

# Maine Center for Disease Control and Prevention Division of Disease Surveillance

# Prevention and Control of Influenza In Long-Term Care Facilities 2022-2023

September 2022

## **Background:**

Influenza (flu) can severely impact long-term care facilities. Persons living in long-term care facilities are considered at high risk for complications due to influenza infections. Infection among healthcare workers during outbreaks is also common. Annual influenza vaccination is the most effective method for preventing influenza virus infection and its complications and is recommended for all persons  $\geq 6$  months old who do not have a contraindication to vaccination. Antiviral medications are an adjunct to vaccination and are effective when administered as treatment and when used for chemoprophylaxis after an exposure to influenza virus.

People 65 years and older are at high risk of developing serious complications from influenza, due in part to changes in immune defenses with increasing age. In recent years, it is estimated that between 70 percent and 85 percent of seasonal influenza-related deaths have occurred in people 65 years and older, and between 50 percent and 70 percent of seasonal influenza-related hospitalizations occurred among people in this age group. (https://www.cdc.gov/flu/about/burden/past-seasons.html)

This report summarizes a multi-faceted approach to influenza outbreak management in long-term care facilities to enable a timely and effective response. This guidance applies to the 2022-2023 influenza season.

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# **Executive Summary**

Preventing transmission of influenza viruses and other infectious agents within healthcare settings, including long-term care facilities, requires a multi-faceted approach that includes the following:

#### 1. Vaccination

- a. **Vaccinate residents** for influenza, and make sure they are up to date with pneumococcal vaccine.
  - i. **Influenza** is an annual vaccine and can be given anytime during the season.
  - ii. **Pneumococcal** vaccine: CDC recommends that adults 65 years or older are vaccinated with both the pneumococcal conjugate vaccine (PCV13, PCV15, or PCV20) and pneumococcal polysaccharide vaccine (PPSV23, Pneumovax®23).
- b. **Vaccinate staff** for influenza. All staff should be vaccinated for seasonal influenza and vaccine status should be documented and provided to Maine CDC annually.
  - i. Vaccination is recommended for all pregnant women or women that will become pregnant.

# 2. Testing

a. Influenza testing should occur when any resident has signs and symptoms that could be due to influenza, especially when two residents or more develop respiratory illness within 72 hours of each other. While SARS-CoV-2 and influenza viruses are co-circulating, residents with respiratory illness should be tested for both.

#### 3. Infection Control

a. Implement standard and droplet precautions for all residents with suspected or confirmed influenza.

#### 4. Antiviral Treatment

- a. All long-term care facility residents with confirmed or suspected influenza should receive antiviral treatment immediately.
- b. Treatment should not wait for laboratory confirmation of influenza.

#### 5. Antiviral Chemoprophylaxis

a. When at least two patients are ill within 72 hours of each other and at least one resident has laboratory-confirmed influenza (by any method), the facility should promptly initiate antiviral chemoprophylaxis to all non-ill residents, regardless of whether they received influenza vaccination.

**If you suspect an outbreak** (two or more residents develop respiratory illness within 72 hours of each other):

- a. Report the outbreak to Maine CDC via phone at 1-800-821-5821 or email at disease.reporting@maine.gov (no patient information)
- b. Review this document for additional guidance
- c. Collect 2-5 samples for influenza testing
- d. Follow the Outbreak checklist (Appendix 1)

# Section I: Key Recommendations and Information for 2022-2023

#### 1. Promote and administer vaccine

Vaccinate all residents and staff against influenza when available, preferably by the end of October. Vaccination should be offered as long as influenza viruses are circulating and unexpired vaccine is available. Ensure that all residents have received two doses of pneumococcal (PPV) vaccine according to guidelines.

- The Centers for Medicaid and Medicare Services (CMS) requires long-term care facilities to offer all residents' seasonal influenza and pneumococcal vaccines and to document results. Each resident is to be vaccinated unless medically contraindicated, the resident or legal representative refuses, or there is a vaccine shortage. Maine requests reporting of vaccine rates for residents to the Maine Immunization Program.
- Maine requires staff of long-term care facilities to be vaccinated annually for season influenza (22 M.R.S.A.§802). This helps protect the staff, their patients, and their families, enhancing patient and worker safety. Maine requires reporting of vaccine rates for healthcare workers to the Maine Immunization Program.

Each influenza season, healthcare workers become infected with influenza. Influenza is often introduced into or spread through a facility by staff or visitors. Additionally, influenza vaccine may be less effective in the very elderly and although they are immunized, some residents may remain susceptible to influenza. By vaccinating long-term care facility staff, morbidity and mortality among elderly patients is reduced.

Influenza Vaccine Composition for 2022-2023

- All 2022-2023 influenza vaccines licensed in the United States will be quadrivalent and contain hemagglutinin (HA) derived from influenza viruses antigenically similar to those recommended by FDA.
- For 2022-2023, egg-based vaccines are recommended to contain:
  - o A/Victoria/2570/2019 (H1N1)pdm09-like virus
  - o A/Darwin/9/2021 (H3N2)–like virus (updated)
  - o B/Austria/1359417/2021 (B/Victoria lineage)-like virus (updated)
  - o B/Phuket/3073/2013 (B/Yamagata lineage)-like virus
- For 2022-2023, cell- or recombinant-based vaccines are recommended to contain:
  - o A/Wisconsin/588/2019 (H1N1)pdm09-like virus
  - o A/Darwin/6/2021 (H3N2)–like virus (updated)
  - o B/Austria/1359417/2021 (B/Victoria lineage)-like virus (updated)
  - o B/Phuket/3073/2013 (B/Yamagata lineage)-like virus

The Advisory Committee on Immunization Practices (ACIP) recommends that all persons ≥6 months old receive an influenza vaccine every year. During the 2022–23 influenza season, it is expected that SARS-CoV-2 will continue to circulate in the United States. Current guidance for the administration of COVID-19 vaccines (available at <a href="https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html">https://www.cdc.gov/vaccines/covid-19/clinical-considerations/covid-19-vaccines-us.html</a>) indicates that these vaccines can be administered with other vaccines, including influenza vaccines; providers should consult this page for updated information.

In October 2021, the ACIP recommended the use of pneumococcal conjugate vaccine (PCV) 15-valent PCV (PCV15) or 20-valent PCV (PCV20) for PCV-naive adults who are aged >= 65.

- Pneumococcal conjugate vaccines (PCV13, PCV15, or PCV 20) and PPSV23 should be routinely administered in series to all adults 65 years or older.
- The two pneumococcal vaccines should not be administered at the same visit.
- PCV should be administered before PPSV23. The recommended interval between the two vaccines is at least 1 year.

# For adults previously vaccinated with PPSV23:

- Adults 65 years of age or older who have previously received one or more doses of PPSV23 should also receive a dose of PCV15 or PCV20 if they have not yet received it.
- Regardless of if PCV15 or PCV20 is given, an additional dose of PPSV23 is not recommended since they already received it.

### For pneumococcal vaccine-naïve adults:

Adults 65 years of age or older who have not previously received pneumococcal vaccine, or whose
previous vaccination history is unknown, should receive a dose of PCV15 or PCV20 first, followed 12
months later by a dose of PPSV23.

## For adults 65 years or older who have only received PCV13:

 Give PPSV23 as previously recommended. The incremental public health benefits of providing PCV15 or PCV20 to adults who have received PCV13 only or both PCV13 and PPSV23 have not been evaluated.

#### 2. Take Steps to Minimize Potential Exposures

- Implement respiratory hygiene and cough etiquette.
- Post visual alerts (e.g. signs, posters) at the entrance and in strategic places to instruct patients, healthcare personnel (HCP), and visitors on respiratory hygiene and cough etiquette.
- Provide face masks and hand sanitizer.

#### 3. Monitor and manage ill healthcare personnel

- Develop sick leave policies for HCP that are non-punitive, flexible and consistent with public health guidance to allow and encourage HCP with suspected or confirmed influenza to stay home.
- Establish procedures for tracking absences.
- HCP who develop fever and respiratory symptoms should be excluded from work until 24 hours after fever resolves without the use of fever reducing medication (anti-pyretics).
  - o If symptoms begin at work, the staff member should immediately excuse themselves from patient care and notify their supervisor.
  - Adherence to respiratory hygiene and cough etiquette after returning to work is always important. If symptoms such as cough and sneezing are still present after the exclusion period, the HCP should wear a facemask during patient care activities.
  - o If COVID-19 is suspected, additional COVID-19 precautions and guidance should be followed.
- 4. Adhere to infection control precautions for all patient care activities and aerosol-generating procedures. Standard precautions assume that every person is potentially infected or colonized with a

pathogen that could be transmitted in a healthcare setting. Elements of standard precautions that apply to patients with respiratory infections, including those caused by the influenza virus, are summarized below.

#### **Hand Hygiene**

- HCP should perform hand hygiene frequently, including before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of personal protective equipment, including gloves. Hand hygiene in healthcare settings includes washing with soap and water or using alcohol-based hand rubs. If hands are visibly soiled, use soap and water, not alcohol-based hand rubs.
- Healthcare facilities should ensure that supplies for hand hygiene are available.

#### Gloves

• Wear gloves for any contact with potentially infectious material. Remove gloves after contact, followed by hand hygiene. Do not wear the same pair of gloves for care of more than one patient. Do not wash gloves for the purpose of reuse.

#### Gowns

• Wear gowns for any patient-care activity when contact with blood, body fluids, secretions (including respiratory), or excretions is anticipated. Remove gown and perform hand hygiene before leaving the patient's environment. Do not wear the same gown for care of more than one patient.

# **Droplet Precautions**

- Droplet precautions should be implemented for patients with suspected or confirmed influenza for seven (7) days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer.
- Place patients with suspected or confirmed influenza in a private room or area if possible. If not possible, attempt to cohort ill individuals together or leave with original roommate.
- HCP should wear a facemask when entering the room of a patient with suspected or confirmed influenza. If the patient needs to leave their room, have the patient wear a facemask, if possible, and follow respiratory hygiene, cough etiquette, and hand hygiene.
- Communicate information about patients with suspected, probable, or confirmed influenza to appropriate personnel before transferring them to other areas in the facility or to other facilities.

# 5. Manage Visitor Access and Movement Within the Facility

- Limit visitors for patients in isolation for influenza to persons who are necessary for the patient's emotional well-being and care.
- All visitors should follow proper respiratory hygiene, cough etiquette, and hand hygiene.

#### 6. Monitor Influenza Activity

- Establish mechanisms and policies by which HCP are promptly alerted about increased influenza activity in the community or if an outbreak occurs.
- Designate a specific person who is responsible for communication with public health officials and dissemination of information to HCP.

# 7. Implement environmental and engineering infection control measures

- Standard cleaning and disinfection procedures are adequate for influenza virus environmental control.
- Consider designing and installing engineering controls to reduce or eliminate exposures including installing physical barriers such as partitions or curtains.
- Verify cleaning products are effective against influenza.

#### 8. Train and Educate Healthcare Personnel

• Ensure that all HCP receive job- or task-specific education and training on preventing transmission of infectious agents, including influenza. Competency should be documented initially and repeatedly, as appropriate, for the specific staff positions.

# **Section II: Prevention Measures**

#### 1. Vaccinate all residents and staff using a systematic approach to increase immunization levels.

- Vaccinate all residents and staff once vaccine is available (usually September through October) and continue to vaccinate new residents throughout the season.
- Ensure your facility has a written policy on immunizations that includes annual influenza vaccination for all residents and staff, and pneumococcal vaccine for all residents.
- Obtain consent for vaccination from residents or their family members upon admission. Include Vaccine Information Statements (VIS) in admission packets. Instructions and examples of VIS are available at <a href="https://www.cdc.gov/vaccines/hcp/vis/index.html">https://www.cdc.gov/vaccines/hcp/vis/index.html</a>
- Implement standing orders for administration of influenza and pneumococcal vaccines as they become available to long-term care facilities. If your facility does not currently have a standing order, a template can be found at <a href="https://www.immunize.org/catg.d/p3074.pdf">https://www.immunize.org/catg.d/p3074.pdf</a>.
- Inactivated influenza and pneumococcal vaccines are safe and effective when administered at the same time by using separate syringes and given at different anatomical sites.
- Perform chart audits to ensure that there is documentation in every chart that the resident has been offered annual influenza vaccine and both pneumococcal (PCV and PPSV23) vaccines.
- Consider residents with uncertain immunization histories NOT immunized and vaccinate accordingly. The benefits of vaccination far outweigh any concerns about revaccination.

#### 2. Encourage family members and visitors to receive an influenza vaccine.

- Make them aware of their role in the transmission of influenza to residents.
- To locate a flu vaccine clinic, family members may contact their healthcare providers, visit <a href="https://www.vaccines.gov/find-vaccines/">https://www.vaccines.gov/find-vaccines/</a> or dial 211.

# 3. Encourage family members, visitors and all staff to practice respiratory etiquette to prevent the transmission of respiratory illnesses.

- Post educational materials on respiratory etiquette.
- Promote frequent hand washing and the use of alcohol-based hand gel.

Educational materials on respiratory hygiene are available at <a href="https://www.maine.gov/dhhs/order">https://www.maine.gov/dhhs/order</a> and <a href="https://www.cdc.gov/flu.">https://www.cdc.gov/flu.</a>

# **Section III: Early Detection of Influenza**

Despite its clear benefits, vaccination does not offer complete protection against influenza viruses, and outbreaks can still occur. Imperfect matching between the vaccine and circulating strains may limit vaccine effectiveness. Information on current vaccine match is available on the federal CDC website at <a href="http://www.cdc.gov/flu">http://www.cdc.gov/flu</a>. The diminished immune response that sometimes occurs with advanced age and underlying medical conditions may further decrease overall vaccine effectiveness.

- Prompt recognition of influenza and the initiation of infection control measures can help prevent influenza from spreading.
- Reliable, timely detection depends upon prompt recognition of clinical signs and symptoms and submissions of respiratory specimens for laboratory diagnosis.

**Influenza-like illness (ILI)** is defined as fever of ≥100° F AND cough and/or sore throat

#### Suspect an outbreak when:

- Any resident tests positive for influenza, by any method.
- Two residents or more develop respiratory illness within 72 hours of each other.

#### **Testing:**

- Even if it is not influenza season, influenza testing should occur when any resident has signs and symptoms that could be due to influenza, especially when two residents or more develop respiratory illness within 72 hours of each other.
- Test for influenza in the following:
  - o Ill persons who are in the affected unit as well as previously unaffected units in the facility,
  - o Persons who develop acute respiratory illness symptoms more than 72 hours after beginning antiviral chemoprophylaxis.
  - Note that elderly persons and other long-term care residents, including those who are
    medically fragile and those with neurological or neurocognitive conditions, may manifest
    atypical signs and symptoms with influenza virus infection, and may not have fever.
- While SARS-CoV-2 and influenza viruses are co-circulating, residents with respiratory illness should be tested for both.
- Influenza and SARS-CoV-2 testing are available free of charge through Maine's Health and Environmental Testing Laboratory (HETL) <a href="www.mainepublichealth.gov/lab">www.mainepublichealth.gov/lab</a>.

# What to do if an outbreak is suspected or identified?

Follow the checklist for influenza outbreaks in Long-Term Care (Appendix 1).

#### What to do if a resident is hospitalized for influenza?

Work with the physician to determine when the patient is no longer in need of critical care and can be discharged. Residents' eligibility to return from the hospital should be based on stability, not length of time on antiviral medication. Following return, the resident should be placed in a private room or with other ill individuals for 7 days after onset, or 24 hours after the resolution of fever and respiratory symptoms, whichever is longer.

#### **Use of Antiviral Medications**

#### 1. Treatment

- Four antiviral medications are recommended for the treatment of influenza:
  - o Oral oseltamivir
  - o Inhaled zanamivir (not recommended for individuals with underlying respiratory conditions)
  - o Intravenous peramivir
  - Oral baloxavir
- Initiate treatment within 48 hours of illness onset.
- Recommended duration of treatment using oseltamivir or zanamivir is 5 days. Peramivir and baloxavir are one dose treatments.
- Treatment should not wait for laboratory confirmation of influenza.

The initiation of antiviral medications for treatment of ILI is approved by Maine Care and should be initiated prior to laboratory confirmation.

- The formulary allows for the use of oseltamivir.
- Maine Care currently does not require a prior authorization for the use of oseltamivir chemoprophylaxis at a long-term care facility.

# 2. Chemoprophylaxis

Oseltamivir, zanamivir, and baloxavir can be used as chemoprophylaxis for the prevention and control of influenza. Using antiviral medications as chemoprophylaxis is not a substitute for vaccination.

# When at least 2 patients are ill within 72 hours of each other and at least one resident has laboratory-confirmed influenza, antiviral chemoprophylaxis should be:

- Administered to all non-ill residents, regardless of influenza vaccination status.
  - Priority should be given to residents living in the same unit or floor as an ill resident. However, since staff and residents may spread influenza to residents on other units, floors, or buildings of the same facility, all non-ill residents are recommended to receive antiviral chemoprophylaxis to control influenza outbreaks.
- Offered to unvaccinated staff who provide care to persons at high risk.
  - o Prophylaxis should be considered for all staff if the outbreak is caused by a strain of influenza that is not well matched by the vaccine. Information on current vaccine match is available on the federal CDC website at http://www.cdc.gov/flu.
- Continued for a minimum of 2 weeks and continuing for at least 7 days after the last known case was identified.
- The dosage for each resident should be determined individually because recommendations vary by age group and medical conditions (see antiviral manufacturer's prescribing information).

#### **Drug Resistance**

- Drug resistance in influenza viruses changes frequently.
- To limit the potential transmission of an antiviral drug-resistant influenza virus, measures should be taken to reduce contact between ill persons taking antiviral drugs for treatment and other persons, including those receiving antiviral chemoprophylaxis.

# Consider the following additional measures to reduce transmission among residents and healthcare personnel:

- Have symptomatic residents stay in their own rooms as much as possible, including restricting them from common activities, and have their meals served in their rooms when possible.
- Limit the number of large group activities in the facility and consider serving all meals in resident rooms, if possible, when the outbreak is widespread (involving multiple units of the facility).
- Avoid new admissions or transfers to wards with symptomatic residents.
- Limit visitation and exclude ill persons from visiting the facility via posted notices. Consider restricting visitation by children during community outbreaks of influenza.
- Monitor personnel absenteeism due to respiratory symptoms and exclude those with influenza-like symptoms from work until at least 24 hours after their fever subsides without the use of fever-reducing medications.
- Restrict personnel movement from areas of the facility experiencing illness to areas not affected by the outbreak.
- Administer the current season's influenza vaccine to unvaccinated residents and healthcare personnel as per current recommendations.
- When an ill individual has appointments or is being transferred (to another facility or a hospital) notify the receiving facility of the patient illness so that appropriate precautions can be taken.

# Section IV: References and Other Sources of Information

- 1. "Prevention Strategies for Seasonal Influenza in Healthcare Settings." *Centers for Disease Control and Prevention*, U.S. Department of Health & Human Services, 13 May 2021, http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm
- 2. Centers for Disease Control and Prevention. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices- United States, 2022-23 Influenza Season. MMWR Recomm Rep 2022;71(No. RR-1):1–28. https://www.cdc.gov/mmwr/volumes/71/rr/rr7101a1.htm?s\_cid=rr7101a1\_w
- 3. Tokars, et al. Season Incidence of Symptomatic Influenza in the United States. *Clinical Infectious Diseases*, Volume 66, Issue 10, 15 May 2018, Pages 1511–1518. https://doi.org/10.1093/cid/cix1060
- 4. "Interim Guidance for Influenza Outbreak Management in Long-Term Care Facilities". *Centers for Disease Control and Prevention*, U.S. Department of Health & Human Services, 17 Nov 2020, <a href="http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm">http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm</a>
- 5. "Guidelines for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings." *Centers for Disease Control and Prevention*, U.S. Department of Health & Human Services, 22 July 2019, <a href="http://www.cdc.gov/hicpac/2007IP/2007ip\_part4.html#4">http://www.cdc.gov/hicpac/2007IP/2007ip\_part4.html#4</a>
- 6. Influenza (Flu). *Centers for Disease Control and Prevention*. U.S. Department of Health & Human Services, <a href="http://www.cdc.gov/flu/">http://www.cdc.gov/flu/</a>

- 7. Maine Influenza Webpage. *Maine Center for Disease Control and Prevention*. Maine Department of Health and Human Services, www.maineflu.gov
- 8. "Testing and Management Considerations for Nursing Home Residents with Acute Respiratory Illness Symptoms when SARS-CoV-2 and Influenza Viruses are Co-circulating." *Centers for Disease Control and Prevention*, U.S. Department of Health & Human Services, 23 November 2020, <a href="https://www.cdc.gov/flu/professionals/diagnosis/testing-management-considerations-nursinghomes.htm">https://www.cdc.gov/flu/professionals/diagnosis/testing-management-considerations-nursinghomes.htm</a>

For questions or consultations or to report an outbreak please contact Maine CDC via phone at: 1-800-821-5821 or email at disease.reporting@maine.gov.

# For downloadable flu materials including posters visit:

https://www.maine.gov/dhhs/order http://www.cdc.gov/flu/professionals/flugallery/index.htm

# Appendix 1: Checklist for Influenza Outbreaks in Long-Term Care

| Recognition, Reporting & Testing   |
|--|
| Upon suspicion of an influenza outbreak, notify Maine CDC by calling 1-800-821-5821 or emailing  |
| disease.reporting@maine.gov  |
| <ul> <li>Obtain an outbreak number from Field Epidemiologists for identification purposes: #</li> <li>Maintain a line listing of symptomatic residents and staff</li> </ul>  |
| Collect and submit specimens from affected residents and staff as soon as an outbreak is suspected Follow HETL guidelines for specimen collection, handling, and transport; label specimens with outbreak # Notify facility medical director that an influenza outbreak is suspected |
| Control Measures for Facility  |
| Infection Control:   |
| Re-offer vaccine to all unvaccinated staff and residents   |
| ☐ Institute droplet precautions for symptomatic residents  |
| Cohort ill residents as much as possible and suspend group activities  |
| <ul> <li>Minimize resident and staff movement between affected and unaffected units/wards</li> <li>Enforce strict hand hygiene for all facility staff</li> </ul>   |
| Supplement hand washing with soap and water with ethanol or alcohol-based hand sanitizers  |
| Begin treatment doses of antivirals to all symptomatic residents and staff, and begin prophylactic doses of antivirals to all residents and unvaccinated staff (within 48 hours)   |
| <b>Environmental Controls:</b>   |
| Clean all high traffic areas and high touch items (i.e. faucets, door handles, and toilet or bath rails)   |
| Use EPA-registered disinfectants or detergents/disinfectants approved for use against influenza for routine cleaning and disinfection  |
| Administrative Controls:   |
| Exclude ill staff from work for at least 24 hrs after symptoms resolve without the use of anti-pyretics  |
| Suspend group activities as much as possible until after the outbreak is contained   |
| Post signage about the outbreak and proper hand hygiene  |
| Limit new admissions to a non-infected wing, or close to new admissions altogether   |
| Recommendations for Residents & Visitors   |
| Encourage ill residents to stay in their room/apartment for at least 24 hours after symptoms resolve without   |
| the use of anti-pyretics   |
| Promote good hand hygiene for residents: after using the toilet, having contact with an ill individual, and  |
| before preparing food, eating or drinking  |
| Consider restricting visitation until the outbreak is contained  |
| Internal and External Communications   |
| Identify a single point of contact for internal communications   |
| Identify a single point of contact for external communications   |
| Notify staff of outbreak and control measures and conduct enhanced surveillance for ill staff  |
| Notify residents/guardians of outbreak and control measures and request ill residents report to nursing staff  |
| Consider a final communication to staff, residents, and guardians when the outbreak is over  |

Appendix 2: Sample Line List of Residents with Acute Respiratory Illness and/or Pneumonia

| Facility Name: |     |            |                            |           | Vaccination  |   | Illness D  | escri | ptio            | n     |             | Laboratory    | Testing  | Illness Complications |              |      |   |               |  |
|----------------|-----|------------|----------------------------|-----------|--------------|---|------------|-------|-----------------|-------|-------------|---------------|----------|-----------------------|--------------|------|---|---------------|--|
| Name           | Age | Sex        | Room #, Bed<br>designation | Influenza | Pneumococcal |   | Onset Date |       | Fever (>100° F) | Cough | Sore Throat | Rapid antigen | PCR      | Pneumonia             | Hospitalized | Died |   | Date of Death |  |
|                |     | ☐ F<br>☐ M |                            |           |              | / | 1          | [     |                 |       |             | +<br>  -      | +        |                       |              |      | / | 1             |  |
|                |     | ☐ F<br>☐ M |                            |           |              | / | 1          | [     |                 |       |             | +<br>  -      | +        |                       |              |      | / | 1             |  |
|                |     | ☐ F<br>☐ M |                            |           |              | / | 1          | [     |                 |       |             | +<br>  -      | +        |                       |              |      | / | 1             |  |
|                |     | ☐ F<br>☐ M |                            |           |              | / | 1          | [     |                 |       |             | +<br>  -      | +        |                       |              |      | / | 1             |  |
|                |     | ☐ F<br>☐ M |                            |           |              | / | 1          | [     |                 |       |             | +<br>  -      | +        |                       |              |      | / | 1             |  |
|                |     | ☐ F<br>☐ M |                            |           |              | / | 1          | [     |                 |       |             | +<br>  -      | +        |                       |              |      | / | 1             |  |
|                |     | ☐ F<br>☐ M |                            |           |              | / | 1          | [     |                 |       |             | +<br>  -      | +<br>  - |                       |              |      | / | 1             |  |