SARAWAK STATE HEALTH DEPARTMENT
EPIDEMIOLOGICAL NEWS

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2007, 25TH YEAR

Rotavirus infection

Introduction:

Acute diarrhea diseases are the major cause of childhood morbidity and mortality all over the world, more so in developing countries. In developed countries, virus infections account for up to 60% of all gastroenteritis in children < 5 years. In contrast, rotavirus cause < 5% of all episodes of diarrhea in developing countries, but of episodes requiring hospitalization, 40-50% are due to rotavirus.

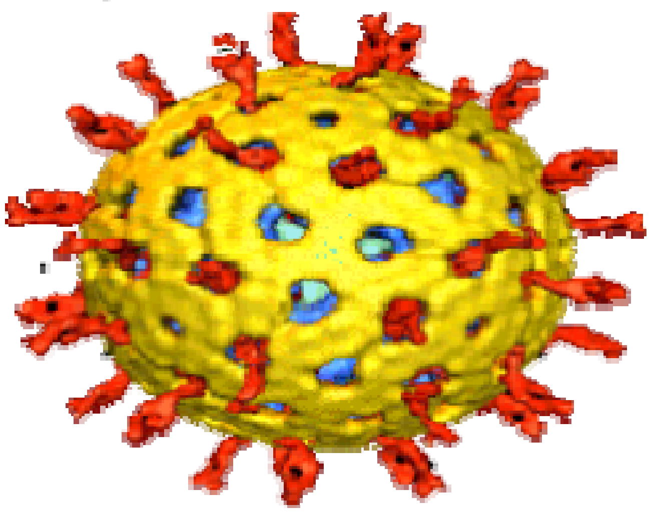
Rotavirus is an important etiological agent of serious diarrhea illness in infant and young children below the age of 2 years. In developed countries, rotavirus cause relatively few deaths, whereas in developing countries, rotavirus gastroenteritis is a major cause of childhood death and is responsible for approximately half a million deaths per year among children aged <5 years.

Signs and symptoms:

The spectrum of rotavirus illness ranges from mild, watery diarrhea of limited duration to severe diarrhea with vomiting and fever that can result in dehydration with shock, electrolyte imbalance, and death. Following an incubation period of 1--3 days, the illness can begin abruptly, and vomiting often precedes the onset of diarrhea. Up to one third of patients have a temperature of >102°F (>39°C). Colicky abdominal pains, ill defined tenderness and exaggerated bowel sounds are common. Gastrointestinal symptoms generally resolve in 3--7 days.

Transmissions:

Rotavirus is spread most often when objects contaminated with feces are placed into the mouth. Rotaviruses are shed in high concentrations in the stools of infected children and are transmitted primarily by the fecal-oral route, both through close person-to-person contact and through fomites. Rotaviruses also are probably transmitted by other modes, such as fecally contaminated food and water and respiratory droplets. A person is contagious for as long as they are shedding the virus in their stool (up to 21 days).



Prevention of rotavirus:

Rotavirus can survive for several days on smooth surfaces. To prevent its spread, wash away all vomit or feces from contaminated surfaces, especially diaper changing tables, and disinfect with a germ-killing product.

Wash hands well with soap after changing children's diapers.
Wash hands well with soap before eating, preparing food, or feeding infants or children.

It is important that feces and vomit is disposed of quickly and not allowed to dry or splash. Any person with diarrhea should stay away from others and should not prepare food for at least two days after symptoms have stopped.

If handling food cannot be avoided, ill persons should carefully wash their hands with soap before handling food, after going to the toilet, and before feeding others.

Infants or children who are sick with any diarrhea illness should remain out of day care or school until their symptoms have resolved.

Study in U.S.A found that the usage of rotavirus vaccine will prevent 75% of cases of rotavirus and 98% of severe cases.

Rotavirus infection among children in Miri

There was a marked increase in the number of AGE cases admitted to Paediatrics Ward, Miri Hospital since Epid Week 26. There were 207 cases admitted from Epid Week 25-Epid Week 32 with the peak at Epid Week 30 with 41 cases. However, these cases not detected through diarrhea and vomiting surveillance since Hospital Miri is not under the Sentinel Hospital surveillance.

Investigation revealed that the cases were scattered in Miri District and majority of cases are staying in proper housing with proper sanitation and water supply.

75.4% of the cases are among children 2 years old and below, 55.1% are Ibans and 17.4% are Malays. 100 cases were investigated, all of them have diarrhea, 82% have vomiting while 6% have fever.

Stool specimens for rotavirus were only requested in July and August 2007 and 16 specimens were found to be positive for rotavirus.

Field and laboratory investigation result were inconclusive. However, water samples taken from Kuala Baram area shows 6 out of 8 samples in violation for residual chlorine while as from other areas only samples from Tudan and Canada Hill were violated for the same parameter.

Health education were given on proper hand washing and personal hygiene and also advise to drink only boiled water.

JABATAN KESIHATAN NEGERI SARAWAK

NOTIFIABLE DISEASE IN SARAWAK BY DISTRICT August 2007

Epidemiological NEWS

DISTRICTS	AIDS	Cholera	Dengue Fever	Dengue H.Fever	Dysentery	Food Poisoning	Gonorrhoea	Hand, Foot & Mouth	Leprosy	Malaria	Whooping Cough	Measles	Syphilis, Congenital	Syphilis (All Forms)	Tuberculosis (All forms)	Typhoid & Paratyphoid Fever	Typhus, Scrub	Hepatitis A	Hepatitis B	Hepatitis C	Other Hepatitis	Viral Encephalitis	TOTAL
Lundu			2				1	1		10					0								**14**
Bau			3					27		2				1	2								**35**
Kuching			30			3	5	129		6	1	3		6	28				4	3			**218**
Samarahan			3			11	1	5							2								**22**
Serian			1			2		5		6				1	7								**22**
Simunjan			5		2							1		1	1								**10**
Sri Aman			5		1			34		3				1	11								**55**
L/ Antu			2		1			7							9								**19**
Betong			1												2								**3**
Saratok			1					4							0								**5**
Sarikei			1	1				1							3								**6**
Julau/Pakan			3												1/2								**6**
Meradong															3								**3**
Daro			7	1				1							2								**11**
Sibu/S'gau			12					16		14					11/1								**54**
Kanowit															4								**4**
Mukah								4							2								**6**
Dalat	1		4												1								**6**
Kapit			6					15		7					4								**32**
Song			2												1								**3**
Belaga			2			1				5					1								**9**
Bintulu			2				9	25		3			4		8								**51**
Tatau															2				1				**3**
Miri							1	14		7				4	14								**40**
Marudi			1		1			1							5				1				**9**
Limbang			2				1	17		7					5								**32**
Lawas			1					8		1		4			3								**17**
TOTAL	**1**	**0**	**96**	**2**	**5**	**17**	**18**	**314**	**0**	**71**	**1**	**8**	**4**	**14**	**135**	**0**	**0**	**0**	**6**	**3**	**0**	**0**	**695**

JABATAN KESIHATAN NEGERI SARAWAK

NOTIFIABLE DISEASE IN SARAWAK
August 2007

Epidemiological NEWS

ICD CODE	DISEASES	Median 2002-2006	Month Ending		Cumulative Total	
			31/08/2006	31/08/2007	2006(Annual)	2007
B20 – B24	HIV/AIDS (Death)	3	3	1	114/69(1)(20)	12
A57	Chancroid	0	0	0	0	0
A00.9	Cholera	0	0	0	0	0
A90	Dengue Fever	109	109	96	1799	1286
A91	Dengue Haemorrhagic Fever	1	3	2	22	24
A36.0-A36.9	Diphtheria	0	0	0	0	0
A06.0,A09	Dysentery All Types	9	7	5	86	90
A05,T61-T62	Food Poisoning	29	29	17	187	441
A54.0-A54.9	Gonococcal Infections(All Forms)	34	26	18	383	252
A54.3	Opthalmia Neonatorum	0	0	0	0	0
A30.9	Leprosy	2	0	0	16	5
B54	Malaria	103	70	71	1371	475
B05	Measles	12	12	8	186	68
A20	Plague	0	0	0	0	0
A80.9	Poliomyelitis, acute	0	0	0	0	0
A82	Rabies	0	0	0	0	0
A68	Relapsing Fever	0	0	0	0	0
A50	Congenital Syphilis	0	0	4	0	6
A51-A53	Syphilis(All forms)	27	33	14	298	190
A33	Tetanus Neonatorum	0	0	0	2	0
A35	Tetanus (adults)	0	0	0	2	2
A16-A19	Tuberculosis(All forms)	111	182	135	1632	992
A01	Typhoid and Paratyphoid fevers	1	1	0	14	17
A75	Typhus, epidemic	0	0	0	0	0
A75.2	Typhus, flea-borne	0	1	0	0	0
A75.3	Typhus, scrub	0	0	0	0	3
A83,A84,A85,A86	Viral Encephalitis	3	4	0	35	14
B15.0-B15.9	Viral Hepatitis A	0	0	0	2	0
B16.0 – B 16.9	Viral Hepatitis B	8	3	6	34	61
B 18.2	Viral Hepatitis C	2	2	3	15	28
B19.0 – B19.9	Viral Hepatitis (unspecified)	0	0	0	4	3
A37	Whooping cough	0	2	1	8	1
A95	Yellow Fever	0	0	0	0	0

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