

Pandemic Plan for the Church

Ministering to the Community in a Time of Crisis

Caring for the Sick

Part Two

Disclaimer

The objective of this document is to provide instructions to care for the sick in the event of such a pandemic. It is not meant to take the place of actual medical advice from a healthcare professional. To reiterate, **this information is for educational purposes only and does not constitute professional medical advice or diagnosis.**

Risks to Consider

This section by no means is a substitute for professional medical help. This advice is written with regards to a pandemic with the cataclysmic effects of the 1918 Influenza. Today we are blessed with a robust healthcare system that can be easily accessed. However, if such an event took place, the healthcare system would be overwhelmed. This is meant as guidance and not meant to take the place of a professional healthcare provider. Although this section covered the caring for those that are sick, please be sure to incorporate the proper protection measures explained in the section “Infection Control.”

As described in the section, “The Role of the Church in a Pandemic,” it was clearly stated that Christianity grew through disasters when Christians took care of their neighbors and shared the hope of the gospel of Jesus Christ. Caring for the sick is a ministry that Christ exemplified and calls us to perform. Jesus said caring for one of these is as though caring for Himself (Matthew 25:34-40). However, calling on Christians to care for people in a pandemic situation is asking them to put their own lives at risk dependent on the lethality of the circulating virus. A deep, personal conviction must be present to serve in this manner.

Caring for the Sick

Studies have shown that even basic health care such as adequate water, food, and warmth can result in a much higher percentage rate of survival from a disease. During the 1918 Influenza, it was determined that many died simply because there was no one to look after the sick and provide them these basic essential needs.

Until an actual pandemic occurs and the pathophysiology (the progression of the disease in the human body) is determined, the elements of caring for the sick may change dependent on the process of the disease. This section will be based on caring for a person with seasonal influenza with complications of fever, cough, pneumonia, nausea, vomiting, and dehydration. All

similar symptoms of the HPAI H5N1. For more information on preventing a cytokine storm that can cause acute respiratory distress, please see the section “Preventing a Cytokine Storm.”

Please keep in mind personal protective equipment (PPE) should be worn at all times when caring for a loved one at home or assisting in an alternative care facility. For more information on PPE, please see the section “Personal Protective Equipment” in the document titled “Infection Control.”

Treatment for Fever

The body’s normal body temperature is orally 98.6° F (37°C) or 99°F (37.2°C) rectally. These temperatures can vary as much as 1° F (0.6°C) throughout the day. Please keep in mind that these are average body temperatures, and someone’s normal temperature may actually be above or below that of the average.

Fever is the body’s defense mechanism to fight bacteria or viruses that cannot live in higher temperature. A fever is not considered significant unless it is above 100.4° F (38°C). For low grade temperatures, fevers should be left untreated. A fever can last up to three to four days, come and go, and then gradually go away. This is not cause for concern and should be considered as part of the healing process. However, if other symptoms such as trouble breathing; stiff neck; lethargy; chest pain; delirium; or seizures occur; contact your healthcare provider immediately.

The average person can tolerate fevers well; however, a fever of 104°F (40°C) or higher requires treatment and medical advice, especially in children and infants. If you are normally in good health, the illness and fevers should resolve in a few days. However, it is advisable to consult a healthcare provider for a fever that is persistent, lasts for an extended period, is particularly high, or is accompanied by other severe symptoms.

Antipyretic Medications

Fever is often accompanied by the release of chemical messengers in the body, such as prostaglandins. Antipyretic drugs such as nonsteroidal anti-inflammatory drugs (NSAIDs) and aspirin can help reduce fever by influencing an enzyme that can inhibit the synthesis of prostaglandins. This process can also help alleviate associated aches and pains that may occur with a fever.

NSAIDs medications include ibuprofen, (Advil, Motrin) and Naproxen.

- Dosages can vary depending on whether the medication is for an adult or a child. For children, dosing is often determined by weight.
- Taking an NSAID with food may help minimize the chance of stomach upset.
- In some cases, particularly with difficult-to-control fevers in children, healthcare providers may suggest alternating between ibuprofen and acetaminophen (Tylenol). It is important to consult a pediatrician before using this method.

- If using a product for cold or flu symptoms, check the label carefully to ensure it does not also contain ibuprofen to avoid taking too much
- Common side effects that may occur with NSAIDs include nausea, stomach pain, gas, headache, and dizziness. If you have concerns about potential side effects, it is recommended to speak with a healthcare provider
- Depending on the NSAID you choose, read the label carefully for dosing
- Do not use ibuprofen in children who are less than six months old unless your child's doctor instructs you to.
 - Measuring the dose for children is usually done in metric units. It is easier to give the right amount. Consider using a syringe than a kitchen teaspoon. If the box does not come with one, ask your pharmacist.

Aspirin (acetylsalicylic acid) is an effective fever reducer for adults, Aspirin, like NSAIDs, works by interfering with the body's natural inflammatory process and blocks the production of prostaglandins.

- Common side effects are stomach upset, heartburn, nausea, and vomiting. Taking it with food can help avoid these. Adults should not take aspirin if they have an aspirin sensitivity, a history of gastrointestinal bleeding, asthma or nasal polyps, kidney or liver disease.
- Do not give aspirin to children less than eighteen years of age as it can cause Reye's syndrome (a rare but serious disease affecting the liver and brain).
- For adults - 325mg-650mg every four to six hours as needed. Do not take more than 4,000 mg in 24 hours.

Acetaminophen (Tylenol) works by affecting the brain's temperature-regulating center in the hypothalamus.

- When taken as directed, acetaminophen is generally considered safe. However, taking too much can cause serious side effects, primarily liver damage. Avoid exceeding the maximum daily dose. Avoid taking it more than five days in a row without consulting a doctor.
- Common side effects include nausea and vomiting, stomach upset, constipation, and rash.
- Adults – 325mg-500mg tablets, take one to two tablets every four to six hours.
- Children – 10-15 mg/kg every four to six hours (maximum 65mg/kg/day).

If you use a product for cold or flu symptoms, check the label carefully to ensure it does not also contain acetaminophen to avoid taking too much. Large doses can cause liver damage.

- Follow label for dosing.
 - Do not give any medication to babies before consulting your pediatrician.
 - Always refer to medication labels when administering to children or infants

Non-pharmaceutical Ways of Treating a Fever

- Drink plenty of liquids – dehydration comes easily with fevers.
- Make sure patient gets plenty of rest.
- Keep room temperature at about 70° to 74°F.
- Keep cool, loose, comfortable clothes on patient to prevent trapping of body heat.
- Allow child to have a blanket but remove it when chills stop.
 - Shivering can actually raise the body temperature
- If fever is high:
 - Consider a lukewarm bath to help lower temperature.
 - Give antipyretic medications before the bath
 - If a bath is not an option, press damp wash cloths on the face, chest, back, wrists or legs.
 - Ensure the patient doesn't get chilled by covering them with a light weight blanket.
 - Be careful not to allow temperature change to happen too quickly as this can induce seizures.

Antibacterial medications may be needed as well as an antiviral medication to treat any condition that has developed such as bacterial pneumonia.

When to Seek Medical Care for a Fever

Most fevers resolve when treated at home. However, professional medical treatment should be sought if any of the following occur:

- A child younger than 3 months with a 100.4°F (38°C) or higher fever
- 3 to 24 months old with 102°F (38.9°C) or higher fever that lasts more than a day
- Any child with fever who is listless, irritable, or vomiting repeatedly
- An adult with a 103°F (39.4°C) or higher fever

Dehydration often accompanies fevers. You should seek medical attention if the following arise:

- Dizziness when standing
- No urination
- No tears in infant when crying
- Seizures
- Altered mental status, confusion, or less responsive

Treatment for Cough

A cough is our body's way of removing mucus from our lungs and throat. Productive coughs are useful and should be encouraged to eliminate the mucus. However, coughs can cause breathing problems and keep the patient from resting.

- Cough remedies include:
 - Decongestants
 - Relieve nasal congestion and dry up mucus in the lungs
 - Active ingredients: phenylephrine and pseudoephedrine
 - May increase blood pressure
 - Overuse can trigger a dry cough
 - Expectorants
 - Help thin mucus to aid in coughing it up more easily
 - Active ingredient: guaifenesin
 - Suppressants
 - Use only if the patient's chest hurts and they are not getting rest, best to use only at night
 - Active ingredient: dextromethorphan
- Do not give cough medicine to children under the age of four. Please contact your pediatrician for advice on cough remedies.

Some non-pharmaceutical to soothe coughs include:

- The use of a humidifier to add moisture, loosen secretions, and prevent dry coughs.
- Cough drops to soothe an irritated throat
 - Avoid cough drops in children under six years of age due to choking risk
- Gargle with salt water to reduce throat irritation

- Drink warm drinks
 - Tea or broth
- Honey is highly effective to soothe a sore throat
 - Do not give honey to children under one year of age, clostridium bacteria may cause infant botulism
- Drink additional fluids to help thin mucus
- Avoid smoking and cigarette smoke

Seek medical attention if you have these symptoms with your cough:

- Shortness of breath
- Coughing up blood, bloody mucus, or pink foamy mucus
- Coughing up green, tan, or yellow mucus
- Fever, chills, or chest pain when you breathe deeply

Seek medical attention if you have a sore throat with any of these symptoms:

- Lasts longer than a week
- Severe pain
- Trouble swallowing
- Fever over 103 F in adults
- Swollen glands
- White patches on your throat or tonsils
- Rash

These signs and symptoms may indicate a bacterial infection that can be treated with antibiotics. They may also indicate other conditions that require other treatments.

How to Prevent Acute Respiratory Distress Caused by a Cytokine Storm

A cytokine storm is a severe complication of certain infectious diseases including seasonal influenza, COVID-19, and HPAI H5N1. It causes severe, systemic inflammation leading to rapid-onset symptoms, including high fever, severe fatigue, headache, dizziness, vomiting, diarrhea, and muscle/joint pain. Other signs and symptoms are rapid heartbeat, and low blood pressure. It can also show as skin rashes, difficulty swallowing, and severe cases may lead to life threatening respiratory, cardiovascular, or organ failure. For more information on how to prevent a cytokine storm, please see the document and PowerPoint presentation titled “How to Prevent ARDS.”

Treatment for Nausea and Vomiting

Nausea is a sick feeling in the stomach that precedes vomiting. Vomiting is the body forcibly expelling the contents of the stomach. The causes of these can vary; however, this context is treating the complications of influenza and other viruses.

Some home treatments for nausea and vomiting include:

- Drinking clear liquids
 - Water
 - Ginger ale
 - Fruit juices
- Avoid milk and dairy products
- Avoid solid foods until vomiting has passed
- Eat a BRAT Diet of foods that are low-fat and easy to digest
 - Bananas
 - Rice
 - Apple sauce
 - Toast
- Eat small meals throughout the day; eat slowly
- Crackers
- Avoid hard to digest (meats) or fatty foods

Over the counter remedies include:

- Pepto-Bismol – coats inside of stomach and relieves feeling of nausea
- Dramamine
- Emetrol – relaxes stomach muscles and calms stomach activity (not for diabetics)
- Kaopectate
- Ginger
- Peppermint oil

For breast fed babies, breast milk is recommended. For formula fed babies, clear liquids are recommended.

Usually vomiting is harmless unless there are complications. If the following complications arise, contact your healthcare provider:

- Home treatment is not working and dehydration is present.
- Vomiting and diarrhea last more than twenty-four hours with signs of dehydration.
- If an infant or child under six years show signs of dehydration, fever is present, and there is no urine output for six hours.
- There is blood in the vomit (frank blood or appearance of coffee grounds).
- Lethargy, altered mental status.
- Severe abdominal pain.

Treatment for Diarrhea

Diarrhea or loose bowel movement usually does not last long, unless it is caused by an infection. It is the body's way of expelling an infection. Giving medications to stop the diarrhea may interfere with body's natural mechanisms. However, if the diarrhea is severe, and dehydration develops, then treatment should take place. If there is blood or mucus in the stools, then seek medical attention.

Most viruses are found in feces, and can even be spread by touching the feces and not properly washing your hands. This can easily be done when changing a diaper, or using the bathroom. Be sure to use good hand hygiene when helping someone with diarrhea. Ensure the patient practices good hygiene as well.

In many cases of diarrhea, replacing fluids and salts lost is the only treatment needed. This may be done by oral rehydration solutions, or if necessary intravenous fluids.

Eating a diet of foods that are low-fiber, and binding in nature will help reduce stool frequency. A BRAT diet is recommended, it contains:

- Bananas
- Rice
- Apple sauce
- Toast
-

Over the counter remedies for diarrhea include:

- Kaopectate
- Immodium
- Pepto-Bismol

When taking these medications, only take the amount recommended. Do not use more than one anti-diarrheal remedy at the same time.

Treatment for Dehydration

We lose water every day in our sweat, urine, and when we talk and exhale. This is replaced daily with fluids. However, if the amount of water lost outweighs what we take in – dehydration can occur. Dehydration can lead to death.

Most causes of dehydration in adults are fever, heat exposure, exercise, vomiting and diarrhea. The best way to treat dehydration is to avoid it. Encourage the sick person to increase their intake of fluids. Remember that diabetics are more at risk for dehydration. Avoid alcohol consumption as this increases water loss. Signs and symptoms of dehydration include:

- Headache
- Increased thirst
- Dry mouth
- Weakness/dizziness
- Swollen tongue
- Increased heart rate
- Confusion
- Decreased urine output
- Color of urine is a dark yellow or amber color
- Hypotension (low blood pressure)
- Seizure

Children are at greater risk in developing dehydration, in addition they may not be able to communicate their symptoms – you must be aware of the signs. In children signs of dehydration are:

- Dry lips and mouth
- Sunken eyes
- Rapid breathing
- Rapid pulse
- Decreased urination (dry diapers)
- Sunken fontanelles
- Increased irritation
- Poor skin turgor (pinching the skin on the back of the hand, and it does not return to its original state)

Encourage those who are dehydrated to take in more fluids. Some ways to increase fluids are:

- Sipping small amounts of water
- Popsicles, especially those made from fruit juice
- Sucking on ice chips (may be useful for those who are nauseated)
- Carbohydrate/electrolyte drinks such as Gatorade, PowerAde, and Pedialyte
- Clear broths
- Jello

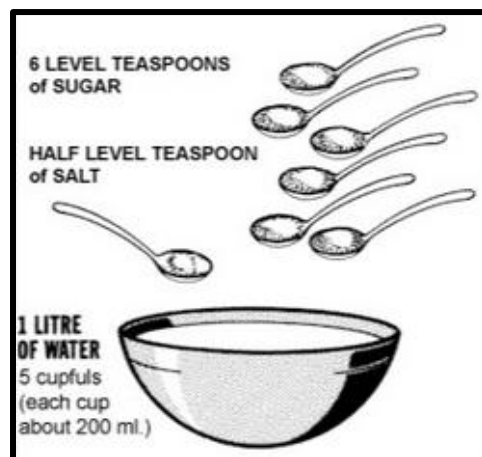
Oral Rehydration Solutions

Although water is necessary it does not contain the salts and electrolytes that are essential to body function

Oral rehydration solutions (ORS) are a way to replace fluids and nutrients lost through vomiting and diarrhea. It comes in several forms including a powder that can be mixed with water or already mixed in liquid form. Some ORS include Pedialyte, Ricelyte, and Rehydralyte. If you don't have access to these at your local grocery store you can mix up an ORS at home.

WHO and UNICEF jointly maintain guidelines for the manufacture of ORS and preparations. Commercial preparations are available as either pre-prepared fluids or packets of (ORS) ready for mixing with fluid. A basic ORS is composed of salt, sugar, and water in solution, made using a standard ratio and is appropriate for use in situations when ORS must be prepared without the standard ingredients. This ORS does not contain potassium, by adding a cup of orange juice, or if the patient can eat a banana it will add this essential element to the mix.

- 30 ml sugar: 2.5 ml salt: 1-liter fluid
- 6 teaspoons sugar: 0.5 teaspoon salt: 1-quart fluid



If the patient is vomiting, try giving small amounts of the ORS often, such as one teaspoon every minute. When the patient is able to keep liquids down, have them drink the solution slowly, then increase how much you give.

By monitoring urine output, you can determine if the rehydration is successful. Medications may be used to prevent nausea, vomiting, and diarrhea. Intravenous fluids may be necessary if the patient is not able to replace fluids.

When to Seek Emergency Care

This document is written for the event of a pandemic when caring for the sick will have to be performed without the aid of healthcare providers. It will be expected that the healthcare system will be overwhelmed, and non-emergent patients will not be as readily addressed as in today's setting. Please be reminded this information is for a pandemic event, and is not meant to provide medical advice. Get medical attention right away if any of the following signs or symptoms arise for the patient:

- Chest pain
- Difficulty breathing
 - Fast breathing
- Bluish or gray discoloration of the lips or skin
- Uncontrolled vomiting
- Uncontrolled diarrhea
- Dehydration that results in:
 - Dizziness when standing
 - No urination
 - No tears in infants when crying
- Seizures
- Altered mental status, confusion, or, less responsive