CENTER FOR DISEASE CONTROL

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

January 11, 1980 / Vol. 29 / No. 1

Current Trends

Viral Hepatitis Type B, Tuberculosis, and Dental Care of Indochinese Refugees

Dentists and dental groups in several states have recently expressed concern that the Indochinese refugees, 13% of whom are carriers of hepatitis B, represent a significant risk of hepatitis transmission to dental personnel. CDC and the Council on Dental Therapeutics of the American Dental Association have worked together for many years to formulate recommendations for preventing transmission of hepatitis to dental personnel and patients and have prepared the recommendations given in this article. An understanding of the modes of transmission of hepatitis B virus, use of proper sterilization and disinfection techniques, and knowledge of recommended procedures should allow dentists to provide dental care for the refugees in the normal dental office with minimal risk to themselves and virtually no risk to other patients.

Hepatitis B is an occupational hazard of medical and dental personnel, especially those who are frequently exposed to blood. Surgeons, oral surgeons, and pathologists are at highest risk, acquiring the infection approximately 6 times more frequently than the general population. Many of these infections are, however, asymptomatic. About 13% of general dentists acquire hepatitis B, compared to roughly 4% of the general population. Dentists usually acquire their infection from asymptomatic carrier patients. About 3 persons per thousand in the general population are carriers, but several groups are known to have a much higher carrier rate. These include hemodialysis patients (7%), institutionalized mentally retarded persons (7% to 35%), immunosuppressed patients, multiple blood transfusion recipients, percutaneous drug abusers (5%), and male homosexuals (6%). The Indochinese refugees have a 13% carrier rate, but because they are an easily identifiable group, appropriate precautions can be taken. Thus, the risk to the dentist may be less than that from other high-risk groups and from unrecognized carriers in the general population.

The carrier status of many refugees is determined as part of a general health evaluation and is part of their medical record. This information, if requested, should be made available to those providing dental care. If the patient is a carrier or the carrier status is unknown, the dentist should take special precautions. (See below.) As an additional precaution, dentists may wish to be tested for hepatitis B surface antibody (anti-HBs). If they are anti-HBs positive, they are not at risk of acquiring hepatitis B by treating a carrier.

The pathways of hepatitis B transmission of concern when providing care to carrier patients are (1) patient to dentist and (2) patient to subsequent patient via environmental contamination. The hepatitis B virus is most efficiently transmitted from patient to

Indochinese Refugees — Continued

dentist when blood from the infected patient's mouth percutaneously enters the dentist's hand through a puncture wound or through a lesion of any kind on the dentist's hand. The more traumatic the dental procedure, the more likely that blood will be present and that hepatitis B transmission will occur. This is presumably the reason oral surgeons acquire hepatitis B more often than general dentists. Another less efficient but possible mode of transmission is via a large droplet spread of blood or fluid that contains virus into the mouth or eyes of the dentist. Parotid secretions are probably virus free, but blood and gingival crevicular fluid can contain the virus; thus, saliva should be considered potentially infectious.

The probability of transmission from a carrier patient to subsequent patients via contaminated environmental surfaces or instruments is extremely unlikely if sterilization and disinfection procedures found in Accepted Dental Therapeutics (*1*) and in various statements of the Council on Dental Therapeutics are followed. The virus is not believed to be present in aerosols, although it is present in large droplets. Thorough cleaning of environmental surfaces with detergents is the most important step in reducing the amount of virus on those surfaces. There is no well-documented epidemiologic evidence that transmission from a carrier patient to a subsequent patient has occurred in a dental operatory.

Dentists can treat carriers of hepatitis B virus in a normal office setting but should take precautions while treating any of these patients, especially if the treatment is likely to produce bleeding. The following procedures are recommended.

1) Single-use gloves should be worn and changed whenever a tear or puncture occurs. Gloves do not prevent all puncture wounds, but do protect existing lesions on the operator's hands from being exposed to blood. Also, a sharp surface may snag a glove instead of tearing the skin.

2) If a puncture wound does occur while working on a known carrier, hepatitis B immune globulin (HBIG) should be used as soon as possible (within 48 hours) at a dosage of 0.05-0.07 ml/kg and repeated in 25-30 days. If HBIG is unavailable, immune serum globulin (ISG, gamma globulin) may be used in the same dosage schedule. If the carrier status of the refugee is unknown and a puncture wound occurs, the dentist should be able to obtain the results of the refugee's carrier status within 48 hours. However, the dentist may prefer to determine the refugee's carrier status before treatment is given so that the use of ISG can be expedited in the unlikely event of an accidental puncture. Pre-exposure prophylaxis is not recommended. Determining the antibody status of the dentist before exposure is reasonable, since use of HBIG is unnecessary if antibody is present.

3) A surgical mask and eyeglasses should be worn to prevent blood from falling on ocular or mucous membranes. Procedures such as rubber dams that tend to reduce spread of infectious material are desirable.

4) Recommended procedures for sterilization and disinfection of instruments and environmental surfaces should be rigorously followed.

Tuberculosis, another important health problem among the refugees, is not a major risk for dentists. Refugees are screened for this disease overseas, and those who are determined to be infectious are started on antituberculous chemotherapy. Furthermore, no refugee with an X-ray abnormality is permitted to travel to the United States until 2 consecutive negative sputum smears are obtained. Persons who have negative sputum smears and have been on therapy for several weeks pose virtually no risk of transmitting infection.

Of greatest concern to the dentists and dental office personnel is the patient with

Indochinese Refugees – Continued

unsuspected pulmonary tuberculosis. Because of the thorough screening of refugees overseas and in many local health departments, the rate of unsuspected pulmonary tuberculosis among this group will be quite small. However, patients who are noted to be coughing or to have other symptoms suggestive of tuberculosis can be referred to the local health department or other medical facility for an evaluation if one has not recently been done. If the patient is known to have pulmonary tuberculosis, it would be prudent to postpone dental evaluation and dental therapy until the patient is no longer excreting tubercle bacilli. In case of a dental emergency, the dentist can wear a tight-fitting face mask.

Reported by the Council on Dental Therapeutics, American Dental Association; Hepatitis Laboratories Div, Bur of Epidemiology, and Tuberculosis Control Div, Bur of State Services, CDC.

Reference

1. Council on Dental Therapeutics, American Dental Association. Accepted Dental Therapeutics. 37th ed. Chicago: American Dental Association, 1977:54-65.

Epidemiologic Notes and Reports

Congenital Malaria Infection in an Infant Born to a Kampuchean Refugee – Texas

A 28-day-old Kampuchean boy was admitted to Hermann Hospital, University of Texas Medical School at Houston, on October 31, 1979, with a 2-day history of fever and vomiting. The parents were Kampuchean refugees from northwest Kampuchea who arrived in the United States 2 months before the child's birth; both parents were screened for malaria, with negative results, shortly after their arrival. The mother had no history of malaria symptoms except for unexplained chills before delivery. At birth the infant was noted to be well except for prolonged jaundice. On admission he was found to have hepatosplenomegaly, thrombocytopenia (42,000/mm^3), and monocytosis. Blood smears revealed *Plasmodium vivax*. The infant was treated with chloroquine phosphate, which produced rapid defervescence, resolution of monocytosis and thrombocytopenia, and clearing of parasitemia.

Reported by TG Cleary, MD, University of Texas Health Science Center at Houston; Texas State Dept of Health; Parasitic Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Although congenital malaria is rare, physicians should consider the disease in any febrile, jaundiced, or anemic child with hepatosplenomegaly born to a mother who has been in an area with endemic malaria. Congenital malaria can be caused by any of the 4 human malaria species. In addition, infection can be present in the neonate even in the absence of a history of acute malaria in the mother during pregnancy.

The treatment of congenital malaria infection due to *P. vivax* differs from that for infection acquired by mosquito bite; primaquine is unnecessary in treating the former because of the absence of an exoerythrocytic stage.

Health Screening of Resettled Indochinese Refugees — Washington, D.C., Utah

Washington, D.C.: In the period September 11-November 27, 1979, 45 refugee children were screened at the Georgetown Pediatric Clinic within 10 days of arrival from Asia. The study was performed under the auspices of the American Refugee Committee and the Buddhist Social Service Organization in the Washington metropolitan area. Subjects ranged in age from less than 1 year to 18 years and were from 10 of the 11 families sponsored by the Buddhist Social Service Organization during the period. (One family was relocated soon after arrival.) Thirty-six of the children were from Vietnam; 9, from a single family, were Laotian.

Screening included a detailed clinical and immunization history taken from the parents in the native language, physical examination, complete blood count, urinalysis, stool parasite examination, tuberculin skin testing, and, for 37 children, serum testing for hepatitis B surface antigen (HBsAg). Acute illnesses and parasitic infections were treated, and recommended immunizations begun or continued. Conditions requiring longer term management were given appropriate community referral.

Only 44% of the children had any previous history of medical care. History of prior immunization was infrequent: oral polio (single), 33%; smallpox, 18%; BCG, 7%; single DTP, 6%; measles, 0%. The more frequent and important clinical findings are presented

(Continued on page 9)

TABLE I. Summary — cases of specified notifiable diseases, United States

[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	1st WEEK ENDING		MEDIAN 1975-1979	CUMULATIVE, FIRST 1 WEEKS		MEDIAN 1975-1979
	January 5, 1980	January 6, 1979*		January 5, 1980	January 6, 1979*	
Aseptic meningitis	43	70	52	43	70	52
Brucellosis	2	1	3	2	1	3
Chickenpox	1,482	2,325	2,325	1,482	2,325	2,325
Diphtheria	–	5	5	–	5	5
Encephalitis: Primary (arthropod-borne & unspec.)	3	6	14	3	6	14
Post-infectious	1	–	2	1	–	2
Hepatitis, Viral: Type B	130	179	229	130	179	229
Type A	283	372	484	283	372	484
Type unspecified	106	139	131	106	139	131
Malaria	3	3	3	3	3	3
Measles (rubeola)	26	118	156	26	118	156
Meningococcal infections: Total	23	30	30	23	30	30
Civilian	23	30	30	23	30	30
Military	–	–	–	–	–	–
Mumps	73	134	399	73	134	399
Pertussis	8	25	25	8	25	25
Rubella (German measles)	22	57	80	22	57	80
Tetanus	–	–	1	–	–	1
Tuberculosis	181	327	290	181	327	290
Tularemia	1	–	2	1	–	2
Typhoid fever	–	4	4	–	4	4
Typhus fever, tick-borne (Rky. Mt. spotted)	–	–	1	–	–	1
Venereal diseases:						
Gonorrhea: Civilian	11,876	16,719	16,719	11,876	16,719	16,719
Military	221	705	413	221	705	413
Syphilis, primary & secondary: Civilian	319	434	410	319	434	410
Military	13	3	4	13	3	4
Rabies in animals	51	40	40	51	40	40

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1980		CUM. 1980
Anthrax	–	Poliomyelitis: Total	–
Botulism†	–	Paralytic	–
Congenital rubella syndrome (N.H. 1)	1	Psittacosis†	–
Leprosy (Hawaii 2)	2	Rabies in man	–
Leptospirosis†	–	Trichinosis†	–
Plague	–	Typhus fever, flea-borne (endemic, murine)	–

*Delayed reports received for calendar year 1979 are used to update last year's weekly and cumulative totals.

†Delayed reports: Botulism: Okla. +1 (1979); Leptospirosis: Okla. +1 (1979); Psittacosis: Ohio +1 (1979); Trichinosis: Pa. +1 (1979)

TABLE III. Cases of specified notifiable diseases, United States, weeks ending January 5, 1980, and January 6, 1979 (1st week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1980	1980	1980	1980	CUM. 1980	1980	1979*	1980	1980	1980	1980	1980	CUM. 1980
UNITED STATES	43	2	1,482	–	–	3	6	1	130	283	106	3	3
NEW ENGLAND	1	–	393	–	–	–	1	–	1	9	5	–	–
Maine	–	–	222	–	–	–	–	–	–	3	–	–	–
N.H.	–	–	21	–	–	–	–	–	–	–	–	–	–
Vt.	–	–	6	–	–	–	–	–	–	–	–	–	–
Mass.	–	–	42	–	–	–	–	–	–	1	5	–	–
R.I.	1	–	21	–	–	–	–	–	1	5	–	–	–
Conn.	–	–	81	–	–	–	1	–	–	–	–	–	–
MID. ATLANTIC	5	–	71	–	–	–	2	1	21	18	12	1	1
Upstate N.Y.	1	–	19	–	–	–	1	1	1	1	1	–	–
N.Y. City	4	–	26	–	–	–	–	–	12	6	3	1	1
N.J.	–	–	NN	–	–	–	–	–	8	11	8	–	–
Pa.	–	–	26	–	–	–	1	–	NA	NA	NA	–	–
E.N. CENTRAL	4	–	535	–	–	–	–	–	7	11	1	–	–
Ohio	–	–	–	–	–	–	–	–	–	–	–	–	–
Ind.	–	–	83	–	–	–	–	–	–	–	–	–	–
Ill.	–	–	27	–	–	–	–	–	6	6	–	–	–
Mich.	4	–	236	–	–	–	–	–	1	5	1	–	–
Wis.	–	–	189	–	–	–	–	–	–	–	–	–	–
W.N. CENTRAL	1	1	74	–	–	–	–	–	5	7	1	1	1
Minn.	–	–	–	–	–	–	–	–	–	–	–	–	–
Iowa	1	–	45	–	–	–	–	–	2	–	–	1	1
Mo.	–	1	7	–	–	–	–	–	3	3	1	–	–
N. Dak.	–	–	12	–	–	–	–	–	–	–	–	–	–
S. Dak.	–	–	5	–	–	–	–	–	–	2	–	–	–
Nebr.	–	–	5	–	–	–	–	–	–	2	–	–	–
Kans.	–	–	–	–	–	–	–	–	–	–	–	–	–
S. ATLANTIC	3	1	266	–	–	–	1	–	29	32	9	–	–
Del.	1	–	4	–	–	–	–	–	–	–	–	–	–
Md.	–	–	7	–	–	–	–	–	12	7	5	–	–
D.C.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
Va.	1	–	1	–	–	–	–	–	9	4	4	–	–
W. Va.	–	–	196	–	–	–	–	–	–	2	–	–	–
N.C.	1	–	NN	–	–	–	–	–	3	–	–	–	–
S.C.	–	–	2	–	–	–	1	–	1	5	–	–	–
Ga.	–	1	–	–	–	–	–	–	4	14	–	–	–
Fla.	–	–	56	–	–	–	–	–	–	–	–	–	–
E.S. CENTRAL	6	–	23	–	–	–	–	–	10	7	1	–	–
Ky.	4	–	21	–	–	–	–	–	–	–	–	–	–
Tenn.	2	–	NN	–	–	–	–	–	8	5	–	–	–
Ala.	–	–	–	–	–	–	–	–	2	2	1	–	–
Miss.	–	–	2	–	–	–	–	–	–	–	–	–	–
W.S. CENTRAL	3	–	77	–	–	–	–	–	1	30	8	–	–
Ark.	–	–	–	–	–	–	–	–	–	–	–	–	–
La.	–	–	NN	–	–	–	–	–	–	–	–	–	–
Okla.	–	–	–	–	–	–	–	–	–	–	–	–	–
Tex.	3	–	77	–	–	–	–	–	1	30	8	–	–
MOUNTAIN	–	–	36	–	–	–	–	–	6	53	26	1	1
Mont.	–	–	2	–	–	–	–	–	–	4	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	2	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–	–	1	1
Colo.	–	–	32	–	–	–	–	–	3	9	–	–	–
N. Mex.	–	–	–	–	–	–	–	–	–	–	–	–	–
Ariz.	–	–	NN	–	–	–	–	–	1	27	18	–	–
Utah	–	–	–	–	–	–	–	–	–	6	5	–	–
Nev.	–	–	2	–	–	–	–	–	2	5	3	–	–
PACIFIC	20	–	7	–	–	3	2	–	50	116	43	–	–
Wash.	–	–	–	–	–	–	–	–	2	22	7	–	–
Oreg.	–	–	–	–	–	–	–	–	4	12	–	–	–
Calif.	20	–	–	–	–	3	2	–	40	80	36	–	–
Alaska	–	–	–	–	–	–	–	–	1	–	–	–	–
Hawaii	–	–	7	–	–	–	–	–	3	2	–	–	–
Guam													
P.R.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
V.I.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
Pac. Trust Terr.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–

NN: Not notifiable. NA: Not available.
*Delayed reports received for 1979 are not shown below but are used to update last year's weekly and cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending January 5, 1980, and January 6, 1979 (1st week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANU
	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	1980	1980	CUM. 1980	CUM. 1980
UNITED STATES	26	26	118	23	23	30	73	73	8	22	22	-
NEW ENGLAND	-	-	-	-	-	1	16	16	-	1	1	-
Maine	-	-	-	-	-	-	13	13	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-	1	1	-
Vt.	-	-	-	-	-	-	-	-	-	-	-	-
Mass.	-	-	-	-	-	1	-	-	-	-	-	-
R.I.	-	-	-	-	-	-	3	3	-	-	-	-
Conn.	-	-	-	-	-	-	-	-	-	-	-	-
MID. ATLANTIC	1	1	5	3	3	4	2	2	-	1	1	-
Upstate N.Y.	-	-	1	3	3	1	-	-	-	-	-	-
N.Y. City	1	1	4	-	-	2	2	2	-	-	-	-
N.J.	-	-	-	-	-	-	-	-	-	1	1	-
Pa.	-	-	-	-	-	1	-	-	-	-	-	-
E.N. CENTRAL	12	12	53	1	1	4	23	23	-	9	9	-
Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Ind.	-	-	1	-	-	1	1	1	-	-	-	-
Ill.	-	-	44	-	-	-	4	4	-	-	-	-
Mich.	2	2	7	1	1	3	9	9	-	7	7	-
Wis.	10	10	1	-	-	-	9	9	-	2	2	-
W.N. CENTRAL	2	2	4	2	2	1	6	6	-	-	-	-
Minn.	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	1	1	-	-	-	-	-	-	-	-	-	-
Mo.	-	-	4	2	2	1	1	1	-	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	-
Nebr.	1	1	-	-	-	-	5	5	-	-	-	-
Kans.	-	-	-	-	-	-	-	-	-	-	-	-
S. ATLANTIC	-	-	6	9	9	10	2	2	1	2	2	-
Del.	-	-	-	-	-	1	2	2	-	-	-	-
Md.	-	-	-	6	6	1	-	-	-	-	-	-
D.C.	NA	-	-	-	-	-	NA	-	NA	NA	-	-
Va.	-	-	-	1	1	2	-	-	1	-	-	-
W. Va.	-	-	4	1	1	1	-	-	-	1	1	-
N.C.	-	-	-	-	-	-	-	-	-	-	-	-
S.C.	-	-	-	1	1	1	-	-	-	-	-	-
Ga.	-	-	-	-	-	3	-	-	-	-	-	-
Fla.	-	-	2	-	-	1	-	-	-	1	1	-
E.S. CENTRAL	2	2	-	2	2	2	7	7	-	1	1	-
Ky.	2	2	-	2	2	-	2	2	-	-	-	-
Tenn.	-	-	-	-	-	1	1	1	-	1	1	-
Ala.	-	-	-	-	-	1	-	-	-	-	-	-
Miss.	-	-	-	-	-	-	4	4	-	-	-	-
W.S. CENTRAL	1	1	22	1	1	3	1	1	4	1	1	-
Ark.	-	-	2	-	-	2	-	-	-	-	-	-
La.	-	-	-	-	-	-	-	-	-	-	-	-
Okla.	-	-	-	-	-	-	-	-	-	-	-	-
Tex.	1	1	20	1	1	1	1	1	4	1	1	-
MOUNTAIN	1	1	2	3	3	3	4	4	1	1	1	-
Mont.	-	-	-	-	-	-	2	2	-	-	-	-
Idaho	-	-	-	-	-	-	1	1	-	-	-	-
Wyo.	-	-	-	1	1	-	-	-	-	-	-	-
Colo.	-	-	-	2	2	-	1	1	1	-	-	-
N. Mex.	-	-	-	-	-	-	-	-	-	-	-	-
Ariz.	-	-	-	-	-	3	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-	1	1	-
Nev.	1	1	2	-	-	-	-	-	-	-	-	-
PACIFIC	7	7	26	2	2	2	12	12	2	6	6	-
Wash.	-	-	23	2	2	-	-	-	-	-	-	-
Oreg.	-	-	-	-	-	1	7	7	-	-	-	-
Calif.	5	5	3	-	-	-	4	4	2	6	6	-
Alaska	-	-	-	-	-	-	1	1	-	-	-	-
Hawaii	2	2	-	-	-	1	-	-	-	-	-	-
Guam	NA	-	-	-	-	-	NA	-	NA	NA	-	-
P.R.	NA	-	-	-	-	-	NA	-	NA	NA	-	-
V.I.	NA	-	-	-	-	-	NA	-	NA	NA	-	-
Pac. Trust Terr.	NA	-	1	-	-	-	NA	-	NA	NA	-	-

NA: Not available.
*Delayed reports received for 1979 are not shown below but are used to update last year's weekly and cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending January 5, 1980, and January 6, 1979 (1st week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1980	CUM. 1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	CUM. 1979*	CUM. 1980
UNITED STATES	181	181	1	–	–	–	–	11,876	11,876	16,719	319	319	434	51
NEW ENGLAND	10	10	–	–	–	–	–	421	421	391	17	17	13	–
Maine	–	–	–	–	–	–	–	29	29	46	–	–	–	–
N.H.	–	–	–	–	–	–	–	17	17	17	–	–	–	–
Vt.	1	1	–	–	–	–	–	20	20	8	–	–	–	–
Mass.	1	1	–	–	–	–	–	169	169	122	3	3	11	–
R.I.	4	4	–	–	–	–	–	16	16	34	–	–	–	–
Conn.	4	4	–	–	–	–	–	170	170	164	14	14	2	–
MID. ATLANTIC	58	58	–	–	–	–	–	1,657	1,657	1,572	69	69	47	–
Upstate N.Y.	–	–	–	–	–	–	–	–	–	–	–	–	–	–
N.Y. City	24	24	–	–	–	–	–	950	950	538	59	59	42	–
N.J.	8	8	–	–	–	–	–	286	286	558	5	5	2	–
Pa.	26	26	–	–	–	–	–	421	421	476	5	5	3	–
E.N. CENTRAL	5	5	–	–	–	–	–	1,699	1,699	2,516	28	28	88	7
Ohio	–	–	–	–	–	–	–	815	815	703	4	4	18	–
Ind.	–	–	–	–	–	–	–	139	139	27	2	2	2	2
Ill.	5	5	–	–	–	–	–	290	290	1,033	21	21	56	3
Mich.	–	–	–	–	–	–	–	455	455	583	1	1	10	–
Wis.	–	–	–	–	–	–	–	NA	–	170	NA	–	2	2
W.N. CENTRAL	3	3	1	–	–	–	–	387	387	869	3	3	7	10
Minn.	–	–	–	–	–	–	–	–	–	99	1	1	2	–
Iowa	–	–	–	–	–	–	–	73	73	54	–	–	–	6
Mo.	3	3	1	–	–	–	–	244	244	312	2	2	2	3
N. Dak.	–	–	–	–	–	–	–	9	9	19	–	–	–	1
S. Dak.	–	–	–	–	–	–	–	20	20	16	–	–	–	–
Nebr.	–	–	–	–	–	–	–	41	41	35	–	–	–	–
Kans.	–	–	–	–	–	–	–	–	–	334	–	–	3	–
S. ATLANTIC	28	28	–	–	–	–	–	3,295	3,295	3,723	46	46	75	4
Del.	–	–	–	–	–	–	–	77	77	84	1	1	2	–
Md.	4	4	–	–	–	–	–	112	112	474	8	8	6	–
D.C.	NA	–	–	NA	–	NA	–	NA	–	366	NA	–	5	–
Va.	7	7	–	–	–	–	–	214	214	263	4	4	11	–
W. Va.	4	4	–	–	–	–	–	65	65	48	–	–	1	–
N.C.	3	3	–	–	–	–	–	465	465	405	4	4	14	–
S.C.	10	10	–	–	–	–	–	262	262	316	2	2	–	1
Ga.	–	–	–	–	–	–	–	745	745	517	18	18	25	3
Fla.	–	–	–	–	–	–	–	1,355	1,355	1,250	9	9	11	–
E.S. CENTRAL	15	15	–	–	–	–	–	470	470	1,609	3	3	12	4
Ky.	–	–	–	–	–	–	–	89	89	194	–	–	2	3
Tenn.	–	–	–	–	–	–	–	157	157	533	–	–	–	1
Ala.	15	15	–	–	–	–	–	–	–	600	3	3	3	–
Miss.	–	–	–	–	–	–	–	224	224	282	–	–	7	–
W.S. CENTRAL	6	6	–	–	–	–	–	1,776	1,776	2,953	85	85	65	18
Ark.	–	–	–	–	–	–	–	96	96	192	2	2	5	–
La.	6	6	–	–	–	–	–	–	–	62	–	–	–	–
Okla.	–	–	–	–	–	–	–	92	92	185	–	–	1	2
Tex.	–	–	–	–	–	–	–	1,588	1,588	2,514	83	83	59	16
MOUNTAIN	9	9	–	–	–	–	–	496	496	544	1	1	8	1
Mont.	–	–	–	–	–	–	–	22	22	71	–	–	–	–
Idaho	–	–	–	–	–	–	–	10	10	17	–	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	6	1	1	–	–
Colo.	–	–	–	–	–	–	–	144	144	158	–	–	6	–
N. Mex.	6	6	–	–	–	–	–	65	65	97	–	–	–	–
Ariz.	3	3	–	–	–	–	–	112	112	69	–	–	–	1
Utah	–	–	–	–	–	–	–	34	34	26	–	–	–	–
Nev.	–	–	–	–	–	–	–	109	109	100	–	–	2	–
PACIFIC	47	47	–	–	–	–	–	1,675	1,675	2,542	67	67	119	7
Wash.	1	1	–	–	–	–	–	181	181	150	NA	–	5	–
Oreg.	3	3	–	–	–	–	–	141	141	258	1	1	1	–
Calif.	42	42	–	–	–	–	–	1,263	1,263	2,017	66	66	111	7
Alaska	–	–	–	–	–	–	–	61	61	72	–	–	–	–
Hawaii	1	1	–	–	–	–	–	29	29	45	–	–	2	–
Guam	NA	–	–	NA	–	NA	–	NA	–	3	NA	–	–	–
P.R.	NA	–	–	NA	–	NA	–	NA	–	4	NA	–	13	–
V.I.	NA	–	–	NA	–	NA	–	NA	–	2	NA	–	–	–
Pac. Trust Terr.	NA	–	–	NA	–	NA	–	NA	–	9	NA	–	–	–

NA: Not available.
*Delayed reports received for 1979 are not shown below but are used to update last year's weekly and cumulative totals.

TABLE IV. Deaths in 121 U.S. cities,* week ending January 5, 1980 (1st week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	686	465	156	25	18	38
Boston, Mass.	184	120	37	9	8	15
Bridgeport, Conn.	34	23	10	1	–	1
Cambridge, Mass.	25	20	5	–	–	3
Fall River, Mass.	26	22	2	2	–	–
Hartford, Conn.	48	29	12	5	1	–
Lowell, Mass.	30	24	6	–	–	–
Lynn, Mass.	21	15	3	1	–	1
New Bedford, Mass.	33	26	7	–	–	–
New Haven, Conn.	48	26	12	3	4	1
Providence, R.I.	102	66	33	2	–	6
Somerville, Mass.	4	2	2	–	–	–
Springfield, Mass.	39	22	9	1	4	5
Waterbury, Conn.	46	35	10	–	–	4
Worcester, Mass.	46	35	8	1	1	2
MID. ATLANTIC	2,933	1,942	672	176	76	111
Albany, N.Y.	46	35	6	1	3	–
Allentown, Pa.	20	15	5	–	–	–
Buffalo, N.Y.	99	71	22	4	2	5
Camden, N.J.	36	21	12	2	1	–
Elizabeth, N.J.	26	21	3	2	–	5
Erie, Pa.†	40	32	6	–	1	–
Jersey City, N.J.	66	46	13	3	2	3
Newark, N.J.	86	43	28	9	2	4
N.Y. City, N.Y.	1,654	1,075	374	116	50	51
Paterson, N.J.	32	22	7	1	1	1
Philadelphia, Pa.†	397	256	101	19	7	16
Pittsburgh, Pa.†	96	53	34	4	3	4
Reading, Pa.	39	35	2	2	–	4
Rochester, N.Y.	98	69	20	5	2	9
Schenectady, N.Y.	33	26	5	1	1	–
Scranton, Pa.†	25	18	6	–	–	2
Syracuse, N.Y.	84	61	17	5	1	3
Trenton, N.J.	17	13	3	1	–	–
Utica, N.Y.	15	11	4	–	–	2
Yonkers, N.Y.	24	19	4	1	–	2
E.N. CENTRAL	2,430	1,482	591	168	96	66
Akron, Ohio	64	35	15	9	4	–
Canton, Ohio	33	20	11	–	1	3
Chicago, Ill.	617	362	165	43	26	14
Cincinnati, Ohio	137	96	26	7	6	2
Cleveland, Ohio	175	85	59	11	7	3
Columbus, Ohio	177	101	46	12	11	9
Dayton, Ohio	97	47	29	8	5	1
Detroit, Mich.	265	151	74	26	4	5
Evansville, Ind.	36	25	8	2	1	1
Fort Wayne, Ind.	58	43	8	5	1	2
Gary, Ind.	7	4	3	–	–	–
Grand Rapids, Mich.	63	40	13	4	2	4
Indianapolis, Ind.	183	117	38	10	9	1
Madison, Wis.	28	20	4	1	1	7
Milwaukee, Wis.	151	102	31	13	3	2
Peoria, Ill.	47	28	8	3	4	3
Rockford, Ill.	43	33	5	2	3	4
South Bend, Ind.	54	37	11	2	4	3
Toledo, Ohio	119	84	21	6	3	1
Youngstown, Ohio	76	52	16	4	1	1
W.N. CENTRAL	673	427	157	38	27	27
Des Moines, Iowa	34	25	5	2	1	1
Duluth, Minn.	41	26	10	2	2	–
Kansas City, Kans.	36	19	9	–	4	2
Kansas City, Mo.	99	57	24	8	6	2
Lincoln, Nebr.	32	23	9	–	–	1
Minneapolis, Minn.	85	53	16	8	6	5
Omaha, Nebr.	73	46	22	2	–	3
St. Louis, Mo.	154	98	38	8	4	3
St. Paul, Minn.	69	53	14	1	–	4
Wichita, Kans.	50	27	10	7	4	6

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
S. ATLANTIC	1,100	636	305	81	38	41
Atlanta, Ga.	84	51	20	12	–	4
Baltimore, Md.	130	74	43	6	4	2
Charlotte, N.C.	80	48	23	3	3	5
Jacksonville, Fla.	95	55	27	5	2	2
Miami, Fla.	110	62	32	10	3	4
Norfolk, Va.	62	28	24	3	4	4
Richmond, Va.	111	61	31	10	3	4
Savannah, Ga.	24	10	7	2	2	1
St. Petersburg, Fla.	102	83	13	2	2	5
Tampa, Fla.	75	45	18	6	2	1
Washington, D.C.	182	93	54	19	12	9
Wilmington, Del.	45	26	13	3	1	–
E.S. CENTRAL	652	377	188	46	18	38
Birmingham, Ala.	99	53	33	7	4	2
Chattanooga, Tenn.	52	32	14	3	2	6
Knoxville, Tenn.	38	26	10	–	1	2
Louisville, Ky.	70	46	20	1	–	6
Memphis, Tenn.	218	118	64	25	1	12
Mobile, Ala.	55	28	16	5	3	3
Montgomery, Ala.	36	21	10	1	4	2
Nashville, Tenn.	84	53	21	4	3	5
W.S. CENTRAL	1,056	629	254	68	61	28
Austin, Tex.	33	19	9	2	–	2
Baton Rouge, La.	18	10	3	–	3	1
Corpus Christi, Tex.	31	14	8	2	–	–
Dallas, Tex.	166	114	36	9	4	4
El Paso, Tex.	36	24	7	4	1	1
Fort Worth, Tex.	92	48	22	4	15	6
Houston, Tex.	101	46	33	5	11	1
Little Rock, Ark.	53	36	9	2	5	3
New Orleans, La.	242	148	63	19	9	–
San Antonio, Tex.	180	105	41	14	8	5
Shreveport, La.	36	21	9	2	4	2
Tulsa, Okla.	68	44	14	5	1	3
MOUNTAIN	585	356	145	36	23	19
Albuquerque, N. Mex.	47	31	10	2	2	3
Colo. Springs, Colo.	35	19	12	2	2	3
Denver, Colo.	131	88	31	7	2	6
Las Vegas, Nev.	19	12	5	1	–	1
Ogden, Utah	24	19	5	–	–	3
Phoenix, Ariz.	140	74	37	11	7	1
Pueblo, Colo.	17	11	4	1	–	1
Salt Lake City, Utah	40	25	6	4	4	1
Tucson, Ariz.	132	77	35	8	6	–
PACIFIC	1,632	1,076	363	101	43	52
Berkeley, Calif.	13	9	3	1	–	–
Fresno, Calif.	87	61	18	4	3	5
Glendale, Calif.	8	5	2	1	–	–
Honolulu, Hawaii	60	37	19	–	3	2
Long Beach, Calif.	94	61	21	3	2	3
Los Angeles, Calif.	322	201	78	27	4	11
Oakland, Calif.	72	51	10	7	1	2
Pasadena, Calif.	29	20	7	1	1	2
Portland, Oreg.	141	96	24	10	7	–
Sacramento, Calif.	81	55	20	5	1	4
San Diego, Calif.	133	74	38	11	4	1
San Francisco, Calif.	183	118	42	11	7	10
San Jose, Calif.	183	131	32	12	4	7
Seattle, Wash.	139	98	29	8	3	–
Spokane, Wash.	48	29	13	–	2	3
Tacoma, Wash.	39	30	7	–	1	2
TOTAL	11,747	7,390	2,831	739	400	420

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

Health Screening – Continued

in Table 1. At the time of examination 9 children (20%) had an upper respiratory infection. In addition 3 (7%) had abnormal urine findings with microscopic hematuria of unclear etiology. Among the 31 children whose stools were examined, 78% had at least 1 intestinal parasite (Table 2); 55% had multiple parasitic infections.

TABLE 1. Clinical findings in 45 Indochinese refugee children, by age group, Washington, D.C., September-November 1979

	0-4	5-9	10-18	All ages
Number examined	12	19	14	45
Anemia (Hemoglobin < 11 mg/dl	2 (17)*	3 (16)	2 (14)	7 (16)
Dental caries	7 (58)	14 (74)	8 (57)	29 (64)
Hepatitis B antigen (HBsAg) positive†	2/9 (22)†	1/14 (7)	2/14 (14)	5/37 (14)
Otitis media, acute and chronic	4 (33)	3 (16)	1(7)	8 (18)
Tuberculin positive (≥10mm)	2 (17)	5 (26)	3 (21)	10 (22)
Pediculosis	0	4 (21)	1 (7)	5 (11)
Skin lesions				
Fungal	0	5 (26)	0	5 (11)
Impetigo	0	3 (16)	0	3 (7)
Scabies	2 (17)	2 (11)	0	4 (9)

*Number affected (% affected).
†Number positive/number tested (% positive).

TABLE 2. Intestinal parasitism in Indochinese refugee children, by age group, Washington, D.C., September-November 1979

	0-4	5-9	10-18	All ages
Number examined	6	16	9	31
Ascaris lumbricoides	2 (33)*	9 (56)	3 (33)	14 (45)
Clonorchis sinensis	0	0	1 (11)	1 (3)
Giardia lamblia	1 (17)	4 (25)	1 (11)	6 (19)
Hymenolepis nana	0	1 (6)	1 (11)	2 (6)
Strongyloides stercoralis†	0	2 (13)	3 (33)	5 (16)†
Trichuris trichiura	0	3 (19)	0	3 (10)

*Number positive (% positive).
†All *Strongyloides* infections were in children from 1 family.

Utah: On July 1, 1979, the Salt Lake City-County Health Department initiated a clinic to screen for acute or potentially acute health problems among newly arrived Indochinese refugees sponsored in the county. Through cooperation with sponsoring agencies and individuals, refugees were brought to the clinic within 1 week to 10 days of arrival from Southeast Asia. From July 1 through December 1, 356 refugees were screened—approximately half the number estimated to have been sponsored in the county.*

Over 90% were Vietnamese "boat people," the remainder, Laotian and Kampuchean. Routine screening consisted of clinical history and physical examination, hematocrit

*Screening was not available for one 2-week period. Also, some individual sponsors directed refugees to private physicians.

Health Screening — Continued

measurement, stool culture for bacteria, stool examination for parasites (formalin-ether concentration), urinalysis, serum testing for syphilis (VDRL serology),† and tuberculin testing. Blood smears for malaria examination were performed on only those with suggestive clinical findings. All acutely ill or infected persons were appropriately treated. Those with health problems needing follow-up were referred to private medical care for continued supervision.

The more prevalent clinical findings are presented in Table 3. Other conditions, each affecting less than 2% of the refugees, included cardiovascular problems, chronic bronchitis, fungal infection, and symptoms of gastric/duodenal ulcer. Only 3 persons had a positive VDRL. These had not been identified during pre-immigration screening. Fifteen percent of those examined had 1 or more intestinal parasites. The more prevalent infestations are summarized in Table 4. In addition there was 1 finding each of the non-

†Children under 15 are not routinely screened for venereal disease as a precondition for immigration.

TABLE 3. Clinical findings in 356 Indochinese refugees, by age group, Utah, July-December 1979

	0-4	5-14	15-24	25-44	45	All ages
Number examined	38	98	93	98	29	356
Anemia (hematocrit ≤30%)	9 (24)*	13 (13)	2 (2)	3 (3)	1 (3)	28 (8)
Dental caries and orthodontic problems	7 (18)	42 (43)	34 (37)	29 (30)	16 (55)	128 (36)
Fever (≥38.3 C)	4 (11)	4 (4)	1 (1)	1 (1)	0	10 (3)
Otitis media, acute and chronic	3 (8)	2 (2)	9 (10)	6 (6)	0	20 (6)
Tuberculin positive (≥10mm)	6 (16)	34 (35)	47 (51)	45 (46)	20 (69)	152 (43)
Scabies	0	5 (5)	2 (2)	1 (1)	1 (3)	9 (3)

*Number of persons affected (% affected).

TABLE 4. Intestinal parasitism in Indochinese refugees, by age group, Utah, July-December 1979

	0-4	5-15	15-24	25-44	≥45	All ages
Number examined	38	98	93	98	29	356
Helminths						
Ascaris lumbricoides	4 (11)*	7 (7)	7 (8)	5 (5)	1 (3)	44 (12)
Clonorchis sinensis	0	0	5 (5)	1 (1)	0	6 (2)
Hookworm	1 (3)	4 (4)	10 (11)	8 (8)	2 (7)	25 (7)
Strongyloides stercoralis	2 (5)	0	0	0	0	2 (1)
Trichuris trichiura	0	6 (6)	8 (9)	16 (16)	1 (3)	31 (9)
Protozoans						
Endolimax nana†	0	5 (5)	5 (5)	1 (1)	2 (7)	13 (4)
Entamoeba coli†	0	4 (4)	2 (2)	7 (7)	0	13 (4)
Entamoeba histolytica	0	0	2 (2)	0	1 (3)	3 (1)
Giardia lamblia	3 (8)	6 (6)	6 (6)	1 (1)	0	16 (4)

*Number of persons infected (% infected).
†Non-pathogenic.

Health Screening – Continued

pathogenic *Entamoeba hartmanni* and *Iodamoeba bütschlii*. *Shigella flexneri* was isolated from 4 persons, and there was 1 *Salmonella* isolate. No malaria was found.

Reported by E Boudreau, MD, EB Doberstyn, MD, A Colon, MD, L Tina, MD, P McClelland, LPN, Georgetown University School of Medicine; ME Levy, MD, State Epidemiologist, District of Columbia; E Haws, RN, HL Gibbons, MD, K Mathews, MD, Salt Lake City-County Health Dept; MW Kehrberg, MD, Acting State Epidemiologist, Utah Dept of Health; Field Services Div, Quarantine Div, Bur of Epidemiology, CDC.

Editorial Note: The clinical conditions and parasitic infestations found in both groups of refugees reflect both their previous crowded, unhygienic living conditions and their limited access to medical and dental care. The rates of hepatitis B antigenemia, tuberculin reactions, and intestinal parasitism are consistent with previous findings (*1-3*). With the possible exception of hepatitis B antigenemia and past exposure to tuberculosis (positive tuberculin skin test), the findings are of concern primarily to the well being and comfort of the affected individuals themselves and do not indicate a public health problem.

Earlier articles (*2-3*) have discussed the public health aspects and the recommended clinical management of a variety of health problems of Indochinese refugees including tuberculosis, intestinal parasitism, and hepatitis B. Further discussion of the risks of transmission of hepatitis B from refugees to dentists appears in a related article in this issue (p. 1).

Although more than 100,000 Indochinese refugees have been admitted to the United States in the past year, very few population-based data have been published on these persons' health conditions other than intestinal parasitism and tuberculosis. Representative data are essential for realistic planning of initial health-care delivery for this population. Health departments, clinics, or other agencies that have collected or are collecting data on the health status of representative samples of the arriving refugee population (not simply clinic samples of the ill) are encouraged to share their findings with local and state health departments and CDC.

References

1. MMWR 1979;28:346-47.
2. MMWR 1979;28:385-98.
3. MMWR 1979;28:463-70.

Erratum, Vol. 28, No. 48

p 569 In the article, "Health Status of Kampuchean Refugees – Khao I-Dang," the fourth line of the third paragraph should read: "Of 106 blood smears stained for malaria, 4 were positive for *Plasmodium falciparum* and 4 for *P. vivax*."

Also the first name in the credits was inadvertently misspelled. It should read: "JP Hiegel, MD, Assistant Medical Coordinator, ICRC;".

The Morbidity and Mortality Weekly Report, circulation 96,486, is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn: Distribution Services, GSO, 1-SB-36, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.

Notice to Readers

Beginning with this issue, the first number of Volume 29, the MMWR is adopting the format for references recommended by the International Steering Committee on Uniform Requirements for Manuscripts Submitted to Biomedical Journals. This new style is that used by the U.S. National Library of Medicine and *Index Medicus*.

In this format, when there are 6 or fewer authors, all authors are listed; when 7 or more, only the first 3 authors are listed, followed by et al. The only other significant change is that with standard journal articles, the year of the journal's publication appears between the abbreviated journal title and the volume number (separated by a semicolon). There are also several minor changes as indicated in the old and new revisions printed below.

Old: Soter NA, Wasserman SI, Austen KF: Cold urticaria: Release into the circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 294:687-690, 1976

New: Soter NA, Wasserman SI, Austen KF. Cold urticaria: release into the circulation of histamine and eosinophil chemotactic factor of anaphylaxis during cold challenge. N Engl J Med 1976;294:687-90.

For additional copies of this issue, write Center for Disease Control, Attn: Ferdinand Tedesco, Quarantine Division, BE, Atlanta, Ga. 30333.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE / CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333 **OFFICIAL BUSINESS**

Postage and Fees Paid
U.S. Department of HEW
HEW 396

HCA55 MILLSMA0007097921SXXX
MRS MARY ALICE MILLS
DIRECTOR, LIBRARY
BLDG 1-4007

HEW Publication No. (CDC) 80-8017