Objective

• Discuss key practical steps in the management of influenza outbreaks.
Influenza Outbreak Management Phases in LTC

• Pre-Outbreak
• Actual Outbreak
• Follow-Up
Pre-Outbreak Phase Components

- Vaccination *
  - Residents
  - HCP

- Surveillance

- Preparedness Planning

* Not a focus of this presentation
Surveillance
Surveillance

• Flu occurs every year – expect it!

• LTCF cases are often undetected
  – Unless you are actively looking you won’t see flu

  The frail and elderly may present with an atypical picture – particularly lack of fever

• May present as CHF, COPD, Pneumonia

  Think flu if wheezing during the height of flu season or with viral URI symptoms
Surveillance

• Daily surveillance

• Look for ILI: Pick your definition and use it
  – Fever AND cough/sore throat
    • 100 degrees
  – Fever AND respiratory symptoms
  – Fever AND myalgias/HA/cough/coryza/PNA

• Definition represents guidance – not an absolute

*The frail and elderly may present with an atypical picture*
– particularly lack of fever
Surveillance

• Track what is going on in the community
  – PA DOH website *
  – PA HAN
  – CDC – cdc.gov/flu *
  – Local Health Departments *
  – News media

• Test
  – PCR (http://www.youtube.com/watch?v=TFwSefezIHU)
  – EIA - immunofluorescence
  – Rapid tests – frequent false positives and false negatives
  – Culture – only in unusual cases – takes too long to be practical

* Particularly helpful in determining trends
Surveillance

• Possible Outbreak
  – 2 or more residents in close proximity in a facility who develop a respiratory illness within 48-72 hours of each other

• Confirmed Outbreak
  – One laboratory confirmed case of influenza

http://cdc.gov/flu/professionals/infectioncontrol/Ltc-facility-guidance.htm
Preparedness Planning
Preparedness Planning

• In our experience, most of our outbreaks are occurring Friday afternoons!

• Pre-Printed Antiviral Order Sheets
  – Medical Director signs
  – Treatment versus Prophylaxis
  – Renal dosing

• Maintain a creatinine clearance/GFR list for all residents in facility
Actual Outbreak

- Isolation Precautions
- Antiviral Use
- Infection Control Practices
- Communication and Reporting
Isolation Precautions
Droplet precautions

- Surgical mask upon entering room
- Limit time resident out of room
- Mask resident if they leave room
- 3 foot spatial separation / curtain
- Private room if possible/cohorting
  - Prophylaxis of roommate
Droplet precautions

- Put all newly confirmed or suspect cases immediately in droplet precautions

- 5 – 7 days FROM SYMPTOM ONSET*

- Communicate information about residents with suspected, probable, or confirmed influenza to other departments and facilities.

* CDC site lists both 5 & 7 days in separate, current references
Antivirals
Strategies to Stop Transmission of Flu in Healthcare Facilities

Patient Immunization

Healthcare Worker Immunization

Antiviral Agents
Antivirals

- Used for Treatment AND Prophylaxis
  - Oseltamivir or zanamivir

- Renal Adjustment
  - CrCl < 30 with oseltamivir

- Teamwork (Pharmacy/Medical Director/Nursing/Adm)

http://cdc.gov/flu/professionals/antivirals/summary-clinicians.htm
Immunize those who haven’t had flu shot!

Those who refused the flu shot and who are now ill: Educate!
Infection Control Practices
Infection Control Practices

• Signage
  • Announces outbreak to visitors
  • Instructs visitors to avoid visiting if ill or at risk

• Make tissues and masks available
  – Cough etiquette

• Alcohol based hand gels and hand hygiene
Infection Control Practices

• Send sick staff home
  – 24 hours after fever off meds that will mask fever
  – Coming back try to assign to previously ill or recuperating

• Cancelling large group activities/restrict visitors (children 10 days and adults 5 days)

http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm
#recommendations
Infection Control Practices

• Defer admissions *
  – Close units/facility where there are symptomatic residents

• Limit traffic between units

• Track the Outbreak
  – Line listing form

* Admissions to a LTC are ELECTIVE. Patient safety comes first.

http://cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm
Communication & Reporting
Communication

• Patients and families
  – What you know, what you are doing, who is involved, when you will update

• Physicians

• Staff
Reporting

- Health Department
- DOH
- PSA via PA-PSRS
- DPW if in AL / Personal Care
Follow-Up
Follow Up

- Infection Control / QI Team review
  - Number of confirmed and suspected cases
  - Duration
  - Procedural review
  - Barriers discussion

- Staff & Physician F/U
  - Vaccination status

- Family F/U
New York City Letter Carrier
October 1918

Courtesy of the National Archives
Resources

- **CDC**
  - [http://www.cdc.gov/flu](http://www.cdc.gov/flu)
  - [http://cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm](http://cdc.gov/flu/professionals/infectioncontrol/ltc-facility-guidance.htm)
  - [http://www.cdc.gov/flu/professionals/infectioncontrol/healthcare-settings.htm#recommendations](http://www.cdc.gov/flu/professionals/infectioncontrol/healthcare-settings.htm#recommendations)

- **PA DOH**
  - [http://www.portal.state.pa.us/portal/server.pt/community/influenza_(flu)/14161](http://www.portal.state.pa.us/portal/server.pt/community/influenza_(flu)/14161)
Resources

• American Medical Directors Association
  • http://www.AMDA.com
  • Immunization in the LTC Setting: LTC Physician Information Toolkit Series, 2010
  • Critical Issues in Infection Control: LTC Physician Information Toolkit Series, 2002

• Society of Healthcare Epidemiologist of America
  • http://www.Shea-online.org

• Infectious Diseases Society of America
  • http://www.IDSociety.org
Resources

• Immunization Action Coalition
  • www.Immunize.org
  Information on Mandatory Immunization Programs
  • http://www.immunize.org/honor-roll/

• National Influenza Vaccine Summit
  • www.preventinfluenza.org

• American Academy of Allergy, Asthma, and Immunology
  – Administering Influenza Vaccine to Egg Allergic Recipients
References - Vaccination


• Nace DA. Improving immunization rates in long-term care: Where the forest stops and the trees begin. JAMDA 2008;9(9):617-621.


References - Vaccination


References - Vaccination