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MANAGEMENT OF A(H1N1) IN THE HOSPITAL SETTING ..................50
MANAGEMENT OF A(H1N1) IN THE HOSPITAL SETTING
(An excerpt from the DOH Draft Interim Guidelines No. 22—Clinical Management of Suspected and Confirmed Human Pandemic (H1N1) 2009 Infection)
Go pidsphil.org for the complete guideline.

This document is intended for use by health care practitioners who manage suspected or confirmed cases of pandemic (H1N1) 2009 infection. It contains clinical management guidelines for the following:

1. Outpatient treatment
2. Management of hospitalized cases

It highlights areas of care critical in the management of pandemic (H1N1) 2009 infection and is not intended to replace routine care. Appropriate infection control measures should be adhered to at all times.

MANAGEMENT IN THE OUTPATIENT SETTING

Most cases have had uncomplicated illness of limited duration. Hospitalization is therefore not required for a great majority of patients who fulfil the case definition below.

I. CASE DEFINITIONS

Case Under Observation (CUO) or suspected case of pandemic (H1N1) 2009:
A person presenting with fever (temp 37.8°C or higher) AND typical acute respiratory influenza-like illness (e.g., cough, sore throat, rhinorrhea; others – body aches, headache, fatigue, vomiting and diarrhea) in the absence of a KNOWN cause other than influenza

Confirmed pandemic (H1N1) 2009 case:
A symptomatic patient whose respiratory specimen was reported as positive for pandemic (H1N1) 2009 virus by the Research Institute for Tropical Medicine (RITM) or other accredited government or private laboratories

Close contact:
Defined as having cared for or lived with a suspected or confirmed case, or having been in a setting where there is high likelihood of exposure to respiratory droplets from infected persons within a distance of 3 to 6 feet (1 to 2 meters).

II. WHEN TO PERFORM SWABBING
In general, the swabbing of outpatient cases is not recommended.
As part of DOH surveillance, a nasopharyngeal or oropharyngeal swab may be obtained for the following (based on DOH Interim Guidelines No. 16: “Major Policy Changes from Containment to Mitigation Response to the Influenza A (H1N1) Virus Threat”):
- CUOs identified at various ports of entry in the country
- Investigation of first suspected cases of influenza-like illness (ILI) in a specific community or institution experiencing an initial cluster of ILI cases:
  - A purposive sampling for nasopharyngeal or oropharyngeal swabbing to determine whether that cluster is infected with pandemic (H1N1) 2009 can be conducted among:
    1. The first 5 to 10 cases that were reported during an outbreak among Philippine Integrated Disease Surveillance and Response (PIDSR) surveillance sites and sentinel sites doing lab-based surveillance (refer to DOH Interim Guidelines No. 21: “On the Shift of Reporting from Influenza A (H1N1) Enhanced Surveillance to ILI Surveillance”); or,
    2. The first 5 to 10 cases that consulted for ILI at a health facility
- Random sampling of persons in clusters (at least 2 cases) of ILI with unusual symptoms or severity (i.e. severe acute respiratory infection or SARI)
- Investigation of ILI in persons at high risk of developing complications because of other medical conditions or problems

III. CLINICAL MANAGEMENT IN THE OUTPATIENT SETTING

Table 1. Management of Suspected or Confirmed Cases in the Outpatient Setting

<table>
<thead>
<tr>
<th>Definition</th>
<th>Suspected case</th>
<th>Confirmed case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stable patient with NO pulmonary complications nor additional chronic illness; not high risk**</td>
<td>Stable patient with NO pulmonary complications nor additional chronic illness; not high risk**</td>
<td></td>
</tr>
</tbody>
</table>

Outpatient management

Symptomatic and supportive treatment

Symptomatic and supportive treatment

Antiviral

No

No

ICC measure

Surgical mask by patient

Surgical mask by patient

Home isolation

Until at least 24 hrs free of fever (T 37.8°C)* without fever medications OR when swab turns out to be negative (for those who were tested)

Until at least 24 hrs free of fever (T 37.8°C)* without fever medications

Advice

Refer to hospital if condition deteriorates

Refer to hospital if condition deteriorates

NOTE:
*EXCEPT if patient works in a health care setting. In this case, patient should remain at home for 7 days from symptom onset or until the resolution of symptoms, whichever is longer. “Resolution of symptoms” refers to the acute symptoms that were not present as part of the patient’s baseline status (note: chronic cough in patients with COPD may not be resolved upon recovery from ILI)

** Refer to appendix

IV. CRITERIA FOR ADMISSION

The following are indications for hospitalization among patients presenting with ILI:

1. Unstable condition – dyspnea, hypoxemia, hemodynamic instability (e.g., hypotension, tachycardia), altered level of consciousness and confusion, syncope, severe dizziness, etc
2. Signs of sepsis and/or pneumonia
   Inability to eat and/or take oral fluids
3. Urgent need for work-up for alternative/additional diagnoses
4. Presence of unstable/uncontrolled co-morbidities which increase the risk of severe illness - chronic pulmonary (including asthma), cardiovascular (except hypertension), renal, hepatic, hematologic, neurologic or metabolic disorders (including diabetes mellitus), immunosuppression, cancer, malnutrition.

The following high-risk groups need not be admitted but will require close monitoring for possible complications. They may be given oseltamivir based on clinician’s evaluation:

1. Patients age < 5 yrs and > 60 yrs, without co-morbidities
2. Pregnant women
3. Those with stable co-morbidities
4. Obese patients – defined as body mass index [BMI] more than 30
MANAGEMENT OF HOSPITALIZED PATIENTS

I. WHEN TO SUSPECT PANDEMIC (H1N1) 2009 INFECTION AMONG HOSPITALIZED PATIENTS

Consider pandemic (H1N1) 2009 infection in hospitalized patients admitted for other reasons who:

- have history of acute influenza-like illness [manifesting as fever (temp 37.8°C or higher) plus cough, sore throat, stuffy or runny nose, muscle aches, GI symptoms] OR
- have moderate/severe or non-resolving or unusual manifestations* of pneumonia or sepsis OR
- have contact or exposure in the past 10 days to a confirmed or suspect case of pandemic (H1N1) 2009 OR
- history of travel abroad or to an affected area in the Philippines

*unusual manifestations = negative radiologic evidence of pneumonia but with clinical signs such as inspiratory rales, rhonchi, and wheezes; interstitial pattern of infiltrates; non-resolving or progressing pneumonia even after 72 hours of CAP management; pneumonia with extrapulmonary manifestations; ILI or pneumonia with unexplained seizures or mental status changes (especially in children)

II. DIAGNOSTIC WORK-UP

1. Nasopharyngeal and oropharyngeal swabs for H1N1 Real Time - Polymerase Chain Reaction (RT-PCR) (For intubated patients, at least 1-2 ml of endotracheal aspirate (ETA) for H1N1 RT-PCR should be obtained in addition to a nasopharyngeal swab and placed in the same virus transport medium (VTM) as the nasopharyngeal swab
2. Chest x-ray
3. Pulse oximetry and/or ABGs
4. Complete blood count with platelet count

5. Other recommended laboratory tests/procedures, as indicated, include:
   a. Blood culture/sensitivity
   b. Gram stain and culture/sensitivity of sputum (for older children and adults)

6. Additional tests may be done, taking into account underlying co-morbidities and alternative diagnoses (e.g. creatinine and electrolytes for those with diarrhea; and BUN and creatinine for those with renal problems)

III. GENERAL TREATMENT CONSIDERATIONS

1. Supportive care in the form of antipyretics (paracetamol for fever or pain) and fluids for rehydration should be provided.
2. Salicylates should not be given.
3. Signs of possible clinical deterioration such as difficulty in breathing, chest pain, altered level of consciousness and confusion should be watched for.
4. Oxygen therapy should be given to correct hypoxemia.
5. If pneumonia is considered, antimicrobial therapy and other measures should be started in accordance with guidelines for empiric treatment of community-acquired pneumonia.
6. Seasonal influenza and past pandemics have been associated with an increased risk of staphylococcal pneumonia, so this association should be considered in the choice of antimicrobials. Wherever possible, results of microbiologic studies should be used to guide continued therapy for suspected bacterial co-infection.
7. If signs of sepsis are noted, the guidelines for management of sepsis should be followed.
8. Pregnant women constitute a high risk group requiring special care.
9. Co-morbid and other underlying conditions should be managed individually.

Table 2A: Dosing Recommendations for Oseltamivir in the Treatment or Chemoprophylaxis of Pandemic (H1N1) 2009 Infection

<table>
<thead>
<tr>
<th>AGE GROUP</th>
<th>TREATMENT*</th>
<th>CHEMOPROPHYLAXIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADULTS</td>
<td>75 mg capsule BID x 5 days</td>
<td>75 mg capsule OD x 5-7 days after last known exposure</td>
</tr>
<tr>
<td>Children 12 months and older</td>
<td>&lt; 15 kg 30 mg BID x 5 days</td>
<td>30 mg OD x 5-7 days after last known exposure</td>
</tr>
<tr>
<td></td>
<td>15 - 23 kg 45 mg BID x 5 days</td>
<td>45 mg OD x 5-7 days after last known exposure</td>
</tr>
<tr>
<td></td>
<td>24 - 40 kg 60 mg BID x 5 days</td>
<td>60 mg OD x 5-7 days after last known exposure</td>
</tr>
<tr>
<td></td>
<td>&gt; 40 kg 75 mg BID x 5 days</td>
<td>75 mg OD x 5-7 days after last known exposure</td>
</tr>
<tr>
<td>6-11 months</td>
<td>25 mg BID x 5 days</td>
<td>25 mg OD x 5-7 days after last known exposure</td>
</tr>
<tr>
<td>3-5 months</td>
<td>20 mg BID x 5 days</td>
<td>20 mg OD x 5-7 days after last known exposure</td>
</tr>
<tr>
<td>&lt; 3 months</td>
<td>12 mg BID x 5 days</td>
<td>NOT recommended</td>
</tr>
</tbody>
</table>

*For patients with severe or progressive illness, consideration may be given to the use of higher doses of oseltamivir up to 150 mg bid, and longer duration of treatment depending on clinical response.

Refer to the following table for Renal Dosing:

Table 2B: Dosing Schedule of Oseltamivir in Renal Insufficiency

<table>
<thead>
<tr>
<th>Creatinine clearance (ml/min)</th>
<th>Treatment</th>
<th>Prevention</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 – 60</td>
<td>75 mg twice a day</td>
<td>75 mg once a day</td>
</tr>
<tr>
<td>60 -30</td>
<td>75 mg twice a day</td>
<td>75 mg once a day</td>
</tr>
<tr>
<td>30 -15</td>
<td>75 mg once a day</td>
<td>75 mg every other day</td>
</tr>
<tr>
<td>&lt; 15 and dialysis</td>
<td>Not defined</td>
<td>Not defined</td>
</tr>
</tbody>
</table>

Note: For hemodialysis, 30 mg on non-dialysis days; for CAPD, 30 mg 1-2x/wk

IV. CRITERIA FOR DISCHARGE

The patient may be discharged:
- Once afebrile and stable for at least 24 hours
- Chronic or underlying conditions are controlled

THERE IS NO NEED TO REPEAT NASOPHARYNGEAL/THROAT SWAB COLLECTION.

Discharge Instructions
- Home isolation should continue up to 24 hrs after resolution of fever (T 37.8°C) without fever medications. For workers in a health care setting, home isolation should be maintained 7 days from onset of symptoms or until resolution of the acute symptoms (i.e. in patients with chronic pulmonary diseases, such as uncontrolled asthma, COPD, etc, the resolution of cough is not a criterion for discontinuation of home isolation), whichever is longer.
- Infection control measures (cough etiquette, hand hygiene, use of mask when in the company of others, social distancing) should continue until all symptoms are resolved.
- Emphasize the importance of hand hygiene as a routine practice even when well.