WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health, Nutrition & Indigenous Medicine

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WEER SRI LANKA 2016

World Hepatitis Day

28th July is celebrated every year as the World Hepatitis Day.

World Hepatitis day

World hepatitis Day is one of the eight official global public health campaigns marked by the World health Organization (WHO). Celebrating this year's World Hepatitis Day, the WHO encourages countries to act now to reduce deaths from viral hepatitis. In order to achieve this, it is important to improve knowledge and improve access to testing and treatment services.

Viral Hepatitis

Viral hepatitis can be caused by hepatitis A,B,C,D and E viruses. Infection with some of these viruses, particularly hepatitis B and C can lead to cirrhosis and liver cancer.

Incubation period for hepatitis A is 14 to 28 days and hepatitis A virus (HAV) primarily transmits through faeco– oral route. Although uncommon, water borne outbreaks can also occur. Apart from this, close physical contact with an infected person can also cause infection.

In areas with high endemicity of the disease where sanitary facilities are poor, 90% of the children have been infected with HAV. In these areas, epidemics are uncommon as most of the older children and adults are generally immune. Countries with variable sanitary conditions have intermediate level of endemicity so that children usually escape getting infected. Therefore, adult population is relatively uninfected and lacks immunity thus higher disease rates and large outbreaks can occur in adult population. Countries with low level of endemicity where sanitation and hygienic practices are good, disease usually occurs in high risk groups. High risk factors include poor sanitation, lack of safe water, use of recreational drugs, close contact with infected persons and travelling to areas with high endemicity. However, in low endemic areas, outbreak risk is less as person to person transmission is less. Children with HAV infection is usually asymptomatic. However, adults can experience symptoms from mild to severe which includes anorexia, malaise, jaundice, fever, diarrhoea, nausea and abdominal discomfort. Even though hepatitis A can relapse, it does not give rise to chronic liver disease. However, some patients can experience acute liver failure which is often fatal. Detection of HAV immunoglobulin (IgM) and RT– PCR for HAV RNA aid in diagnosis.

A person can get infected with hepatitis B virus (HBV) via several routes which include spread from mother to child at birth, exposure to infected blood, mucosal or percutaneous exposure to infected blood and other body fluids like seminal fluid, vaginal secretions, saliva and sexual transmission. Therefore, health care workers and others who may get exposed to blood and blood products as a part of their occupation, people who require blood or blood products regularly, recipients of solid organ transplant, dialysis patients, prisoners, injectable drug users, people with multiple sexual partners are at increased risk of acquiring the infection. Most

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people with acute infection is asymptomatic. However, some can develop jaundice, dark urine, extreme fatigability, vomiting and abdominal pain. A proportion of patients can develop acute liver failure which is often fatal. Hepatitis B infection can also cause chronic liver infection which can lead to cirrhosis and liver cancer. Likelihood of developing chronic infection has a significant association with age of the patient. 80-90% of children who get infected before the first year of life and 30–50% of children who get infected before 6 years of life carry the risk of developing chronic infection. However, in the adult population less than 5% develop chronic infection. But 20-30 % of adults with chronic infection can develop cirrhosis and / or liver cancer. Hepatitis B surface antigen (HBsAg) and IgM to Hepatitis B core antigen (HBcAg) are present in the body in acute infection. In the initial phase, presence of HBeAg indicates that blood and body fluids of the patient is highly contagious since HBeAg is a marker of high rate of viral replication. HBsAg is present for at least 6 months in chronic hepatitis infection. Persistence of HBsAg is a risk factor for developing cirrhosis and liver cancer.

Hepatitis C virus (HCV) can cause both acute and chronic infection. HCV, which is a blood borne virus transmits through transfusion of unscreened blood and blood products, sharing of needles by injectable drug users, inadequate sterilization of medical equipment particularly needles and syringes, sexual transmission and transmission from mother to baby. Incubation period for Hepatitis C infection is 2 weeks to 6 months. Nearly 80% of people with acute infection are asymptomatic. In the remaining 20 % there can be fever, fatigability, jaundice, anorexia, nausea, vomiting, abdominal discomfort and joint pain. Most of the time, chronic infection is also asymptomatic where symptoms become apparent secondary to serious liver damage. Initial investigation to detect the infection is to demonstrate anti HCV antibodies. However, 15-45% of people who are infected, spontaneously clear the infection by strong immune response. Therefore, after detecting anti HCV antibodies, it is important to demonstrate the presence of HCV RNA to confirm the chronic infection. Additionally, it is important to assess the degree of liver damage by liver biopsy and to detect the genotype of the hepatitis C strain. Different genotypes respond differently to treatment.

Hepatitis D virus (HDV) cannot replicate in the absence of HBV. Therefore, HDV cause super infection or co infection with HBV and vaccination against HBV can prevent hepatitis D infection also. Routes of transmission are also similar to HBV. HDV infection can be diagnosed by demonstration of high titers of IgG and IgM anti HDV antibodies. Diagnosis can be confirmed by detecting HDV RNA in serum.

Faecal contamination of drinking water is the usual method of transmission of hepatitis E virus (HEV). Incubation period for hepatitis E infection is 2 to 10 weeks. Usually symptomatic infection is seen in adult population. In children, infection usually goes undiagnosed as they are mostly asymptomatic. The initial phase of the infection consists of constitutional symptoms like fever, anorexia, fatigability followed by jaundice and tender hepatomegaly. Most of the time the disease is self limiting. But rarely patients can develop fulminant hepatitis specially during pregnancy. Hepatitis E infection can be diagnosed by detecting HEV specific IgM antibodies in blood.

Burden of viral hepatitis

Although there had not been an accelerated strategy to combat viral hepatitis until recently, it has posed a major disease burden which is comparable to the disease burden posed by Tuberculosis, Malaria and HIV.

Annually, 1.4 million people die of acute viral hepatitis, hepatitis related cirrhosis and liver cancer world wide. Out of these deaths, 47% an 48% are due to hepatitis B and hepatitis C infection respectively. Hepatitis has also become a cause of death among people infected with HIV where 2.9 million and 2.6 million of them are co infected with HCV and HBV respectively. Further to the disease burden, 240 million are infected with HBV and 130-150 million are infected with HCV globally. However, less than 5% of them are aware of their status and this as a fact shows the importance of improving access to testing.

Opportunities to reduce disease burden

Over the past years, some effective steps have been taken to combat the threat posed by viral hepatitis, which include preventive strategies such as vaccination, ensuring injection, blood and surgical safety, prevention of mother to child transmission, harm reduction for people who inject drugs and improving treatment methods.

Sources

1. World Health Organization official web site
2. Global health sector strategy on viral hepatitis 2016-2021 available at *http://www.who.int/hepatitis/strategy2016-2021/ghss-hep/en/*

Compiled by Dr. S.A.I.K. Sudasinghe of the Epidemiology Unit

Table 1: Selected notifiable diseases reported by Medical Officers of Health 16th – 22nd July 2016 (30th Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmani-asis		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	433	9578	1	100	0	4	0	40	0	26	1	134	0	6	1	23	0	0	3	255	1	32	0	0	69	75
Gampaha	102	2581	0	52	0	6	0	15	0	12	1	157	0	9	1	18	0	0	5	217	0	22	0	4	13	13
Kalutara	111	2209	3	66	0	7	0	22	0	22	4	299	0	6	2	18	0	0	2	171	0	51	0	0	71	79
Kandy	160	2290	4	112	0	14	1	13	0	29	3	92	2	62	0	39	0	0	1	117	1	31	0	8	96	100
Matale	55	521	4	42	0	1	0	11	0	3	1	66	1	17	0	14	0	1	0	23	0	47	0	17	69	77
NuwaraEliya	19	259	2	64	0	1	0	40	0	15	3	35	1	50	0	28	0	0	1	87	0	29	0	0	92	92
Galle	104	1189	0	85	0	8	1	5	1	5	2	188	3	64	0	6	0	0	4	197	0	28	0	3	60	85
Hambantota	31	536	0	39	0	1	0	2	0	50	0	81	0	39	1	24	0	0	3	157	0	11	2	215	67	92
Matara	54	712	2	85	0	12	0	6	0	35	4	123	1	30	0	19	0	0	1	119	0	18	2	135	94	100
Jaffna	48	1469	9	157	0	3	2	57	3	46	0	9	6	559	0	8	0	0	4	120	2	36	0	1	100	100
Kilinochchi	1	56	1	29	0	0	0	32	0	5	0	12	1	23	0	0	0	0	0	10	0	9	0	0	25	50
Mannar	1	99	0	14	0	4	0	18	0	5	0	8	1	38	0	0	0	0	0	7	0	1	0	0	80	100
Vavuniya	6	183	1	9	0	3	1	63	0	30	0	12	0	9	0	6	0	0	0	23	0	8	1	6	50	75
Mullaitivu	0	128	2	21	0	2	0	17	0	36	0	23	0	5	0	1	0	0	0	14	0	6	0	4	80	100
Batticaloa	10	364	9	201	0	0	2	28	0	88	0	33	0	5	0	9	0	0	0	69	1	7	0	1	79	100
Ampara	10	155	0	27	0	1	0	0	0	20	0	23	0	0	0	7	0	0	2	92	1	2	0	5	29	71
Trincomalee	8	311	1	41	0	2	0	10	0	24	0	23	0	21	0	32	0	1	3	119	0	10	0	4	75	83
Kurunegala	98	1622	9	211	0	8	0	1	2	13	0	114	1	22	1	19	0	2	5	203	0	42	0	56	76	90
Puttalam	16	721	3	51	1	4	0	4	0	0	0	33	1	59	0	0	0	0	1	52	0	28	0	2	96	77
Anuradhapura	24	390	1	50	0	3	0	5	0	23	1	226	0	24	1	15	0	0	1	159	1	28	13	148	47	68
Polonnaruwa	19	307	1	20	0	3	0	9	0	12	2	81	0	1	0	2	0	0	0	76	1	14	0	84	86	100
Badulla	20	495	3	83	0	10	1	7	0	22	0	90	3	64	2	86	0	0	5	131	5	129	0	3	82	94
Monaragala	14	230	1	40	0	1	0	2	0	10	1	151	3	87	2	107	0	2	1	49	0	18	3	32	73	91
Ratnapura	100	1866	6	249	1	26	1	23	0	23	8	378	0	23	2	93	0	0	5	129	3	103	0	1	72	83
Kegalle	26	906	1	62	0	17	0	20	0	46	0	135	1	22	0	16	0	0	2	207	2	34	0	1	64	91
Kalmune	4	385	1	56	0	3	0	5	0	42	0	12	0	0	0	3	0	4	0	57	1	17	0	0	69	92
SRILANKA	1474	29562	65	1966	2	144	9	455	6	642	31	2538	25	1245	13	593	0	10	49	2860	19	761	21	730	71	84

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 22th July, 2016 Total number of reporting units 339 Number of reporting units data provided for the current week: 290 C**-Completeness

A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

16th – 22nd July 2016 (30th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2016	Number of cases during same week in 2015	Total number of cases to date in 2016	Total number of cases to date in 2015	Difference between the number of cases to date in 2016 & 2015
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	02	00	00	00	00	00	00	00	02	02	39	45	-13.3%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	00	01	01	00	01	00	00	00	00	03	06	239	234	+2.1%
Measles	02	00	00	00	00	00	01	00	00	03	78	301	1588	-81.0%
Rubella	00	00	00	00	00	00	00	00	00	00	01	06	07	-14.2%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Tetanus	00	01	00	00	00	00	00	00	00	01	00	06	11	-45.4%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Japanese Encephalitis	04	00	00	00	00	00	00	00	00	04	00	12	07	+71.4%
Whooping Cough	01	00	00	00	00	00	00	00	00	01	03	35	54	-35.1%
Tuberculosis	56	07	14	02	16	03	00	08	22	128	131	5449	5449	0%

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

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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

ON STATE SERVICE

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