Influenza-like Illness in Los Angeles County Skilled Nursing Facilities

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Morbidity and Mortality

• Rate of influenza associated hospitalizations
  – 65-69 years: 71.1 per 100,000 person-years
  – ≥ 85 years: 628.6 per 100,000 person-years
• Median length of hospital stay: 7 days
• Nationwide influenza and pneumonia 7th leading cause of death in persons ≥ 65 years
• Approx. 90% of underlying pneumonia and influenza deaths among adults ≥ 65

Respiratory outbreaks in LAC Skilled Nursing Facilities (SNF)

• 2007-2008 Flu Season: 5 respiratory outbreaks reported
  – Total 95 cases; 8 hospitalized; 2 flu related deaths
  – Outbreak etiology identified in 1 outbreak (flu B)
• 2008-2009 Flu Season: 4 respiratory outbreaks reported
  – Total 32 cases; 13 hospitalized; 2 respiratory disease deaths
  – Outbreak etiology identified in 2 outbreaks (adenovirus type 3, flu A)

SNF ILI Outbreaks: Definitions

• Influenza like Illness (ILI) case definition:
  – Temperature of at least 100°F AND new cough and/or sore throat
• ILI Outbreak:
  – 3 or more residents with clinically suspected ILI on the same floor or ward during a 48/72 hour period OR
  – One or more residents with laboratory confirmed influenza

SNF Outbreak Investigation

• For individuals that meet the clinical criteria of ILI
  – Complete line list, signs and symptoms, CXR results, and flu vaccination status
  – Identify SNF residents who have been hospitalized and/or died
  – Identify if any lab testing has been done
• Identify if any ILI among SNF staff and determine vaccination status
• Specimen Collection: obtain NP swabs (3-5) from residents and/or staff with most recent onset of illness or those with most severe illness

SNF Outbreak Investigation

• Follow-up with facility to determine if any new cases
• Follow-up on all respiratory specimens
• For influenza positive SNF resident consult with Area Medical Director (AMD) to assess need for influenza prophylaxis
• Complete outbreak form HF1164
SNF Outbreak Investigation

• An outbreak can be closed
  – When there are no new cases of ILI seven days after the last ILI case
  – Hospitalized cases return to facility or are no longer in hospital for respiratory illness

Control Recommendations

• Cohort ill residents when possible
• Cohort staff caring for ill residents
• Advise direct care staff with ILI to return to work 7 days after symptom onset or 24 hrs after resolution of symptoms, whichever is longer
• Emphasize hand hygiene in ALL staff, visitors and other residents

Control Recommendations

• Visitors with ILI should not be allowed to visit residents
• Close facility to new admissions until 1 week after last case
• Cancel group activities until 1 week after last case
• Advise residents to take meals in their rooms (if applicable)
• Evaluate the need for prophylaxis and influenza vaccination

Influenza Prophylaxis in SNF

• Prophylaxis recommended for all residents (vaccinated and unvaccinated) in SNFs that are experiencing influenza outbreaks
• Prophylaxis is a primary tool to prevent influenza
  – Not a substitute for influenza vaccination
• The selection of antiviral prophylaxis will depend on the circulating influenza subtype in the community and the established pattern of resistance

Influenza Prophylaxis in SNF

• In 2008, 90% of the seasonal influenza A was resistant to Oseltamivir; not recommended for prophylaxis
• If subtype unavailable, zanamivir or combination of oseltamivir and rimantadine should be used for influenza A
• If unsure of the community circulating strains of influenza and antiviral susceptibilities, consult with Acute Communicable Disease Control for recommendations on prophylaxis

Duration of Prophylaxis in SNF

- Prophylaxis should be continued for 14 days or
- 7 days after onset of symptoms in last person infected, whichever is longer
- If new cases continue to occur, continue chemoprophylaxis until 7 days after the last case has been identified

Respiratory Outbreak in SNF - Is it always Influenza?

- Keep influenza in mind and obtain appropriate specimen collection, but remember there are other agents that cause respiratory illness
- 2006-2007 flu season study in residential care homes where infectious agent was identified
  - Infections were 53.3% bacterial vs. 46.7% viral
  - Most frequently identified organisms were *Streptococcus pneumoniae* (13.7%) followed by respiratory syncytial virus (9.3%)
  - Influenza was identified in 7.4% of specimens

Resources

- Acute Communicable Disease Control Manual (B-73) - Influenza and Respiratory Disease Outbreaks Chapters at: www.ph.lacounty.gov/acd/procs/b73/b73index.htm

Interactive Activity

- Elderly Care LA
  - 60 bed SNF for older adults
  - Provides round the clock nursing care
  - 2-3 residents per room
- February 14, 2009 – Valentine’s Day Party
  - Visitors bring refreshments and party favors
  - Ambulatory residents gather in communal dining room
  - Non-ambulatory residents visited in their rooms

Interactive Activity

- Tuesday, February 17
  - 9am: resident in unit A presents with fever and productive cough
- Wednesday, February 18
  - Afternoon: another resident in unit A presents with low-grade fever, sore throat, cough
- Thursday, February 19
  - Total of 3 residents ill with fever, cough, sore throat

Outbreak Epi Curve