

Recommendations for the Prevention, Detection, and Control of Influenza in California Long-term Care Facilities, 2007-2008

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Introduction

- This updates 2006-2007 recommendations regarding the prevention, detection, and control of influenza outbreaks in California long-term care facilities (LTCFs).
- These recommendations were developed by the California Department of Public Health (CDPH), Division of Communicable Disease Control, Infectious Diseases and Immunization Branches, using information from the Centers for Disease Control and Prevention (CDC), in consultation with the Licensing and Certification Program, and are revised annually.
- This information is intended to be advisory only and was developed to assist facility infection control committees in the development of a rational approach to the control of influenza in LTCFs.



Outline

- I. CDPH Recommendations for LTCFs
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- III. Influenza Transmission
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- VII. Outbreak Control Procedures for Respiratory Infections
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I. CDPH Recommendations for LTCFs

- Vaccinate all LTCF residents and staff against influenza each autumn as soon as vaccine becomes available, and if possible by October, before influenza disease is present in the community. A federal rule requires that LTCFs serving Medicare and Medicaid (Medi-Cal) patients must provide immunizations against influenza and pneumococcal disease to all residents if they want to continue in these programs.
- LTCFs should ensure that standing orders are in place for residents > 50 years of age to receive pneumococcal vaccination at admission and annual influenza vaccination of as permitted by California law and required by Federal mandate.
- Residents admitted during influenza season should receive influenza vaccine when they are admitted if they have not been previously vaccinated that season.



I. CDPH Recommendations for LTCFs

- New staff hired during influenza season who have not yet been vaccinated should receive influenza vaccine at the time of hire.
- LTCFs are encouraged to ask staff who refuse influenza vaccination to sign a declination form as a means to increase staff vaccination rates. A sample declination form is provided in [Appendix 1](#).
- Consider requesting that staff who state they have been vaccinated elsewhere submit proof of vaccination to the facility.



I. CDPH Recommendations for LTCFs

- **Immediately report all outbreaks of respiratory illness to the local health department and the Licensing and Certification district office.** Health department personnel can provide information about influenza activity in the area and about diagnostic specimen collection and coordination.
- During influenza outbreaks, consider the use of antiviral medications (oseltamivir or zanamivir) and implement the other outbreak prevention and control measures described in this guidance.



II. Influenza and Influenza-Like Illness

- Influenza is a respiratory illness caused by influenza type A or type B viruses. Typical symptoms of influenza include the acute onset of fever, respiratory symptoms (such as cough, sore throat, and other “cold-like” symptoms), muscle aches and headache. Persons with acute onset of fever and cough, often with nasal congestion, are most likely to have influenza.



II. Influenza and Influenza-Like Illness

- However, elderly LTCF residents, particularly those with underlying illness, may not have typical symptoms, such as a fever. Some have underlying conditions or are receiving medications with antipyretic (anti-fever) effects that modify the manifestations of influenza. Many also have chronic cough and other respiratory symptoms due to chronic lung disease. Some cannot reliably report symptoms such as sore throat or muscle aches.



II. Influenza and Influenza-Like Illness

- Presentation of influenza in LTCF residents is not consistent or predictable; should be considered (particularly during influenza season) in residents with any combination of the following:
 - Fever $\geq 37.8^{\circ}\text{C}$ (may be absent or low in elderly LTCF residents)
 - New onset cough and/or sore throat
 - Nasal congestion
 - Malaise (feeling ill)
 - Chills
 - Muscle aches, joint aches, or headache
 - Change in respiratory status (increased cough, sputum production, breathing rate); change in mental status or appetite



II. Influenza and Influenza-Like Illness

- Other respiratory viruses and some bacteria can cause similar illnesses, particularly in elderly LTCF residents. These are referred to as “influenza-like illnesses.” The difference between influenza and other acute respiratory infections cannot be determined on the basis of symptoms alone and laboratory testing is necessary



II. Influenza and Influenza-Like Illness

- Influenza can cause serious illness and death in LTCF residents because of their age and chronic health problems.
- LTCF residents may also be at high risk of exposure to influenza, since the virus spreads easily in environments where people live close to each other and once influenza enters a LTCF, it can spread rapidly.
- Influenza occurs annually, typically in the winter between October and April and peak activity in a community usually lasts from 6 to 8 weeks, often spanning the New Year period.



III. Influenza Transmission

- Influenza is thought to be primarily spread from person-to-person by large droplets of respiratory secretions from an infected person.
 - This occurs when infected persons cough, sneeze, or talk, expelling droplets, which are then directly deposited onto the surfaces of the upper respiratory tracts (nose, throat) of susceptible persons who are within approximately 3 feet of the infected person.



III. Influenza Transmission

- Transmission also may occur by direct or indirect (person-object-person) contact when a susceptible person picks up the virus on their hands and then touches their nose.
 - Influenza virus can survive for 24-48 hours on nonporous surfaces and 8-12 hours on porous surfaces such as paper or cloth.



III. Influenza Transmission

- Airborne transmission, inhalation of small droplets (droplet nuclei) expelled into the air when an infected person is coughing or during aerosol-generating procedures, may also occur.
 - The degree to which airborne transmission contributes to influenza transmission is uncertain and has not been adequately studied.



III. Influenza Transmission

- The most important sources of influenza virus are infected persons.
 - Infected persons are most infectious during first 3 days of illness; however, they can shed the virus beginning the day before, and up to 7 or more days after the onset of symptoms.
 - Children and severely immunodeficient persons may shed virus for longer periods.
 - In addition, infected but asymptomatic persons can shed the virus and be infectious.



IV. Influenza Vaccine

- People 65 years of age and older account for more than 90% of influenza deaths. Vaccination most effective measure for reducing illness/deaths.
- Since primary source of infection in residents is staff and efficacy of vaccination is often reduced in elderly residents, facilities should make a concerted effort to ensure annual vaccination of staff. Studies have shown staff vaccination reduces deaths from respiratory infections in residents and can lower staff absenteeism.
- California law now requires that acute care hospitals offer influenza vaccine to staff at no charge and to require those declining vaccination to sign a declination form.



OSPH

Trivalent Inactivated Influenza Vaccine (TIV)

- TIV must be injected and contains inactivated (killed) influenza virus; it cannot cause influenza.
 - TIV is the type of vaccine typically used in LTCFs because live vaccines are not recommended for LTCF residents.
 - When the vaccine and circulating virus strains are similar, TIV is expected to prevent influenza in 70%--90% of healthy vaccinated adults <65 years of age.
 - Although TIV effectiveness in preventing illness in elderly LTCF residents is estimated at 20%-40%, it can be up to 80% effective in preventing influenza-related death.



OSPH

Trivalent Inactivated Influenza Vaccine (TIV)

- The following persons should not receive TIV:
 - persons known to have anaphylactic hypersensitivity to eggs or to other components of the influenza vaccine without first consulting a physician;
 - persons with moderate-to-severe acute febrile illness usually should not be vaccinated until their symptoms have abated (minor illnesses with or without fever do not contraindicate use of influenza vaccine, particularly among children with mild upper-respiratory tract infection or allergic rhinitis);
 - avoid vaccination of persons who are not at high risk for severe influenza complications and who are known to have experienced Guillain-Barré syndrome within 6 weeks after a previous influenza vaccination is prudent.



OSPH

Live Attenuated Influenza Vaccine (LAIV)

- FluMist®, the nasal-spray LAIV, is an option for healthy individuals, ages 2 to 49 years of age, and may be used as a substitute for standard inactivated injectable influenza vaccine for staff in LTCFs. LAIV is given intranasally.
 - LAIV is **not** recommended for LTCF residents. Staff who care for patients with severely weakened immune systems (i.e., patients who have recently had a bone marrow transplant and require a protected environment) can receive LAIV, but should refrain from contact with severely immunosuppressed patients for 7 days after vaccine receipt.



Live Attenuated Influenza Vaccine (LAIV)

The following persons should **not** receive LAIV:

- persons aged <2 years or those aged ≥50 years of age;
- history of recurrent wheeze in those < 5 years of age;
- persons with asthma, reactive airways disease, or other chronic disorders of the pulmonary or cardiovascular systems; persons with other underlying medical conditions, including metabolic diseases such as diabetes, renal dysfunction, and hemoglobinopathies; or persons with known or suspected immunodeficiency diseases or who are receiving immunosuppressive therapies;
- children or adolescents receiving aspirin or other salicylates (because of the association of Reye syndrome with wild-type influenza infection);
- persons with a history of Guillain-Barré syndrome;
- pregnant women; or
- persons with a history of hypersensitivity, including anaphylaxis, to any of the components of LAIV or to eggs.
- LAIV should not be administered until 48 hours after cessation of influenza antiviral therapy, and influenza antiviral medications should not be administered for 2 weeks after receipt of LAIV. LAIV should not be given within 4 weeks of another live vaccine.



Thimerosal

- Multidose vials of TIV contain the mercury-containing preservative, thimerosal.
 - California law specifies that thimerosal containing influenza vaccines given to pregnant women or children younger than 3 years of age in California may not exceed 1.0 microgram of mercury per 0.5 milliliters of vaccine. Therefore, women who are “knowingly pregnant” or children < 3 years of age may only receive influenza vaccines that contain < 1.0 mcg of mercury per 0.5 ml of vaccine.
 - **All single dose influenza vaccines approved for use in the U.S. for the 2007-2008 influenza season meet this requirement.**



Laboratory Diagnosis of Influenza

- A person with influenza may not appear or feel different than when infected with many other respiratory pathogens. However, during outbreaks where influenza has been confirmed through laboratory tests, it can be presumed that other persons with similar symptoms also have influenza. Therefore, **when a cluster of cases of acute respiratory illness with symptoms suggestive of influenza (see Section I above) occurs, it is of critical importance to try to establish the diagnosis through laboratory testing.**



Laboratory Diagnosis of Influenza

- Several commercial rapid diagnostic tests are available that can detect influenza viruses within 30 minutes.
 - Some detect only influenza A viruses, others detect both Type A and B but do not distinguish between the two types.
 - can be performed on nasopharyngeal-swab or nasal-wash specimens.
 - can then be used to determine if influenza antiviral drug therapy should be implemented to prevent the outbreak from spreading.
- Precise identification of the strain of virus can be made by growing the virus from nasopharyngeal secretions of acutely ill persons. Viral culture and molecular tests are available at the CDPH Viral and Rickettsial Disease Laboratory and some local health departments for the investigation of outbreaks.



Infection Prevention and Control Precautions for Seasonal Influenza and Other Respiratory Infections

- The implementation of infection prevention measures for influenza-like respiratory infections, including seasonal influenza, can prevent their spread in LTCFs.
 - Although vaccinating all facility personnel and residents is the primary influenza control measure, outbreaks of influenza and other viruses that mimic influenza can be prevented if the following recommendations are implemented as soon as possible to prevent person-to-person transmission.



Education and Monitoring

- Provide education about the facility's respiratory hygiene/cough etiquette program (below) and how to report signs and symptoms of influenza and influenza-like respiratory infections to residents, facility personnel, visitors and volunteers at least annually and when influenza-like respiratory infections are identified in the facility.



Education and Monitoring

- Develop an influenza or influenza-like illness outbreak management plan that includes vaccination for seasonal influenza and the use of the influenza vaccine declination form (see [Appendix 1](#)).
- Monitor residents and facility personnel for symptoms of respiratory infection, especially during the influenza season (October to April).
- If influenza or influenza-like respiratory illnesses are suspected, promptly contact the local health department and request assistance with laboratory testing.



Respiratory Hygiene/Cough Etiquette

- Posting visual alerts instructing residents, staff, visitors and volunteers to report symptoms of respiratory infection to a designated person.
- Providing tissues or masks to residents who are coughing or sneezing so that they can cover their nose and mouth.



Respiratory Hygiene/Cough Etiquette

- Encouraging coughing persons to remain at least 3 feet away from others, if possible.
- Ensuring that supplies for hand washing are available where sinks are located; and/or providing dispensers of alcohol-based hand rubs.
- Excluding staff, visitors, and volunteers with symptoms of respiratory infection.



Visitor Precautions

- During influenza season, post signs notifying visitors that adults with respiratory symptoms should not visit for 5 days and children with symptoms should not visit for 10 days following the onset of illness.
- During an outbreak, consider restricting all children from visiting.



Visitor Precautions

- Provide written information about influenza-like infections and seasonal influenza to visitors and why the infection control precautions are necessary.
- Provide visitors with written instructions (respiratory hygiene/cough etiquette) about the precautions implemented by the facility.
- Encourage visitors to get vaccinated for influenza.



Visitor Precautions

- If visitation is necessary (e.g., visitation of a dying resident) instruct symptomatic visitors to:
(1) wear a surgical or procedure mask over their mouth and nose while in the resident's room;
(2) cough and sneeze into a tissue and discard contaminated tissues a waste receptacle; and
(3) sanitize their hands before entering the resident's room, before and after resident contact and upon leaving the resident's room.
- Ensure that hand hygiene, tissues and masks are available.



Outbreak Control Procedures for Influenza and Influenza-like Respiratory Infections

Definitions

- Cluster: Three or more cases of acute respiratory illness occurring within 48-72 hours in residents who are in close proximity to each other (e.g., in the same area of the facility).
- Outbreak: A sudden increase in acute respiratory illness cases over the normal background rate or when any resident tests positive for influenza. One case of confirmed influenza by any testing method in a LTCF resident is an outbreak.



Confirm Diagnosis by Laboratory Testing

- The first three to four residents and/or staff suspected of influenza or influenza-like illness (acute respiratory illness with or without fever) should have specimens obtained for laboratory testing to confirm the diagnosis of influenza.
- Contact the local health department for appropriate diagnostic laboratory test recommendations.
- If rapid antigen tests and/or viral cultures are recommended, determine the appropriate laboratory to process the specimens.



Infection Control Precautions for Residents with Influenza-Like Illness

- As soon as a resident develops an influenza-like acute respiratory illness (see Section II), confine the symptomatic resident and exposed roommate(s) to their room, restrict them from group activities, and serve meals in their room for 5 days after the onset of symptoms.
- If other residents become symptomatic, cancel group activities and serve all meals in residents' rooms.



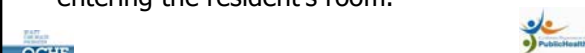
Infection Control Precautions for Residents with Influenza-Like Illness

- If residents are ill on specific nursing units, do not move residents or staff to other units, or admit new residents to the units with symptomatic residents.
- Avoid rotating staff between nursing units until no new cases have been identified for at one week.
- Limit admission of new and returning residents, if possible.



Infection Control Precautions for Residents with Influenza-Like Illness

- If admissions are necessary, ensure that new or returning residents do not have acute respiratory illness and are not being transferred from a facility experiencing an influenza outbreak.
 - Admit asymptomatic new or returning residents to unaffected nursing units.
- Wear a surgical or procedure mask when within 3 feet of ill residents or when entering the resident's room.



Infection Control Precautions for Residents with Influenza-Like Illness

- Place a surgical or procedure mask over the ill resident's nose and mouth, if tolerated, when transport or movement of the resident is necessary outside of their room.
- Instruct ill residents to use tissues to cover their nose and mouth when coughing and sneezing. Provide a bag or other waste receptacle conveniently located for disposal of contaminated tissues.
- Wash or sanitize the hands of ill residents with an alcohol-based hand hygiene product frequently throughout the day, before they leave their room and after hand contact with respiratory secretions or contaminated tissues.



Healthcare Worker Infection Control Precautions

- Wear gloves when contact with the ill resident or contaminated environmental surfaces or objects in close vicinity to the resident is anticipated.
 - Keep a supply of gloves in the resident's room.
- Wear gowns when providing direct care to an ill resident.
- Change gloves and gowns after each encounter with an ill resident and perform hand hygiene.
- Wear a surgical or procedure mask upon entering the ill resident's room or when working within 3 feet of a coughing or sneezing resident.
 - Remove the mask upon leaving the resident's room and dispose in a waste receptacle.



Healthcare Worker Infection Control Precautions

- Wash or sanitize hands before and after touching ill resident, after touching environmental surfaces and items potentially contaminated with respiratory secretions, whether or not gloves are worn.
 - If hands are not visibly soiled, use an alcohol-based hand rub for routine decontamination of hands. Alternatively, wash hands with soap (either plain or antimicrobial) and water.
- Exclude staff with influenza-like illness from patient care for 5 days after onset of symptoms and advise them not work in other facilities (i.e., second job) during same period.
 - During a facility outbreak, even well facility personnel should not work at another facility until the outbreak is controlled.
- Implement enhanced environmental cleaning of commonly touched surfaces such as door handles, hallway banisters, toilet or bath rails, bedrails, overbed tables, and nursing station counters.



Collect, Analyze, and Report Data

- Initiate the use of the daily active surveillance log (see [Appendix 2, page 14](#)) and collect data on all newly symptomatic residents and staff until at least one week after the last influenza case occurs.
- Monitor facility personnel absenteeism due to influenza-like respiratory illness.
- Report all resident(s) and facility personnel with symptoms of influenza-like illness to the infection prevention and control practitioner (ICP). New cases should be reported and recorded daily using the case log (see [Appendix 2, page 14](#)).
- Analyze reports of resident and facility personnel illness submitted by the nursing unit and other departments (environmental services) daily.



Collect, Analyze, and Report Data

- Determine the infection attack rates for residents and facility personnel (# of infected residents/total number of vaccinated **and** total of non-vaccinated residents) and (# total number of infected facility personnel/total number of vaccinated **and** the total number of non-vaccinated facility personnel).
- Report data to the quality assurance/infection control committee and the Licensing and Certification district office with jurisdiction over the facility (see notification).
- Review the infection surveillance and outbreak management plan to determine necessary revisions.
- Make revisions for implementing the outbreak management plan and influenza vaccination during the next influenza year.



Outbreak Notification

- Notify the facility medical director immediately.
- Notify the local health department **and** the Licensing and Certification district office with jurisdiction over your facility (www.dhs.ca.gov/lnc/org/default.htm).



Vaccination

- Vaccinate unvaccinated facility personnel and residents as soon as possible.



Antiviral Drugs for the Control of Influenza Outbreaks

- Four currently licensed antiviral agents are available in the U.S.: amantadine, rimantadine, oseltamivir, and zanamivir. In the past, amantadine and rimantadine (together known as adamantanes) were commonly used for treatment and prophylaxis of influenza type A.
 - However, recent evidence indicates that a high proportion of currently circulating influenza A viruses in California and in the U.S. have developed resistance to adamantanes.
 - Therefore, **neither amantadine nor rimantadine should be used for the treatment or prophylaxis of influenza A in the U.S.**



Antiviral Drugs for the Control of Influenza Outbreaks

- The two remaining antiviral agents, oseltamivir (Tamiflu®) and zanamivir (Relenza®), are an important additional measure for the control of influenza outbreaks.
 - While they are not a substitute for vaccination, CDC recommends their use during outbreaks and they should be considered for use when an influenza outbreak occurs.
 - During an outbreak, these antiviral drugs should be given to residents and offered to staff in accordance with current recommendations at:
<http://www.cdc.gov/flu/professionals/treatment>



Antiviral Treatment

- Oseltamivir and zanamivir (together called neuraminidase inhibitors) are effective against both type A and type B influenza.
 - Both medications can reduce the duration of uncomplicated influenza A and B illnesses by about one day compared with a placebo.
 - If used, it is recommended that antiviral treatment be started **within 2 days of illness onset**.
 - Oseltamivir is currently approved for treatment of persons aged ≥ 1 year, and
 - zanamivir is approved for treatment of persons aged ≥ 7 years.



Antiviral Treatment Recommendations

- For treatment, oseltamivir is administered twice a day orally for 5 days and zanamivir is administered as 2 oral inhalations twice a day for 5 days.
- Separate symptomatic residents on antiviral treatment from others, including those taking antiviral chemoprophylaxis, to the extent possible in the facility to decrease the possibility of transmitting antiviral-resistant influenza.



Antiviral Chemoprophylaxis

- Oseltamivir and zanamivir can also be used for chemoprophylaxis of influenza.
- Oseltamivir is licensed for chemoprophylaxis in persons aged ≥ 1 year, and zanamivir is licensed for use in persons ≥ 5 years.
 - When considering the use of antiviral medications for chemoprophylaxis, cost, compliance, and potential side effects should be evaluated.
 - For maximal results, chemoprophylaxis medication should be taken daily for at least two weeks and as long as one week after the last resident case occurs



Antiviral Chemoprophylaxis

- When outbreaks of influenza occur in a LTCF, and antiviral chemoprophylaxis is undertaken, drug administration should begin as early in the outbreak as possible to reduce transmission.
 - Contingency planning is needed to ensure immediate availability and rapid administration of the drugs. This might include obtaining prior approval from personal physicians for administration of antiviral drugs to residents in the event of an outbreak.
 - Since it is difficult to know in advance how long antiviral drugs will need to be administered, some nursing homes have a policy that also allows facility staff or a consultant to decide when they should be discontinued



Antiviral Chemoprophylaxis Recommendations

- Immediately upon confirmation of influenza A or B, consider the use of the antiviral medications oseltamivir or zanamivir to prevent further spread of influenza in the facility.
- The CDC recommends that when confirmed or suspected outbreaks of influenza occur in institutions that house persons at high risk, chemoprophylaxis should be started as early as possible to reduce the spread of the virus. For additional information see: <http://www.cdc.gov/flu/professionals/infectioncontrol/institutions.htm>.



Antiviral Chemoprophylaxis Recommendations

- In these situations, having pre-approved orders from physicians or plans to obtain orders for antiviral medications on short notice can substantially expedite administration of antiviral medications.
- When used in an outbreak, antiviral chemoprophylaxis should be administered to all residents, regardless of whether they have received influenza vaccine, and should continue for a minimum of 2 weeks.
- If surveillance indicates that new cases continue to occur, chemoprophylaxis should be continued until approximately 1 week after the end of the outbreak.
- The dosage for each resident should be determined individually.



Antiviral Chemoprophylaxis Recommendations

- Oseltamivir and zanamivir have both been approved for chemoprophylaxis, community studies of healthy adults indicate that both drugs are about 80-85% effective in preventing influenza illness.
- For chemoprophylaxis, oseltamivir is administered once a day orally and zanamivir is administered as 2 oral inhalations once a day.
 - The dosage of oseltamivir may need to be decreased for those with impaired renal function (see [Table 1, Appendix 6](#) for additional dosing information).



Antiviral Chemoprophylaxis Recommendations

- Chemoprophylaxis can also be offered to unvaccinated staff members (or staff vaccinated less than 2 weeks prior to the outbreak).
 - Antivirals may be considered for chemoprophylaxis of all LTCF staff, regardless of their vaccination status, if the outbreak is suspected to be caused by a strain of influenza virus that is not well-matched to the vaccine.



Antiviral Chemoprophylaxis Recommendations

- When considering the use of oseltamivir or zanamivir, clinicians must consider the patient's age, weight, and renal function (see [Table 1, Appendix 6](#)).
- Exercise caution when administering oseltamivir or zanamivir to persons with:
 - decreased renal function (adjust the dose based on creatinine clearance for oseltamivir);
 - concomitant use for drugs excreted in urine via glomerular filtration and tubular secretion via the anionic pathway; or pregnancy.



Antiviral Chemoprophylaxis Recommendations

- Zanamivir is not recommended for treatment for patients with underlying airway disease (e.g., asthma, chronic obstructive pulmonary disease). If physicians choose to prescribe zanamivir to patients with underlying chronic respiratory disease after considering potential risks and benefits, the medication should be used with caution under conditions of appropriate monitoring and supportive care, including short-acting bronchodilators (see [Appendix 6](#) for more details).



Appendices

- Appendix 1. Sample Influenza Declination Form
- Appendix 2. Sample Case Log of Residents with Acute Respiratory Illness and/or Pneumonia
- Appendix 3. Sample Case Log of Staff with Acute Respiratory Illness and/or Pneumonia
- Appendix 4. Sample Summary Log of Acute Respiratory Illness and Pneumonia
- Appendix 5. Sample Line List of Residents with Adverse Reactions to Antiviral Medication
- Appendix 6. Antiviral Drugs



IX. References and Other Sources of Information

- Prevention and Control of Influenza, Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2007
<http://www.cdc.gov/mmwrR/preview/mmwrhtml/rr56e629a1.htm>
- Infection Control Measures for Preventing and Controlling Influenza Transmission in Long-Term Care Facilities:
<http://www.cdc.gov/flu/professionals/infectioncontrol/longtermcare.htm>
- Using Antiviral Medications to Control Influenza Outbreaks in Institutions:
<http://www.cdc.gov/flu/professionals/infectioncontrol/institutions.htm>
- All the CDC recommendations for infection control for influenza in healthcare facilities are available at
<http://www.cdc.gov/flu/professionals/infectioncontrol/index.htm>



IX. References and Other Sources of Information

- Information on methods of reimbursement for influenza and pneumococcal vaccine are available from in "Prevention and Control of Vaccine-Preventable Diseases in Long-Term Care Facilities" at: http://www.cdc.gov/vaccines/pubs/downloads/bk_long-term-care.pdf
- Other infection control recommendations for long-term care facilities are available from CDHP at: <http://www.dhs.ca.gov/ps/dcdc/disb/disbindex.htm> and from CDC at: http://www.cdc.gov/ncidod/dhqp/gl_longterm_care.html
- Additional information on influenza, including influenza vaccine, is available from CDC at: <http://www.cdc.gov/flu/> and from CDHP at: [http://www2.cdph.ca.gov/healthinfo/discond/Pages/Influenza\(Flu\).aspx](http://www2.cdph.ca.gov/healthinfo/discond/Pages/Influenza(Flu).aspx) <http://www.dhs.ca.gov/dcdc/izgroup/diseasesbrowse/flu.htm> <http://www.dhs.ca.gov/ps/dcdc/VRDL/html/FLU/Fluintro.htm>



IX. References and Other Sources of Information

- Centers for Disease Control and Prevention. Prevention and Control of Influenza. Recommendations of the Advisory Committee on Immunization Practices (ACIP), 2007. <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr56e629a1.htm>
- Centers for Disease Control and Prevention, National Immunization Program. Prevention and Control of Vaccine-Preventable Diseases in Long-Term Care Facilities. www.cdc.gov/vaccines/pubs/downloads/bk_long-term-care.pdf
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- Bradley SF. The Long-Term-Care Committee of the Society for Healthcare Epidemiology of America. Prevention of influenza in long-term care facilities. Infect Control Hosp Epidemiol 1999;20:629-37.
- Centers for Disease Control and Prevention, Influenza Web Site Home Page. <http://www.cdc.gov/flu/>
- Centers for Disease Control and Prevention, Influenza Vaccine Information for Health Care Personnel. http://www.cdc.gov/ncidod/dhqp/id_influenza_vaccine.html
- Infection Control Measures for Preventing and Controlling Influenza Transmission in Long-Term Care Facilities. <http://www.cdc.gov/flu/professionals/infectioncontrol/longtermcare.htm>
- Immunization Branch of the California Department of Health Services Influenza Information: [http://www.cdph.ca.gov/healthinfo/discond/Pages/Influenza\(Flu\).aspx](http://www.cdph.ca.gov/healthinfo/discond/Pages/Influenza(Flu).aspx) and the Influenza Pandemic Response Plan. <http://www.dhs.ca.gov/ps/dcdc/izgroup/pdf/pandemic.pdf>
- California Influenza Surveillance Project, Viral and Rickettsial Disease Laboratory Branch, California Department of Health Services. <http://www.dhs.ca.gov/ps/dcdc/VRDL/html/FLU/Fluintro.htm>