from going to a health care facility.
   - Tell them that no special testing or treatment will be offered.

6. **Testing Sites for Specimen Collection:**
   - Swabs of the throat and/or nose will only be collected on people who have a doctor's order.
   - People cannot walk in and request a COVID-19 test.
   - Specimen collection sites vary from city to city. Your local health department may operate drive through sites.
   - In general, they are not done in medical offices or clinics.
   - If you are sent to have a COVID-19 test done, go to the site recommended by your local health department, nurse advice line, or PCP.
   - Caution: Don't go to an ER, other health facility or testing site without a doctor's order. If you do, you will not receive a test. And you may be exposed to patients who have COVID-19.

7. **Call Back If:**
   - You have other questions

**COVID-19 Prevention Questions**

1. **COVID-19 - How to Protect Yourself and Family from Catching It:**
   - Avoid any contact with people known to have COVID-19 infection. Avoid talking to or sitting close to them.
   - Social Distancing: Try to stay at least 6 feet away from anyone who is sick, especially if they are coughing. Also called physical distancing. Avoid crowds because you can't tell who might be sick.
   - If COVID-19 becomes widespread in your community, try to stay 6 feet away from everyone outside your family unit.
   - Follow any stay at home (stay in place) orders in your community. Leave your home only for essential needs such as buying food or seeking medical care.
   - Being outdoors for exercise is generally safe.
   - Wash hands often with soap and water (very important). Always do before you eat.
   - Use an alcohol-based hand sanitizer if water is not available. Remember: soap and water work better.
   - Don't touch your eyes, nose or mouth unless your hands are clean. Germs on the hands can get into your body this way.
   - Don't share glasses, plates or eating utensils.
   - No longer shake hands. Greet others with a smile and a nod.
   - Avoid ERs and urgent care clinics if you don't need to go there. These are places where you are likely to be exposed to infections.
   - Masks: The CDC does not recommend wearing a face mask, unless you are sick.

2. **Keep Your Body Strong:**
   - Get your body ready to fight the COVID-19 virus.
   - Get enough sleep (very important)
   - Keep your heart strong. Walk or exercise every day. Take the stairs. Caution: avoid physical
3. **Keep Your Mind Positive:**
   - Live in the present, not the future. The future is where your needless worries live. Stay positive.
   - Use a mantra to reduce your fears, such as "I am strong".
   - Go to a park if you have one. Being in nature is good for your immune system.
   - As long as they are well, hug your children and partner frequently. Speak to them in a kind and loving voice. Love strengthens your immune system.
   - Use regular phone calls and video chats to stay in touch with those you love.

4. **How to Protect Others - When You or Your Child are Sick:**
   - Stay home from school or work if you are sick. Your doctor or local health department will tell you when it is safe to return.
   - Cough and sneeze into your shirt sleeve or inner elbow. Don't cough into your hand or the air.
   - If available, sneeze into a tissue and throw it into trash can.
   - Wash hands often with soap and water. After coughing or sneezing are important times.
   - Don't share glasses, plates or eating utensils.
   - Wear a face mask when around others.
   - Always wear a face mask (if available) if you have to leave your home (such as going to a medical facility). Always call first to get approval and careful directions.

5. **Call Back If:**
   - You have other questions

COVID-19 Disease: FAQs

1. **Trusted Sources for Accurate Information - CDC and AAP:**
   - Nurse call centers and doctors' offices are overloaded with calls. They need to keep their lines open for sick patients.
   - To meet the extreme demand for COVID-19 information, when possible, find your answers online. Here are the most reliable websites:
     - CDC website: [https://www.cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)
     - American Academy of Pediatrics parent website: [www.healthychildren.org](http://www.healthychildren.org)
     - Nurse advice lines and medical call centers are needed for sick patient calls.

2. **COVID-19 Outbreak:**
   - An outbreak of this infection began in Wuhan, China in early December 2019.
   - The first COVID-19 patient in the United States was reported on January 21, 2020. During March, cases were identified in all states.
   - The first COVID-19 patient in Canada was reported on January 31, 2020.
   - The World Health Organization (WHO) declared COVID-19 a global pandemic.

3. **COVID-19 Symptoms:**
   - COVID-19 coronavirus causes a respiratory illness. The most common symptoms are fever, cough, and shortness of breath.
   - Less common symptoms are body aches, chills, diarrhea, headache, runny nose, and sore throat.

4. **COVID-19 - CDC Definition of Exposure (Close Contact):**
   - You are at risk of getting COVID-19 if the following has occurred:
     - Close contact with a person who tested positive for COVID-19 AND contact occurred while they were ill.
COVID-19 - How it is Spread:
• COVID-19 is spread from person to person.
• The virus spreads when respiratory droplets produced when a person coughs or sneezes. The infected droplets can then be inhaled by a nearby person or land on the surface of their eyes.
• Most infected people also have respiratory secretions on their hands. These secretions get transferred to healthy people on doorknobs, faucet handles etc. The virus then gets transferred to healthy people when they touch their face or rub their eyes.
• These methods are how most respiratory viruses spread.

COVID-19 - Travel:
• Avoid all non-essential travel.
• If you must travel, go to CDC website for updates on travel advisories: https://www.cdc.gov/coronavirus/2019-ncov/travelers.

Other COVID-19 Facts:
• Incubation Period: average 5 days (range 2 to 14 days) after coming in contact with the secretions of a person who has COVID-19.
• Expected Course of the Infection: 80% have a mild illness, much like normal flu or a bad cold. The symptoms usually last 2 weeks.
• No Symptom Patients: An unknown percentage of infected patients have no symptoms.
• Complications: 20% have a more severe illness with trouble breathing from viral pneumonia. Many of these need to be admitted to the hospital. People with complications generally recover in 3 to 6 weeks.
• Death rate: currently estimated at 0.5 to 2% (CDC) of all infected patients.
• Children generally have a mild illness and recover. Older adults, especially those with chronic lung disease or weak immune systems, have the highest death rates.
• Vaccine: There currently is no vaccine to prevent COVID-19. Many labs are working on developing a vaccine, but that will take at least a year.
• Treatment: Currently, there is no effective anti-viral medication for coronavirus. Treatment is supportive. Oxygen and IV fluids are used for hospitalized patients.

Call Back If:
• You have other questions
cases were identified in all states.
- The first COVID-19 patient in Canada was reported on January 31, 2020.
- The World Health Organization (WHO) has declared COVID-19 a global pandemic.

COVID-19 Symptoms

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COVID-19 - Other Facts

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- No Symptom Patients: An unknown percentage of infected patients have no symptoms.
- Complications: 20% have a more severe illness with trouble breathing from viral pneumonia. Many of these need to be admitted to the hospital. People with complications generally recover in 3 to 6 weeks.
- Death rate: currently estimated at 0.5 to 2% (CDC) of all infected patients.
- Children generally have a mild illness and recover. Pediatric deaths are rare. Older adults, especially those with chronic lung disease or weak immune systems, have the highest death rates.
- Vaccine: There currently is no vaccine to prevent COVID-19. Many labs are working on developing a vaccine, but that will take at least a year.
- Treatment: Currently, there is no effective anti-viral medication for coronavirus. Treatment is supportive. Oxygen and IV fluids are used for hospitalized patients.

COVID-19 - CDC Definition of Exposure (Close Contact)

- You are at risk of getting COVID-19 if the following has occurred:
  - Close contact with a person who tested positive for COVID-19 AND contact occurred while they were ill.
  - Living in or travel from a city, country or other geographic area where there is documented community spread of COVID-19. This carries a lower risk compared to close contact if one observes social distancing.
  - Community spread is now occurring in most of the US, especially in cities.
  - The CDC ([https://www.cdc.gov/coronavirus/2019-ncov/travelers](https://www.cdc.gov/coronavirus/2019-ncov/travelers)) has the most up-to-date list of where COVID-19 outbreaks are occurring.

COVID-19 - How it is Spread

- COVID-19 is spread from person to person.
- The virus spreads when respiratory droplets produced when a person coughs or sneezes. The infected droplets can then be inhaled by a nearby person or land on the surface of their eyes.
- Most infected people also have respiratory secretions on their hands. These secretions get transferred to healthy people on doorknobs, faucet handles etc. The virus then gets transferred to healthy people when they touch their face or rub their eyes.
- These methods are how most respiratory viruses spread.

Ibuprofen (or other NSAID) Use for COVID-19

- Many callers have expressed concerns that ibuprofen (or other NSAID) use to treat COVID-19 symptoms may worsen the disease.
- These concerns originated from a few physicians’ comments and have since spread over social
To date, there is no scientific evidence (clinical trials or studies) that show that using ibuprofen negatively impacts outcome in COVID-19 patients. We will continue to review any new literature as it is published.

The CDC, WHO, AAP and our Infectious Disease expert reviewers continue to approve the use of ibuprofen for COVID-19.

For this reason, STCC guidelines continue to recommend ibuprofen as an acceptable way to treat high fevers and pain. (Note: Remind callers that fevers are beneficial, help fight the infection, and may speed recovery. Low-grade fevers should not be treated.)

If callers remain concerned, they can use acetaminophen for symptoms that warrant treatment.

Caution: For suspected COVID-19 patients on oral steroids, such as prednisone, the triager should involve the PCP for a decision about whether the drug can be continued.

Concerns About Positive Lab Test for the Common Coronavirus that Causes Colds

There are many strains of coronaviruses. Most of them cause the common cold.

Older viral respiratory panels only tested for the "common" coronavirus.

Common coronavirus strains usually don't cause serious illness in healthy children.

Other Coronaviruses in Humans

- MERS-CoV: Middle East Respiratory Syndrome (MERS)
- SARS-CoV: Severe Acute Respiratory Syndrome (SARS)
- Of note, neither of these viruses had a major impact on the pediatric population.
- Common coronaviruses causing colds and upper respiratory symptoms that are identified in currently available commercial respiratory testing panels are different than COVID-19 addressed in this guideline.

Internet Resources


Expert Reviewers

- Ann-Christine Nyquist MD, MSPH, Sections of Infectious Disease and Epidemiology, Children's Hospital Colorado, Aurora, CO
- Samuel Dominguez, MD, Sections of Infectious Disease and Epidemiology, Children's Hospital Colorado, Aurora, CO

REFERENCES


AUTHOR AND COPYRIGHT

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