



# Pandemic Plan for the Church

## *Ministering to the Community in a Time of Crisis*

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### 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 of 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 a disease in the human body) is determined, the elements of caring for the sick may change depending on the process of the disease. For more information on the pathophysiology of the existing avian and corona influenzas please see the sections titled “Pathophysiology” of each in their respective chapters. This section will be based on caring for a person with seasonal influenza with complications of fever, nausea, vomiting, pneumonia, and dehydration. 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 chapter titled “Infection Control.”

This section by no means is a substitute for professional medical help. The objective of this section is to strictly provide instructions to care for the sick in the event of a pandemic. It is not meant to take the place of actual medical advice from a healthcare professional. To reiterate, **this document is written for the sole purpose of providing care during a disaster or pandemic event.** At such a time it will be expected that the healthcare system will be overwhelmed, and prompt medical attention will not be readily available. **This information is not meant to provide medical advice. Please seek medical attention if any of these signs and symptoms arise.**

### How to Protect Yourself

If a vaccine is available, consider becoming vaccinated against the circulating strain. However, it is expected that if a pandemic were to arise, it could take months for an effective vaccine to be developed, manufactured, and distributed. Due to this, below are listed other non-pharmaceutical ways to protect yourself and others are:

- Avoid touching your face.
- Cover your nose and mouth with a tissue when you cough or sneeze, throw the tissue away in a waste basket.
- If a tissue is not available, cough or sneeze into the sleeve of your bent elbow.
- Good hand hygiene – wash your hands often with soap and water, especially after you sneeze or cough.

- Use disposable paper towels for hand washing, or designate cloth towels to family members.
- Use an alcohol-based hand rub if soap is not available.
- Instruct others to use good sneeze and cough etiquette.
- Avoid being close up and face to face with someone who is sick – try to keep a six-foot distance between you and the patient.
- Place the chin of a small child on your shoulder in case they cough or sneeze.
- Contact your healthcare provider about taking antiviral medication for both the patient and you.
- Wear a facemask or respirator.
- Place a facemask on the patient as well.
- If possible, avoid having someone with increased risks to be a caregiver, such as a pregnant woman.
- If possible, have only one member in the household be the care giver.
- Ensure good ventilation in common areas of the house, open windows in kitchen, living areas, and bathrooms.
- Do not have sick people provide care for infants, children, or the elderly.
- Stay healthy yourself, eat good foods, drink plenty of fluids, and get ample rest.
- Monitor yourself and family members for flu symptoms and follow up with your healthcare provider.
- Form these habits now.

## **Prescription Medications**

Antiviral medications don't cure influenza but can sometimes help lessen flu symptoms; they also require a prescription. Most people do not need antiviral drugs to fully recover from the flu; however, some people are at a higher risk to develop complications. These people may benefit from antiviral medications. Antiviral medications are available for persons one year of age and older. Ask your healthcare provider whether you need this type of medication.

However, as discussed in an earlier section, the avian influenzas, H5N1, H3N2, and other influenza A viruses have shown resistance to neuraminidase inhibitor antiviral medications such as Oseltamivir (Tamiflu). As also mentioned, in the near future, the availability of these antivirals may be more regulated in order to maintain the efficacy of these medications in the event of a pandemic.

Influenza infections can lead to or coincide with bacterial infections, such as bacterial pneumonia. Therefore, some people will also need to take antibiotics. Check with your healthcare provider if you develop worsened symptoms.

## **Personal Protection Equipment**

Influenza is spread mostly from person-to-person through droplets in coughs and sneezes of an infected person. You can acquire the disease from breathing in airborne droplets. Other ways in which you can contract the flu is by touching a contaminated surface then touching your eyes, nose, or mouth before washing your hands. Remember, influenza viruses can survive on surfaces such as counter tops, doorknobs, and telephones for hours.

If you are caring for a sick person diagnosed with influenza or pandemic influenza, protecting yourself is vital to remaining healthy for the two of you. In addition to good hand hygiene the following standard precautions should be taken:

- Clean, non-sterile gloves
- Face mask
- Goggles or face shield
- Clean gown – a disposable gown is recommended, but a fabric gown can be washed in bleach.

In addition to donning these items yourself, consider putting a face mask on the patient when in close proximity.

For more information about hand hygiene, please see the “Proper Hand Hygiene” section in the the chapter titled “Infection Control”. In the same chapter, please review the section, “Personal Protective Equipment. In addition, for more information about laundry please see the section, “Laundry”, in the chapter titled “Disinfecting Surfaces”.

## **Signs and Symptoms of Influenza**

There are various signs and symptoms for influenza. Some people may present with mild cases, and others more severe. Some may present with all symptoms, and some only a few. Many times, it is difficult for a healthcare provider to diagnose the flu without a definitive flu test. However, if a pandemic were to occur, and healthcare providers were to be overwhelmed, many would diagnose influenza simply by the symptoms. Of course, these signs and symptoms are for existing influenzas. Dependent on the pathogen that causes a pandemic, these may change. Some signs and symptoms include:

- Fever
- Cough
- Sore throat
- Body aches
- Headache
- Chills
- Fatigue

- Nausea
- Vomiting
- Diarrhea

Some complications of the flu include:

- Bacterial infections
- Pneumonia
- Ear or sinus infections
- Dehydration
- Worsening of existing medical conditions

If the patient is an infant, is elderly, or has a condition that may need special care, contact your health care provider. Some pre-existing conditions to which to be concerned are:

- Heart condition
  - Congestive heart failure (CHF)
- COPD
  - Asthma
  - Emphysema
  - Chronic bronchitis
- Diabetes
- Pregnancy

Your healthcare provider may prescribe antiviral medications, especially for those who are at high risk for developing complications. Separate those with these conditions from sick patients to avoid their contracting the disease.

### **Where to Place the Sick Person**

Place the sick person in a room separate from others:

- A spare bedroom with its own bathroom is preferable.
- Do not place the person in a room shared by others, especially common living areas.
- The room should have good ventilation.
- Keep the door closed.
- Limit visitors to just the caregiver.
- Avoid close contact; keep a distance of six feet if possible.

The room and the bathroom should be cleaned daily. Please see the chapter on “Infection Control” for more information on “Disinfecting Surfaces”.

If the infected person must enter common areas or come in contact with others, they should wear a face mask, cover their mouth when coughing or sneezing, and practice hand hygiene. The sick person should stay home and keep away from others as much as possible for at least twenty-four hours after the fever is gone without use of any fever reducing medications.

## **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 temperatures. 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 will resolve in a few days. However, if the fever is accompanied by other symptoms, treatment may be required. Methods of treating a fever are:

- Drink plenty of liquids – dehydration comes easily with fevers.
- Take antipyretic and pain killing medications, be sure to read the labels for dosing:
  - Non-steroidal anti-inflammatory (NSAIDs) medication such Ibuprofen, (Advil, Motrin).
    - Adults - 200mg tablets take one to two tablets every four to six hours.
    - Children – 5mg/kg every six to eight hours (maximum 40 mg/kg/day).
  - Acetaminophen (Tylenol)
    - 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).
    - Large doses can cause liver damage.
    - Follow label for dosing.

- Aspirin – 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).
  - 325mg-1000mg every four to six hours
- Do not give any medication to babies before consulting your pediatrician.
- Always refer to medication labels when administering to children or infants
- Make sure the 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 lightweight 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 antiviral medication to treat any condition that has developed such as bacterial pneumonia.

## **Treatment for a 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. Some home remedies 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
- Warm drinks with honey to soothe the throat
- Drinking additional fluids to help thin mucus
- Avoiding smoking and cigarette smoke
- 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.

## **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. 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 lasts more than twenty-four hours with signs of dehydration.
- If an infant or child under six years shows 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 and altered mental status.
- Severe abdominal pain.

Some home treatments of 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
  - 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.

## **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 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. 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 and remember that diabetics are more at risk for dehydration. Avoid alcohol consumption as this increases water loss. Signs and symptoms of dehydration include:

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

Children are at greater risk of 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 juices
- 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**

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, 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

## **Risks to Consider**

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. However, calling on Christians to care for people in a pandemic situation is asking them to put their own lives at risk due to the lethality of the circulating virus. A deep, personal conviction must be present to serve in this manner.

If you believe that this will be an opportunity to love and serve your neighbor in order to share the gospel, as in the days of Cyprian, then it will be important to learn how to protect yourself and exercise all possible precautions.

This advice is written with regard 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. If in such an event, the healthcare system was overwhelmed, this book 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 chapter “Infection Control” and the section “Personal Protection Equipment”.