

# Recommendations for the Prevention and Control of Influenza in California Skilled Nursing Facilities (SNF) during the COVID- 19 Pandemic

Updated October 6, 2020

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Healthcare-Associated Infections Program  
Center for Health Care Quality  
California Department of Public Health



# National Influenza Vaccination Week December 6-12, 2020




**2019-2020 Flu Season: Burden and Burden Averted by Vaccination**

During the 2019-2020 season, CDC estimates flu caused:

<b>38 million</b> flu illnesses	<b>400,000</b> flu hospitalizations	<b>22,000</b> flu deaths
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It could have been even worse without flu vaccines.

Nearly 52% of the U.S. population 6 months and older got a flu vaccine during the 2019-2020 flu season, and this prevented an estimated:

<b>7.5 million</b> flu illnesses  More than the combined population of Kentucky and Kansas	<b>105,000</b> hospitalizations  Enough people to fill Michigan Stadium at the University of Michigan	<b>6,300</b> deaths  Equivalent to saving about 17 lives per day over the course of a year
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Imagine the impact if more Americans chose to get a flu vaccine. Many more flu illnesses, flu hospitalizations, and flu deaths could be prevented. The estimates for the 2019-2020 influenza season are preliminary pending additional data from the season.

<https://www.cdc.gov/flu/about/burden/index.html>

 **get vaccinated**  
[www.cdc.gov/flu](http://www.cdc.gov/flu)  
September 2020

#FightFluTogether

## Who are you getting a flu shot for?





Visit [cdph.ca.gov/fightflu](http://cdph.ca.gov/fightflu)

Department of **cHealth**

# Objectives

- Describe background and key messages about influenza and SARS-CoV-2 co-circulation
- Describe guidance for planning for influenza and SARS-CoV-2 co-circulation in California SNF
- Discuss considerations for recognizing, confirming and managing an influenza outbreak during the COVID-19 pandemic in California SNF

# Organization of the guidance document

- Introduction
- Key Messages
- **Table 1:** Comparison of clinical characteristics of COVID-19 and influenza
- **Table 2:** Planning for influenza illness and outbreaks in SNF
- **Table 3:** Identifying and Controlling Influenza Outbreaks in SNF
- Glossary
- Resources
- **Appendix A.** Sample Surveillance Case Log of **Residents** with Acute Respiratory Illness and/or Pneumonia
- **Appendix B.** Sample Surveillance Case Log of **Healthcare Personnel** with Acute Respiratory Illness and/or Pneumonia

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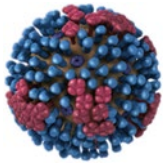
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<https://www.cdph.ca.gov/Programs/CHCQ/LCP/Pages/AFL-20-80.aspx>

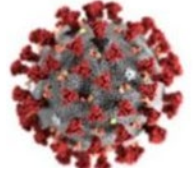
# What will be different this flu season?

## Co-circulation of influenza and SARS-CoV-2

- Influenza seasons vary in severity from year to year, based on the characteristics of the circulating influenza virus strains and how well the vaccine matches the circulating strains
- Co-circulation of influenza and SARS-CoV-2 viruses has been documented
- Frequency, severity, risk factors, interactions unknown



## Co-circulation of influenza and SARS-CoV-2



- Preliminary data show varied patterns in different geographic locations
  - **China:** Co-infection with influenza and SARS-CoV-2 was common in one report
  - **England:** Risk of death in patients with co-infection was 6 times greater than among those who tested negative for both influenza and SARS-CoV-2 and 2.3 times greater than in those with COVID-19 only
  - **Southern hemisphere**(Australia, Chile, South Africa): Very minimal circulation of influenza viruses was reported while SARS-CoV-2 was predominant during the 2020 influenza season

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Yue H. *Journal of Medical Virology*, June 12, 2020, <https://doi.org/10.1002/jmv.26163>

Stowe J. *MedRxiv preprint* doi: <https://doi.org/10.1101/2020.09.18.20189647>. September 18, 2020.

*MMWR* 2020; 69 (37): 1305-9. September 18, 2020

# Key Message: Nonpharmaceutical interventions

- **Nonpharmaceutical interventions (NPI)** such as universal masking, spatial distancing, avoiding group gatherings, staying home when sick, closing schools and limiting travel implemented for prevention of COVID-19 will likely contribute to prevention of influenza, but **do not replace influenza vaccination and chemoprophylaxis with influenza antivirals**





## Key Message: Influenza vaccination

- **Vaccination** is the most effective tool to prevent influenza and its serious complications
- While the effectiveness of influenza vaccines for prevention of all influenza infections varies by season, these vaccines prevent severe disease, ICU admissions, and death
- **Influenza vaccine is especially important for SNF HCP to protect themselves and their vulnerable residents**
- There is a robust supply of influenza vaccine for 2020-21
- Influenza vaccine will neither prevent SARS-CoV-2 infection nor increase the risk of infection with SARS-CoV-2
- Data from Italy<sup>1</sup> and Brazil<sup>2</sup> demonstrate a significant reduction in mortality from COVID-19 among influenza vaccine recipients



[www.cdph.ca.gov/Programs/OPA/Pages/Communications-Toolkits/Fight-Flu-Together.aspx](http://www.cdph.ca.gov/Programs/OPA/Pages/Communications-Toolkits/Fight-Flu-Together.aspx)

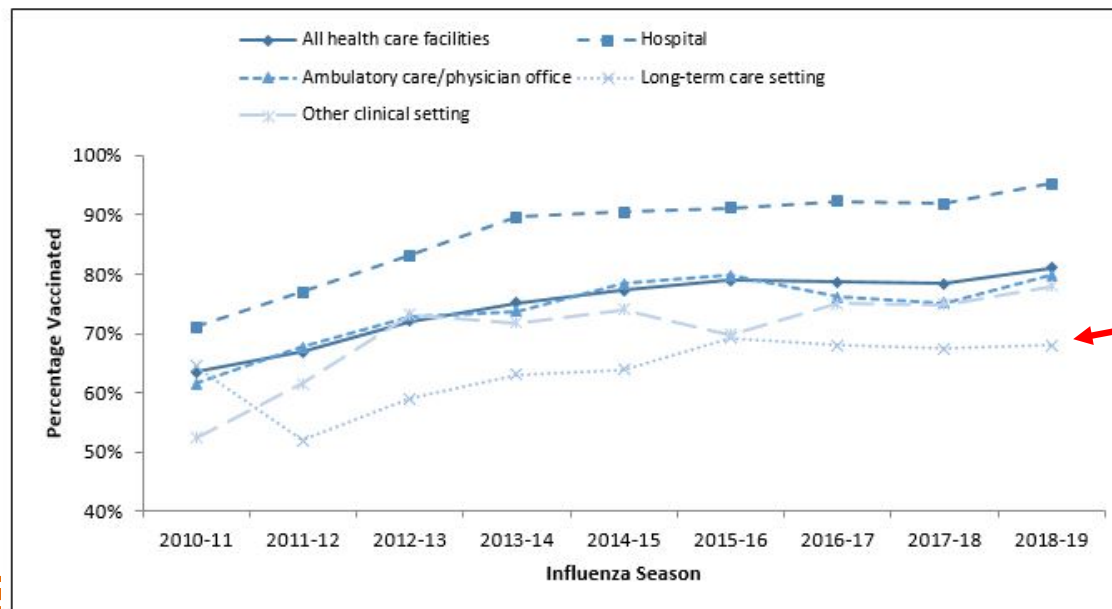
<sup>1</sup> [www.ncbi.nlm.nih.gov/pmc/articles/PMC7300995/pdf](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC7300995/pdf)

<sup>2</sup> [www.medrxiv.org/content/10.1101/2020.06.29.20142505v1.full.pdf](http://www.medrxiv.org/content/10.1101/2020.06.29.20142505v1.full.pdf)



## Key Message: Influenza vaccination of SNF HCP

- Overall, **67.9%** of HCP working in long term care facilities (LTCF) in the U.S. were vaccinated against influenza during the 2018-19 season, which is substantially lower than the 95% coverage in acute care hospitals. In 2019-20, vaccination coverage in LTCF was 69.3%, but **85-89%** in LTCF with employer requirement and programs on site.



## Key Message: Influenza prevention

- Prompt initiation of antiviral treatment or prophylaxis can reduce morbidity associated with influenza
  - At this time, there is no medication to prevent for SARS-CoV-2 after exposure
  - Administration of COVID-19 vaccine to HCP and residents in SNF is anticipated to begin this month; protection is expected to be complete by 6 weeks after the first dose
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# TABLE 1. Similarities and Differences Between Seasonal Influenza Virus and SARS-CoV2

**Same:** Fever, chills, cough, shortness of breath or difficulty breathing, fatigue, sore throat, runny or stuffy nose, myalgias, headache, vomiting and diarrhea, cardiac complications

## Differences:

Select Characteristics	Influenza	COVID-19
Peak symptoms	During days 3-7 of illness	During week 2-3 of illness
Incubation Period	1-4 days (median 2 days)	14 days (median 5 days)
Case-Fatality Rate	0.1%	0.25-3.0%
Primary route of transmission	Droplet Short-range aerosol possible	Droplet, short-range aerosol Fomite and fecal-oral less important
Recommended PPE	Surgical mask; gown and gloves if high contact activity	<b>N95 respirator, eye protection</b> , gown, gloves AIIR if aerosol generating procedure

# Key message: Testing and resident placement & cohorting

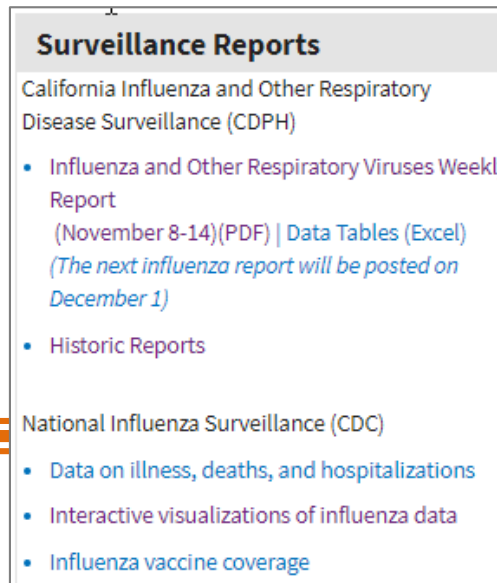
- **Testing:** Once influenza is circulating in the community, always test residents with symptoms & signs of COVID-19 or influenza for both viruses
- **Resident placement:** Maintain symptomatic resident in current room and implement COVID-19 transmission-based precautions pending test results
- **Cohorting:** Avoid movement of residents with suspected or confirmed influenza *between* COVID-19 cohorts

## Table 2. Planning for Management of Influenza Illness and Outbreaks in SNF during the COVID-19 pandemic

ACTIONS	RESIDENTS	HCP	FAMILY MEMBERS/VISITORS
<b>Educate</b>	✓	✓	✓
Update <b>influenza vaccination</b> plan	✓	✓	
Review <b>pneumococcal vaccination</b> status of residents	✓		
Update plan for daily active <b>ILI surveillance</b>	✓	✓	
<b>PLAN TO TEST RESIDENTS WITH SIGNS OF COVID OR FLU FOR BOTH VIRUSES</b>	✓		
Adjust plan for <b>influenza prevention and outbreak management for COVID-19</b>	✓	✓	✓
Update plan for obtaining and using influenza <b>antiviral agents</b>	✓		
Develop process for after action <b>evaluation</b> of plan	✓	✓	✓

# Know how to follow influenza activity in California

- Consult LHD website
- Access CDPH reports that are updated weekly
  - [www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx](http://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/Influenza.aspx)
  - Scroll down to surveillance reports



**Surveillance Reports**

California Influenza and Other Respiratory Disease Surveillance (CDPH)

- [Influenza and Other Respiratory Viruses Weekly Report \(November 8-14\)\(PDF\) | Data Tables \(Excel\)](#)  
*(The next influenza report will be posted on December 1)*
- [Historic Reports](#)

National Influenza Surveillance (CDC)

- [Data on illness, deaths, and hospitalizations](#)
- [Interactive visualizations of influenza data](#)
- [Influenza vaccine coverage](#)



# Before an outbreak occurs: Plan your flu vaccination program

- Key elements of an influenza vaccination plan
  - SNF are responsible for
    - Providing influenza vaccine to residents and HCP on site
    - Providing rationale and referral to sites for vaccine to families
  - Standing orders
  - Minor illness, SARS-CoV-2 exposure are not contraindications; be alert to diagnostic uncertainty if fever post influenza vaccination (uncommon)
  - Designate a specific influenza vaccination week to complete most vaccination, but continue throughout the season
  - Identify flu vaccine champions
  - Track vaccine administrations



## Special considerations during the pandemic

- **No data** to inform optimal timing of influenza vaccine for individuals who have COVID-19, are incubating, or recovering
- Timing will be determined by the risk for serious complications associated with influenza and the level of influenza circulating in the community
- Moderate or severe acute illness is a precaution for all vaccines
- Side effects that are self-limited may complicate clinical evaluation of individuals with possible or evolving COVID-19
  - Fever, chills, headache, myalgia after a flu vaccine resolve within 48-72 hours
  - Side effects of vaccine NOT caused by SARS-CoV-2 infection:
    - local reaction at the injection site

## Table 3. Identifying and Controlling Influenza Outbreaks in SNF

ACTIONS	RECOMMENDATIONS
<p>1. Perform daily active <b>surveillance</b> for respiratory illness in residents and HCP (Appendix A, B)</p> <p><input type="checkbox"/> Initiated _____ (date)</p> <p><input type="checkbox"/> Complete _____ (date)</p>	<ul style="list-style-type: none"> <li>• During influenza season, usually October-March, conduct daily active surveillance for acute upper respiratory illness and pneumonia among residents and HCP until at least 1 week after the last confirmed case of influenza using a line list (see Appendices A and B for examples of line lists)               <ul style="list-style-type: none"> <li>◦ The respiratory illness line lists are different from the line lists used to track serial testing results for COVID-19 (contact <a href="mailto:covHAI@cdph.ca.gov">covHAI@cdph.ca.gov</a> for COVID-19 line list template); continue to use COVID-19 <u>linelist</u> for tracking serial test results</li> <li>◦ Include individuals with current or recovered COVID-19 who have new onset of respiratory symptoms</li> <li>◦ Record specific locations of ill residents and HCP assignments and include information about sick HCP and sick visitors, as available</li> </ul> </li> <li>• Review line list daily and take actions needed if suspect influenza cases are identified.</li> </ul>
<p>2. Use <a href="http://www.cdc.gov/flu/professionals/diagnosis/overview-testing-methods.htm">diagnostic testing</a> (<a href="http://www.cdc.gov/flu/professionals/diagnosis/overview-testing-methods.htm">www.cdc.gov/flu/professionals/diagnosis/overview-testing-methods.htm</a>) for influenza and SARS-CoV-2:</p> <ul style="list-style-type: none"> <li>• Multiplex molecular assays           <ul style="list-style-type: none"> <li>◦ Influenza A, B, and SARS-CoV-2</li> </ul> </li> <li>• Rapid molecular assays</li> <li>• Rapid antigen detection assays</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Test residents with onset of respiratory symptoms for both influenza and SARS-CoV-2 at the same time to confirm the diagnosis;</b> contact the local health department for assistance obtaining real-time RT-PCR testing for influenza with rapid turn-around time.</li> <li>• Wherever available, use <a href="http://www.cdc.gov/flu/professionals/diagnosis/table-flu-covid19-detection.html">multiplex influenza A and B and SARS-CoV-2</a> (Flu SC2) (<a href="http://www.cdc.gov/flu/professionals/diagnosis/table-flu-covid19-detection.html">www.cdc.gov/flu/professionals/diagnosis/table-flu-covid19-detection.html</a>) tests; multiplex point-of-care (POC) testing for both influenza and SARS-CoV-2 should be considered for rapid evaluation of symptomatic individuals, followed by confirmatory real-time RT-PCR testing for <b>negative</b> results.</li> <li>• The lower sensitivity of antigen detection rapid influenza diagnostic tests (RIDTs) increases the risk of not identifying an influenza case; a negative RIDT in a symptomatic individual should be confirmed with real-time RT-PCR testing for influenza, even when the SARS-CoV-2 test is positive.</li> <li>• The lower sensitivity of POC antigen tests for SARS-CoV-2 increases the risk of not identifying a COVID-19 case; a negative POC antigen test for SARS-CoV-2 in a symptomatic individual should be confirmed with real-time RT-PCR testing for SARS-CoV-2, even when the influenza test (RIDT or otherwise) is positive.</li> </ul>

# Surveillance for acute upper respiratory illness (URI) and pneumonia

- Conduct daily active surveillance for acute URI and pneumonia in residents and in HCP
  - Include COVID-19 recovered individuals who develop new onset of respiratory symptoms
  - Review linelist daily to determine if testing or isolation needed, or definition of outbreak is met
  - Review absenteeism of HCP

Resident Identification			Vaccine History		Illness Description										Influenza Test Results		COVID-19 Test Results			Pneumococcal Test Results		Antibiotic Treatment	Illness Outcome							
Name	Age	Sex (M/F)	Residence Unit, Room, Bed	Influenza (Y/N)	Pneumococcal (Y/N)	Diagnosed illness	High fever/temperature	Cough (Y/N)	Malaise/ fatigue (Y/N)	Chills/rigors (Y/N)	Sore throat (Y/N)	Atypical myalgia (Y/N)	Change in respiratory status (e.g. sputum)	Pneumonia (Y/N)	CRP confirmed (Y/N)	Date specimen collected	RT-PCR Results	Rapid antigen (+/-/ND)	Date specimen collected	Type of test	Pos/Neg/Ind	Gram stain	Sputum culture	Antibiotic Treatment	Influenza (Y/N)	Pneumonia (Y/N)	Hospitalized (Y/N)	No. Days hospitalized	Dead (Y/N) If yes, date	



# Testing: Understanding *multiplex* panels

- Multiplex tests to detect influenza A/B and SARS-CoV-2
  - May be a molecular (Flu SC2) or an antigen test
  - Molecular Flu SC2 available in public health labs; some commercial platforms
  - Antigen test performed with the Quidel Sofia 2 using a special cassette
- Respiratory viral panel (RVP), a PCR assay, that detects many viruses in addition to influenza and SARS-CoV-2
  - Available in Public Health Labs and commercially, expensive
  - Recommended when there is an outbreak of respiratory viral illness and tests for influenza and SARS-CoV-2 are negative

# Testing SNF residents with symptoms during the pandemic

- Test any resident with symptoms of COVID-19 or influenza for **both viruses** to inform infection control practices and treatment
  - Use flu/SARS-CoV-2 **multiplex tests** (Flu SC2) whenever possible
  - Rapid influenza **molecular** tests (NAAT) rather than rapid influenza antigen tests (RIDTs) are preferred for improved sensitivity, at least to establish the presence of an outbreak
  - Confirm a **negative rapid antigen test for SARS-CoV-2 in a symptomatic individual with RT-PCR**
  - A **positive test for either influenza or SARS-CoV-2 does not exclude the possibility of a co-infection**
  - Use a *broad respiratory virus panel (RVP)* to test for other respiratory viruses, e.g., RSV, adenovirus, parainfluenza, human metapneumovirus, if influenza and SARS-CoV-2 tests are negative and an outbreak of respiratory illness is suspected.

# Collection of specimens for testing

- Follow directions in test kits used
- Influenza
  - **When:** 24-72 hours after symptom onset is optimal
  - **What:** A nasopharyngeal or combined throat and midturbinate nasal specimens provide the most accurate results
  - **How:** Follow directions that accompany the rapid influenza testing kit; use a swab with a synthetic tip (e.g., polyester or Dacron<sup>®</sup>) and an aluminum or plastic shaft. **Specimens collected with swabs made of calcium alginate are NOT acceptable.**

# Establish the presence of an influenza outbreak

- Definition
  - $\geq 2$  residents with onset of influenza-like illness within 72 hours of each other AND at least 1 resident with laboratory confirmed influenza, preferably by molecular assay (RT-PCR)
  - Consult LHD for guidance
  - ***Influenza outbreaks might occur separately or concurrently with COVID-19 outbreaks; the presence of a confirmed influenza outbreak does not preclude the possibility of a COVID-19 outbreak, nor does a COVID-19 outbreak preclude the possibility of an influenza outbreak***



## Communication:

### This is what you have been planning for!

- As soon as an influenza outbreak is established, notify:
    - Facility infection preventionist, administration, medical director, staff
    - Local health department, CDPH L&C district office
    - Residents, family members, visitors
  - Post signs at facility entrances: Reminders about vaccine
    - Add tissues and covered waste receptacles to COVID-19 materials and signage at entrance
  - Remind HCP of their specific tasks according to the influenza outbreak plan
    - Document assignments and dates initiated and completed
  - Restrict visitation and admissions during an active flu outbreak
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# Transmission-based precautions and cohorting

- **General principles**

- PPE practices for SARS-CoV2 will protect against flu, but PPE practices for flu won't protect against SARS-CoV-2
  - **Do not move residents with suspected or confirmed influenza between COVID-19 cohorts;** for example, do not move a resident with suspected or confirmed influenza from a yellow (COVID-19 exposed or observation) to a green (COVID-19 unexposed or recovered) area
    - Residents with suspected or confirmed influenza may be cohorted together within the same COVID-19 zone
    - During an outbreak of COVID-19 and flu, each COVID-19 zone (Red, Yellow) may require a separate area for flu
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# Transmission-based precautions and cohorting

- **Source control**
  - Emphasize masks, cloth face coverings for residents, HCPs, and visitors to prevent transmission of flu, using signage
- **Prioritize single-bed rooms, where available, for residents with suspected flu pending test results**
  - If single rooms are unavailable, ill residents may remain in their room with separation of  $\geq 6$  feet and privacy curtain between residents
- **Use COVID-19 transmission-based precautions while test results pending**

## When influenza only is confirmed: PPE

- Droplet precautions plus face shield
  - Continue for  $\geq 7$  days after illness onset (24 hours after resolution of fever and respiratory signs)
- Don N95 plus face shield, gowns and gloves for aerosol generating procedures
- Add gloves and gowns per Standard precautions when contact with blood or body fluids is anticipated; add Enhanced Standard precautions for high contact activities with residents at risk for MDRO
- Maintain residents in their rooms when safe and restrict from activities in common areas including meals
- Place facemask on resident and have resident perform hand hygiene and don clean clothes if he/she needs to leave room for medical reasons

# When influenza only is confirmed: Adherence monitoring

- Perform repeated **audits of HCP adherence** to masking for source control, hand hygiene and other infection control precautions
  - Secret Shopper
  - Immediate feedback to HCP when lapses are observed
- Perform audits of residents wearing masks when HCP are in the room with feedback to resident and staff
- Report trends in audit results to SNF administrators and leaders
- Post de-identified adherence monitoring data in HCP break or charting areas

## Antiviral agents for influenza: treatment

- Begin anti-viral treatment as soon as possible, but within 48 hours of symptom onset
- When there is ongoing transmission of influenza and not SARS-CoV-2, do not wait for test results before initiating Rx
- Consult resident's PCP for any necessary dose adjustments in residents with underlying conditions, such as renal impairment
- If illness progresses for 72 hours on therapy, consult LHD for evaluation of possible drug resistance

# Antiviral agents for influenza: chemoprophylaxis

- When an **influenza outbreak is established, provide influenza antiviral chemoprophylaxis** with the currently recommended antiviral agent at the recommended dosage regimen to **all non-ill residents in the entire facility or in the building or unit affected, regardless of vaccination status**
- Prioritize as follows:
  - Roommates, residents on the same floor or unit as residents with active influenza
  - Residents in the same building with shared HCP
- Duration:  $\geq 14$  days and  $\geq 7$  days after the last known case was identified
- Re-test for flu and SARS-CoV-2 any resident who develops signs or symptoms of ILI after receiving an antiviral agent for  $\geq 72$ h



# Manage healthcare personnel (HCP)

- Ensure vaccination
  - Instruct not to work respiratory tract infection symptoms
  - If symptoms develop at work: ensure face mask in place, notify supervisor, leave promptly, test for SARS-CoV-2 and flu
  - If influenza pos. and SARS-CoV-2 neg.
    - HCP follows facility policy for return to work for influenza: at minimum do not return to work until afebrile >24 hours without antipyretic treatment and with improvement in respiratory symptoms or no earlier than 5 days after onset
  - Consider referring HCP for antiviral chemoprophylaxis if:
    - < 14 days after receiving vaccine, but must be > 14 days after LAIV4
    - Not vaccinated due to contraindications
    - At high risk for complications
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## Determine end of influenza outbreak

- Consult LHD
- No new cases of influenza identified for at least 1 week after the last confirmed case of influenza
- Resume new admissions to previously affected units, or as determined by COVID-19 status
- Notify:
  - Facility infection preventionist, administration, medical director, HCP
  - Local health department
  - L&C district office
  - Residents, family members, visitors
- Perform assessment of program and begin plan for next year

# Conclusions

- Unprecedented times require preparation for flu and SARS-CoV-2 co-circulation: *Prepare for the worst, hope for the best*
- Planning ahead for prevention of adverse outcomes associated with influenza requires a strong flu vaccination program for residents and staff with education for families
- Continue NPI practices
- Ongoing surveillance and evaluation will detect unpredicted events
- New CDC guidance since CDPH document posted on 10.6.20
  - Interim guidance for influenza outbreak management in SNF(11.17.20)  
[www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm)
  - Testing and management considerations for SNF  
[www.cdc.gov/flu/professionals/diagnosis/testing-management-considerations-nursinghomes.htm](http://www.cdc.gov/flu/professionals/diagnosis/testing-management-considerations-nursinghomes.htm)

# Questions?

For more information,  
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