VIRGINIA DEPARTMENT OF HEALTH
DIVISION OF EPIDEMIOLOGY

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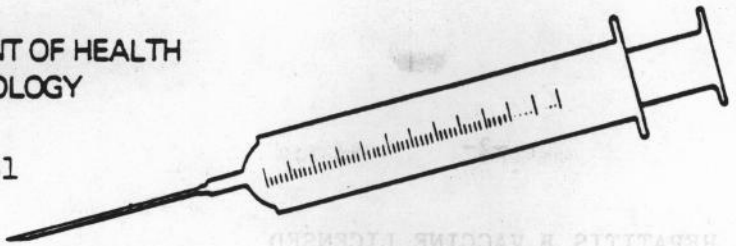

VOLUME 81 NUMBER 11
DATE November, 1981

EPIDEMIOLOGY BULLETIN

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TOXIC SHOCK SYNDROME (RE) UPDATE

Toxic Shock Syndrome (TSS), a potentially severe illness characterized by fever, gastrointestinal symptoms, a rash which subsequently desquamates, and hypotension, occurs almost exclusively among menstruating women who are tampon users. According to the Centers for Disease Control[1], 941 cases of TSS were reported in the U.S. with onsets occurring between January 1970, and December 1980. Most reported cases occurred in 1980, but there was a precipitous decrease in nationally reported cases of the syndrome during the final quarter of that year. Since then, considerable controversy has surrounded the interpretation of that decrease. Hypotheses include decreased reporting due to reduced publicity, decreased tampon use in general, and withdrawal of the Rely brand tampon from the market following the CDC reporting of its association with TSS in October, 1980. In any case, the problem has not disappeared. Investigators in Minnesota, who have used a consistent, aggressive case-finding approach initiated prior to the national publicity in September 1980 and continued since Rely tampons were withdrawn from the market, have noted no significant change in the reported incidence of tampon-related TSS since establishing their surveillance system in early 1980. Ongoing research by Iowa, Wisconsin and Minnesota (Tri-state TSS Study) has documented that an increased risk of TSS is present for all tampon users as compared to nonusers and that users of high absorbency tampons have a higher risk of developing TSS than users of low absorbency tampons.[2]

Another point worth mentioning is that the syndrome almost certainly encompasses a wide spectrum of severity, including cases with milder symptoms than required by the CDC case definition. For example, 8 cases were reported in Virginia in 1980, and 9 in 1981. However, there are about an equal number of reported "probable" cases which seem typical in every way except for a single finding such as the degree of fever or hypotension being less than required by the CDC case definition or the rash not desquamating. The medical significance of this is that women who have experienced a milder form of TSS may be also at high risk for recurrences which could be more severe than earlier episodes if they fail to modify their tampon using habits.[3] Thus, we encourage physicians to use a fairly liberal interpretation of a clinical case, so that such women are warned of their potential increase in risk.

REFERENCES

[1]MMWR, January 30, 1981/Vol. 30/No. 3
[2]The Epidemiology Monitor, July 1981, Vol. 2, No. 6
[3]MMWR, September 19, 1980/Vol. 29/No. 37

HEPATITIS B VACCINE LICENSED

On November 16, 1981, the Food and Drug Administration announced licensure of a new hepatitis B vaccine. It is the first vaccine ever licensed in the United States that is made from human blood. It is prepared from highly purified surface antigen derived from the plasma of human donors who are chronic carriers of the virus. The vaccine, called Heptavax-B, is being manufactured by Merck Sharp & Dohme, and is expected to become available about the middle of 1982.

Clinical trials of the vaccine began in 1975, ultimately involving more than 5,000 persons. Prior to licensure, impressive field trial results were obtained in groups of high-risk male homosexuals in New York, Chicago, Los Angeles, San Francisco, St. Louis, and Denver, among whom the vaccine was proven to be both safe and highly effective.

The vaccine, every batch of which requires about 65 weeks for production and testing, will initially be in short supply. The Immunization Practices Advisory Committee (ACIP) of the U.S. Public Health Service will be issuing formal recommendations for its use. It will probably be reserved initially for high-risk individuals such as certain health-care workers, institutionalized mentally handicapped patients, laboratory workers, hemodialysis staff workers and patients. It must be given in three 20 μg doses, the first two doses 1 month apart, and the third 5 months later. The anticipated estimated (retail) price of the vaccine could be as high as $75 to $120 for the three-dose regimen. This expense, apparently related to the availability of human plasma and the costly production and testing procedure, may have an impact on accessibility for some high-risk populations.

Appropriate use of this promising new vaccine should help reduce the growing problem of hepatitis B virus infections in the United States and elsewhere. It has been estimated that there are 200,000 to 300,000 new infections of hepatitis B each year in the U.S. with 100 to 200 deaths related to acute illness. But, in addition, what makes hepatitis B more serious than other forms of hepatitis, is that 6 to 10 percent of those infected become carriers, and a definite percentage of those develop chronic forms of hepatitis, cirrhosis, and even cancer of the liver.

REFERENCE:

U.S. Medicine, December, 1981.

MALARIA CHEMOPROPHYLAXIS FOR TRAVELERS

Perhaps the single most important preventive medical service physicians can provide international travelers, is to make sure they are provided with malaria chemoprophylaxis when visiting areas where malaria is endemic. In general, these areas include parts of Mexico, Haiti, Central America, South America, Africa, the Middle East, Turkey, the Indian subcontinent, Southeast Asia, Peoples Republic of China, the Indonesian archipelago, and Oceania. Note that in Canada, Europe, Australia, and Japan there is no malaria risk. Adults and children traveling to

malarious areas, and who weigh at least 50 kg, should take 500 mg (300 mg base) of chloroquine phosphate once weekly beginning one week before arrival and continuing for six weeks after leaving the endemic area. No pediatric suspension form is available, as the phosphate salt of chloroquine is not stable in solution. For young children weighing less than 50 kg, the Centers for Disease Control recommends that pharmacists pulverize the chloroquine phosphate tablets and prepare individual gelatin capsules with the calculated pediatric dose [5 mg base (8.3 mg salt) per kg body weight once weekly]. Parents can add the powder to food, drink, or syrup shortly before feeding. Pediatric doses must be calculated carefully according to body weight as overdoses of chloroquine in children could be potentially fatal. Overseas, chloroquine is available in a stable, ready-made suspension for children in the form of chloroquine sulfate (Nivaquine, Bemasulph). This formulation usually contains 50 mg base (68 mg salt) per ml of syrup.

Travelers to certain areas are at risk for exposure to strains of P. falciparum with varying degrees of resistance to chloroquine. An effective drug for the suppression of chloroquine-resistant P. falciparum is a fixed combination of pyrimethamine and sulfadoxine (Fansidar), which was recently approved by the FDA for commercial sale in the U.S. Travelers at risk should take this medication in addition to chloroquine, which is the preferred drug for suppression of P. vivax. A note of caution: pyrimethamine should be avoided by pregnant women since it has been shown to be teratogenic in animals. Additionally, sulfa drugs (sulfadoxine) used in the latter part of pregnancy may be associated with neonatal jaundice. Therefore, women who are pregnant or likely to become pregnant, should be discouraged from traveling to areas where chloroquine-resistant P. falciparum is endemic.

Routine malaria chemoprophylaxis may not prevent delayed attacks in persons infected with P. vivax or P. ovale after chloroquine is discontinued. Attacks may occur up to a year or more after returning from a malarious area. Physicians should be alert to symptoms of headache, malaise, fever, chills, or sweats, and consider the diagnosis of malaria in persons with histories of travel to malaria-endemic countries.

The Division of Epidemiology (804-786-6261) is available for consultation regarding any aspects of malaria prophylaxis.

REFERENCES:

Health Information for International Travelers. Supplement of MMWR, August, 1981

California Morbidity, #46, November 27, 1981.

MONTH: November, 1981

DISEASE	STATE					REGIONS				
	THIS MONTH	LAST MONTH	TOTAL TO DATE 1981	TOTAL TO DATE 1980	MEAN 5 YEAR TO DATE	THIS MONTH N.W.	N.	S.W.	C.	E.
CHICKENPOX	43	20	1673	403	824.4	6	26	5	–	6
MEASLES	–	–	9	339	1397.8	–	–	–	–	–
MUMPS	2	3	127	74	133.2	1	–	1	–	–
PERTUSSIS	1	1	9	10	14.0	–	–	–	–	1
RUBELLA	–	1	6	41	265.8	–	–	–	–	–
MENINGITIS – ASEPTIC	16	56	256	177	165.6	8	6	–	1	1
BACTERIAL	15	18	196	163	123.8	4	2	3	2	4
ENCEPHALITIS – INFECTIOUS	1	4	37	33	27.8	–	1	–	–	–
POST-INFECTIOUS	–	–	3	5	7.8	–	–	–	–	–
HEPATITIS A (INFECTIOUS)	15	13	194	292	279.6	–	4	3	5	3
B (SERUM)	42	64	494	479	328.6	5	14	7	7	9
SALMONELLOSIS	76	153	1476	1199	885.0	9	6	14	27	20
SHIGELLOSIS	39	53	1177	188	144.4	2	2	8	27	–
TUBERCULOSIS – PULMONARY	47	50	500	459	–	–	–	–	–	–
EXTRA-PULMONARY	13	8	102	87	–	–	–	–	–	–
SYPHILIS (PRIMARY & SECONDARY)	60	75	–	–	509.2	8	2	3	14	33
GONORRHEA	1653	2170	–	–	22,364.0	–	–	–	–	–
ROCKY MOUNTAIN SPOTTED FEVER	1	4	104	93	108.8	–	–	–	1	–
RABIES IN ANIMALS	27	22	143	26	24.0	14	13	–	–	–
MENINGOCOCCAL INFECTIONS	9	10	96	58	56.0	2	2	1	1	3
INFLUENZA	43	12	4952	810	4654.0	–	24	19	–	–
MALARIA	4	5	33	63	27.6	–	4	–	–	
OTHER: Hepatitis Unspecified	11	17	168	152	163.0	2	–	2	2	5

COUNTIES REPORTING ANIMAL RABIES: Fauquier-9 rac.; 1 red fox; Loudoun-10 rac., 2 skunks, 1 cat,

Page-4 skunks

OCCUPATIONAL ILLNESSES: Occupational pneumoconioses 6; Occupational dermatoses 1; Occupational hearing loss 4; Asbestosis 4; mesothelioma 1, Byssinosis 6.

Published Monthly by the
VIRGINIA HEALTH DEPARTMENT
Division of Epidemiology
109 Governor Street
Richmond, Virginia
23219

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