Webinar #4 for LTC
Focus on Flu Part #2
October 25, 2018

Peggy Pass RN, MS, CIC, FAPIC
Division of Infection Prevention & Control
Teaching Objectives

• Be familiar with CMS and Maryland regulations associated with influenza management in LTC.

• Be able to discuss the 3 Phases of our Approach Plan for respiratory illness or Flu Season in longterm care facilities.

• Recognize the signs and symptoms of influenza-like illness and describe how to do surveillance for residents.

• Discuss how communication and education with families, residents and staff is all important during flu season.

• List 3 ways to intervene to prevent suspected flu cases in your facility.
Brief Influenza Review

• Wild waterfowl are the natural reservoir for influenza viruses.
• Many influenza strains circulate among birds.
• Influenza A and B viruses are predominant cause of human disease, with A causing the vast majority of disease.
• MD has had cases of both Influenza A and Influenza B this season (October 1-May 31 OR 2018 week 40-2019 week 20)
Infectious Disease Process

- Pathogenic Microorganism
- Reservoir
- Means of Escape
- Means of Entry
- Mode of Transmission
- Host Susceptibility
How do these winter illnesses move to a new host?

- Respiratory illnesses like influenza, respiratory syncytial virus, and whooping cough are all spread by large “mucous droplets” that travel to the next host by:
  - Coughing
  - Sneezing
  - Landing on the surface of the eye, in the mouth or other mucous membrane
$483.80$ Infection Control

- **Infection prevention and control program** – The facility must establish an infection prevention and control program (IPCP) that must include at a minimum, the following elements:

- (1) **A system for preventing, identifying, reporting, investigating, and controlling infections** and communicable diseases for all residents, staff, volunteers, visitors, and other individuals providing services under a contractual arrangement based upon the facility assessment conducted according to §483.70(e) – refers to “facility assessment” and following accepted national standards;
(2) Written standards, policies, and procedures for the program, which must include, but are not limited to:

(i) A system of surveillance designed to identify possible communicable diseases or infections before they can spread to other persons in the facility;

(ii) When and to whom possible incidents of communicable disease or infections should be reported;

(iii) Standard and transmission-based precautions to be followed to prevent spread of infections;

(iv) When and how isolation should be used for a resident; including, but not limited to:

(A) The type and duration of the isolation, depending upon the infectious agent or organism involved – least restrictive possible
42 CFR 483.80 – Infection Control

- (1) Influenza – the facility must develop policies and procedures to ensure that –
- (i) Before offering the influenza immunization, each resident or the resident’s representative receives education regarding the benefits and potential side effects of the immunization; (ii) Each resident is offered an influenza immunization October 1 through March 31 annually, unless the immunization is medically contraindicated or the resident has already been immunized during this time period; (iii) The resident or the resident’s representative has the opportunity to refuse immunization; and (iv) The resident’s medical record includes documentation that indicates, at a minimum, the following:
  • (A) That the resident or resident’s representative was provided education regarding the benefits and potential side effects of influenza immunization.
  • (B) That the resident either received the influenza immunization or did not receive the influenza immunization due to medical contraindications or refusal.
Maryland Specific Regulations
COMAR 10.07.02
• G. Preventing Spread of Infection

• (1) The facility shall assess any residents with signs and symptoms of an infectious illness for the possibility of transmission to another resident or employee.

• (2) The facility shall take appropriate infection control steps to prevent the transmission of a communicable disease to residents, employees, and visitors as outlined in the following guidelines:

  • (a) Guideline for Isolation Precautions in Hospitals; and
  • (b) Guidelines for Infection Control in Health Care Personnel.
.21 Infection Control Program

• (3) The facility shall prohibit employees with communicable disease or with infected skin lesions from direct contact with residents or their food if direct control could transmit the disease.

• (4) The facility shall require employees to perform hand hygiene after each direct resident contact for which hand hygiene is indicated by accepted professional practice.

• (5) The facility shall handle, store, process, and transport linens so as to prevent the spread of infection.
COMAR 10.06.01 Outbreak Definition

• (c) **An increase in the number of infections** in a facility, such as a hospital, long-term care facility, assisted living facility, school, or child care center, **over the baseline rate usually found in that facility**

• **Know what your baseline was in the 2017-2018 influenza season and**

• **Keep track of your baseline/performance this season this year-to become your baseline for next year**
  • **Perhaps your first baseline of surveillance cases?**
Influenza Vaccination of LTC Residents

- Reduces:
  - Illness and pneumonia due to influenza
  - Cardiopulmonary exacerbation
  - Hospitalization: approx. >1% of adults >65 yrs. of age in North America annually
  - Death: case-fatality as high as 50%

- Try to vaccinate all residents
  - Consider offering vaccine to family members
  - Consider dedicating a week to do all vaccinations, except for new admissions during flu season
  - Consider large “clinics” to cover both staff and residents OR go by units
Influenza Vaccination among HCW’ers: 2017-2018 season

- CDC opt-in Internet panel survey of 2,265 U.S. health care personnel: 78.4%
  - Similar to previous four influenza seasons
  - **Lowest rate for LTC workers**; putting elderly in long-term settings at increased risk for severe complications for influenza
  - Consider a unit contest for residents and for staff-incentives do work
IS IT A COLD OR THE FLU?

- RARE HEADACHE
- NORMAL TEMP
- SLIGHT ACHES & PAINS
- SNEEZING
- RUNNY NOSE
- SORE THROAT
- MILD TO MODERATE HACKING COUGH

- PROMINENT HEADACHE
- SUDDEN ONSET OF TEMP 102°-104° (LASTS 3-4 DAYS)
- SEVERE ACHES & PAINS
- EXTREME FATIGUE & WEAKNESS (LASTS 2-3 WEEKS)
- SEVERE COUGH
- CHEST DISCOMFORT

Rx: REST
Fluids
Tissues
Chicken Noodle Soup
Signs and Symptoms of Flu

SYMPTOMS OF FLU

- Fever*
- Cough
- Sore throat
- Runny or stuffy nose
- Feeling feverish/chills
- Muscle or body aches
- Headaches
- Fatigue (tiredness)

*Not everyone with flu will have a fever.

#FIGHT FLU

www.cdc.gov/flu
Symptoms of Influenza

Central
- Headache

Systemic
- Fever (usually high)

Muscular
- (Extreme) tiredness

Joints
- Aches

Nasopharynx
- Runny or stuffy nose
- Sore throat
- Aches

Respiratory
- Coughing

Gastric
- Vomiting
<table>
<thead>
<tr>
<th>Symptom</th>
<th>Sensitivity</th>
<th>Specificity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever</td>
<td>68–86%</td>
<td>25–73%</td>
</tr>
<tr>
<td>Cough</td>
<td>84–98%</td>
<td>7–29%</td>
</tr>
<tr>
<td>Nasal Congestion</td>
<td>68–91%</td>
<td>19–41%</td>
</tr>
</tbody>
</table>

All three findings, especially fever, were less sensitive in people over 60 years of age.
Influenza virus transmission

• Typical incubation period: 1-4 days (avg. 2 days)
• Shedding of virus: day before symptoms begin through 5-10 days after illness onset; peak viral shedding on day 1 of illness
  • Infectivity decreases rapidly by 3-5 days with shedding completed by most persons by 5-7 days
  • Young children shed virus several days before illness onset and may be infectious > 10 days
Influenza-like Illness (ILI) Surveillance:
Case definitions

• ILI (Influenza-like illness) a temperature of at least 100°F (37.7°C) PLUS cough OR sore throat in the absence of a known cause other than influenza. Older adults, >=65 years, may have an atypical presentation: no fever, coryza, sneezing or rhinorrhea (refer to McGeer LTC definitions, revised 2012)

• Check with your microbiology/virology lab to see what type of testing they do and the turnaround time so you know how to order and can train others
Getting a positive Influenza diagnostic test:

• Can inform clinical management in your facility
  • Decision-making regarding use of antiviral medications (Tamiflu)
  • Performing other diagnostic testing
  • Implementing infection control measures e.g. isolation
  • Can help meet the definition of an outbreak which allows you to direct other prevention measures to decrease cases

• Recommended for at least the initial LTC patients with suspected influenza

• Testing methods include molecular assays, antigen detection & culture
  • Rapid molecular assays detect influenza virus nucleic acids in respiratory specimens with high sensitivity and can produce results in 15-30 minutes
  • Viral culture does not produce timely results for clinical management - takes too long
Prevention of LTC Outbreaks

• Standard and Droplet precautions should be implemented for patients with suspected or confirmed influenza for 7 days after illness onset or until 24 hours after the resolution of fever and respiratory symptoms, whichever is longer

• Utilize a sign that informs staff and visitors about PPE and other steps needed to go into that particular room (we will have these for you coming up in our webinar programs)
To prevent transmission of respiratory viruses:

• Use Respiratory Etiquette!! Cover your mouth and nose with a tissue when you cough or sneeze.

• Put your used tissue in the waste basket next to the point of entry(s) into your facility.

• If you don't have a tissue, cough or sneeze into your upper sleeve, not your hands!!

• Clean your hands after coughing or sneezing with soap and water or an alcohol-based hand rub (ABHR). ABHR should be at points of entry into your facilities.

• You may be asked to put on a surgical mask to protect others while visiting friends or family in a health care setting such as a hospital or nursing home – best for everyone to NOT VISIT when symptomatic – no matter what virus you could have!
IF YOU'RE COUGHING OR SNEEZING, PLEASE ASK FOR A MASK

You may be asked to wear a surgical mask to protect others from your cough or sneeze.

Wearing a surgical mask when you have a cough or sneeze will help protect our patients, staff, and visitors from your illness, as well as help to protect you from other illnesses.

Our staff will be happy to help you with the mask.
## Recommendations for Application of Standard Precautions for the Care of All Patients in All Healthcare Settings

<table>
<thead>
<tr>
<th>Component</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand hygiene</td>
<td>After touching blood, body fluids, secretions, excretions, contaminated items; immediately after removing gloves; between patient contacts.</td>
</tr>
<tr>
<td>Personal protective equipment (PPE) Gloves</td>
<td>For touching blood, body fluids, secretions, excretions, contaminated items; for touching mucous membranes and nonintact skin</td>
</tr>
<tr>
<td>Personal protective equipment (PPE) Gown</td>
<td>During procedures and patient-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated.</td>
</tr>
<tr>
<td>Personal protective equipment (PPE) Mask, eye protection (goggles), face shield</td>
<td>During procedures and patient-care activities likely to generate splashes or sprays of blood, body fluids, secretions, especially suctioning, endotracheal intubation. During aerosol-generating procedures on patients with suspected or proven infections transmitted by respiratory aerosols wear a fit-tested N95 or higher respirator in addition to gloves, gown and face/eye protection.</td>
</tr>
<tr>
<td>Soiled patient-care equipment</td>
<td>Handle in a manner that prevents transfer of microorganisms to others and to the environment; wear gloves if visibly contaminated; perform hand hygiene.</td>
</tr>
<tr>
<td>Environmental control</td>
<td>Develop procedures for routine care, cleaning, and disinfection of environmental surfaces, especially frequently touched surfaces in patient-care areas.</td>
</tr>
<tr>
<td>Textiles and laundry</td>
<td>Handle in a manner that prevents transfer of microorganisms to others and to the environment.</td>
</tr>
<tr>
<td>Needles and other sharps</td>
<td>Do not recap, bend, break, or hand-manipulate used needles; if recapping is required, use a one-handed scoop technique only; use safety features when available; place used sharps in puncture-resistant container.</td>
</tr>
<tr>
<td>Patient resuscitation</td>
<td>Use mouthpiece, resuscitation bag, other ventilation devices to prevent contact with mouth and oral secretions.</td>
</tr>
<tr>
<td>Patient placement</td>
<td>Prioritize for single-patient room if patient is at increased risk of transmission, is likely to contaminate the environment, does not maintain appropriate hygiene, or is at increased risk of acquiring infection or developing adverse outcome following infection.</td>
</tr>
<tr>
<td>Respiratory hygiene/cough etiquette (source containment of infectious respiratory secretions in symptomatic patients, beginning at initial point of encounter e.g., triage and reception areas in emergency departments and physician offices)</td>
<td>Instruct symptomatic persons to cover mouth/nose when sneezing/coughing; use tissues and dispose in no-touch receptacle; observe hand hygiene after soiling of hands with respiratory secretions; wear surgical mask if tolerated or maintain spatial separation, &gt;3 feet if possible.</td>
</tr>
</tbody>
</table>

(See Sections II.D.-II.J. and III.A.1)
Droplet Precautions

Mucous droplets propelled from the mouth, heavy enough so they move from mouth to about 3 feet and fall… Hence the name “droplet”
Use of Personal Protective Equipment (PPE)

Apply: Gown, Mask, & Gloves

Practice Droplet Precautions

**Step 1**
Apply Gown

- Must be tied at top & waist

**Step 2**
Apply: Gown, Mask, & Gloves

- Must cover nose at all times

**Step 3**
Apply Gloves

- Wash hands before & after use of gloves
Antiviral Medication - Tamiflu

• Early treatment:
  • Can shorten the duration of fever and illness symptoms
  • May reduce the risk of influenza complications e.g. otitis media in young children, pneumonia and respiratory failure
  • Greatest clinical benefit when administered within 48 hours of illness onset

• Consider the following for treatment:
  • Give for a minimum of 2 weeks, and continue for at least 7-10 days after the last onset of illness
  • Can be offered to unvaccinated staff during all outbreaks and can be offered to all staff when the outbreak flu strain is suspected not to be a good match to the vaccine strain.
  • All well residents in the entire facility, not just the impacted current unit, regardless of vaccination status, should receive Tamiflu immediately when at least 2 residents are ill within 72 hours of each other and at least 1 resident has tested positive for influenza by any test. It should also be given when flu is suspected, but testing cannot be done right away.
Management of Healthcare Worker’s with Fever and Respiratory Symptoms

• Instruct not to report to work, or if at work, to stop patient-care activities, don a facemask, and promptly notify their supervisor and infection control personnel/occupational health before leaving work.

• Policies and procedures should enhance exclusion of HCW’ers who develop a fever and respiratory symptoms from work for at least 24 hours after they no longer have a fever, without the use of fever-reducing medicines.

• Remind that adherence to respiratory hygiene and cough etiquette after returning to work is always important.
Now let’s review the different Phases of our Flu Season Plan
Phased Approach Plan for Respiratory Illness Season in Your Longterm Care Facility

**PHASE ZERO
HANDLING A FACILITY DURING RESPIRATORY SEASON**

- **No Resident Cases of Respiratory Illness, eg. Influenza, ILI (Influenza-like illness), pneumonia, or other respiratory illness**

**ANCILLARY JOBS
REST OF FACILITY**

- **Train your staff.**
  Get forms ready to cover daily surveillance from each unit on any resident/patient with respiratory symptoms. Communicate how to use the resident surveillance form and get the information to the Infection Preventionist or designee promptly.

- **Place a provided “It is Flu Season Visitor Sign”** in your main lobby and other visitor entry points of your facility. This sign lets people know that flu/respiratory season has begun. Fact sheets can be made available at these points that provide basic information on disease prevention measures everyone can use during flu season.

- **Set up “Flu Prevention Stations”** at these same entry points. Provide alcohol-based hand rub (ABHR), Kleenex, waste can, and have surgical masks available for symptomatic visitors if they are visiting a resident.

- **You can advertise your flu vaccine campaign for residents and staff.** Encourage everyone to get the flu vaccine. You may also encourage those 65 years of age or older to receive the pneumococcal vaccine.

- **Promote frequent hand hygiene in the facility.**

- **Ensure that your facility communicates infection status of resident(s) when needing to transfer them outside or inside the facility.**

- **Determine respiratory surveillance mechanisms for residents and how that information will be delivered to you or your designee promptly.** Please refer to **Attachment #1—Recommendations for the Infection Preventionist during Flu season in Longterm Care Facilities.**

- **Tools, slides, and signs have been made available to you from the Maryland Department of Health. Many fact sheets and tools can also be found on the cdc.gov website.**
Phase 0: Flu Season is Here!

It is Flu Season!

- If you are experiencing symptoms of respiratory illness, please do not visit today.
- For the protection of our residents, please stop at our Flu prevention station before you visit.
  - Use hand sanitizer or wash your hands before and after your visit and after coughing or sneezing.
  - Practice respiratory etiquette by coughing and/or sneezing into your elbow or into a tissue and wash your hands!!!!
Phased Approach to Respiratory Illness in Your Long Term Care Facility

First Resident Case of Respiratory Illness (SYMRES), eg. Influenza, ILI (Influenza-like illness), or pneumonia is identified in your facility.

- Place a provided “We Have a Case Visitor Sign” in your main lobby and other visitor entry points in your facility. For a symptomatic resident (SYMRES), isolate in his or her room in Droplet Precautions (MD Respiratory Guidelines, page 10). The SYMRES and his or her roommate (ROOMMT-if there is one) should both refrain from going to group activities and eating in the dining room. Meals should be taken in their room and bathing should be done there also. Keep ROOMMT with SYMRES as he or she has already been exposed to respiratory illness. The SYMRES should be maintained in Droplet Precautions for 7 days after illness onset or until 24 hours after the resolution of fever, without anti-pyretic medication, and respiratory symptoms, whichever is longer.

- If SYMRES or ROOMMT must leave room for medical care, place them in a surgical mask. Limit care outside the patient room unless absolutely necessary.

- Do a quicktest for influenza on SYMRES or send Influenza PCR test to a laboratory.

- Strongly consider giving Tamiflu to both SYMRES and ROOMMT—even if latter showing no signs or symptoms of respiratory illness; Droplet Precautions should remain for 7 days after onset of respiratory symptoms and 5 days if room occupants receive Tamiflu, see MD Respiratory Guidelines, page 13.

- Be aware of vaccine status of all residents—encourage residents who refused to reconsider if there is no medical contraindication for vaccination.

- Limit traffic of staff and residents between units and between affected and unaffected areas of the facility.

- Initiate daily active surveillance on residents and staff—see Attachment #1—Recommendations for the IP during flu season in LTC.

Clinical Case Definitions:
- ILI - A respiratory illness with a temperature of 37.8° (100° F) or greater orally PLUS cough or sore throat
- Influenza - An illness with laboratory confirmation of influenza regardless of signs/symptoms
- Pneumonia - A clinically compatible illness PLUS a new X-ray finding of pneumonia or a new infiltrate that is not felt to be aspiration pneumonia

ANCILLARY JOBS
REST OF FACILITY

- No additional cases of respiratory illness have been reported by staff members in the units to Infection Control or their designee.
Attention all Visitors!

We are experiencing some cases of respiratory illness on...

- If you are experiencing symptoms of respiratory illness, please do not visit today.
- If the person you are visiting is on the affected unit, you must check in at the nurse's station before entering the room!
  - Please wear a surgical mask before going onto the affected unit!
  - Use hand sanitizer or wash your hands before and after your visit and after coughing or sneezing.
- Please only visit with the person you are here to see:
  - People going to different rooms and areas of the building can spread germs that cause illness.
Phased Approach to Respiratory Illness in Your Long Term Care Facility

PHASE #2
Handling Symptomatic Resident and Symptomatic Roommate

First Resident Case of Respiratory Illness (SYMRES) and ROOMMT (case #2) now meets clinical case definition OR Additional case(s) in other locations in facility

Clinical Case Definitions:
- ILI - A respiratory illness with a temperature of 37.8° (100° F) or greater orally PLUS cough or sore throat
- Influenza – An illness with laboratory confirmation of influenza-regardless of signs/symptoms
- Pneumonia – a clinically compatible illness PLUS a new X-ray finding of pneumonia or a NEW infiltrate that is not felt to be aspiration pneumonia

PHASE #3
Your facility meets one or more of the Outbreak Definitions in the Red Box

Outbreak Definitions:
For ILI - 3 or more cases in residents/staff within 7 days
OR
Influenza – 2 residents/staff having onsets of ILI or pneumonia within 3 days of each other and at least 1 person has influenza confirmed by any test OR
Pneumonia – an outbreak is defined as 2 or more cases of pneumonia in a ward/unit within 7 days
An outbreak can be a combination of the above

• Place a provided “Outbreak Visitor Sign” in your main lobby if and when the Outbreak Definition below is met.
• Droplet Precautions will continue to be maintained for the SYMRES and the ROOMMT (now case #2) for 7 days after illness onset in the ROOMMT or until 24 hours after the resolution of fever, without anti-pyretic medication, and respiratory symptoms, whichever is longer.
• If signs & symptoms of respiratory illness develop in residents housed elsewhere in the facility, follow procedures done with SYMRES and possible ROOMMT in the additional locations and units.
• Have a clear masterlist including location of those vaccinated this season to flu as well as those who declined the vaccination. (see Attachment #1 Recommendations for the IP)
When Phase #2 or Phase #3 is beginning, go back to non-vaccinated residents or their provider to discuss getting them vaccinated with seasonal flu vaccine to reduce vulnerability.
• Arrange to cohort staff members on the affected unit(s) experiencing respiratory cases—preferably those that have been vaccinated.

Call your Local Health Department (LHD) Immediately

LHD communicates with the MD Dept of Health Outbreak Division to get an outbreak number and will help to manage the outbreak.
Phase 3: We are having an outbreak!

We are experiencing a respiratory illness outbreak

- If you are experiencing symptoms of respiratory illness, please do not visit today.
- If the person you are visiting is on the affected unit, you must check in at the nurse’s station before entering the room!
- We prefer you not visit anyone on the affected unit
- If the person you are visiting is on another unit, please only visit with that specific person
  - Please wear a surgical mask before going onto that unit!
  - Use hand sanitizer or wash your hands before and after your visit and after coughing or sneezing.
Fundamental Elements to Prevent Flu Transmission

• Get vaccinated! Both residents and staff!
• Frequent hand hygiene with either soap and water or alcohol-based hand sanitizers
• Avoid touching your eyes, nose or mouth
• Practice respiratory etiquette!
• Avoid close contact with people who are sick
• Stay home when you are sick
• Clean, then disinfect surfaces and shared objects
• Practice Standard and Droplet Precautions
Benefits of ImmuNet

- Quickly and easily find or replace patient immunization records

- Find your patient’s vaccine history from multiple healthcare providers and pharmacies in one location

- Easier vaccine management and prevents vaccine waste by avoiding unnecessary repeat doses

- Setting up electronic data exchange will allow you to meet your VFC reporting requirement without any interruption in your workflow.
Requesting ImmuNet Access

Organization/Provider Enrollment Form

• Go to ImmuNet website: health.maryland.gov/ImmuNet

• On the left navigator, click on the link ‘Forms’

• Under section ‘For Providers’, ‘Provider Enrollment Form’, click on the blue PDF link

• Please mail, email or fax completed form.
Help Desk

The ImmuNet Help Desk is available to answer any questions about using ImmuNet.

E-mail: mdh.mdimmunenet@maryland.gov

Call: (410) 767-6606