Child has symptoms of COVID-19 (cough, fever, SOB or others) AND:

- Diagnosis was confirmed by positive lab test OR
- Clinical diagnosis (suspected diagnosis) was made by HCP (doctor, NP or PA) OR
- Parent or patient suspects COVID-19 based on symptoms consistent with COVID-19 AND living in an area of community spread.
- COVID-19 testing may or may not be available to confirm which suspected cases have the diagnosis.
- Note to Triager: During community spread of COVID-19, triage nurses are more qualified to make clinical diagnoses of this infection than parents. Patients with cough, SOB, fever, loss of smell or taste or other compatible symptoms can be presumed to have COVID-19 until proven otherwise.
- Also Included: Suspected Influenza calls during the 2020-2021 flu season when flu is also present in the community.
- **Updated:** November 2, 2020

**COVID-19 Main Symptoms (CDC)**

COVID-19 should be suspected in people who have 1 or more of the following (CDC):

- Cough
- Shortness of breath (difficulty breathing)
- Fever or chills
- Loss of smell or taste
- Muscle or body aches
- Headache
- Sore throat
- Runny nose (not from allergies)
- The CDC also includes the following less common symptoms: fatigue (tiredness), nausea, vomiting and diarrhea. In isolation, these symptoms are not very helpful for recognizing COVID-19. Unless there is associated close contact with a COVID-19 patient, these symptoms can usually be triaged and managed in those specific guidelines. So can an isolated headache. For reasons of safety, all respiratory symptoms (such as runny nose and sore throat) are considered COVID-19 until disproven by testing.

**Influenza Calls: Preventing the Need to Use 2 Guidelines (November 2020)**

Here are the reasons why this guideline can be used simultaneously for calls about patients with suspected COVID-19 and also for those with suspected Influenza:

- **Symptoms** are nearly identical. Cannot differentiate based on symptoms. Only exception: loss of taste or smell is highly specific for COVID.
- **Triage for serious symptoms** or complications is the same. The nurse can triage both at same time.
- **Viral Testing** is the only way to reach an accurate diagnosis. Tests for both are available.
- **Care Advice** is the same. Treat symptoms and stay well hydrated.
Oral Antivirals are only available for patients with influenza who also are High Risk for complications.

High-Risk patients for Complications: The long-established list for influenza is similar to the evolving list for patients with COVID-19. It can be used for both.

Isolation: Home isolation is required for 10 days or longer for COVID-19. Isolation for flu is only recommended until the fever is gone for 24 hours or longer. Reason: COVID-19 is far more dangerous than flu.

Why COVID-19 Guideline was Chosen to Cover Both: Influenza is seasonal. COVID-19 is not seasonal. It will not go away in 6 months like influenza.

Preventing the Need to Use 2 Symptom Guidelines to Manage COVID-19 Calls (May 2020)

Concern: Call centers reported that triage nurses often needed to use 2 guidelines to provide complete triage and care advice for suspected COVID-19 cases. Reason: Many patients have multiple symptoms.

Solution: Triage and targeted care advice have been expanded.

This guideline now covers telephone care for Cough, Fever, Chills or shaking, Sore throat, Muscle pains, Headaches and Loss of smell or taste.

Triagers should use clinical judgment and consider use of an additional guideline for any important symptoms not addressed in this guideline. Examples are Asthma or Vomiting.

INITIAL ASSESSMENT QUESTIONS

Note to Triager - Respiratory Distress: Always rule out respiratory distress (also known as working hard to breathe or shortness of breath). Listen for grunting, stridor, wheezing, tachypnea in these calls. How to assess: Listen to the child's breathing early in your assessment. Reason: What you hear is often more valid than the caller's answers to your triage questions.

1. COVID-19 DIAGNOSIS: "Who made your Coronavirus (COVID-19) diagnosis? Was it confirmed by a positive lab test? If not diagnosed by HCP, ask, "Are there lots of cases (community spread) where you live?" (See public health department website, if unsure)
2. COVID-19 EXPOSURE: "Was there any known exposure to COVID before the symptoms began?" Household exposure or close contact with positive COVID-19 patient outside the home (child care, school, work, play or sports). CDC Definition of close contact: within 6 feet (2 meters) for a total of 15 minutes or more over a 24-hour period.
3. ONSET: "When did the COVID-19 symptoms start?"
4. WORST SYMPTOM: "What is your child's worst symptom?"
5. COUGH: "Does your child have a cough?" If so, ask, "How bad is the cough?"
6. RESPIRATORY DISTRESS: "Describe your child's breathing. What does it sound like?" (e.g., wheezing, stridor, grunting, weak cry, unable to speak, retractions, rapid rate, cyanosis)
7. BETTER-SAME-WORSE: "Is your child getting better, staying the same or getting worse compared to yesterday?" If getting worse, ask, "In what way?"
8. FEVER: "Does your child have a fever?" If so, ask: "What is it, how was it measured, and how long has it been present?"
9. OTHER SYMPTOMS: "Does your child have any other symptoms?" (e.g., chills or shaking, sore throat, muscle pains, headache, loss of smell)
10. CHILD'S APPEARANCE: "How sick is your child acting?" "What is he doing right now?" If asleep, ask: "How was he acting before he went to sleep?"
11. HIGHER RISK for COMPLICATIONS with FLU or COVID-19 : "Does your child have any chronic medical problems?" (e.g., heart or lung disease, diabetes, asthma, cancer, weak immune system, etc. See that List in Background Information. Reason: may need antiviral if has positive test for influenza.)
TRIAGE ASSESSMENT QUESTIONS

Call EMS 911 Now

Severe difficulty breathing (struggling for each breath, unable to speak or cry, making grunting noises with each breath, severe retractions) (Triage tip: Listen to the child's breathing.)

\[ \text{CA: } 50, 27, 28, 25, 1 \]

Slow, shallow, weak breathing

\[ \text{R/O: respiratory depression with impending apnea} \]
\[ \text{CA: } 50, 27, 28, 25, 1 \]

[1] Bluish (or gray) lips or face now AND [2] persists when not coughing

\[ \text{R/O: cyanosis and need for oxygen} \]
\[ \text{CA: } 50, 27, 28, 25, 1 \]

Difficult to awaken or not alert when awake (confusion)

\[ \text{R/O: encephalitis} \]
\[ \text{CA: } 50, 27, 28, 25, 1 \]

Very weak (doesn't move or make eye contact)

\[ \text{R/O: sepsis or shock} \]
\[ \text{CA: } 50, 27, 28, 25, 1 \]

Sounds like a life-threatening emergency to the triager

\[ \text{CA: } 50, 27, 28, 25, 1 \]

See More Appropriate Guideline

Runny nose from nasal allergies

Go to Guideline: Nasal Allergies (Hay Fever) (Pediatric)


Go to Guideline: Headache (Pediatric)


Go to Guideline: Vomiting (Pediatric)


Go to Guideline: Diarrhea (Pediatric)


Go to Guideline: Coronavirus (COVID-19) - Exposure (Pediatric)

   Go to Guideline: Influenza (Flu) Follow-up Call (Pediatric)


   Go to Guideline: Influenza (Flu) - Seasonal (Pediatric)

Go to ED Now

[1] Difficulty breathing confirmed by triager BUT [2] not severe (Triage tip: Listen to the child’s breathing.)

   R/O: pneumonia
   CA: 51, 37, 23, 25, 26, 1

Ribs are pulling in with each breath (retractions)

   R/O: pneumonia
   CA: 51, 37, 23, 25, 26, 1

[1] Age < 12 weeks AND [2] fever 100.4 F (38.0 C) or higher rectally

   R/O: sepsis
   CA: 51, 37, 23, 25, 26, 33, 1

SEVERE chest pain or pressure (excruciating)

   R/O: pneumonia, pleurisy, pulmonary emboli
   CA: 51, 37, 23, 25, 26, 31, 1

Go to ED Now (or PCP triage)


   CA: 52, 37, 23, 25, 26, 83, 4, 84, 1

Rapid breathing (Breaths/min > 60 if < 2 mo; > 50 if 2-12 mo; > 40 if 1-5 years; > 30 if 6-11 years; > 20 if > 12 years)

   R/O: respiratory distress. (Caution: Do not attribute abnormal RR to fever)
   CA: 52, 37, 23, 25, 26, 4, 84, 1

[1] MODERATE chest pain or pressure (by caller’s report) AND [2] can’t take a deep breath

   R/O: pneumonia, pleurisy
   CA: 52, 37, 23, 25, 26, 4, 31, 84, 1

[1] Fever AND [2] > 105 F (40.6 C) by any route OR axillary > 104 F (40 C)

   R/O: serious bacterial infection
   CA: 52, 37, 23, 25, 26, 4, 84, 1


   R/O: sepsis
   CA: 52, 37, 23, 25, 26, 4, 84, 1
[1] Sore throat AND [2] complication suspected (refuses to drink, can't swallow fluids, new-onset drooling, can't move neck normally or other serious symptom)

CA: 52, 37, 23, 25, 26, 4, 84, 1

[1] Muscle or body pains AND [2] complication suspected (can't stand, can't walk, can barely walk, can't move arm or hand normally or other serious symptom)

CA: 52, 37, 23, 25, 26, 4, 84, 1

[1] Headache AND [2] complication suspected (stiff neck, incapacitated by pain, worst headache ever, confused, weakness or other serious symptom)

CA: 52, 37, 23, 25, 26, 4, 84, 1

[1] Dehydration suspected AND [2] age < 1 year (signs: no urine > 8 hours AND very dry mouth, no tears, ill-appearing, etc.)

CA: 52, 37, 23, 25, 26, 4, 84, 1

[1] Dehydration suspected AND [2] age > 1 year (signs: no urine > 12 hours AND very dry mouth, no tears, ill-appearing, etc.)

CA: 52, 37, 23, 25, 26, 4, 84, 6, 1

Child sounds very sick or weak to the triager

Reason: severe acute illness or serious complication suspected

CA: 52, 37, 23, 25, 26, 84, 1

See HCP within 4 Hours (or PCP triage)


Note to triager: Asthmatic children will also need triaging with the Asthma guideline.

CA: 53, 37, 29, 4, 84, 6, 1

[1] Lips or face have turned bluish BUT [2] only during coughing fits

R/O: need for oxygen

CA: 53, 37, 29, 4, 84, 6, 1


R/O: pneumonia

CA: 53, 37, 23, 25, 26, 84, 6, 1


R/O: severe otitis or sinusitis

CA: 53, 37, 23, 25, 26, 29, 4, 31, 84, 6, 1

Call PCP Now

SEVERE RISK patient (e.g., immuno-compromised, serious lung disease, on oxygen, heart disease, bedridden, etc)

Reason: special chronic diseases at risk for severe pneumonia or sepsis

CA: 59, 4, 7, 6, 1, 49


Reason: PCP will decide on needed follow-up care
Multisystem Inflammatory Syndrome (MIS-C) suspected (Fever AND 2 or more of the following: widespread red rash, red eyes, red lips, red palms/soles, swollen hands/feet, abdominal pain, vomiting, diarrhea)

Note: very rare complication

See PCP within 24 Hours


Reason: may need Decadron

CA: 54, 37, 29, 5, 30, 4, 89, 24, 7, 84, 38, 1

[1] Continuous coughing keeps from playing or sleeping AND [2] no improvement using cough treatment per guideline

CA: 54, 37, 29, 5, 30, 4, 7, 84, 6, 1, 49

Earache or ear discharge also present

R/O: otitis media

CA: 54, 37, 4, 32, 29, 5, 30, 7, 84, 6, 1, 49

Strep throat infection suspected by triager

Reason: may need Strep test

CA: 54, 37, 4, 42, 43, 7, 84, 6, 1


R/O: UTI, bacteremia

CA: 54, 37, 4, 7, 84, 6, 1


R/O: UTI, bacteremia

CA: 54, 37, 4, 7, 84, 6, 1


R/O: otitis media or sinusitis

CA: 54, 37, 4, 29, 5, 30, 7, 84, 6, 1, 49

Fever present > 3 days (72 hours)

R/O: bacterial superinfection - usually otitis media

CA: 54, 37, 4, 29, 5, 30, 7, 84, 6, 1, 49


R/O: sinusitis

CA: 54, 37, 4, 29, 5, 30, 7, 84, 6, 1, 49

Call PCP within 24 Hours
Influenza also widespread in the community AND [2] mild flu-like symptoms WITH FEVER AND [3] HIGH-RISK patient for complications with Flu  (See that CDC List)

Reason: may need testing for influenza and COVID-19. If positive for flu, PCP will decide if antiviral meds would be helpful for this patient.

CA: 60, 85, 86, 87, 4, 5, 29, 42, 43, 44, 11, 88, 82, 6, 1, 49

Call PCP when Office is Open


Reason: PCP will discuss if any testing is needed

CA: 61, 13, 3, 7, 11, 39, 12, 4, 40, 5, 41, 29, 30, 42, 43, 44, 45, 46, 82, 6, 1, 49

Home Care


CA: 58, 80, 3, 7, 39, 4, 40, 5, 41, 29, 30, 42, 43, 44, 45, 46, 82, 11, 6, 1, 49


CA: 58, 2, 3, 7, 39, 4, 40, 5, 41, 29, 30, 42, 43, 44, 45, 46, 82, 11, 6, 1, 49

COVID-19 Home Isolation, questions about

CA: 58, 7, 39, 11, 8, 6, 1

COVID-19 Prevention, questions about

CA: 58, 8, 47, 48, 9, 10, 11, 82, 6, 1

COVID-19 Testing, questions about

CA: 58, 12, 6, 1

COVID-19 Maternal Illness and Breastfeeding

CA: 58, 14, 35, 7, 39, 15, 1

COVID-19 Disease, questions about

CA: 58, 16, 17, 18, 19, 20, 8, 21, 22, 48, 36, 1

Multisystem Inflammatory Syndrome (MIS-C), questions about

CA: 58, 81, 36, 1

CARE ADVICE (CA) -

1. Care Advice given per Coronavirus (COVID-19) - Diagnosed or Suspected (Pediatric) guideline.
2. Reassurance and Education - HCP Suspects COVID-19 and Symptoms are Mild:
   - Your doctor told you that your child probably has COVID-19 based on the symptoms.
   - Your child did not receive a lab test for COVID-19. When cases are everywhere, testing is often not done except for those who have serious symptoms.
   - From what you have told me, your child's symptoms are mild. They stay that way for most children.
   - What to Expect: Mild symptoms usually last less than 2 weeks. Complications are rare in children. Re-infections are very rare.
   - You don't need to see your doctor unless your child develops trouble breathing or becomes worse in any other way.
   - Here's some care advice that should help.

3. Treatment of Symptoms:
   - The treatment is the same whether you have COVID-19, influenza or some other respiratory virus.
   - The only difference for COVID-19 is you need to stay on home isolation until you recover (a minimum of 10 days). Reason: You want to protect other people from getting it.
   - Treat the symptoms that are bothering you the most.
   - **Note to Triager:** Care Advice is available for Cough, Fever, Chills and Shivering, Sore throat, Muscle pains, Headache and Loss of smell. Only discuss treatment for the caller's main symptoms.
   - There is no anti-viral medication for treating COVID-19 at home. New antiviral treatments have been developed for patients who need to be hospitalized.
   - Antibiotics are not helpful for viral infections.

4. Fever Medicine and Treatment:
   - For fever above 102 F (39 C), you may use acetaminophen OR ibuprofen (See Dosage table). Avoid aspirin.
   - For fevers 100-102 F (37.8 to 39 C), fever medicines are not needed. Reason: Fever turns on your body's immune system. Fever helps fight the infection.
   - **Exception:** If your child also has definite pain, treat it.
   - **Fluids.** Encourage cool fluids in unlimited amounts. Reason: prevent dehydration.
   - **Clothing.** For all children, dress in 1 layer of clothing, unless shivering. For shivering, use a blanket until it stops.
   - **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.
5. **Homemade Cough Medicine:**
   - **Age:** 3 Months to 1 year:
     - Give warm clear fluids (e.g., apple juice or lemonade) to thin the mucus and relax the airway. Dosage: 1-3 teaspoons (5-15 ml) four times per day.
     - Note to Triager: Option to be discussed only if caller complains that nothing else helps: Give a small amount of corn syrup. Dosage: 1/4 teaspoon (1 ml). Can give up to 4 times a day when coughing. Caution: Avoid honey until 1 year old (Reason: risk for botulism).
   - **Age 1 year and older:** Use **Honey** 1/2 to 1 tsp (2 to 5 ml) as needed as a homemade cough medicine. It can thin the secretions and loosen the cough. (If not available, can use corn syrup.) OTC cough syrups containing honey are also available. They are not more effective than plain honey and cost much more per dose.
   - **Age 6 years and older:** Use **Cough Drops** (throat drops) to decrease the tickle in the throat. If not available, can use hard candy. Avoid cough drops before 6 years. Reason: risk of choking.
   - Don't use OTC cough medicines under 6 years of age. Reason: Cough is a protective reflex.

6. **Call Back If:**
   - Shortness of breath occurs
   - Difficulty breathing occurs
   - Your child becomes worse

7. **Home Isolation Is Needed:**
   - Isolation means separating sick people with a contagious disease from people who are not sick. (CDC) That means stay at home for at least 10 days after symptoms started.
   - Living with a suspected COVID-19 patient implies close contact has occurred.
   - Both patient and family members should stay home on isolation and quarantine.
   - Exceptions: Essential workers who have COVID-19 exposure but do not have any symptoms. Talk to your employer.
   - The patient does not need to be confined to a single room. Reason: Preventing spread of respiratory infections within a home is nearly impossible.
   - The sick person should try to avoid very close contact with other family members. That includes hugging, kissing, sitting next to or sleeping in the same bed. None of this is realistic for young children.
   - Older children and adults with symptoms may consider wearing a mask in common household areas.
   - Note to Triager: Many families have limited options. Triagers should individualize their recommendations for isolation after discussing it with the caller.
   - **Isolation Questions for Your PCP:** Home isolation can be complicated. A parent may need to return to work. Someone in the household may be elderly or have a serious medical problem. If you have additional questions, call your doctor during office hours. Your doctor is the best resource for up-to-date information on COVID-19.
8. **COVID-19 - How to Protect Yourself and Family from Catching It - The Basics:**
   - Avoid close contact with people outside your family unit. Avoid closed spaces (indoors) when possible and all crowds (even outdoors).
   - When you must leave your home, wear a mask and observe social (safe) distancing.
   - **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.
   - If your child needs to be seen for an urgent medical problem, do not hesitate to go in. ERs and urgent care sites are safe places. They are well equipped to protect you against the virus. For non-urgent conditions, talk to your doctor's office first.

9. **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 exhaustion.
   - Stay well hydrated.
   - Eat healthy meals. Avoid overeating to deal with your fears.
   - Avoid the over-use of anti-fever medicines. Fever fights infections and ramps up your immune system.

10. **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".
    - **Get outdoors.** Take daily walks. Go to a park if you have one. Being in nature is good for your immune system.
    - **Show love.** 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.
    - **Stay in touch.** Use regular phone calls and video chats to stay in touch with those you love.
    - "2-Household Bubble". To reduce social isolation, especially for young children, some families have joined up with one other family for visits. Rules: Both families must agree that they will not have social contacts with any other families. No one in either family can work outside the home. Not approved by CDC but a reasonable family decision.
11. **How to Protect Others - When You or Your Child are Sick:**

- **Stay Home:** 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. Do Not go to stores, restaurants, places of worship or other public places. Avoid public transportation or ride sharing. Do Not allow any visitors (such as friends). Leave the house only if you need to seek medical care.

- **Cover the Cough:** 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 Personal Household Items:** Don't share glasses, plates or eating utensils.

- **Wear a Mask:** Wear a face mask when around others or if you have to go to a medical facility.

- Carefully avoid any contact with the elderly and people with weak immune systems or other chronic health problems.
12. COVID-19 Testing - Talk with your Health Care Provider:
   • For questions about testing, call your doctor during office hours.
   • The decision is a complicated one.
   • The availability of testing and where to get it can be different for every community.
   • National and state recommendations also continue to change.
   • Diagnostic Tests: These are performed on nasal or mouth secretions and tell us if your child has a COVID-19 infection now. The type of diagnostic tests that are available continues to improve.
   • Diagnostic Tests for COVID-19: Recommended Timing:
     • Symptomatic patients - get a test within 3 days of onset of symptoms.
     • Asymptomatic patients with a COVID-19 close contact - get a test on day 6-8 post exposure. Reason: Testing done during the first 5 days after exposure will usually be negative.
     • Your doctor is the best resource for up-to-date information on diagnostic testing.
   • Antibody Tests: These tests are different. These are performed on blood. They can sometimes tell us if there are antibodies from a previous infection. Discuss if this test would be helpful with your doctor.
   • Timing guideline for Antibody Tests: If indicated, antibody tests are not recommended until at least 2 or 3 weeks have passed since the start of the infection (CDC). Waiting for a few weeks will give the most accurate result (highest positive rate).
   • Note to Triager: Here are some facts that may answer some of the caller's questions:
     • Tests for COVID-19 are mainly done on people who are sick (have symptoms of COVID-19). Tests are usually not done on people who have no symptoms unless they are a close contact.
     • Testing is routinely performed on patients who have serious symptoms or are admitted to the hospital. Testing is not always done on patients with mild symptoms who don't need to be seen.
     • Testing is also helpful for adults who have essential jobs or students who attend in-person school. If they develop symptoms, they should consider testing. A negative test may allow them to return to the work force or school sooner, namely when they no longer have symptoms.
     • Repeat diagnostic tests: After a positive test, repeat tests are not recommended. Even after it is safe to stop isolation (usually 10 days), tests may stay positive for up to 90 days. A positive test does not mean the patient can spread the infection once the required isolation period is completed.
     • In some locations, testing requires a HCP's order.

13. Caller Suspects COVID-19 and Symptoms are Mild:
   • You suspect your child has COVID-19 because it is widespread in your community and your child has developed symptoms that match. Cough, sore throat and fever are the most common symptoms.
   • Your doctor will want to discuss the diagnosis with you and also whether testing would be helpful. Call them during office hours with your questions.
   • From what you have told me, your child's symptoms are mild. They stay that way for most children.
   • Here's some care advice that should help.
14. **Breastfeeding and COVID-19:**
   - Breastfeeding experts recommend you continue to breastfeed even if you are sick with COVID-19. (AAP)
   - Wash your hands before feeding your baby.
   - The CDC recommends wearing a face mask or covering. Be careful to avoid coughing on your baby.
   - Breastmilk gives beneficial antibodies your body is making against this illness to your baby. This should provide some protection against this illness for your baby, like it does for influenza and most other viral illnesses.
   - The virus is probably not passed through breastmilk. The studies are small, so this is not yet known for sure. (CDC)

15. **Call Back If:**
   - Breastfeeding isn't going well
   - Your baby becomes sick

16. **Trusted Sources for Accurate Information - CDC and AAP:**
   - 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.

17. **COVID-19 Outbreak:**
   - Cause: The name of the new virus is SARS-CoV-2.
   - 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 Centers for Disease Control and Prevention (CDC) is considered the source of truth. This continues to be a rapidly changing situation and recommendations from the CDC are being updated daily. See: [https://www.cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

18. **COVID-19 Symptoms:**
   - COVID-19 coronavirus causes a respiratory illness. The most common symptoms are cough and fever. Some patients progress to shortness of breath.
   - Other common symptoms are chills, shivering (shaking), sore throat, muscle pain, headache, loss of smell and taste.
   - The CDC also includes the following less common symptoms: runny nose, fatigue (tiredness), nausea, vomiting and diarrhea.
19. **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. CDC Definition of close contact: within 6 feet (2 meters) for a total of 15 minutes or more over a 24-hour period. Prolonged close contact would extend the risk to the 48 hours prior to the person becoming ill with symptoms.
     - 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 has occurred in most of the US, especially in cities.
     - The CDC ([https://www.cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)) has the most up-to-date list of where COVID-19 outbreaks are occurring.

20. **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, sneezes, shouts or sings. The infected droplets can then be inhaled by a nearby person or land on the surface of their face or eyes. Droplets fall quickly to the floor or ground. This is how most COVID is spread.
   - 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. This is a less common cause of spread.
   - These methods are how most respiratory viruses spread.
   - Aerosols are tiny, invisible particles that can float in the air for 1 to 2 hours. They only occur in a closed room with poor ventilation. Aerosols are a rare cause of COVID-19 transmission. (CDC and WHO). Evidence: within household units, only 30% of contacts get infected.

21. **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](https://www.cdc.gov/coronavirus)
22. **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.
- **No Symptoms but Infected:** Over 30% of infected adult patients have no symptoms (asymptomatic patients). Children and teens are even more likely to have no symptoms. Such patients do however spread the disease and develop protective antibodies (immunity).
- **Mild Infections:** 80% of those with symptoms have a mild illness, much like normal flu or a bad cold. The symptoms usually last 2 weeks.
- **Severe Infections:** 20% of those with symptoms develop 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.
- **Deaths:** Children generally have a mild illness and recover quickly. Pediatric deaths are very rare. Older adults, especially those with chronic lung disease, heart disease, diabetes or weak immune systems, have the highest death rates. The overall death rate for COVID-19 infections is around 0.6%.
- **Vaccine:** There currently is no vaccine to prevent COVID-19. Research is on the fast track in many labs. Safe and effective vaccines may be available by early 2021. Most vaccines will be a two dose regimen, separated by 3-4 weeks. Similar to flu shots, they will probably provide protection for 6-9 months. The first widely available vaccines will only be offered to adults. Reason: Vaccine safety needed to be proven in adults first and vaccine trials on adolescents are just starting. (November 2020)
- **Treatment:** New treatments for severe COVID-19 are becoming available. They are only used on hospitalized patients and are given in a vein (IV).
- **Prevention:** Currently, there is no medicine to prevent COVID-19. Warning: the malaria drug (chloroquine) was studied and found not to be helpful for this disease and had side effects. Social (safe) distancing and face masks are proven to help prevent disease.

23. **Note to Triager - Triage Nurse Should Notify Emergency Department (ED):**
- Tell them you are sending a patient with suspected diagnosis of COVID-19 who is getting worse and inform them of patient's symptoms.
- Reason: So ED can make plans to prevent COVID-19 spread to others in the hospital.
- Also determine the best means of transportation.

24. **First Aid For Stridor:**
- For stridor (harsh sound with breathing in) or constant coughing:
  - Breathe warm mist in a foggy bathroom with the hot shower running for 20 minutes. Other options: a wet washcloth held near the face or a humidifier containing warm water.
  - Caution: avoid very hot water or steam which could cause burns or high body temperatures.
  - If warm mist fails, breathe cool air by standing near an open refrigerator or taking outside for a few minutes if the weather is cold.
- What to Expect. The stridor should go away with warm mist. The cough and hoarse voice won't.
25. **Cover Your Mouth and Nose - Wear a Mask:**
   - Exception: Less than 2 years or face covering increases difficulty breathing.
   - Cover the patient's mouth and nose loosely with a disposable tissue (e.g., Kleenex or paper towel), a washcloth or bandana.
   - Have patient wear a disposable face mask if you have one.
   - Ask for a face mask on arrival.

26. **Announce COVID-19 Diagnosis on Arrival in ED:**
   - Tell the first hospital worker you meet that your child probably has (or does have) COVID-19.
   - Tell them you were referred because of trouble breathing or other serious symptoms.

27. **Tell the Ambulance Dispatcher about COVID-19 Diagnosis:**
   - When you call 911, tell the dispatcher that your child probably has COVID-19.

28. **Tell Ambulance Medics about COVID-19 Diagnosis:**
   - Tell the paramedic right away that your child may have COVID-19.
   - Paramedics should call ahead to the ED to let them know.

29. **Coughing Fits or Spells - Warm Mist and Fluids:**
   - Breathe warm mist (such as with shower running in a closed bathroom).
   - Give warm clear fluids to drink. Examples are apple juice and lemonade. Don't use warm fluids before 3 months of age.
   - Amount. If 3 - 12 months of age, give 1 ounce (30 ml) each time. Limit to 4 times per day. If over 1 year of age, give as much as needed.
   - Reason: Both relax the airway and loosen up any phlegm.
   - What to Expect: The coughing fit should stop. But, your child will still have a cough.

30. **Humidifier:**
   - If the air is dry, use a humidifier in the bedroom (Reason: dry air makes coughs worse).
   - Avoid menthol vapors (Reason: makes coughs worse).

31. **Pain Medicine:**
   - For pain relief, give acetaminophen every 4 hours or ibuprofen every 6 hours as needed. (See Dosage table.)
   - Note to triager about ibuprofen concerns: Discuss only if caller brings up concerns about ibuprofen. Response: The CDC, WHO 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.

32. **Cold or Hot Pack for Ear Pain:**
   - Apply a cold pack or a cold wet washcloth to outer ear for 20 minutes to reduce pain while medicine takes effect.
   - Note: Some children prefer local heat for 20 minutes.
   - Caution: cold or hot pack applied too long could cause frostbite or burn.

33. **Fever Under 3 Months Old - Don't Give Fever Medicine:**
   - Don't give any acetaminophen before being seen.
   - Need accurate documentation of temperature in medical setting to decide if fever is really present. (Reason: may require septic work-up.)
34. **Call Back If:**
   - Your child becomes worse

35. **Wash Your Hands with Soap and Water:**
   - Wash your hands and face frequently with soap and water.

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

37. **Note to Triager: If Available, Refer for Re-Triage by a Physician:**
   - During this pandemic, the medical community is trying extra hard to prevent unnecessary ED referrals of suspected COVID-19 patients. Parents also prefer this. Re- triage by a physician has been shown to reduce ED referrals. Here are some resources that may be available in your community:
     - **PCP telephone re- triage:** Some PCPs (primary care providers) want to provide re-triage before any of their non-emergent patients are referred to an ED. This requires their approval.
     - **ED telephone re- triage:** Some EDs provide a telephone triage service for patients referred in.
     - **Telemedicine re- triage:** Many practices and some hospitals now offer a telemedicine (virtual visit) service. Telemedicine has the highest rate of providing a definitive diagnosis and care without an in-person visit.

38. **Call Back If:**
   - Stridor occurs again
   - Shortness of breath occurs
   - Difficulty breathing occurs
   - Your child becomes worse

39. **Stopping Home Isolation (CDC):**
   - Asymptomatic patients who don't develop symptoms: must stay at home until 10 days have passed since the date the positive COVID-19 test was done (specimen was collected).
   - Repeat diagnostic tests: After a positive test, repeat tests are not recommended. Even after it is safe to stop isolation, tests may stay positive for up to 90 days.
   - If unsure it is safe for you to leave isolation, call your PCP.

40. **Chills, Shivering and Rigors - Treatment:**
   - Shivering occurs when the body needs to raise its core temperature quickly. Shivering generates body heat until the level of fever that the brain needs to fight the infection is reached.
   - Whether or not you take a fever-reducing medicine, here are some ways to stop the shivering:
     - **Blanket.** Wrap the patient in a warm blanket.
     - **Warm bath.** For severe shivering (rigors), the quickest way to get the fever level up is to take a warm bath or shower. Once the fever peaks, the shivering or rigors will stop.
     - **Fluids.** Drink extra fluids to improve hydration and circulation.
41. OTC Cough Medicine - DM:
   • OTC cough medicines are not recommended. (Reason: no proven benefit for children.)
   • Honey has been shown to work better. (Caution: Avoid honey until 1 year old.)
   • If the caller insists on using one and the child is over 6 years old, use one with dextromethorphan (DM).
   • Follow the instructions on the package.
   • Indication: Give only for severe coughs that interfere with sleep, school or work.
   • Don't use under 6 years of age. Reason: cough is a protective reflex.

42. Sore Throat Pain Relief:
   • Here are some tips on treating a sore throat:
     • Age over 1 year: Can sip warm fluids such as chicken broth or apple juice. Some children prefer cold foods such as popsicles or ice cream.
     • Age over 6 years: Can also suck on hard candy or lollipops. Butterscotch seems to help.
     • Age over 8 years: Can also gargle. Use warm water with a little table salt added. A liquid antacid can be added instead of salt. Use Mylanta or the store brand. No prescription is needed.
     • Pain medicine: Use if pain interferes with swallowing. Not needed for mild pain.

43. Sore Throat - Fluids and Soft Diet:
   • Try to get your child to drink adequate fluids.
   • Goal: Keep your child well hydrated.
   • Cold drinks, milk shakes, popsicles, slushes, and sherbet are good choices.
   • Solid Foods: Offer a soft diet. Also avoid foods that need much chewing. Avoid citrus, salty, or spicy foods.
   • Note: Fluid intake is much more important than eating any solid foods.

44. Muscle Pains - Treatment:
   • Here are some tips on treating muscle pains and body aches:
     • Massage: Gently massage any sore muscles.
     • Stretching: Gently stretch any sore muscles.
     • Apply Heat: Use a heat pack, heating pad or warm wet washcloth. Do this for 10 minutes 3 times per day.
     • Warm bath: For widespread muscle pains, consider a warm bath for 20 minutes 2 times a day. Gently exercise the sore muscles under water.
     • Pain medicine: For widespread body aches, give acetaminophen every 4 hours or ibuprofen every 6 hours as needed. (See Dosage table.) Not needed for mild aches.

45. Headache - Treatment:
   • Here are some tips for treating a headache:
     • Pain medicine: Give acetaminophen every 4 hours or ibuprofen every 6 hours as needed. (See Dosage table.) Not needed for mild headaches.
     • Cold pack: Apply a cold wet washcloth or cold pack to the forehead for 20 minutes.
     • Massage: Stretch and massage any tight neck muscles.
46. **Loss of Smell and Taste:**
   - Losing the sense of smell and taste can be an early symptom of COVID-19.
   - It is strong evidence for having COVID.
   - Most of these patients have a mild course.
   - These senses usually return within 1 to 2 weeks.
   - If symptoms persist, it should not delay the end of isolation.

47. **Social (Safe) Distancing and COVID-19 Prevention:**
   - Avoid any contact with people known to have COVID-19 infection. Avoid talking to or sitting close to them.
   - **Social (Safe) Distancing**: Try to stay at least 6 feet (2 meters) 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.
   - **Stay at Home Orders**: 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.
   - **After Stay at Home Orders are Lifted**: Continue social distancing. Also wear a mask when entering any public building or outdoor crowded area. These precautions will be needed for many months. Your state public health department will decide when they are no longer needed.

48. **Face Masks and COVID-19 Prevention:**
   - **Overview**: Face masks are essential for reducing the spread of COVID-19. Masks may be more protective than the future vaccine. They will also reduce the spread of influenza. Wearing a mask means you care about other people.
   - **Recommended Masks**: Made of 2 or more layers of washable, breathable fabric. Completely cover the nose and mouth. Fits snugly under your chin and against the sides of your face. Neck gaiter masks may be less effective (CDC)
   - **Sick patients**: Must always wear a face mask if need to leave the home. Example: for medical visits. Exception: patients with trouble breathing in a mask can consider a loose face covering such as a bandana.
   - **Well people**: The CDC recommends everyone wears a face mask or covering when going outside the home. They are critical if entering a public building, such as a grocery store. Face masks are required by management for entering most businesses. Reason: Many people with COVID-19 have no symptoms but can spread the virus.
   - **Well People Exceptions**: Face mask or covering is optional if outdoors in nature and you can avoid being within 6 feet of other people. Examples: on an outdoor walk or run.
   - **Age Limits**: Face coverings also are not recommended for children under 2 years (CDC).

49. **Asthma - See Additional Guideline:**
   - Note to Triager: For patients with COVID-19 or possible influenza who also have a diagnosis of Asthma, ask: "Are you taking asthma meds to manage any wheezing or coughing?"
   - If yes, they need additional triage and care advice. Use the appropriate Asthma guideline.
50. **Call EMS 911 Now**: Your child needs immediate medical attention. You need to hang up and call 911 (or an ambulance). (Triager Discretion: I'll call you back in a few minutes to be sure you were able to reach them.)

51. **Go To ED Now**: Your child needs to be seen in the Emergency Department immediately. Go to the ED at ____________ Hospital. Leave now. Drive carefully.

52. **Go To ED Now (or PCP Triage)**:
   - **If No PCP (Primary Care Provider) Second-Level Triage**: Your child needs to be seen within the next hour. Go to the ED/UCC at ____________ Hospital. Leave as soon as you can.
   - **If PCP Second-Level Triage Required**: Your child may need to be seen. Your doctor (or NP/PA) will want to talk with you to decide what's best. I'll page the on-call provider now. If you haven't heard from the provider (or me) within 30 minutes, go directly to the ED/UCC at ____________ Hospital.

53. **See HCP Within 4 Hours (or PCP triage)**:
   - **If Office Will Be Open**: Your child needs to be seen within the next 3 or 4 hours. Call your doctor's (or NP/PA) office as soon as it opens.
   - **If Office Will Be Closed and No PCP (Primary Care Provider) Second-Level Triage**: Your child needs to be seen within the next 3 or 4 hours. A nearby Urgent Care Center (UCC) is often a good source of care. Another choice is to go to the ED. Go sooner if your child becomes worse.
   - **If Office Will Be Closed and PCP Second-Level Triage Required**: Your child may need to be seen. Your doctor (or NP/PA) will want to talk with you to decide what's best. I'll page the on-call provider now. If you haven't heard from the provider (or me) within 30 minutes, call again. **Note**: If on-call provider can't be reached, send to UCC or ED.

54. **See PCP Within 24 Hours**:
   - **If Office Will Be Open**: Your child needs to be examined within the next 24 hours. Call your child's doctor (or NP/PA) when the office opens, and make an appointment.
   - **If Office Will Be Closed and No PCP (Primary Care Provider) Second-Level Triage**: Your child needs to be examined within the next 24 hours. A clinic or urgent care center is often a good source of care if your doctor's office is closed or you can't get an appointment.
   - **If Office Will Be Closed and PCP Second-Level Triage Required**: Your child may need to be seen within the next 24 hours. Your doctor (or NP/PA) will want to talk with you to decide what's best. I'll page the on-call provider now. **Note**: Between 10 pm and 7 am, hold the page since this isn't serious. Page the on-call provider in the morning.
   - **If Patient Has No PCP**: Refer patient to a clinic or urgent care center. Also try to help caller find a PCP (medical home) for their child.

55. **See PCP Within 3 Days**:
   - Your child needs to be examined within 2 or 3 days. Call your doctor (or NP/PA) during regular office hours and make an appointment. **Note**: If office will be open tomorrow, tell caller to call then, not in 3 days.
   - **If Patient Has No PCP (Primary Care Provider)**: Refer patient to an urgent care center or clinic. Also try to help caller find a PCP (medical home) for their child.
56. **See PCP Within 2 Weeks:**
   - Your child needs an evaluation for this ongoing problem within the next 2 weeks. Call your child's doctor (or NP/PA) during regular office hours and make an appointment.
   - **If Patient Has No PCP (Primary Care Provider):** Refer patient to an urgent care center or primary care clinic. Also try to help caller find a PCP (medical home) for their child.

57. **Follow-Up:** Discuss ________ with your child’s doctor at the next regular office visit. (Call sooner if you become more concerned.)

58. **Home Care:** You should be able to treat this at home.

59. **Call PCP Now:** You need to discuss this with your child’s doctor (or NP/PA). I'll page the on-call provider now. If you haven't heard from the provider (or me) within 30 minutes, call again.

60. **Call PCP Within 24 Hours:** You need to discuss this with your child’s doctor (or NP/PA) within the next 24 hours.
   - **If Office Will Be Open:** Call the office when it opens tomorrow morning.
   - **If Office Will Be Closed:** I'll page the on-call provider now. Exception: From 9 pm to 9 am. Since this isn't urgent, we'll hold the page until morning.

61. **Call PCP When Office Is Open:** You need to discuss this with your child’s doctor (or NP/PA) within the next few days. Call the office when it is open.

80. **Lab Test Confirmed COVID-19 AND Symptoms are MILD:**
   - Your child had a lab test for COVID-19 and it came back positive. The diagnosis has been confirmed.
   - From what you have told me, your child's symptoms are mild. They stay that way for most children.
   - You don't need to see your doctor unless your child develops trouble breathing or becomes worse in any other way.
   - Here's some care advice that should help.

81. **Multisystem Inflammatory Syndrome (MIS-C):**
   - MIS-C is a very, very rare complication of COVID-19. In general, COVID-19 continues to be a mild disease in children.
   - The most common symptoms are fever, a red rash, abdominal pain and diarrhea or vomiting. Half of the patients develop trouble breathing. Some children become confused or overly sleepy. Always has multiple symptoms.
   - Onset of symptoms: Usually about 4 weeks after a COVID-19 infection and apparent recovery.
   - Peak age: 8 years. Age range: 6 months to 21 years.
   - Treatment: MIS-C is treatable with medications, including IV immune serum globulin.
   - If a child gets this rare complication, a parent will know that their child needs to see a doctor. Patients with MIS-C need to be admitted to the hospital.
   - At this time, it cannot be prevented nor predicted.
82. **Flu Vaccine:**
- Protect your family from influenza by getting your annual flu vaccine.
- This year is more important than any.
- Reason: Getting COVID-19 while you also have or are recovering from the flu may increase the chances of getting severe symptoms.

83. **Warm Mist:**
- Before going in to be seen, breathe warm mist in a foggy bathroom for 10 minutes (Note: may also help severe croupy cough).
- Then inhale warm mist from a wet washcloth while driving in (if this is practical).

84. **How to Protect Others When You or Your Child are Sick:**
- **After You are Seen - Stay Home:** Stay home if you are sick. If you are sick, you are contagious to others. At your medical visit, your provider will discuss home isolation timeframes.
- **Do NOT go to School or Work:** Do Not go to stores, restaurants, places of worship or other public places. Avoid public transportation or ride sharing.
- **Avoid Visitors:** Do Not allow any visitors (such as friends). Leave the house only if you need to seek additional medical care.
- **Wear a Mask:** Always wear a face mask if you have to leave your home. Also try to maintain safe distancing from others (6 feet).
- **Cover the Cough:** 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.

85. **Note to Triager - Contacting the PCP on Weekends and Holidays:**
- On these days, page the on-call PCP during the day up until 5 PM.
- After 5 PM, page them the next morning after 8 AM.
- Reason: if antivirals are needed, it is best to start them within 48 hours.

86. **Prescription Antiviral Drugs For Influenza:**
- Antiviral drugs (such as Tamiflu) can be helpful for treating the influenza virus.
- The benefits are limited: Tamiflu usually reduces the time your child is sick by 1 to 1.5 days. It reduces the symptoms, but does not make them go away.
- To be helpful, antiviral drugs (such as Tamiflu) should be started within 48 hours of the onset of flu symptoms. If the flu symptoms or fever started more than 48 hours ago, they are not useful. (Exception: children with severe disease).
- Tamiflu also can have side effects: Vomiting in 10% of children.
- Most normal children do not need an antiviral drug.
- The CDC recommends they be used for: [1] any patient with severe symptoms AND [2] for most High-Risk children with underlying medical problems (see that list).
- The CDC doesn't recommend antiviral drugs for Low-Risk children with normal influenza. These children recover with supportive care of their symptoms.
- Also, it is not used to prevent flu. Reason: You would need to take the medicine every day for months.
87. **High-Risk Children For Complications Of The Flu:**
   - Lung disease (such as asthma)
   - Heart disease (such as congenital heart disease)
   - Neuromuscular disease (such as muscular dystrophy, epilepsy)
   - Cancer or weak immune system conditions
   - Diabetes, sickle cell disease, kidney disease or other chronic disease
   - Diseases requiring long-term aspirin therapy
   - Pregnancy
   - Morbid Obesity (BMI > 40)
   - Healthy children under 2 years old are also considered **High-Risk** (Reason: higher rate of pneumonia and hospitalization)
   - Note: All other children are referred to as **Low-Risk** in this guideline (not High-Risk)

88. **Exposure of High-Risk Patient:**
   - If the child with flu symptoms lives with a **High-Risk** person (such as a sibling or adult with a chronic disease, persons under 2 years or over 65 years, a pregnant woman, etc), the family needs to call the **High-Risk** patient's HCP within 24 hours. (Reason: may need anti-viral medication.)

89. **Observation During Sleep:**
   - Sleep in the same room for a few nights. Reason: Stridor can progress to difficulty breathing and can get worse at night.

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**FIRST AID**

N/A

**BACKGROUND INFORMATION**

**COVID-19 Symptoms**

COVID-19 should be suspected in people who have 1 or more of the following:

- Cough
- Shortness of breath (difficulty breathing)
- Fever or chills
- Loss of smell or taste
- Muscle or body aches
- Headache
- Sore throat
- Runny nose (not from allergies)
- The CDC also includes the following less common symptoms: fatigue (tiredness), nausea, vomiting and diarrhea. In isolation, these symptoms (such as diarrhea) are not very helpful for recognizing COVID-19. Reason: Too common, multiple causes and sometimes subjective. For example, mild diarrhea is often caused by a change in the diet.
- "COVID Toes": Reddish or purple toes have been reported as a rare finding. They can occur alone and go away without treatment. Or they can occur 1-2 weeks after the more common symptoms.
- **Multisystem Inflammatory Syndrome (MIS-C)**: A small number of children present with symptoms similar to Kawasaki's disease. See complete description below.
Multisystem Inflammatory Syndrome (MIS-C)

- MIS-C is a rare and sometimes severe complication associated with COVID-19. The most common symptoms are fever, a red rash, red eyes, abdominal pain and diarrhea or vomiting. Half of the patients develop trouble breathing and shortness of breath. Some children become confused or overly sleepy. Always has multiple symptoms. All patients suspected of having this syndrome should be seen by a doctor. Most need to be admitted to the hospital. Some cases are similar to Kawasaki’s Disease (KD), but MIS-C is a more serious condition.
- Onset of symptoms: Usually about 4 weeks after COVID-19 infection and apparent recovery.
- Peak age: 8 years. Age range: 6 months to 21 years.
- Treatment: MIS-C is treatable with medications, including IV immune serum globulin (ISG). At this time, it cannot be prevented nor predicted.
- Reassurance: If a child gets this rare complication, a parent will know that their child needs to see a doctor.

High-Risk Children for Complications with Influenza (also with COVID-19)

- Significance: HIGH-RISK children also are the main patients who may need prescription anti-viral medications when they develop influenza.
- Lung disease (e.g., asthma, cystic fibrosis, bronchopulmonary dysplasia)
- Technology-dependent lung disease (e.g., oxygen required, tracheostomy, ventilator)
- Compromised ability to handle respiratory secretions (e.g., spinal cord or brain injury)
- Heart disease (e.g., congenital heart disease, rheumatic heart disease)
- Neuromuscular disease (e.g., muscular dystrophy, cerebral palsy, epilepsy)
- Metabolic disease (e.g., diabetes mellitus)
- Sickle cell disease
- Renal disease (e.g., nephrotic syndrome, renal dialysis)
- Liver disease (e.g., liver failure, chronic hepatitis)
- Down syndrome
- Compromised immune system (e.g., cancer, chemotherapy, HIV/AIDS, transplant, taking oral steroids)
- Diseases requiring long-term aspirin therapy (e.g., Kawasaki’s disease and rheumatoid arthritis)
- Pregnancy
- Morbid Obesity (BMI > 40)
- Healthy children under 2 years old are also considered HIGH-RISK. Reason: higher rate of pneumonia and hospitalization.

High-Risk Children: Possible Exceptions

- The current HIGH-RISK list includes over 20% of children because 10% of children are under 2 years of age and 10% of children have asthma.
- To reduce unnecessary prescribing of Tamiflu, our call center and ED have decided to exclude children who only have exercise-induced asthma or cough-variant asthma. We have also excluded any child with asthma who has not needed to use any asthma medications within the last year. The latter would indicate that they have very mild intermittent asthma.
- Each call center and medical advisory group will need to decide if certain conditions will not be included in the HIGH-RISK group.

Flu without Fever
Influenza can sometimes occur without fever.

However, fever remains a valuable aid in triage, and without it the telephone diagnosis of suspected flu could double or triple (because it would include many children with the common cold or very mild cases of influenza). That would overwhelm the health care delivery system.

Premise: anyone who has flu without a fever has a very mild case of the infection and doesn't need anti-viral medications. (Exception: immune-suppressed individuals who may not be able to mount a febrile response).

Our call center has decided to exclude children who may have flu respiratory symptoms but do not have a fever. Each call center will need to make their own decision.

Child Abuse During the COVID-19 Pandemic

- Social isolation combined with the financial crisis has caused unremitting stress for many parents.
- Young children often become irritable and demanding when confined to the home.
- These factors have increased the rate of angry outbursts and child abuse.
- Triagers need to be alert for calls about bruises or other injuries that are suspicious, unexplained or occur in the first year of life.
- They also need to offer help to families in crisis before they reach the breaking point. Be prepared.
- Know where to refer at-risk families.
- National Alliance on Mental Health (NAMI) Helpline: 1-800-950-6264. This is an information and referral source for locating community mental health programs.
- Domestic Violence Hotline: 1-800-799-7233
- Child Abuse: Call the Child Abuse Reporting Hotline in the county where the child lives. The number can also be obtained by calling 911.
- See the Psychosocial Problems, Child Abuse or Domestic Violence guidelines for details.

COVID-19 Outbreak

- Cause: The name of the new virus is SARS-CoV-2.
- An outbreak of this new viral 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 Centers for Disease Control and Prevention (CDC) is considered the source of truth for this guideline. This continues to be a rapidly changing situation and recommendations from the CDC are updated daily.
- See: https://www.cdc.gov/coronavirus

COVID-19 - Other 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.
- **No Symptoms but Infected:** Over 30% of infected adult patients have no symptoms (asymptomatic patients). Children and teens are even more likely to have no symptoms. Such patients do however spread the disease and develop protective antibodies (immunity).
- **Mild Infections:** 80% of those with symptoms have a mild illness, much like normal flu or a bad cold. The symptoms usually last 2 weeks.
- **Severe Infections:** 20% of those with symptoms develop 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.
• **Deaths:** Children generally have a mild illness and recover quickly. Pediatric deaths are very rare. (CDC) Older adults, especially those with chronic lung disease, heart disease, diabetes or weak immune systems, have the highest death rates. The overall death rate is around 0.6%.

• **Vaccine:** There currently is no vaccine to prevent COVID-19. Research is on the fast track in many labs. Safe and effective vaccines may be available by early 2021. Most vaccines will be a two dose regimen, separated by 3-4 weeks. Similar to flu shots, they will probably provide protection for 6-9 months. The first widely available vaccines will only be offered to adults. Reason: Vaccine safety needed to be proven in adults first and vaccine trials on adolescents are just starting. (November 2020)

• **Treatment:** New treatments for severe COVID-19 are becoming available. They are only used on hospitalized patients. For example, Remdesivir is an antiviral medication that can be given IV. Dexamethasone is a steroid that improves outcomes. Plasma therapy is a transfusion of antibody-rich plasma from a donor who has recovered from COVID-19. It is given IV. Warning: The malaria drug (chloroquine) was studied and found not to be helpful for this disease. It also had cardiac side effects.

• **Prevention:** Currently, there is no medicine to prevent COVID-19. Social distancing and face masks have been proven to help prevent the disease.

**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.
  • Close contact with a person diagnosed by their HCP as a suspected COVID-19 patient.
  • CDC Definition of close contact: within 6 feet (2 meters) for a total of 15 minutes or more over a 24-hour period. Prolonged close contact would extend the risk to the 48 hours prior to the person becoming ill with symptoms.
  • 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 has occurred in most of the US, especially in cities.
  • The CDC ([https://www.cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)) 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 face or eyes. Droplets fall quickly to the ground or floor.
  • 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.
  • Aerosols (tiny airborne particles) can float in the air for 1 to 2 hours. They only occur in a closed room and are a rare cause of COVID-19 transmission (CDC and WHO). Evidence: within household units, only 30% of contacts get infected.

**Animals and COVID-19**

• The main way COVID-19 spreads is from person to person. There is low risk of getting COVID-19 from a pet or other animal.
  • It is possible for animals to catch COVID-19 from people. A few pets have tested positive for
COVID-19 (including cats and dogs).
- The CDC recommends treating pets like other family members when trying to avoid spreading COVID-19. Do not let pets have close contact with other people or animals outside your household. A sick person should self-isolate and avoid contact with both people and pets.
- Call your vet if your pet gets sick or you have other questions.
- The CDC has more information on COVID-19 and animals at: https://www.cdc.gov/coronavirus.

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.

COVID-19 and Repeat Infections
- Most viral infections cause our immune system to create antibodies that protect us from getting that infection again from the exact same strain of virus.
- Sometimes this provides lifelong protection, but sometimes that protection only lasts a few months or years.
- Experts have not seen people who have COVID-19 get sick with COVID-19 a second time. Research about how long protection against COVID-19 lasts is ongoing.
- For now, it remains important for people who have recovered from COVID-19 to be careful. Take normal precautions such as wearing a mask and social distancing.
- CDC website on re-infection: "Clinical recovery has been correlated with the detection of IgM and IgG antibodies which signal the development of immunity. However, the possibility of re-infection after full recovery requires more data".

Ibuprofen and 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 media.
- 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

• American Academy of Pediatrics: http://www.healthychildren.org

Expert Reviewers of Original COVID-19 Guideline (March 2020) and all 4 Updates

• Jessica Cataldi, MD, 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
• Ann-Christine Nyquist MD, MSPH, Sections of Infectious Disease and Epidemiology, Children’s Hospital Colorado, Aurora, CO
• Lisa M. Koonin DrPH, MN, MPH. Senior Advisor in support of the CDC COVID-19 Response. Centers for Disease Control and Prevention (CDC).

Special Reviewers of November 2020 COVID-19 Update

• Bonnie Offit MD, Digital Health, Children’s Hospital of Philadelphia
• Randy Sterkel, MD, Medical Director, Pediatric Call Center, St Louis Children’s Hospital
• Debra Weiner, MD, PhD, Emergency Medicine, Boston Children's Hospital

REFERENCES


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