



# *Outbreak Management in Long-Term Care Facilities*

Communicable Disease Branch Webinar

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# *Scabies in Healthcare Facilities*

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# *Symptoms*

- In a person who has never had scabies:
  - May take 4-6 weeks for symptom onset
- In a person who has had scabies in the past:
  - Symptoms may start in 1-4 days

# *What to Look for and Diagnosis*

- Intense itching
- Pimple-like itchy rash
- May affect entire body
- Burrows (tunnels) may be seen on the skin
- Confirm diagnosis



Dermatologie.md

# *Transmission*

- **Direct, prolonged, skin-to-skin contact with an infested person**
- **Sexual partners**
- **Household members**
- **Quick handshake/hug will usually not spread scabies**

# *How Long Do Mites Live?*

- 1-2 months on a person
- 48-72 hours off a person
- Scabies mites will die at 122 degrees for 10 minutes



Webmd.com





# *How Do You Treat Scabies?*



# *Treatment*

- **Available only by prescription**
- **Family Members of positive staff**
- **Return to child care, school, or work the day after treatment**



# *Who should be treated?*

- Household members
- Sexual contacts
- Anyone with prolonged skin-to-skin contact in the preceding month



## *Treatment continued...*

- **Classic scabies:** drug of choice
  - **Permethrin cream 5%** (Topical - Drug of Choice) - *FDA approved for 2 months and older*
- **Crusted scabies:** *both oral and topical agents should be used together*
  - **Ivermectin** - oral - (*not FDA approved for this use*)
  - **Permethrin cream 5%** (Topical - Drug of Choice) - *FDA approved for 2 months and older*

# *Environmental Cleaning*

- Machine-wash bedding, clothing and towels
- Remove items that cannot be washed or dry-cleaned



# *Crusted Scabies:*

- “Norwegian” scabies
- Treat rapidly and aggressively
- Environmental Cleaning



Publichealth.lacounty.gov



# *Prevention Steps*



# *Avoid an Outbreak*

- **Surveillance**
- **Diagnostic Services**
- **Control & Treatment**
- **Environmental Disinfection**

# *Communication*



- **Establish procedures**
- **Ensure a proactive employee health service**
- **Maintain open and cooperative attitude between management and staff**

## *Resources:*

- [http://www.cdc.gov/parasites/scabies/health\\_professionals/institutions.html](http://www.cdc.gov/parasites/scabies/health_professionals/institutions.html)
- <http://www.cdc.gov/parasites/scabies/treatment.html>
- This presentation and the Scabies State Memo (5/15/16) are available to you on the online NC Communicable Disease Manual:
- [http://epi.publichealth.nc.gov/cd/lhds/manuals/cd/other\\_diseases.html](http://epi.publichealth.nc.gov/cd/lhds/manuals/cd/other_diseases.html)



**Thank you!**  
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# Interim Guidance for Influenza Outbreak Management in Long-term care facilities (LTCF)

Taken from-

[http://www.cdc.gov/flu/professionals/infectioncontrol/  
ltc-facility-guidance.htm](http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm)

# Interim Guidance for Influenza Outbreak Management in LTCF

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

1. Vaccination
2. Testing
3. Infection Control
4. Antiviral Treatment
5. Antiviral Chemoprophylaxis

<http://www.cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm>

# Vaccination

Influenza vaccination should be provided routinely to all residents and health care workers of long-term care facilities.

Higher vaccination levels among personnel have been associated with a lower risk of health care facility-associated influenza cases.



# Vaccination Questions

Facility states seeing flu in residents that were previously vaccinated. Should we re-vaccinate?

No, there is no 'booster' or re-vaccinate option for those that got the seasonal vaccine within the current season. People over 65 years can choose to get the high-dose vaccine.

For staff that refuse getting a flu vaccine, do they have to wear masks or be removed from work?

Mask policy is up to the facility but you cannot exclude individuals from work for not being vaccinated.

# Testing

If there is one laboratory-confirmed influenza positive case along with other cases of respiratory infection in a unit of a long-term care facility, an influenza outbreak **might** be occurring.

In order of priority, following influenza tests are recommended: RT-PCR; immunofluorescence; rapid influenza diagnostic tests

# Testing

Once a single lab-confirmed case has been identified and an outbreak is established conduct surveillance until at least 1 week after the last confirmed case

Test for flu if-

- ✓ Ill persons in previously unaffected units
- ✓ Persons who develop acute respiratory illness more than 72 hours after starting antiviral chemoprophylaxis
- ✓ Long-term care residents that are medically fragile that manifest atypical signs & symptoms

# Infection Control

- Implement daily active surveillance for respiratory illness among ill residents, health care personnel and visitors.
- Implement **Standard** and **Droplet** Precautions for all residents with suspected or confirmed influenza
  - Standard Precautions –  
[http://www.cdc.gov/hicpac/2007IP/2007ip\\_part3.html#a](http://www.cdc.gov/hicpac/2007IP/2007ip_part3.html#a)
  - Droplet Precautions –  
[http://www.cdc.gov/hicpac/2007IP/2007ip\\_part4.html#5](http://www.cdc.gov/hicpac/2007IP/2007ip_part4.html#5)

# Infection Control – Questions?

How long should we implement droplet precautions for residents with influenza?

Implement for 7 days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer.

# Antiviral treatment

Administer influenza antiviral treatment and chemoprophylaxis to residents and health care personnel according to current recommendations.

- Treatment should not wait for laboratory confirmation of influenza.
- Best started within first 2 days of symptoms
- The recommended dosing and duration of antiviral treatment is twice daily for 5 days

# Recommended Dosage and Duration of Treatment or Chemoprophylaxis for Influenza Antiviral Medications

<https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm#dosage>

Table 1. Antiviral Medications Recommended for Treatment and Chemoprophylaxis of Influenza

Antiviral Agent	Activity Against	Use	Recommended For	Not Recommended for Use in	Adverse Events
Oseltamivir (Tamiflu®)	Influenza A and B	Treatment	Any age <sup>1</sup>	N/A	<b>Adverse events:</b> nausea, vomiting. Postmarketing reports of serious skin reactions and sporadic, transient neuropsychiatric events (self-injury or delirium; mainly reported among Japanese adolescents and adults).
		Chemo-prophylaxis	3 months and older <sup>1</sup>	N/A	
Zanamivir (Relenza®)	Influenza A and B	Treatment	7 yrs and older	people with underlying respiratory disease (e.g., asthma, COPD) <sup>2</sup>	<b>Allergic reactions:</b> oropharyngeal or facial edema. <b>Adverse events:</b> diarrhea, nausea, sinusitis, nasal signs and symptoms, bronchitis, cough, headache, dizziness, and ear, nose and throat infections.
		Chemo-prophylaxis	5 yrs and older	people with underlying respiratory disease (e.g., asthma, COPD) <sup>2</sup>	
Peramivir (Rapivab®)	Influenza A and B <sup>3</sup>	Treatment	18 yrs and older	N/A	<b>Adverse events:</b> diarrhea. Postmarketing reports of serious skin reactions and sporadic, transient neuropsychiatric events (self-injury or delirium; mainly reported among Japanese adolescents and adults).
		Chemo-prophylaxis	N/A	N/A	

Abbreviations: N/A = not applicable, COPD = chronic obstructive pulmonary disease.

<sup>1</sup> Oral oseltamivir is approved by the FDA for treatment of acute uncomplicated influenza in persons 14 days and older, and for chemoprophylaxis in persons 1 year and older. Although not part of the FDA-approved indications, use of oral oseltamivir for treatment of influenza in infants less than 14 days old, and for chemoprophylaxis in infants 3 months to 1 year of age, is recommended by the CDC and the American Academy of Pediatrics. If a child is younger than 3 months old, use of oseltamivir for chemoprophylaxis is not recommended unless the situation is judged critical due to limited data in this age group.

<sup>2</sup> Relenza is contraindicated in patients with history of allergy to milk protein.

<sup>3</sup> Peramivir efficacy is based on clinical trials in which the predominant influenza virus type was influenza A; a limited number of subjects infected with influenza B virus were enrolled.

# Antiviral chemoprophylaxis

- All eligible residents in the entire long-term care facility (not just currently impacted wards) should receive antiviral chemoprophylaxis as soon as an influenza outbreak is determined.
- Antiviral chemoprophylaxis is recommended for all non-ill residents, regardless of their influenza vaccination status, in long-term care facilities that are experiencing outbreaks.
- CDC recommends antiviral chemoprophylaxis for a minimum of 2 weeks, and continuing for at least 7 days after the last known case was identified.



# Chemoprophylaxis Questions

- Should we consider prophylaxis for entire facility when only one unit/wing is having the outbreak?

If residents are cohorted and staff does not go from ill patients to well patients then one part of the facility can be given the prophylaxis dosing

- What do you mean give antiviral chemoprophylaxis for a minimum of 2 weeks, and continuing for at least 7 days after the last known case was identified?

From the date of the first symptom onset chemoprophylaxis should be given for 2 weeks, during the outbreak or this time if a new case is identified then continue for 7 days after this

# Additional Measures to Consider

- 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
- Avoid new admissions or transfers to wards with symptomatic residents.
- Limit visitation and exclude ill persons from visiting the facility via posted notices.

- Monitor personnel absenteeism due to respiratory symptoms and exclude those with influenza-like symptoms from work until at least 24 hours after they no longer have a fever.
- Restrict personnel movement from areas of the facility having illness to areas not affected by the outbreak.
- Administer the current season's influenza vaccine to unvaccinated residents and health care personnel as per current vaccination recommendations.

# Flu FAQs

- Antiviral chemoprophylaxis can be considered or offered to unvaccinated personnel who provide care to persons at high risk of complications?

It may be considered if the outbreak is caused by a strain that is not well matched by the vaccine, or for whom the vaccine is contraindicated.

- Can we send specimens to the state lab?

Yes, as part of the outbreak you can send specimens.

- What if a death occurs during an outbreak?

Notify the Epi on call, and enter the event in NCEDSS. Try to send a specimen to the state lab.

# ***NOROVIRUS REMINDERS***



*Webinar – January 5, 2017*

# Topics

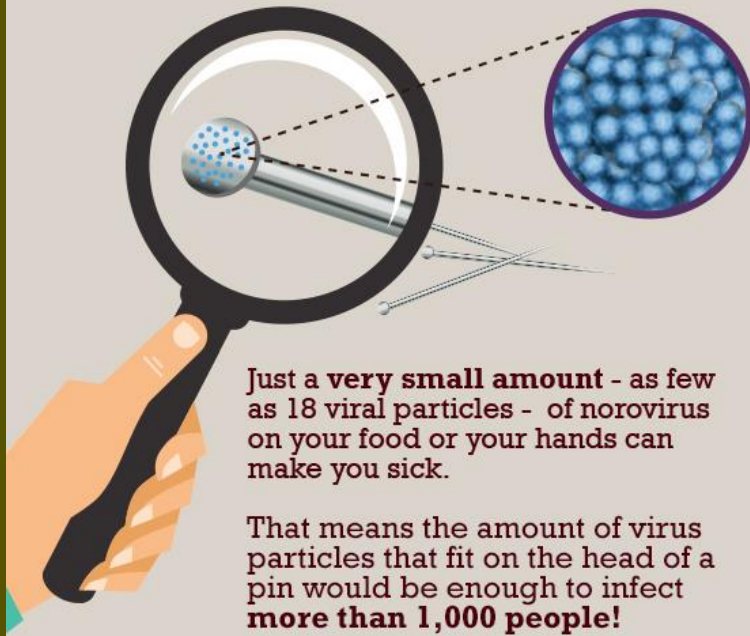


- The big picture
- Laboratory testing
- Control measures for common norovirus outbreak settings (i.e. schools and long term care facilities (LTCF))
- Where to find norovirus resources

# Highly contagious

# Relatively resistant

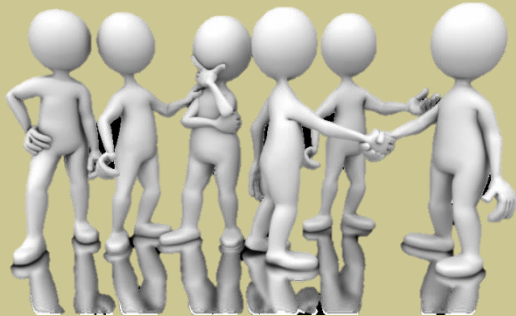
How contagious is norovirus?



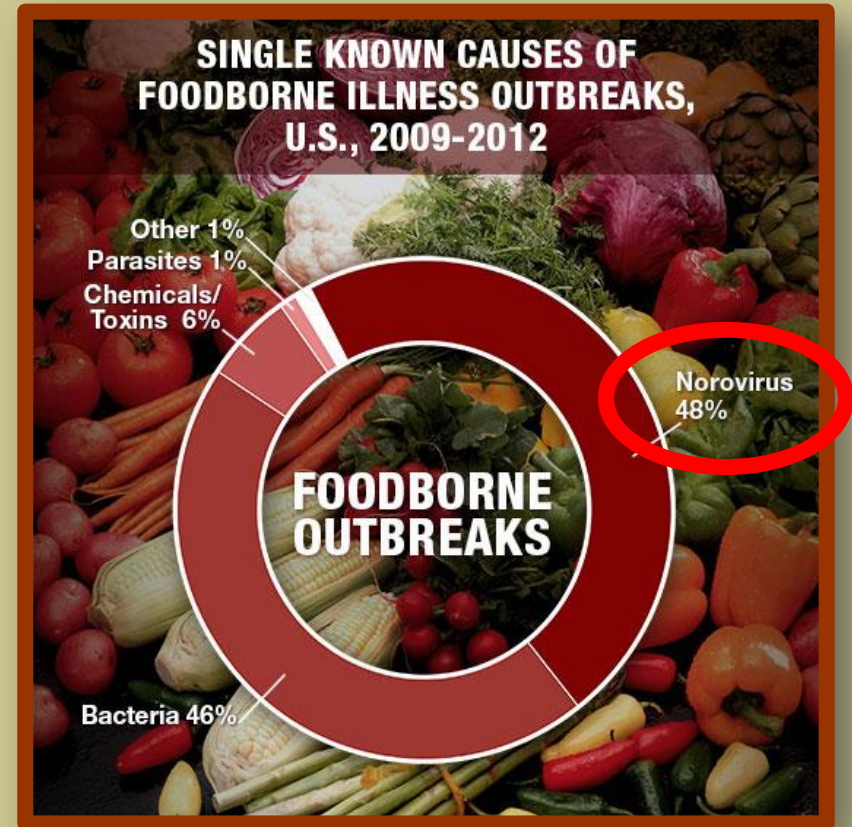
SOURCE: Journal of Medical Virology, August, 2008



# Spread in many ways



# Causes majority of FB outbreaks





# Illness can be serious in the elderly





Laboratory testing

Control measures in schools and LTCFs

# **REMINDERS FOR 2017**

# Laboratory Testing (Norovirus)



- Please submit throughout the year
- WHO/CDC interest in surveillance for changes in genogroups & genotypes
- Submit at least 5 specimens
- Requires approval from CDB



# Schools



## Laboratory testing

- Submit at least 5 specimens
- Requires approval from CDB

## Control Measures

- Exclude ill
- Increase environmental cleaning
- Supervised handwashing

# LTCFs



## In the media this week...

Norovirus outbreak causes quarantine in assisted living center

A screenshot of a video player showing a news report. The video is paused at 00:07 of a 02:22 duration. The main title of the video is "NOROVIRUS PUTS LIVING CENTER UNDER QUARANTINE". The video shows a man in a suit and tie speaking. The video player interface includes a play button, a progress bar, a volume icon, and a share icon. The video player also displays "NOW WATCHING:" and "RESUME" with a circular arrow icon. The video player also displays "51° 5:04" and "WCNC" in the bottom right corner. The video player also displays "ATRIA MERRYWOOD ASSISTED LIVING" and "NOROVIRUS PUTS LIVING CENTER UNDER QUARANTINE" in the bottom left corner. The video player also displays "PARTNERS HEAD HOME" in the bottom center.

# LTCFs



## Control Measures

- Contact precautions
- Exclude ill staff
- Increase environmental cleaning
- Adhere to proper handwashing (especially after contact with symptomatic)



## **Control Measures (continued)**

- Discontinue group activities
- Cohort patients/staff, if possible
- Restrict admissions





# Resources



## 2012 North Carolina Division of Public Health Communicable Disease Manual

Public Health Management of Reportable  
Diseases and Conditions

NC Division of Public Health • Epidemiology Section  
Communicable Disease Branch  
1902 Mail Service Center  
Raleigh NC 27699-1902  
919 - 733 - 3419 (main number – 24 hours)  
919 - 715 - 4699 (secure fax)

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<a href="#">Diseases &amp; Conditions Reportable in North Carolina</a>	<a href="#">Other Diseases of Public Health Significance (CA-MRSA, Influenza, Norovirus)</a>
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<a href="#">NC Electronic Disease Surveillance System (NC EDSS)</a>	<a href="#">Additional Communicable Disease Manuals (HBV, Rabies, STD, TB, Vaccine-Preventable)</a>







# Resources


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## North Carolina Communicable Disease Manual

### Other Diseases of Public Health Significance

- **Norovirus**

- [Norovirus Outbreaks in the Community](#) - Updated October 2015

- [Norovirus Testing through the NC SLPH](#) 

- [Norovirus Outbreaks in Long Term Care Facilities](#) - Updated October 2015

- [Norovirus: Personal Health Measures](#) - Updated October 2015

- [Norovirus: 3 Steps to Cleaning](#) - Updated December 2015

- [Guideline for the Prevention and Control of Norovirus Gastroenteritis Outbreaks in Healthcare Settings – January 2011](#) 

- **CDC Norovirus Control Guideline Toolkit – January 2011**

- [Overview: A Norovirus Outbreak Control Resource Toolkit for Healthcare Settings](#) 

- [Poster: What Healthcare Providers Should Know](#) 

- [Fact Sheet: Norovirus in Healthcare Facilities](#) 

- [Worksheet: Acute Gastroenteritis / Norovirus Case Reports](#) 

- [Key Infection Control Recommendations](#) 

- [Slide set: Norovirus Gastroenteritis Management of Outbreaks in Healthcare Settings](#) 



**THANK YOU!**