**ARI Case Study**

**Acute Respiratory Illness (Influenza A) Outbreak in the Health Care Center (12/23/12 through 01/14/13):**

**Statistics** – via ICP’s Respiratory Outbreak Line Lists, the number of symptomatic residents in the Health Care Center was 79 . . . with 51 total confirmed Influenza A cases.

- Unit A 1st Floor (12/24/12 through 01/08/13) = 11 residents (with 8 positive for Influenza A).
- Unit B 1st Floor (12/21/12 through 01/07/13) = 15 residents (with 10 positive for Influenza A).
- Unit C 2nd Floor (12/20/12 through 12/31/12) = 22 residents (with 13 positive for Influenza A).
- Unit D 2nd Floor (12/20/12 through 01/05/13) = 23 residents (with 19 positive for Influenza A).
- Rehab (12/24/12 through 12/31/12) = 3 residents (with 1 positive for Influenza A).

**Time line of actions that took place:**

- **Sunday 12/23/12:**
  - ICP advised Weekend Day Shift RN Supervisor to place 1 resident (Unit C) into Droplet and Contact Precautions due to Acute Respiratory Illness (ARI). **Note:** the ICP had started 2 Outbreak Line Lists (Respiratory) on Thursday 12/20/12 due to a cluster of 2 residents on Unit C and Unit D in case the clusters would turn into 3 within 72 hours which would meet the definition of an outbreak.
  - Weekend Day Shift RN Reported 2 additional cases on unit C. This now met the definition of an outbreak. ICP then advised Weekend Day Shift RN Supervisor to contact the Occupational Health Nurse (OHN) about initiation of the Mandatory Masking Policy for unvaccinated employees. The OHN did come into the facility to initiate the above policy and sent out the following message to Administrator, Nursing Supervisor and Human Resource email groups:
    - Flu Mask Guidelines
    - Flu Mask Poster
    - List of Unvaccinated Nursing Staff
    - ICP instructed above RN Shift Supervisor to set up PPE stations and signage to the entrances of Unit C with the message to not enter due to residents with respiratory symptoms.

- **Monday 12/24/12:**
  - ICP sent out message to email groups regarding the following:
    - **Unit C under Quarantine due to meeting the definition of an ARI Outbreak.**
  - Signage was placed at all campus entrances due to Acute Respiratory Illness trends in the HCC and the community.
  - PPE stations along with above signage was set up to the following entrances:
    - Unit C
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- Chapel due to Christmas Holiday Church Services.
  - ICP notified the Public Health Department via voice mail.
    - Due to the holiday, they were closed. ICP requested the facility to FAX the Respiratory Outbreak Line Lists to the PHD on Wednesday 12/26/12 when the office reopens.
    - ICP provided the name and contact information of the ADON as the ICP will be on extended leave beginning 12/25/12.
- ICP sent out message to email groups with specific reminders via policy on Prevention and Control of Acute Respiratory Illness Transmission:
  - **Education**
  - **Daily Surveillance for Resident and Staff Illness** – Nurse Manager/Nursing Supervisor’s role to complete.
  - **Testing** – any resident with symptoms of an Acute Respiratory Illness (ARI) to have nasopharyngeal swab for respiratory viruses, including Influenza.
  - **Isolation** – Droplet and Contact Precautions for any resident meeting the definition of an ARI.
  - **Notifications** – the PHD needs to be notified within 72 hours on any positive Influenza A case.
  - **Administration of Antiviral Medication** – use of Tamiflu per direction of Medical Director.
  - **Dining** – all residents from Unit C are to eat meals in their rooms until quarantine is lifted.
  - **Visitor Management** – refer to previous mention regarding PPE stations and signage.
  - **Staffing** – not to “float” staff.
  - **Environmental Management** – requested daily high touch surface disinfection be conducted by Housekeeping until quarantine lifted.
  - **Food Items** – there should be no shared or communal food items in quarantine areas and the Coffee Cart was cancelled until quarantine lifted.
  - **Therapy** – residents receiving therapy from the quarantine areas must receive their therapy in the quarantine area and not in the Therapy Department.
  - **Admissions/Transfers** – cancelled/postponed within quarantine areas.
  - **Volunteer Services** – all services for Unit C cancelled until quarantine lifted.
- ADON sent out the following policies and procedures to the Nursing Supervisor email group to use as a resource during ICP’s absence:
  - Prevention and Control of Respiratory Illness (including Seasonal Influenza) Transmission.
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- **Wednesday 12/26/12:**
  - ADON sent out message to email group regarding the following:
    - Additional units under Quarantine due to meeting the definition of an ARI Outbreak with positive cases of Influenza A.
      - Unit A
      - Unit D
      - Rehab
  - ADON notified the Public Health Department via email messages and FAX Resident Line Lists.
  - ADON sent out message to Nursing Supervisor email group regarding Tamiflu Orders per Medical Director.
  - Housekeeping Supervisor sent out message via email groups on reminders on how to properly handle isolation linens

- **Thursday 12/27/12:**
  - ADON provided an update to the Public Health Department
  - ADON sent out the following messages to email groups:
    - Update on new positive Influenza cases (Unit A). **Note:** In addition Nurse Managers sent out emails on “new” cases placed into Droplet and Contact Precautions (Unit C and Unit D).
    - Wearing of disposable masks as proactive measure.
  - Materials Management sent out message to Materials Management, Switchboard, Nurse Manager, Nursing Supervisor and Clinic email groups regarding order placed to the Lab for more nasopharyngeal swabs.
  - Social Services Director sent out message to HCC Social Workers requesting them to assist Nurse Managers in notification of families regarding the Outbreak and to discourage visits at this time (if possible).
  - Admissions/Transfers – to and from the Rehab Unit that had been scheduled for this date were cancelled.

- **Friday 12/28/12:**
  - ADON sent out the following messages to email groups:
    - Update on new positive influenza cases and cases that came back negative.
  - ADON provided an update to the Public Health Department on current cases
  - Pharmacy Director sent out a message via email groups regarding the stocking of Tamiflu in the Contingency Cabinet.
  - Materials Management sent out a message to Nursing Supervisor email group regarding stocking of isolation supplies for the weekend and additional supplies available in Materials Management Storage.
  - Occupational Health Nurse sent out the following reminders to the Everyone email group:
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- Employee Reminders During Acute Respiratory Illness
  - Transmission-Based Precautions
  - Mandatory Masking for Unvaccinated Employees
- HCC Employee Illness Guidelines

- Saturday 12/29/12:
  - Unit B placed under Quarantine due to meeting the definition of an ARI Outbreak with positive cases of Influenza A.
    - The same steps were followed regarding Outbreak Control (per policy).
  - Dietary Services provided the units with canned soup to warm up (as needed) per resident requests for getting warm soup and coffee during the Quarantine situation on the units.

- Sunday 12/30/12:
  - ADON sent out an update on current positive Influenza cases to same email groups.

- Monday 12/31/12:
  - ADON sent out the following messages to email groups:
    - Update on current positive Influenza cases.
    - List of sixteen (16) residents discontinued from isolation (per policy) when recovered.
  - ADON provided an update to Public Health Department on the following:
  - DON provided a HCC Quarantine Update regarding new positive cases of Influenza A (Unit B and Unit D) to same email groups.
  - Occupational Health Nurse sent out the following message to the Everyone email group:
    - Regarding Influenza: Mask Use Encouraged

- Wednesday 01/02/13:
  - ADON and Admissions arranged to readmit hospitalize Unit C resident back to the Rehab Unit which currently not under Quarantine.
  - Dietary Services provided the following changes in regards to the isolation bag meals:
    - List of residents on mechanical soft or puree diets to help Nursing be able to pass the isolation bag meals more efficiently.
    - Loaves of bread will be provided for lunch vs. toast so that Nursing can toast the bread upon resident request.
    - One (1) hot item will be provided for each meal.
      - Breakfast will have super cereal to prevent weight loss. Note: Diabetic instant oatmeal will be a substitute due to sugar content in super cereal.
      - Lunch and Dinner will have hot soup. Note: The soup at lunch will be a fortified cream soup.
    - Dining Services staff will come to each dining room after the meal to wipe down tables/chairs and sweep the floors.
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- **Wednesday 01/02/13 and Friday 01/04/13:**
  - ADON provided an update to the Public Health Department on the following:
    - Current positive Influenza A cases.
- **Thursday 01/03/13:**
  - ADON sent out an update to email groups on current positive Influenza cases and resolved cases.
  - ADON send out a message to Nursing Supervisor email group regarding an observation that INR’s seemed to be elevated on residents who had Influenza A.
  - OHN sent out a message via email groups regarding Employees with Respiratory Illness statistics and reminders to report employees with ARI to the OHN.
- **Friday 01/04/13:**
  - Materials Management restocked all PPE stations with additional disposable masks for the weekend.
- **Monday 01/07/13:**
  - ADON provided an update to Public Health Department on current positive Influenza cases and resolved cases.
  - Admissions staff screening for history of recent Influenza and treatment and adding to the Preadmission Assessment.
  - OHN sent out the following messages to Everyone email group:
    - Mandatory Masking for Unvaccinated Employees
    - Mandatory Masking Poster
- **Tuesday 01/08/13:** (day ICP returned from extended LOA)
  - ICP provided an update to Public Health Department on current positive Influenza cases that remain in Droplet and Contact Precautions.
  - ICP provided a Thank You message to all pertinent staff for their part in Outbreak Control during ICP absence.
  - Director of Dining Services sent out a message to pertinent staff that there will be 2 hot food items at every meal beginning Wednesday 01/09/13.
- **Thursday 01/10/13:**
  - ICP provided an Update on Quarantine in HCC to same email groups with the following information and/or reminders (per policy):
    - **Droplet and Contact Precautions** – a current listing of residents in isolation.
    - **Surveillance for Residents** – reminders regarding map and also how long to keep residents with ARI/ILI on 24 hour report.
    - **Surveillance for Staff** – reminders on communication with OHN.
    - **Testing** – continue to obtain swabs on any new ARI case.
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- **Meals** – all areas to continue with same meal service as has been done with the Quarantine situation, except Unit D will return to previous style of meal service at the noon meal on 01/12/13 due to no more cases of ARI/ILI.
- **Notifications** – daily communication with PHD will continue via FAX reports.
- **Visitor Management** – no changes in regards to signage and postings.
- **Environmental Management** – was clarified at webinar that Influenza virus is short lived on surfaces and that any hospital approved EPA disinfectant will be effective. Also Housekeeping and Dietary were instructed to complete a Terminal Cleaning of the Dining Room on 2nd Floor due to resolved cases.
- **Therapy** – no changes.
- **Volunteer Services** – no changes.

- **Friday 01/11/13:**
  - ICP provided an update to the Public Health Department regarding current listing of cases that remain in Droplet and Contact Precautions.

- **Monday 01/14/13:**
  - **Quarantine Lifted for the entire Health Care Center.**
  - ICP sent out the above message to email groups along with the following reminders on our policy regarding Prevention and Control Measures to prevent the transmission of any communicable disease:

**Other Statistics beyond the Health Care Center Outbreak:**

- **Staff** – via OHN’s Respiratory Outbreak Line List the total number of symptomatic employees campus wide was **48** from 12/17/12 through 01/30/13.