



**PEDIATRIC INFECTIOUS  
DISEASE SOCIETY OF THE  
PHILIPPINES**

# PIDSP JOURNAL

**Vol.10 No.2  
July-December 2010**

**The 2009 antimicrobial resistance surveillance program:  
progress report**

*Celia C. Carlos, MD Research Institute of Tropical Medicine.....2*

**Clinical characteristics of children with complicated community-  
acquired pneumonia who were admitted at makati medical center  
from january 1999 to august 2009.**

*Joanna Bisquera-Cacpal, MD, Joseph Dale Gutierrez, MD,  
Robert Dennis Garcia, MD Makati Medical Center.....9*

**Racecadotril in the treatment of acute diarrhea in children:  
a meta-analysis**

*Robina Hao, M.D. \*, Michelle De Vera, M.D. \*, Emily Resurreccion, M.D.\*  
The Medical City, Ortigas Ave., Pasig City 3rd Place Winner,  
Poster Research Contest at the 17th Annual PIDSP  
Convention, 2010.....19*

**Serologic status of neonates born to hepatitis b positive mothers  
and given hepatitis b vaccine at birth in a tertiary government hospital  
from january 2007 to june 2008: a pilot study**

*Isnihaya M. Mapandi, MD Northern Mindanao Medical Center.....32*

**Post-marketing surveillance of a live-attenuated varicella  
(oka-strain) vaccine in the philippines**

*Jose Salazar, MD\*, Salvacion Gatchalian, MD\*\*+, Hans L Bock MD\*\*  
\* Dept of Pediatrics, University of the East-Ramon Magsaysay Memorial  
Medical Center, Aurora Boulevard, Quezon City, Philippines\*\*  
GlaxoSmithKline Biologicals, Wavre, Belgium University of the  
Philippines College of Medicine, Manila.....40*

**Determining correct dosing regimens of antibiotics based on the their  
bactericidal activity\***

*Cecilia C. Maramba-Lazarte, MD, MScID University of the Philippines  
College of Medicine-Philippine General Hospital, \*Excerpt from  
"Rational Antibiotic Use for Pediatrics, A Study Guide and Workbook....44*

**MANAGEMENT OF A(H1N1) IN THE HOSPITAL SETTING.....50**

**Vol.11 No.2  
July-December 2010**

## 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](http://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<sup>0</sup>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**

	<b>Suspected case</b>	<b>Confirmed case</b>
<b>Definition</b>	Stable patient with NO pulmonary complications nor additional chronic illness; not high risk**	Stable patient with NO pulmonary complications nor additional chronic illness; not high risk**
<b>Outpatient management</b>	Symptomatic and supportive treatment	Symptomatic and supportive treatment
<b>Antiviral</b>	No	No
<b>ICC measure</b>	Surgical mask by patient	Surgical mask by patient
<b>Home isolation</b>  (see <a href="#">Annex 2. Guidelines for Home Care</a> )	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
<b>Advice</b>	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<sup>0</sup>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**

AGE GROUP	TREATMENT*		CHEMOPROPHYLAXIS
ADULTS	75 mg capsule BID x 5 days		75 mg capsule OD x 5-7 days after last known exposure
Children 12 months and older	< 15 kg	30 mg BID x 5 days	30 mg OD x 5-7 days after last known exposure
	15-23 kg	45 mg BID x 5 days	45 mg OD x 5-7 days after last known exposure
	24-40 kg	60 mg BID x 5 days	60 mg OD x 5-7 days after last known exposure
	> 40 kg	75 mg BID x 5 days	75 mg OD x 5-7 days after last known exposure
6-11 months	25 mg BID x 5 days		25 mg OD x 5-7 days after last known exposure
3-5 months	20 mg BID x 5 days		20 mg OD x 5-7 days after last known exposure
< 3 months	12 mg BID x 5 days		NOT recommended

\*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**

Creatinine clearance (ml/min)	Treatment	Prevention
90 – 60	75 mg twice a day	75 mg once a day
60 -30	75 mg twice a day	75 mg once a day
30 -15	75 mg once a day	75 mg every other day
< 15 and dialysis	Not defined	Not defined

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<sup>0</sup>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.