WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health

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Viral Hepatitis (Part II)

This is the second in a series of two articles on Hepatitis

Challenges for viral hepatitis surveillance systems

Many of the people affected by viral hepatitis have limited access to health care (for example, people living in poverty, intravenous drug users and marginalized populations) and are less likely to be diagnosed appropriately to provide complete and accurate demographic and behavioral information, or to access follow-up care. Each HBV infected or HCV infected person who does not enter into appropriate medical care represents a missed opportunity for secondary prevention and may contribute to the collection of inaccurate and less detailed surveillance data. Finding ways to ensure that the patients receive comprehensive and culturally appropriate care and referrals not only would increase the likelihood of improving their health outcomes, but is likely to favorably affect collection of surveillance data.

Immunization against Hepatitis viruses

With the introduction of a safe and effective vaccine in 1982, immunization against Hepatitis B became the major preventive strategy globally. In many countries, the prevalence rate of chronic infection among children fell from 8-15% to less than 1% in immunized children. This achievement is the impact of immunization against Hepatitis B. A vaccine against hepatitis A is available, but it is not yet being used as a public health measure in the region.

Hepatitis B Immunization in Countries of the South- East Asian region

Hepatitis B vaccine is a part of the national immunization programmes in all countries in the South-East Asian region and more than 130 million infants have received three doses of the HBV vaccine in most countries. However, the current coverage rates are low in some areas and vaccination at birth has not been universally adapted.

Sri Lanka introduced HBV vaccine from 2003 covering both infants and healthcare workers. Since 2003, Sri Lanka has been immunizing all infants at 2, 4 and 6 months of age against Hepatitis B infection via the EPI schedule.

Prevention of Hepatitis B and C transmission in Sri Lanka

There is a specific National Policy for preventing Hepatitis B and C infection in health care settings. Health care workers are vaccinated against hepatitis B prior to starting work that might put them at risk of exposure to blood; vaccinations are arranged within groups and are provided on request through pharmacies. There is no vaccine available to prevent the spread of hepatitis C at the movement and therefore, prevention of disease transmission gets priority.

There is a national policy on injection safety in health-care settings, which recommends that single use and auto-disable syringes, cannulas and needles for therapeutic purposes. Universal precautions were strengthened with regard to all invasive procedures at all medical institutions and clinics.

There is a national infection control policy for blood banks. All donated blood units and blood products Nationwide are screened for Hepatitis B and Hepatitis C.

Government-funded awareness campaigns aimed at both the general public and healthcare workers were also carried out.

Treatment

Antiviral agents against HBV and HCV exist. However, drugs active against HBV or HCV are

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not widely accessible. Currently, three anti-retrovirals (TDF, 3TC, FTC) are effective for treatment of both HIV and HBV, so co-infected patients can take fewer drugs to treat the two diseases.

Although HCV can be treated, access to treatment remains an issue in many countries. Therapeutic advances and intense research have led to the development of many new oral antiviral drugs for HCV infection. A number of HCV specific oral drugs are in the late stage of development and some have been recently registered.

Liver transplantation is the option available for the patients with end-stage disease due to long term complications of viral hepatitis (cirrhosis and liver cancer). In Sri Lanka, Interferon alpha is on the National list of essential medicines for the treatment of hepatitis B and C.

Management of Acute HAV Infection

The treatment is conservative and supportive. Hospital admission, quarantine or bed rest is not necessary. There is no specific medication for HAV infection and hygiene is very important with proper hand washing practices. The management should focus on treating the symptoms and identifying the small proportion of patients with a particular risk of developing fulminant hepatic failure.

Management of Acute HBV Infection

Spontaneous recovery after acute infection with HBV occurs in 95-99% of previously healthy adults. Therefore antiviral therapy is not likely to improve the rate of recovery and is not required unless the disease is accompanied by a non-hepatic complication such as polyarteritis nodosa. In such cases and in immunocompromised individuals, antiviral therapy with lamivudine may be recommended. In fulminant hepatitis, meticulous intensive care may improve the survival.

Management of Acute HCV Infection

Acute HCV infection often becomes chronic, especially in asymptomatic patients. However, the infection spontaneously resolves in up to 50% of patients who present with symptoms. Treatment of hepatitis C in the acute stage has resulted in better sustained virological response (SVR). Studies using conventional interferon and peginterferon –alfa for 24 weeks have achieved high rates of SVR in acute hepatitis C. The objective of antiviral treatment in acute hepatitis C is to prevent the development of Hepatocellular carcinoma.

Management of Acute HEV Infection

Treatment is supportive only, mainly focusing on treating the symptoms. Pregnant women with acute hepatitis E infection are considered as a special category as they have an approximately 15% risk of fulminant hepatic failure with high mortality rate.

Prevention of the transmission of other Hepatitis viruses

Hepatitis A Immunization programme for high risk groups is being carried out in Sri Lanka and the government has guidelines that address prevention of Hepatitis A and E through food and water safety. These preventive measures include provision of safe drinking water, provision of hygienic latrine facilities, provision of laboratory facilities for viral hepatitis investigations at the Provincial / district level and strengthening of laboratory surveillance.

Hepatitis A vaccination

Several hepatitis A vaccines are available internationally. All are similar in terms of how effectively they protect people from the virus and their side effects. No vaccine is licensed for children younger than one year of age.

Nearly 100% of people will develop protective levels of antibodies to the virus within 01 month after a single dose of vaccine. Even after virus exposure, one dose of vaccine within 2 weeks of contact with the virus has protective effects. Millions of people have been immunized with no serious adverse events. The vaccine can be given with the regular childhood immunization programme or with vaccines commonly given before travelling.

WHO recommendation on Hepatitis A vaccination

WHO recommends that hepatitis A vaccination should be integrated into the national immunization schedule for children over the age of one, if indicated on the basis of acute hepatitis A incidence and consideration of cost-effectiveness. This depends on the local context, including the level of risk for children and sero-prevalence in adults. Several high-income countries have introduced the vaccine in the routine childhood imunization programme.

Hepatitis A vaccine as an outbreak control measure

Recommendations for hepatitis A vaccination in outbreak situations depend on the epidemiologic features of hepatitis A in the community and the feasibility of rapidly implementing a widespread vaccination programme. The use of a single dose regimen of hepatitis A vaccine to control community-wide outbreaks has been most successful in small self-contained communities, when vaccination was started early in the course of the outbreak and when high coverage was achieved. Vaccination efforts should be supplemented with health education and improved sanitation.

Hepatitis E vaccination

At Present, no commercially available vaccines exist for the prevention of hepatitis E. However, several studies for the development of an effective vaccine against hepatitis E are in progress and recently China has patented this vaccine for internal use. Further studies are required to determine the need for hepatitis E vaccination in countries with high incidence of this infection.

Sources

Prevention and Control of Viral Hepatitis Infection: Framework for Global Action, available from *http://who.int/csr/disease/hepatitis/GHP_Framework_En.pdf*

Regional strategy for the prevention and control of Viral hepatitis, WHO - Regional Office for South-East Asia (published in 2013)

Compiled by Dr. H. A. Shanika Rasanjalee of the Epidemiology Unit

Table 4: Selected notifiable diseases reported by Medical Officers of Health 25th – 31th Janu 2014 (05th 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	142	1250	1	14	0	2	1	10	0	124	0	13	0	0	0	2	0	0	3	28	0	8	0	3	**56**	**44**
Gampaha	66	537	2	16	0	1	0	6	0	2	6	13	1	2	2	12	0	2	16	29	1	15	0	1	**67**	**33**
Kalutara	16	241	3	13	0	1	0	5	0	3	3	26	0	0	0	2	0	0	0	19	0	5	0	0	**38**	**62**
Kandy	11	84	1	12	1	1	2	2	0	0	1	5	0	7	3	8	0	0	1	15	1	5	0	1	**78**	**22**
Matale	3	29	0	9	0	0	0	2	0	0	0	8	0	1	2	8	0	0	0	3	0	2	0	0	**54**	**46**
NuwaraEliya	1	24	3	17	0	0	0	3	0	6	0	0	0	3	0	4	0	0	2	10	0	2	0	0	**77**	**23**
Galle	18	130	1	11	0	2	0	0	0	2	1	27	0	10	0	0	0	0	12	35	1	8	0	0	**85**	**15**
Hambantota	9	45	0	11	0	3	0	3	0	0	2	16	3	11	0	3	0	0	5	19	0	11	4	30	**75**	**25**
Matara	7	50	0	8	0	1	0	15	0	3	0	8	2	10	2	6	0	0	8	23	4	15	3	9	**100**	**0**
Jaffna	24	147	8	49	0	1	6	36	4	16	0	2	14	120	1	2	0	0	4	17	2	6	0	0	**92**	**8**
Kilinochchi	0	9	1	6	0	0	0	5	0	0	0	0	0	9	0	0	0	0	0	1	0	3	0	4	**50**	**50**
Mannar	0	2	1	3	0	3	2	12	0	0	0	2	3	9	0	0	0	0	0	0	0	0	0	1	**60**	**40**
Vavuniya	0	5	0	10	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	2	0	0	**75**	**25**
Mullaitivu	1	16	0	6	0	0	0	4	0	0	0	1	0	2	0	0	0	0	0	2	0	2	0	2	**40**	**60**
Batticaloa	12	42	10	40	0	0	1	6	4	5	2	3	0	0	1	2	0	0	2	5	1	1	0	0	**86**	**14**
Ampara	1	17	0	4	0	0	0	0	0	4	0	1	0	0	1	1	0	1	0	2	0	0	0	0	**43**	**57**
Trincomalee	7	51	0	6	0	1	0	0	0	0	0	2	0	0	0	0	0	0	1	7	1	1	0	0	**83**	**17**
Kurunegala	28	141	2	12	1	3	1	4	0	1	7	17	2	13	1	4	0	0	8	39	1	7	2	19	**59**	**41**
Puttalam	14	92	0	7	0	0	0	1	0	5	1	8	1	4	0	1	0	0	3	11	0	0	0	1	**69**	**31**
Anuradhapura	5	61	1	18	0	0	0	0	0	1	1	10	1	10	0	0	0	0	3	24	1	8	6	43	**53**	**47**
Polonnaruwa	0	60	0	10	0	1	0	0	0	0	0	8	0	0	0	1	0	0	0	17	0	1	0	15	**0**	**100**
Badulla	7	52	4	7	0	1	0	1	0	0	0	4	1	4	1	4	0	0	1	13	2	6	0	0	**71**	**29**
Monaragala	2	22	1	12	0	0	0	0	0	27	0	11	2	8	0	8	0	0	0	8	0	3	0	1	**64**	**36**
Ratnapura	15	89	2	21	0	0	0	3	0	2	2	42	2	16	6	44	0	0	1	22	1	3	0	7	**83**	**17**
Kegalle	6	78	1	10	0	2	0	6	0	0	2	18	1	6	1	11	0	0	0	35	0	7	0	1	**55**	**45**
Kalmune	0	11	2	20	0	0	0	2	4	5	0	1	0	0	0	0	0	0	2	15	0	1	0	0	**54**	**46**
SRILANKA	**395**	**3285**	**44**	**352**	**2**	**23**	**13**	**126**	**12**	**207**	**28**	**246**	**33**	**245**	**21**	**123**	**0**	**3**	**72**	**402**	**16**	**122**	**15**	**138**	**67**	**33**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 31th January , 2014 Total number of reporting units 337 Number of reporting units data provided for the current week: 230C**-Completeness

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

Table 1: Vaccine-Preventable Diseases & AFP

25th – 31th Janu 2013 (05th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2014	Number of cases during same week in 2013	Total number of cases to date in 2014	Total number of cases to date in 2013	Difference between the number of cases to date in 2014 & 2013
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	02	00	00	01	00	00	01	00	04	01	08	08	0%
Diphtheria	00	00	00	00	00	00	00	00	00	00	-	00	-	%
Mumps	00	02	01	04	00	02	00	02	00	11	12	94	135	-30.4%
Measles	18	06	13	01	01	06	01	05	10	61	01	440	19	2215.8%
Rubella	00	00	00	00	00	00	00	00	00	00	-	00	-	%
CRS**	00	00	00	00	00	00	00	00	00	00	-	00	-	%
Tetanus	00	00	00	01	00	00	00	00	00	01	00	02	02	0%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	-	00	-	%
Japanese Encephalitis	00	01	00	00	00	00	00	00	00	01	-	09	-	%
Whooping Cough	01	01	00	00	00	00	01	00	00	03	00	07	06	16.7%
Tuberculosis	80	24	18	09	09	03	06	08	19	174	122	1120	728	53.9%

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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