Scabies in Healthcare Facilities

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January 5, 2017
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
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
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
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/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
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
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.
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 –
  – Droplet Precautions –
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>
<thead>
<tr>
<th>Antiviral Agent</th>
<th>Activity Against</th>
<th>Use</th>
<th>Recommended For</th>
<th>Not Recommended For Use in</th>
<th>Adverse Events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oseltamivir</strong> (Tamiflu®)</td>
<td>Influenza A and B</td>
<td>Treatment</td>
<td>Any age&lt;sup&gt;1&lt;/sup&gt;</td>
<td>N/A</td>
<td>Adverse events: nausea, vomiting. Postmarketing reports of serious skin reactions and sporadic, transient neuropsychiatric events (self-injury or delirium; mainly reported among Japanese adolescents and adults).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemo-prophylaxis</td>
<td>3 months and older&lt;sup&gt;1&lt;/sup&gt;</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Zanamivir</strong> (Relenza®)</td>
<td>Influenza A and B</td>
<td>Treatment</td>
<td>7 yrs and older</td>
<td>people with underlying respiratory disease (e.g., asthma, COPD)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Allergic reactions: oropharyngeal or facial edema. Adverse reactions: diarrhea, nausea, sinusitis, nasal signs and symptoms, bronchitis, cough, headache, dizziness, and ear, nose and throat infections.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemo-prophylaxis</td>
<td>5 yrs and older</td>
<td>people with underlying respiratory disease (e.g., asthma, COPD)&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>Peramivir</strong> (Rapivab®)</td>
<td>Influenza A and B&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Treatment</td>
<td>18 yrs and older</td>
<td>N/A</td>
<td>Adverse events: diarrhea. Postmarketing reports of serious skin reactions and sporadic, transient neuropsychiatric events (self-injury or delirium; mainly reported among Japanese adolescents and adults).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chemo-prophylaxis</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

**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.
• 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

How contagious is norovirus?

Just a very small amount - as few as 18 viral particles - of norovirus on your food or your hands can make you sick.

That means the amount of virus particles that fit on the head of a pin would be enough to infect more than 1,000 people!

SOURCE: Journal of Medical Virology, August, 2008

Relatively resistant

Yes = Bleach
Spread in many ways

Causes majority of FB outbreaks

SINGLE KNOWN CAUSES OF FOODBORNE ILLNESS OUTBREAKS, U.S., 2009-2012

- Norovirus 48%
- Bacteria 46%
- Chemicals/Toxins 6%
- Other 1%
- Parasites 1%
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** | **Control Measures** |
| • Submit at least 5 specimens | • Exclude ill |
| • Requires approval from CDB | • Increase environmental cleaning |
| | • Supervised handwashing |
LTCFs

In the media this week...

Norovirus outbreak causes quarantine in assisted living center
Control Measures

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

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**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Diseases &amp; Conditions Reportable in North Carolina</th>
<th>Other Diseases of Public Health Significance (CA-MRSA, Influenza, Norovirus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Forms</td>
<td>NC Laws &amp; Rules</td>
</tr>
<tr>
<td>Investigation Steps</td>
<td>Agreement Addenda</td>
</tr>
<tr>
<td>Case Definitions</td>
<td>Conferences &amp; Training Opportunities</td>
</tr>
<tr>
<td>Press Releases</td>
<td>Communicable Disease Course</td>
</tr>
<tr>
<td>Outbreak Investigations</td>
<td>Technical Assistance &amp; Training Program</td>
</tr>
<tr>
<td>Appendices</td>
<td>Sample Policies/Procedures &amp; Standing Order Templates</td>
</tr>
<tr>
<td>NC Electronic Disease Surveillance System (NC EDSS)</td>
<td>Additional Communicable Disease Manuals (HBV, Rabies, STD, TB, Vaccine-Preventable)</td>
</tr>
</tbody>
</table>

Page Last Updated November 21, 2016
Resources

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


- **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!