WEEKLY EPIDEMIOLOGICAL REPORT

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Guidelines for Clinical Management and Laboratory Investigation of Patients with Pandemic Influenza A (H1N1) 2009 Virus Infection in a Setting with Sustained Community Transmission (Part I)

Taking into consideration the existence of community transmission of Pandemic Influenza A (H1N1) Virus Infection in the country, following new key strategies have been adopted to achieve the objective of minimizing the impact of the disease:

All patients attending hospitals with suspected H1N1 influenza will be screened to assess the severity of their illness and only patients with severe or progressive symptoms will be admitted to hospitals for laboratory confirmation of diagnosis and treatment with anti virals.

Those with mild illness would be managed as out-patients with supportive symptomatic treatment and advice.
Medical Research Institute (MRI) will continue to process the samples for laboratory diagnosis at the requests of physicians attending to hospitalized patients.

Case definitions

With the onset of sustained community transmission in the country, a suspected H1N1 Influenza case could present without epidemiological risk factors of overseas travel history and contact history.

Thus the following case definitions must be adhered to in management and reporting of cases in future.

Suspected case:

An Individual presenting with acute febrile respiratory illness (fever $\geq$38 °C) with the spectrum of disease from influenza-like illness (cough, sore throat, shortness of breath) to pneumonia

Probable case:

An individual with an influenza test that is positive for influenza A, but is unsubtypable by reagents used to detect seasonal influenza virus infection.

Confirmed case:

An individual with laboratory confirmed pandemic influenza A(H1N1) 2009 virus infection by one or more of the following tests:

- real-time (RT) PCR
- viral culture

four-fold rise in pandemic influenza A (H1N1) 2009 virus specific neutralizing antibodies.

Patients with H1N1 infection may present with symptoms and signs of uncomplicated illness or complicated or severe disease or with those of progressive disease.

Uncomplicated influenza

These symptoms include fever, cough, sore throat, rhinorrhea, headache, muscle pain and malaise but no shortness of breath and no dyspnoea. Patients may present with some or all of these symptoms. Gastrointestinal symptoms such as diarrhoea and/or vomiting may be present especially in children, but without evidence of dehydration.

Complicated or severe influenza

May present with:

- Clinical (e.g. shortness of breath/ dyspnoea, tachypnea, hypoxia) and/or radiological signs of lower respiratory tract disease (e.g. pneumonia)
- Central nervous system (CNS) involvement (e.g. encephalopathy, encephalitis)

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- Severe dehydration
- Signs of secondary complications such as renal failure, multiorgan failure and septic shock. Other complications can include rhabdomyolysis and myocarditis.
- Exacerbation of underlying chronic disease, including asthma, COPD, chronic hepatic or renal failure, diabetes, or other cardiovascular conditions
- Any other clinical presentation requiring hospital admission for clinical management

Signs and symptoms of progressive disease

Patients who present initially with uncomplicated influenza may progress to more severe disease. Progression can be rapid (i.e. within 24 hours). The presence of any of the indicators of progression listed below would necessitate urgent action.

Symptoms and signs suggesting oxygen impairment or cardiopulmonary insufficiency Shortness of breath (with activity or at rest), difficulty in breathing, cyanosis, haemoptysis, chest pain and reduced blood pressure Fast/rapid or laboured breathing in children Hypoxia, as indicated by pulse oximetry

Symptoms and signs suggesting CNS complications

- Altered mental status, unconsciousness, drowsiness, recurring or persistent convulsions (seizures), confusion, severe weakness or paralysis
- Evidence of sustained virus replication or invasive secondary bacterial infection based on laboratory testing or clinical signs (e.g. persistent high fever and other symptoms beyond 3 days).
- Severe dehydration manifested as decreased activity, dizziness, decreased urine output, and lethargy

Following danger signs should also be considered:

In Adults

- Severe or persistent vomiting
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Symptoms improving to return with fever and worse cough

In Children

- Reduced fluid intake
- Severe or persistent vomiting
- Irritability
- Symptoms improving to return with fever and worse cough

Decision for clinical management of H1N1 patients attending healthcare facilities should be based on their clinical presentation and should be as follows:

- Patients with uncomplicated illness could be directed for home care with supportive therapy and health education advice Patients in high risk groups (listed below) with uncomplicated illness could be directed for home care with supportive therapy and health education advice with instructions on a mandatory follow up visit
- Patients with complicated illness or those with progressive disease should be directed for admission

High Risk Groups

The following groups are considered to be at higher risk for complications of H1N1 infection and therefore regardless of their clinical presentation they need to be assessed carefully by the treating physician with a view of hospitalization and in ward treatment.

- People with more severe illness (e.g. evidence of lower respiratory tract infection)
- Those with suspected influenza and deteriorating clinical condition
- People with suspected or confirmed influenza who are at higher risk for complications
- Children younger than 2 years of age
- Adults 65 years and older
- Pregnant women
- Persons of any age with chronic pulmonary disease (e.g asthma, COPD)
- Persons of any age with chronic cardiac disease (excluding hypertension)(e.g. congestive cardiac failure)
- Persons with metabolic disorders (e.g. diabetes)
- Persons with chronic renal disease, chronic hepatic disease, certain neurological conditions (including neuromuscular, neurocognitive, and seizure disorders) or hemoglobinopathies Persons with immunosuppression, whether due to primary immunosuppressive conditions such as HIV infection or secondary conditions such as immunosuppressive medication or malignancy
- People younger than 19 years of age receiving long-term aspirin therapy

All patients should be instructed to seek medical attention immediately, if they develop any signs or symptoms of progressive disease or danger signs listed above or if they fail to improve within 72 hours of the onset of symptoms.

Guidelines for Clinical Management and Laboratory Investigation of Patients with Pandemic Influenza A (H1N1) 2009, is available at the Epidemiology Unit website www.epid.gov.lk.

to be continued in volume 44-45

Table 1: Vaccine-preventable Diseases & AFP

10th-16th October 2009 (42ndWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2009	Number of cases during same week in 2008	Total number of cases to date in 2009	Total number of cases to date in 2008	Difference between the number of cases to date in 2009 & 2008
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	00	00	00	00	00	00	00	00	03	57	82	-30.4%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	-
Measles	00	00	00	00	00	00	00	01	00	01	00	154	100	+54.0%
Tetanus	00	00	00	01 MN=1	00	00	00	00	00	01	00	23	31	-25.8%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	56	43	+30.2%
Tuberculosis	18	16	04	15	28	00	00	00	09	90	280	8339	6788	+22.8%

Table 2: Newly Introduced Notifiable Disease

10th-16th October 2009 (42ndWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2009	Number of cases during same week in 2008	Total number of cases to date in 2009	Total number of cases to date in 2008	Difference between the number of cases to date in 2009 & 2008
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	13	09	08	03	08	06	03	04	05	59	78	13574	4448	+205.2%
Meningitis	24 CB=13 KT=10 GM=1	04 ML=4	02 GL=1 MT=1	00	03 TR=2 KM=1	08 KR=4 PU=4	06 PO=1 AP=5	03 BD=1 MO=2	07 RP=6 KG=1	57	16	1108	1102	0.54%
Mumps	04	03	01	00	02	01	00	01	03	15	34	1527	2454	-37.7%
Leishmaniasis	00	00	12 HB=11 MT=1	00	01 TR=1	00	00	00	00	13	Not available*	574	Not available*	-

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.

DPDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps.

Special Surveillance: Acute Flaccid Paralysis.

Leishmaniasis is notifiable only after the General Circular No: 02/102/2008 issued on 23 September 2008.

Table 4: Surveillance of Communicable diseases among IDP's

10th-16th October 2009 (42ndWeek)

Area \ Disease	Dysentery	Enteric fever	Viral Hepatitis	Chicken Pox	Watery Diar-rhoea
Vavunia	0	8	4	24	-
Chendikulam	0	7	0	108	206
Total	**0**	**15**	**4**	**132**	**206**

Table 4: Selected notifiable diseases reported by Medical Officers of Health

10th-16th October 2009 (42ndWeek)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns Received Timely**
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	68	3709	6	198	1	12	2	190	0	87	24	958	0	5	4	123	0	4	**92**
Gampaha	54	3619	2	137	0	20	1	43	0	36	10	343	0	8	13	219	1	5	**67**
Kalutara	11	1378	6	313	1	13	0	50	0	44	21	427	0	1	4	78	0	2	**92**
Kandy	33	3796	3	249	1	7	1	26	0	58	3	179	4	152	2	116	0	0	**88**
Matale	74	1648	6	121	2	4	1	27	0	15	2	306	0	5	3	85	0	2	**92**
Nuwara Eliya	3	233	5	382	0	2	2	167	0	791	0	39	0	67	0	74	0	0	**92**
Galle	10	545	3	217	0	10	0	4	0	46	5	187	1	15	0	28	0	4	**68**
Hambantota	11	842	0	81	0	8	0	7	0	15	1	65	1	79	3	46	0	0	**82**
Matara	7	1079	4	246	0	6	0	6	0	20	5	173	2	131	1	58	0	1	**94**
Jaffna	0	23	0	111	0	3	0	229	0	30	0	0	0	124	0	174	0	2	**0**
Kilinochchi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Mannar	0	5	5	95	0	1	1	107	0	4	0	0	0	0	2	66	0	0	**75**
Vavuniya	18	127	2	1625	0	25	7	666	0	2	0	6	0	5	4	3764	0	0	**50**
Mullaitivu	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	**0**
Batticaloa	9	549	2	262	0	12	1	16	0	52	0	9	0	5	1	20	1	5	**82**
Ampara	0	214	6	70	0	1	0	12	0	8	0	11	0	2	1	35	0	0	**100**
Trincomalee	1	325	2	138	0	4	2	13	0	1	0	17	0	19	0	50	0	1	**70**
Kurunegala	19	2623	7	217	0	11	0	71	0	15	4	110	1	74	3	145	0	4	**95**
Puttalam	3	573	2	143	0	7	1	68	0	2	0	80	0	31	0	42	0	1	**89**
Anuradhapura	4	521	1	110	0	6	0	7	2	40	0	82	0	29	1	181	1	4	**68**
Polonnaruwa	3	167	14	96	0	4	0	21	0	9	1	60	0	9	2	89	0	0	**71**
Badulla	1	306	11	306	0	5	0	48	0	27	0	87	2	121	7	299	0	1	**67**
Monaragala	2	153	5	131	1	2	0	23	0	20	1	14	0	62	0	86	0	0	**100**
Ratnapura	6	1961	6	447	0	20	0	48	8	30	5	267	1	36	5	190	0	0	**67**
Kegalle	12	3588	2	165	0	9	1	44	0	7	6	248	1	31	4	233	0	0	**73**
Kalmunai	12	210	4	100	0	1	0	14	0	3	0	7	0	3	0	21	0	0	**62**
SRI LANKA	**361**	**28194**	**104**	**5965**	**06**	**193**	**20**	**1908**	**10**	**1362**	**88**	**3684**	**13**	**1014**	**60**	**6222**	**03**	**39**	**76**

Source: Weekly Returns of Communicable Diseases WRCD).
*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.
**Timely refers to returns received on or before 16th October, 2009 Total number of reporting units =311. Number of reporting units data provided for the current week: 238
A = Cases reported during the current week. B = Cumulative cases for the year.

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Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@sltnet.lk.

ON STATE SERVICE

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