WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health, Nutrition & Indigenous Medicine

231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@sltnet.lk
Epidemiologist: +94 11 2681548, E mail: chepid@sltnet.lk
Web: http://www.epid.gov.lk

WER SRI LANKA 2017

Vol. 44 No. 42 **14th– 20th October 2017**

Influenza in pregnancy

Influenza in pregnancy is a significant and under-appreciated public health problem. Influenza is more likely to cause severe illness in pregnant women than in non-pregnant women. Evidence that influenza can be more severe in pregnant women is available from observations and studies during previous pandemics including 2009 H1N1 and from previous studies among pregnant women.

In Sri Lanka, influenza has a significant contribution for maternal deaths in recent past years (about 10% of total maternal deaths in 2015 and 2016). On the other hand it is associated with increased risk of adverse pregnancy outcomes such as spontaneous abortion, preterm birth and foetal distress.

Increased severity of influenza in pregnant women is thought to be related to normal physiologic changes that occur during pregnancy. For example, heart rate and oxygen consumption increase, lung capacity decreases, and there is a shift away from `cell-mediated immunity. These changes during pregnancy make pregnant women (and women up to two weeks postpartum) more prone to severe illness from influenza, as well as to hospitalizations and even death. The disease may be more severe in pregnant women with co-morbidities such as diabetes, heart disease and bronchial asthma.

Clinical manifestations of influenza in pregnant women are similar to those in the general population and include fever, cough, rhinorrhea, sore throat, headache, shortness of breath and pneumonia. Therefore, a suspected case is defined as a pregnant woman presenting with acute febrile respiratory illness (fever >38 °C) with the spectrum of disease from influenza like illness (cough, sore throat, shortness of breath) to pneumonia.

Protection

Reducing morbidity and mortality from influenza in pregnancy is an important public health priority, which requires a broad effort. Following preventive measures are emphasized for prevention of disease.

a. Pregnant women who have no symptoms of influenza should be educated on early clinical manifestations of influenza (health education activities, especially in routine antenatal clinics and during home visits).

b. They should avoid unnecessary travel, crowded places and public transport as much as possible.

c. They should be advised to stay at home and to practise cough and sneeze etiquette (covering mouth and nose when coughing or sneezing) or wear a mask (at least a homemade mask) if they have fever and flu-like symptoms.

d. Pregnant women and new mothers should avoid providing care for persons with influenza like illnesses except for their newborns.

e. Antenatal clinic visits should be reduced to the minimum required and women with low risk pregnancies should be advised to postpone clinic visits in early pregnancy during the outbreak.

f. All preventive measures to avoid transmission of infection should be taken by health care workers when attending to pregnant women

g. Anyone with respiratory symptoms should not provide care for pregnant women or the mother and newborn baby.

h. Care for symptomatic pregnant women should be organized in a separate area in the clinic or OPD whenever possible.

i. Seasonal influenza vaccine can be given safely during all three trimesters of pregnancy to reduce the risk of influenza during pregnancy .

Seeking medical care

Pregnant mothers should consult a qualified physician (either in government or private sector) immediately if they have above symptoms. Public Health Midwives and other field health officials should refer any pregnant mother with fever and flu-like symptoms for proper medical care without delay.

All pregnant mothers should be admitted to the hospital, if they develop any signs or symptoms of progressive disease or if they fail to improve within 72 hours of the onset of symptoms or following danger signs.

-Manifestations of cardio-respiratory distress (e.g. shortness of breath either during physical activity or while resting /dyspnoea, tachypnea, hypoxia, low blood pressure)

- Radiological signs of lower respiratory tract disease (e.g. pneumonia)

-Central nervous system involvement (e.g. al-

Contents	*Page*

1. Leading Article – Influenza in Pregnancy	*1*
2. Summary of selected notifiable diseases reported - (07th– 13th October 2017)	*3*
3. Surveillance of vaccine preventable diseases & AFP - (07th– 13th October 2017)	*4*

tered mental status, unconsciousness, drowsiness, recurring or persistent convulsions (seizures), confusion, severe weakness or paralysis)
-Severe dehydration
-Persistent high fever and other symptoms beyond 3 days

A compulsory follow up visit in 3 days time should be arranged even in the absence of worsening of the disease.

Management in the hospital
Consultant or the clinician of the highest rank (Senior Registrar/Registrar/SHO) should be informed immediately on admission.

Prevention of spread
Care for symptomatic patients should be organized in a separate area of the antenatal ward. All the preventive measures should be taken to prevent spread of disease while providing optimal care for the patient (provide a disposable/surgical face mask to the patient, advise all mothers in the ward to practice hand hygiene and respiratory etiquette).

Antiviral therapy
All pregnant mothers with severe/complicated disease or signs of progression of the disease (or even suspected cases) should be treated with the anti-viral Oseltamivir. Treatment with antiviral medications should begin without waiting for collecting specimen or laboratory confirmation.

- **Chemoprophylaxis is NOT recommended in pregnancy.**
- **Oseltamivir is safe for use even in the first trimester.**
- **Treatment with Oseltamivir to a lactating mother is not a contraindication for breastfeeding.**

Supportive care
The patient should be provided with necessary supportive therapy (adequate nutrition and oral fluids) and medication (e.g. antipyretics, antibiotics where indicated, rehydration etc)).

Non-Steroidal Anti Inflammatory Drugs (NSAIDs) should be avoided. Since there is high risk of foetal distress and preterm labour, consider administration of corticosteroids for promotion of fetal lung maturation where applicable.

Labour and newborn care
It is essential to provide routine intrapartum and postpartum care with attention to specific complications related to childbirth, the postpartum period or the newborn. The newborn baby should not be not separated from the mother even if she has seasonal influenza infection. Mothers should wear a disposable/surgical face mask and practice hand hygiene before and while feeding or handling the baby.
Support mothers to initiate and continue breastfeeding and to breastfeed frequently and exclusively on demand. If mother is ill, she should be helped to express her breast milk and feed it to the infant.

Newborns of infected mothers should be observed for development of infection. Newborn infants are unlikely to have typical influenza signs. Influenza or its complications in newborn infants may begin with less typical signs such as apnoea, fever, fast breathing, cyanosis, excessive sleeping, lethargy, feeding poorly and dehydration. Newborn infants with severe or deteriorating illness and those at risk of more severe or complicated should promptly be treated with anti-viral drugs.

Diagnosis
Clinical specimens of respiratory samples to be collected for laboratory diagnosis Appropriate laboratory specimens (samples from the upper respiratory tract, including a combination of nasal or nasopharyngeal samples, and a throat swab) should be collected from these patients. If patient has developed pneumonia, swab samples would not be positive and needs bronchial/alveoli aspirates. These specimens should be sent to the Medical Research Institute (MRI) for laboratory diagnosis .

Influenza related maternal death
In the event of a maternal death, it should be notified without delay to the Family Health Bureau as well as to the Epidemiology Unit It should be emphasized that a post-mortem is mandatory in all maternal deaths from influenza like illness and appropriate samples should be sent for laboratory confirmation.

References

Table 1 : Water Quality Surveillance
Number of microbiological water samples September 2017

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	**92**
Gampaha	15	90	**NR**
Kalutara	12	72	**NR**
Kalutara NIHS	2	12	**9**
Kandy	23	138	**NR**
Matale	13	78	**NR**
Nuwara Eliya	13	78	**NR**
Galle	20	120	**67**
Matara	17	102	**73**
Hambantota	12	72	**NR**
Jaffna	12	72	**103**
Kilinochchi	4	24	**23**
Manner	5	30	**NR**
Vavuniya	4	24	**NR**
Mullatvu	5	30	**NR**
Batticaloa	14	84	**46**
Ampara	7	42	**50**
Trincomalee	11	66	**NR**
Kurunegala	29	174	**81**
Puttalam	13	78	**49**
Anuradhapura	19	114	**12**
Polonnaruwa	7	42	**12**
Badulla	16	96	**85**
Moneragala	11	66	**34**
Rathnapura	18	108	**NR**
Kegalle	11	66	**27**
Kalmunai	13	78	**NR**

* No of samples expected (6 / MOH area / Month)
NR = Return not received

1. Epidemiology Unit (2015): General circular number: 02-78/2015—*Revised Summary Guidelines for Clinical Management and Laboratory Investigation of Patients with Seasonal Influenza Virus Infection.* http://www.epid.gov.lk/web/images/pdf/Circulars/Influenza/influenza_virus_infection.pdf
2. Family Health Bureau *Pandemic (H1N1) Virus Infection in Pregnancy*: Interim guidelines for Public Healthcare Officials and Clinicians (2010)
3. *Responding to Influenza*: A Toolkit for Prenatal. Care Providers (2011). On line available at https://www.cdc.gov/flu pdf/.../ 2011_influenza_prenatal_toolkit_ withposters.pdf

Compiled by, Dr. K.A. Tharanga Navodani , Consultant Epidemiologist, , *{MBBS , MSc, MD(Community Medicine)}* **, Epidemiology Unit, Ministry of Health.**

Table 1: Selected notifiable diseases reported by Medical Officers of Health 07th– 13th Oct 2017 (41stWeek)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmania-sis		WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**
Colombo	234	31159	0	51	0	3	2	27	0	32	5	118	1	3	0	14	0	0	6	314	1	27	0	1	**21**	**84**
Gampaha	180	28957	0	29	0	13	0	16	0	8	4	55	0	12	0	14	0	1	3	242	0	27	0	3	**7**	**100**
Kalutara	91	9708	2	51	0	3	1	17	0	52	13	302	0	7	0	11	0	1	7	459	3	132	0	1	**2**	**96**
Kandy	239	12168	2	63	0	5	0	7	0	10	0	44	3	118	0	12	1	2	4	217	0	34	1	12	**14**	**100**
Matale	35	2630	0	20	0	4	0	1	0	10	0	30	0	2	1	9	0	0	0	44	2	55	0	6	**13**	**100**
NuwaraEliya	6	816	0	24	0	8	0	31	0	53	0	49	2	161	0	18	0	0	7	273	0	39	0	0	**59**	**100**
Galle	50	5539	2	46	0	13	0	19	0	16	20	328	0	64	0	5	0	1	9	344	0	61	0	1	**17**	**100**
Hambantota	41	3067	0	21	0	7	0	7	1	25	1	44	1	64	0	9	0	1	2	177	0	19	0	316	**10**	**100**
Matara	43	5887	3	35	0	8	0	3	0	14	7	183	0	23	1	9	0	1	5	206	0	8	4	133	**10**	**100**
Jaffna	131	4318	24	313	0	21	0	34	1	56	0	28	3	417	0	3	0	0	1	171	0	34	0	0	**43**	**87**
Kilinochchi	4	451	0	24	0	1	0	11	0	1	0	4	0	15	0	2	0	0	0	3	0	10	0	3	**24**	**100**
Mannar	0	509	0	8	0	0	0	2	0	1	0	2	0	3	0	0	0	0	0	14	0	0	0	0	**15**	**100**
Vavuniya	9	803	1	20	0	0	1	68	0	6	0	26	0	9	0	7	0	0	2	33	0	3	0	9	**12**	**100**
Mullaitivu	3	323	0	15	0	4	0	4	0	5	0	19	0	4	0	1	0	1	0	16	0	5	0	2	**7**	**100**
Batticaloa	34	4699	6	131	0	9	0	15	4	28	0	22	1	1	1	5	0	1	1	158	0	27	0	1	**23**	**100**
Ampara	8	819	4	38	0	2	0	1	0	1	1	18	0	1	0	4	0	0	3	169	0	40	0	4	**32**	**100**
Trincomalee	19	4748	3	33	0	2	0	12	0	21	0	23	1	13	0	17	0	0	1	141	0	23	0	10	**19**	**100**
Kurunegala	97	9751	3	78	0	10	0	3	0	54	5	65	1	26	1	19	0	3	5	437	3	68	2	134	**11**	**100**
Puttalam	119	5398	3	49	0	2	0	2	0	9	0	26	0	11	0	1	0	0	6	137	3	43	0	3	**11**	**100**
Anuradhapur	20	2526	1	35	0	3	0	1	1	16	1	63	1	19	0	13	0	1	2	340	2	67	3	213	**7**	**95**
Polonnaruwa	20	1245	0	17	0	5	0	9	0	8	1	38	0	7	0	8	0	0	5	204	1	19	5	121	**4**	**100**
Badulla	53	3309	1	97	0	8	1	10	0	5	7	116	3	106	1	54	0	1	11	334	6	186	0	13	**7**	**100**
Monaragala	64	2387	0	63	0	3	0	1	0	9	0	116	2	117	0	19	0	1	5	90	0	64	5	22	**29**	**100**
Ratnapura	79	10627	7	145	1	79	0	13	0	8	9	523	0	28	1	72	0	0	3	259	1	139	0	21	**11**	**100**
Kegalle	60	8928	0	33	0	12	0	5	6	28	6	93	2	69	0	12	0	0	7	257	3	64	0	10	**10**	**100**
Kalmune	43	2279	3	94	1	7	0	4	0	284	0	9	0	0	0	3	0	0	6	134	0	29	0	0	**13**	**100**
SRILANKA	**1682**	**163051**	**65**	**1533**	**2**	**232**	**5**	**323**	**13**	**760**	**80**	**2344**	**21**	**1300**	**6**	**341**	**1**	**15**	**101**	**5173**	**25**	**1223**	**20**	**1039**	**16**	**98**

Source: esurveillance.epid.gov.lk

*T=Timeliness refers to returns received on or before 13thOctober , 2017 Total number of reporting units 344 Number of reporting units data provided for the current week: 341 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

07th– 13th Oct 2017 (41stWeek)

Disease	No. of Cases by Province									Number of cases during current week in 2017	Number of cases during same week in 2016	Total number of cases to date in 2017	Total number of cases to date in 2016	Difference between the number of cases to date in 2017 & 2016
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	01	02	00	00	00	00	00	00	00	03	02	56	55	1.8%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	02	00	00	00	01	00	00	00	00	03	14	250	319	- 21.6%
Measles	00	00	00	00	00	00	00	00	00	00	02	175	342	- 48.8%
Rubella	00	00	00	00	00	00	00	00	00	00	00	10	08	25%
CRS**	00	00	00	00	00	00	00	00	00	00	00	01	00	0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	16	08	100%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	21	15	40%
Whooping Cough	00	00	00	01	00	00	00	00	00	01	01	19	57	- 66.7%
Tuberculosis	114	24	25	02	05	00	09	06	25	210	148	6703	7315	-8.3%

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.

RDHS 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, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS =**Congenital Rubella Syndrome

Influenza Surveillance in Sentinel Hospitals - ILI & SARI							
Month	Human				Animal		
	No Total	No Positive	Infl A	Infl B	Pooled samples	Serum Samples	Positives
October	517	143	63	80	2048	659	0

Source: Medical Research Institute & Veterinary Research Institute

PRINTING OF THIS PUBLICATION IS FUNDED BY THE WORLD HEALTH ORGANIZATION (WHO).

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. Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

Dr. P. PALIHAWADANA
CHIEF EPIDEMIOLOGIST
EPIDEMIOLOGY UNIT
231, DE SARAM PLACE
COLOMBO 10