2009 H1N1 Pandemic Challenges for Loyola University Health System

Timothy M. Vavra, DO, FACP
Associate Professor of Medicine
Loyola Stritch School of Medicine

Major Strengths

• An Incident Management Team was implemented
• Ongoing communication was established and maintained
• A Communication Plan was activated
• A Mandatory Seasonal Flu Vaccine program implemented for all employees
• Temporary plan for alternate care sites (trailer) outside ER for patients presenting with flu-like illness
Areas for Improvement

- Employees unable to wear N-95 respirator need other needs
- Tracking system needed to manage employee exposures
- Review peak patient census to determine what plans need to be implemented

Timeline

- April 26, 2009 - CDC declared a public health emergency
- April 27, 2009 - Infection control announcement made to all staff regarding our preparedness
- May 5, 2009 - An Incident Management Team formed
- “Flu Central Website” created on loyola.wired
Timeline

• The world sees its first pandemic declaration in over 40 years
• LUHS Senior management Team approves mandatory seasonal flu vaccination September 1st
• Flu team implemented and starts planning and deadline is December 1st

Timeline

• We had a 36 hour emergency exercise and vaccinated over 2,000 vaccines for seasonal flu October 15-16
• We had a consent form and portal based tracking system
• October 22- we receive first 1,000 doses of flu mist, then 10,000 doses end of month
• November- mobile trailer purchased- to improve patient flow in ER- only ones with flu like symptoms
• Wide spread publicity in local media and throughout health system- (Safety Dance Flu Video)
Safety Dance Lyrics

Safety, dance!

Ah, we wash our hands cause we have to,
so we can leave those germ behind.

Cause your friends don’t wash, or if they won’t wash
Well they’re no friends of mine.

I say, we get the shot cause we have to,
it’s pieces that aren’t hard to find.

And we can act like we come from out of this world
Leave the H1N1 behind.

And we can dance

We vaccinate cause we have to,
it’s for safety, yours and mine.

And we can dress real neat from our hands to our feet
And with your help, the flu will die.

I say, we can dance, we can dance
Influenza’s out of control.

Wear your mask, wear your mask
The signs are on the wall.

Wash your hands, wash your hands
Everybody wash your hands.

We can dance, we can dance
Nobody should take the cha-a-a-ance.

Safety dance
Patient safety dance
Employee safety dance

Timeline

• Peak flu in our area in November and by December trending down
• Mandatory seasonal flu vaccines done- 99.3%!
• Incident Commander terminates incident for our health system January 12, 2010
• We lift visitor restrictions for children in February
Analysis of Capabilities

• Flu central posted on Loyola home intranet page
• Weekly emails from our CEO - posters in all entrances with up to date info and flat screens throughout
• All staff had to participate in module on N-95 mask
• Children and infants restrictions
• Stay at home for all sick employees
• Nurses did superb job in triage in our clinics

Swine flu paranoial
Target Achieved for 2009-2010!
LUHS had 100% participation in the seasonal flu vaccine program.
99.3% of employees, students, and volunteers were vaccinated.
Survey

- **Flu Survey Result Totals**
  - I received the H1N1 vaccination at Loyola as intranasal mist 181
  - I received the H1N1 vaccination at Loyola as a shot 508
  - I received the H1N1 vaccination at Hines as a shot 32
  - I received the H1N1 vaccination outside of Loyola and Hines as an intranasal mist 6
  - I received the H1N1 vaccination outside of Loyola and Hines as a shot 62
  - I plan on getting the H1N1 flu vaccine but I have not been able to get it yet. 135
  - I declined to get the H1N1 vaccination 513
  - **Total Number Of Surveys 1437**

---

Survey

- The email was sent to all 1-29-10 and you can see that from the 4 time frames below, most responded by 2-5-10
- According to today’s results - 55% got vaccinated, 36% declined, and 9.4% said they planned on getting it.
- RR = 1437/~7800 = 18%
- **MMWR April 2, 2010 published vaccination rate for HCW Aug 09 to mid January 2010 and HCW rate for H1N1 was 37.1% (and 61.9% for seasonal flu for HCW)**
- We beat them!
Challenges

1. Vaccine arrived mid October
   A. 6 different flu vaccines
      • Never knew which company’s vaccine we’re getting
      • Varying allergies, age restrictions for each vaccine
      • Questionnaire developed including all variables

2. Peak flu activity: end of Oct/early November

Challenges

• Outside of the institution was not guided by CDC- schools, etc.
• Hard to give the info to the parents
• Supply of vaccine
• Which version of vaccine- multiple ones
• Allergies
• Patients had to be asked or fill out questionnaire
Challenges

• Surgical mask- not enough N-95 to go around
• High risk groups- ER, etc. used them otherwise regular masks
• Our nurses triaged patient over the phone
• We tried to keep the “healthy” patients at home
• Only if needed were they seen in clinic or ER or if could not get good history
Loyola University Health System Statement
2009 H1N1 (Swine Flu) at Loyola
March 3, 2009

Loyola University Health System has been on alert for suspected cases of 2009 H1N1 (Swine Flu) and distributed guidelines to all Loyola physicians.

<table>
<thead>
<tr>
<th>Date</th>
<th># of Tests Performed</th>
<th>% (%) of Tests positive for Influenza A</th>
<th>% (%) of Tests positive for Influenza B</th>
<th>% (%) Failed to Type Out of Specimens positive for Influenza A</th>
<th>% (%) Failed to Type Out of Specimens positive for Influenza B</th>
<th>% (%) Positive for Influenza A</th>
<th>% (%) Positive for Influenza B</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2009</td>
<td>127</td>
<td>9 (7.0%)</td>
<td>4 (3.1%)</td>
<td>0</td>
<td>0</td>
<td>9 (7.0%)</td>
<td>4 (3.1%)</td>
</tr>
<tr>
<td>May 2009</td>
<td>383</td>
<td>39 (10.2%)</td>
<td>39 (10.2%)</td>
<td>5</td>
<td>0</td>
<td>39 (10.2%)</td>
<td>39 (10.2%)</td>
</tr>
<tr>
<td>June 2009</td>
<td>254</td>
<td>254 (100%)</td>
<td>97 (37.9%)</td>
<td>1</td>
<td>0</td>
<td>254 (100%)</td>
<td>97 (37.9%)</td>
</tr>
<tr>
<td>July 2009</td>
<td>85</td>
<td>7 (8.2%)</td>
<td>7 (8.2%)</td>
<td>0</td>
<td>0</td>
<td>7 (8.2%)</td>
<td>7 (8.2%)</td>
</tr>
<tr>
<td>August 2009</td>
<td>88</td>
<td>1 (1.1%)</td>
<td>1 (1.1%)</td>
<td>0</td>
<td>0</td>
<td>1 (1.1%)</td>
<td>1 (1.1%)</td>
</tr>
<tr>
<td>September 2009</td>
<td>121</td>
<td>9 (7.4%)</td>
<td>9 (7.4%)</td>
<td>0</td>
<td>1</td>
<td>9 (7.4%)</td>
<td>1 (0.8%)</td>
</tr>
<tr>
<td>October 2009</td>
<td>208</td>
<td>2 (1.0%)</td>
<td>2 (1.0%)</td>
<td>0</td>
<td>0</td>
<td>2 (1.0%)</td>
<td>2 (1.0%)</td>
</tr>
<tr>
<td>November 2009</td>
<td>818</td>
<td>88 (10.9%)</td>
<td>88 (10.9%)</td>
<td>0</td>
<td>0</td>
<td>88 (10.9%)</td>
<td>88 (10.9%)</td>
</tr>
<tr>
<td>December 2009</td>
<td>398</td>
<td>9 (2.3%)</td>
<td>9 (2.3%)</td>
<td>0</td>
<td>0</td>
<td>9 (2.3%)</td>
<td>9 (2.3%)</td>
</tr>
<tr>
<td>January 2010</td>
<td>101</td>
<td>2 (2.0%)</td>
<td>2 (2.0%)</td>
<td>0</td>
<td>0</td>
<td>2 (2.0%)</td>
<td>2 (2.0%)</td>
</tr>
<tr>
<td>February 2010</td>
<td>127</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Please remember to follow the CDC guidelines on what type of patients should be tested.

The CDC guidelines for testing are:

Acute fever respiratory illness or influenza-like syndrome (does not include testing of mild-to-moderately ill patients).

- Certain groups may have specific recommendations including infants, elderly and persons with compromised immune function. If you have a patient with an acute respiratory illness and would like to test, please call the CPEP at 708-235-8350.

Groups at higher risk for seasonal influenza complications include:

- Children less than 5 years old.
- Persons aged 65 years or older.
- Children and adolescents (less than 15 years) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reye's syndrome after influenza virus infection.
- Pregnant women.
- Asthmatics and children who have chronic pulmonary, cardiac, ocular, hepatic, hematological, immunologic, neurologic, or metabolic disorders.
- Elderly, institutionalized, and children who have immunosuppression (Including immunosuppression caused by medications or by HIV).

---

**Thanks**

- **Michael Koller, M.D.** (Director, Quality Improvement/Primary Care)
- **Jorge Parada, M.D.** (Chairman, Infectious Disease)
- **Jen Carlson,** (Manager, Environmental Health & Safety)