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## MORBIDITY AND MORTALITY WEEKLY REPORT

**Epidemiologic Notes and Reports**

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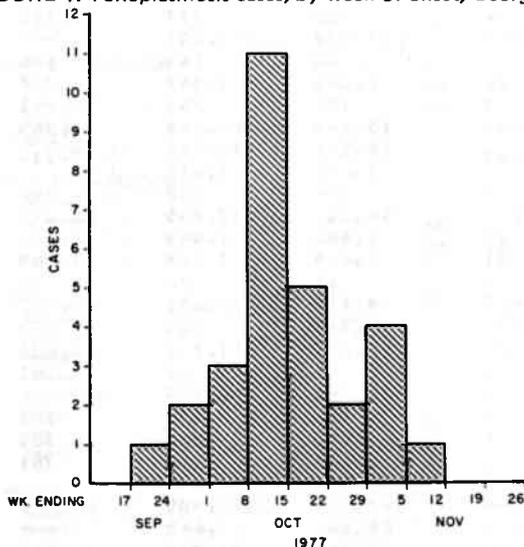
Epidemiologic Notes and Reports

### Toxoplasmosis — Georgia

One of the largest reported outbreaks of acute toxoplasmosis in the United States occurred among patrons of an Atlanta, Georgia, riding stable in October.

The illness was characterized by fever, lymphadenopathy, and headache. The initial diagnosis of toxoplasmosis was made serologically on 2 of the patients and was confirmed on follow-up of stable patrons. A total of 29 people were ill with a constellation of symptoms consistent with toxoplasmosis; most cases occurred in mid-October (Figure 1). Twenty-eight of the 29 had serologic evidence of acute toxoplasmosis (All were >1:1024 by indirect fluorescent antibody [IFA] for IgG and ≥1:256 by IFA for IgM.) Five additional persons at the stable had serologic evidence of acute toxoplasmosis but remained asymptomatic. Thirty of the 34 persons identified were women. Twenty-four were between 16 and 30 years old.

FIGURE 1. Toxoplasmosis cases, by week of onset, Georgia, 1977



Another 48 patrons of the stable were interviewed and were not ill. Twenty-nine serum specimens were obtained from these 48 persons; 10 revealed evidence of previous toxoplasmosis with low titers (<1:256), and 19 had no serologic evidence of past or recent infection.

In a community immediately adjacent to the stable, 19 persons were interviewed and bled. Two gave histories of a clinical disease compatible with toxoplasmosis; however,

their serum specimens, as well as those of the other 17 persons, were within the normal range for persons without recent history of disease (<1:256).

Twenty people at another stable in the Atlanta area were interviewed and were tested for toxoplasmosis antibodies. None had evidence of clinical illness consistent with toxoplasmosis, and the serologic tests did not reveal titers diagnostic of acute infection.

Cats from the stable associated with the outbreak were bled. Serologic tests revealed that 2 of 3 cats had elevated toxoplasmosis titers (1:256, 1:1024). Rodents were obtained from both stables; histologic and parasitic results on them are pending. Soil samples from the stables have also been obtained to see if they contain oocysts, the cysts passed by cats which, after 3-4 days in the soil, are capable of infecting humans; the results of these tests are also pending.

Reported by B Francis, MD, Emory University, Atlanta; JE McCroan, PhD, State Epidemiologist, RK Sikes, DVM, Georgia Dept of Human Resources; Parasitic Serology Br, Parasitology Div, Bur of Laboratories, Parasitic Diseases Div, Bur of Epidemiology, CDC.

**Editorial Note:** Toxoplasmosis, a systemic protozoan disease, remains incompletely understood. Caused by *Toxoplasma gondii*, it has 3 known modes of transmission: from pregnant women to their fetuses (which can cause severe neurologic and ocular abnormalities); through eating poorly cooked or raw infected meat; and presumably from infected cat feces. Cats (and all *Felidae*), the only animals capable of excreting oocysts in their feces, generally excrete the cysts only at 1 time in their lives, and then only for a period of approximately 2 weeks.

Toxoplasmosis generally causes subclinical illness. Exposure to the disease is apparently quite common: 4-30% of residents of the United States have serologic evidence of previous infection (1). Symptoms of clinical infection are protean, but among the most common ones are lymphadenopathy, myalgia, and headache. Outbreaks of toxoplasmosis are rare. A previous one occurred among 5 medical students who ate raw hamburger (2). Cases of acute toxoplasmosis, as occurred in the current outbreak, are uncommon and generally sporadic.

**References**

1. Remington JS: Toxoplasmosis in the adult. Bull NY Acad Med: 50:211-227, 1974
2. Kean BH, Kimball AC, Christenson WN: An epidemic of acute toxoplasmosis. JAMA 208:1002-1004, 1969

International Notes**Influenza – U.S.S.R., Hong Kong**

On December 7, 1977, the Minister of Health of the U.S.S.R. informed the World Health Organization (WHO) that several moderate outbreaks of influenza had occurred throughout the country. The illness was of moderate clinical severity and affected mostly children and young adults. Some strains isolated during the outbreak are similar to A/Victoria/3/75 and A/Texas/1/77, but there are others reported to be related to the virus A/FM/1/47 (H1N1), the 1947 prototype strain of the H1 series. Viruses of this subtype were present throughout the world from 1947 to 1957 and are different from the strain of swine influenza A (HSW1N1).

In the same week reports were received from Hong Kong of influenza outbreaks of moderate intensity which have also affected children and young adults. The viruses isolated were again found to be related to A/FM/1/47(H1N1). The A(H1N1) isolates have been sent from the U.S.S.R. and Hong Kong to the WHO collaborating centers for influenza

in London and Atlanta for further characterization. The WHO Collaborating Center for Influenza, London, has already confirmed that strains from Hong Kong were related to A/FM/1/47(H1N1). Further information concerning the new strain A(H1N1) will be made available as soon as possible.

*Reported by the World Health Organization in the Weekly Epidemiological Record 52 (50), 1977.*

**Editorial Note:** The influenza A(H1N1) group of viruses has not been isolated in the United States for 20 years. Thus far this season, the majority of U.S. isolates have been A/Texas/1/77-like, with a few isolations of A/Victoria/3/75-like strains. Currently recommended vaccines should continue to be used. Laboratory characterization of the H1N1 strains is in progress for selection of appropriate strains should a new vaccine be required for future use.

*Reported by the WHO Collaborating Center for Influenza, Bur of Laboratories, Bur of State Services, CDC.*

Epidemiologic Notes and Reports**Fatal Poliomyelitis – New York City**

The first non-imported case of poliomyelitis in New York City in 5 years has been reported. The patient was a 34-year-old woman from whose cerebrospinal fluid (CSF) a type 1 virus was cultured. This isolate has been identified

as a non-vaccine-like strain. Other appropriate tissue specimens were not available for virologic studies.

The patient was admitted to a New York City hospital

*(Continued on page 415)*

**Table I. Summary—Cases of Specified Notifiable Diseases: United States**

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

DISEASE	49th WEEK ENDING		MEDIAN 1972-1976	CUMULATIVE, FIRST 49 WEEKS		
	December 10, 1977	December 11, 1976		December 10, 1977	December 11, 1976	MEDIAN 1972-1976
Aseptic meningitis	72	50	63	4,338	3,073	3,939
Brucellosis	3	4	4	209	277	178
Chickenpox	2,852	4,287	---	173,978	171,091	---
Diphtheria	—	8	3	80	145	180
Encephalitis	Primary	21	12	1,065	1,347	1,347
	Post-Infectious	2	3	192	254	261
Hepatitis, Viral	Type B	385	343	15,246	14,089	9,365
	Type A	718	767	28,921	31,415	39,214
	Type unspecified	227	171	8,656	7,615	---
Malaria	10	8	7	496	436	396
Measles (rubeola)	170	684	261	54,210	37,835	26,042
Meningococcal infections, total	36	32	32	1,660	1,448	1,289
Civilian	36	31	31	1,649	1,428	1,269
Military	—	1	—	11	20	28
Mumps	369	532	1,467	19,135	36,681	54,972
Pertussis	69	15	---	1,745	883	---
Rubella (German measles)	110	123	129	19,673	11,742	15,883
Tetanus	—	2	2	67	65	91
Tuberculosis	545	678	---	28,294	30,729	---
Tularemia	1	2	3	155	130	133
Typhoid fever	7	5	8	362	385	385
Typhus, tick-borne (Rky. Mt. spotted fever)	3	11	2	1,102	884	761
Venereal Diseases:						
Gonorrhea						
Civilian	19,513	19,453	---	943,214	950,309	---
Military	662	682	---	25,184	27,642	---
Syphilis, primary and secondary						
Civilian	384	357	---	19,253	22,536	---
Military	2	7	---	288	324	---
Rabies in animals	33	46	52	2,868	2,783	2,783

**Table II. Notifiable Diseases of Low Frequency: United States**

	CUM.		CUM.
Anthrax:	—	Poliomyelitis, total:	12
Botulism: Pa. 1, Calif. 7.	103	Paralytic: *Tex. 1	11
Congenital rubella syndrome:	15	Psittacosis: Conn. 1, Calif. 1.	61
Leprosy: Calif. 2	118	Rabies in man:	1
Leptospirosis: Tex. 1	47	Trichinosis: Mass. 3, Ups. NY 2	107
Plague: Colo. 1.	17	Typhus, murine:	70

\*The following delayed reports will be reflected in next week's issue: Polio, para.: N.H. 1, Ind. 1, Minn. 1

Table III  
Cases of Specified Notifiable Diseases: United States  
Weeks Ending December 10, 1977 and December 11, 1976 — 49th Week

AREA REPORTING	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS, VIRAL			MALARIA	
						Primary: Arthropod- borne and Unspecified		Post In- fectious	Type B	Type A	Type Unspecified		
						1977	1976	1977	1977	1977	1977		
UNITED STATES .....	72	3	2,852	-	80	21	12	2	385	718	227	10	496
NEW ENGLAND .....	5	-	346	-	-	2	1	-	5	7	6	-	25
Maine .....	-	-	19	-	-	-	-	-	-	2	-	-	1
New Hampshire * .....	-	-	76	-	-	-	-	-	-	-	1	-	3
Vermont .....	-	-	67	-	-	-	-	-	1	1	-	-	2
Massachusetts * .....	1	-	118	-	-	-	-	-	1	3	5	-	4
Rhode Island .....	-	-	38	-	-	-	-	-	3	1	-	-	5
Connecticut .....	4	-	28	-	-	2	1	-	-	-	-	-	10
MIDDLE ATLANTIC .....	8	-	155	-	5	2	3	-	61	78	38	7	123
Upstate New York .....	2	-	55	-	-	-	2	-	9	11	17	-	24
New York City .....	-	-	26	-	5	-	-	-	24	16	8	5	60
New Jersey .....	2	-	NN	-	-	-	-	-	13	17	10	2	19
Pennsylvania * .....	4	-	74	-	-	2	1	-	15	34	3	-	20
EAST NORTH CENTRAL ..	5	-	1,428	-	-	11	1	-	53	109	15	-	37
Ohio * .....	2	-	106	-	-	6	-	-	15	21	-	-	13
Indiana * .....	-	-	40	-	-	-	-	-	-	1	3	-	2
Illinois .....	-	-	280	-	-	1	-	-	21	37	4	-	2
Michigan .....	2	-	655	-	-	2	1	-	13	32	8	-	17
Wisconsin .....	1	-	307	-	-	2	-	-	4	18	-	-	3
WEST NORTH CENTRAL ..	-	-	208	-	1	1	-	-	17	82	17	-	36
Minnesota .....	-	-	-	-	-	-	-	-	3	9	-	-	13
Iowa .....	-	-	133	-	-	1	-	-	2	2	2	-	1
Missouri * .....	-	-	1	-	1	-	-	-	4	15	5	-	16
North Dakota .....	-	-	1	-	-	-	-	-	1	3	-	-	1
South Dakota * .....	-	-	4	-	-	-	-	-	-	-	-	-	1
Nebraska .....	-	-	19	-	-	-	-	-	5	39	3	-	-
Kansas .....	-	-	50	-	-	-	-	-	2	14	7	-	4
SOUTH ATLANTIC .....	20	-	176	-	-	-	1	2	68	58	34	-	92
Delaware .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Maryland .....	-	-	4	-	-	-	-	-	13	9	3	-	23
District of Columbia ..	-	-	-	-	-	-	-	-	-	-	-	-	6
Virginia * .....	9	-	5	-	-	-	-	-	11	9	13	-	22
West Virginia .....	-	-	54	-	-	-	-	-	1	7	-	-	2
North Carolina .....	-	-	NN	-	-	-	-	-	2	4	5	-	10
South Carolina .....	4	-	-	-	-	-	-	-	1	1	4	-	-
Georgia .....	-	-	-	-	-	-	-	-	25	6	-	-	8
Florida .....	7	-	73	-	-	-	1	2	15	22	9	-	21
EAST SOUTH CENTRAL ..	8	1	56	-	-	1	-	-	25	39	3	-	11
Kentucky .....	-	1	89	-	-	-	-	-	7	13	3	-	4
Tennessee .....	2	-	NN	-	-	-	-	-	10	12	-	-	1
Alabama .....	5	-	5	-	-	-	-	-	6	5	-	-	5
Mississippi .....	1	-	2	-	-	1	-	-	2	9	-	-	1
WEST SOUTH CENTRAL ..	2	1	51	-	3	1	5	-	36	108	42	1	28
Arkansas * .....	-	-	5	-	-	-	-	-	2	8	4	-	2
Louisiana .....	1	1	NN	-	-	-	-	-	16	39	10	-	2
Oklahoma .....	-	-	39	-	-	-	1	-	5	8	9	-	-
Texas * .....	1	-	47	-	3	1	4	-	13	53	19	1	24
MOUNTAIN .....	2	-	132	-	6	-	-	-	12	42	10	-	15
Montana .....	-	-	14	-	-	-	-	-	-	10	-	-	2
Idaho .....	-	-	45	-	-	-	-	-	-	2	-	-	-
Wyoming * .....	-	-	-	-	-	-	-	-	-	1	-	-	2
Colorado .....	2	-	45	-	-	-	-	-	6	8	4	-	7
New Mexico .....	-	-	1	-	5	-	-	-	4	7	2	-	2
Arizona .....	-	-	NN	-	1	-	-	-	2	9	3	-	2
Utah .....	-	-	26	-	-	-	-	-	-	5	1	-	-
Nevada .....	-	-	1	-	-	-	-	-	-	-	-	-	-
PACIFIC .....	22	1	180	-	65	3	1	-	108	195	62	2	129
Washington .....	-	-	150	-	59	-	-	-	12	7	7	-	5
Oregon * .....	2	-	2	-	-	2	-	-	16	27	4	-	2
California * .....	18	1	-	-	4	1	1	-	73	153	51	2	116
Alaska .....	1	-	17	-	2	-	-	-	2	-	-	-	2
Hawaii .....	1	-	11	-	-	-	-	-	5	8	-	-	4
Guam * .....	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
Puerto Rico .....	-	-	6	-	1	-	-	-	1	2	5	-	2
Virgin Islands .....	-	-	-	-	-	-	-	-	-	-	1	-	-

NN: Not notifiable

NA: Not available

\*The following delayed reports will be reflected in next week's issue: Asep. meng.: Mass. -2, Ind. -1, Oreg. -2; Chickenpox: N.H. +5, S. Dak. +1, Calif. +53, Guam +36; Enceph.: Ind. +1; Enceph. post-inf.: Pa. -1, Ind. +1, Oreg. +1; Hep. B: Mo. -7, Tex. -1, Wyo. -1; Hep. A: Mass. -1, Ohio -1, Ind. -1, Mo. -6, Va. +2, Tex. +1, Wyo. +1, Oreg. -1, Guam +1; Hep. unsp.: Mo. -1, Va. +2; Malaria: Ark. +1

Table III-Continued  
**Cases of Specified Notifiable Diseases: United States**  
*Weeks Ending December 10, 1977 and December 11, 1976 - 49th Week*

REPORTING AREA	MEASLES (Rubella)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1977	CUMULATIVE		1977	CUMULATIVE		1977	CUM. 1977	1977	1977	CUM. 1977	CUM. 1977
		1977	1976		1977	1976						
UNITED STATES .....	170	54,210	37,835	36	1,660	1,448	369	19,135	69	110	19,673	67
NEW ENGLAND .....	3	2,501	500	2	72	72	5	745	1	2	1,232	1
Maine .....	-	173	10	1	4	1	1	82	-	1	71	-
New Hampshire* .....	-	512	9	-	3	6	1	93	-	-	247	-
Vermont .....	-	294	144	-	7	6	-	8	-	-	65	-
Massachusetts* .....	3	647	38	-	23	23	1	135	1	1	390	-
Rhode Island .....	-	64	15	-	2	8	1	67	-	-	136	-
Connecticut .....	-	811	284	1	33	28	1	363	-	-	323	1
MIDDLE ATLANTIC .....	27	8,511	7,278	9	237	215	18	1,435	3	18	6,130	7
Upstate New York .....	2	3,863	2,567	1	51	84	9	344	-	1	3,382	2
New York City .....	3	800	483	5	63	54	5	523	1	-	334	1
New Jersey .....	8	205	624	1	54	31	2	369	-	1	1,786	2
Pennsylvania .....	14	3,643	3,204	2	69	46	2	199	2	16	628	2
EAST NORTH CENTRAL .....	81	11,758	16,223	2	175	180	102	6,437	2	44	4,097	7
Ohio .....	-	1,861	618	2	69	68	13	789	1	1	1,144	3
Indiana .....	3	4,368	3,531	-	15	16	2	363	-	4	980	1
Illinois .....	25	1,882	1,752	-	26	20	33	1,226	1	4	356	1
Michigan .....	45	1,210	6,045	-	49	64	30	2,205	-	15	1,059	2
Wisconsin* .....	8	2,477	3,878	-	16	12	24	1,857	-	20	558	-
WEST NORTH CENTRAL .....	1	9,401	1,653	2	85	95	99	4,396	4	-	625	10
Minnesota .....	-	2,634	428	-	25	14	11	34	-	-	17	2
Iowa .....	1	4,316	45	-	10	10	6	1,340	-	-	177	1
Missouri* .....	-	916	352	1	36	45	23	1,592	4	-	44	4
North Dakota* .....	-	29	3	-	1	3	-	20	-	-	21	-
South Dakota* .....	-	75	4	1	5	3	-	59	-	-	89	-
Nebraska .....	-	214	55	-	2	6	1	84	-	-	3	-
Kansas .....	-	1,217	766	-	6	14	58	1,267	-	-	274	3
SOUTH ATLANTIC .....	14	4,709	2,235	5	360	285	24	959	4	3	1,720	13
Delaware .....	-	22	130	-	7	9	1	150	-	-	29	-
Maryland .....	-	372	715	2	27	23	4	84	-	-	6	-
District of Columbia .....	-	14	13	-	1	4	-	6	-	-	-	-
Virginia* .....	-	2,748	801	-	35	41	2	118	-	-	584	1
West Virginia .....	5	272	210	-	10	8	4	216	-	3	165	-
North Carolina .....	-	65	17	-	76	52	2	70	-	-	448	1
South Carolina .....	2	161	4	1	38	36	1	21	-	-	237	-
Georgia .....	1	769	4	-	53	32	2	36	3	-	57	1
Florida .....	6	286	341	2	113	80	8	258	1	-	194	10
EAST SOUTH CENTRAL .....	6	2,039	547	1	168	137	34	1,167	2	11	1,973	6
Kentucky .....	-	1,191	758	-	32	24	3	120	-	2	94	1
Tennessee .....	5	719	172	1	45	60	17	646	2	9	1,760	3
Alabama .....	1	79	-	-	55	39	13	357	-	-	110	2
Mississippi* .....	-	50	17	-	36	14	1	44	-	-	9	-
WEST SOUTH CENTRAL .....	11	2,206	873	7	313	212	38	1,718	-	5	835	13
Arkansas .....	2	35	18	3	21	15	6	146	-	-	3	2
Louisiana .....	2	82	298	2	138	39	-	60	-	-	27	3
Oklahoma .....	-	66	305	-	15	22	19	576	-	-	36	-
Texas .....	7	2,023	252	2	139	136	13	936	-	5	769	8
MOUNTAIN .....	5	2,554	5,358	3	40	40	15	665	1	5	395	2
Montana .....	-	1,163	364	1	7	6	-	12	-	-	17	1
Idaho .....	-	163	2,024	-	5	6	-	130	-	-	13	-
Wyoming* .....	-	19	4	-	1	-	-	4	-	-	6	1
Colorado .....	3	510	413	-	1	6	5	296	-	3	247	-
New Mexico .....	-	256	16	1	11	4	10	116	1	-	11	-
Arizona .....	2	327	234	-	10	10	-	-	-	2	21	-
Utah .....	-	23	2,237	1	4	6	-	91	-	-	71	-
Nevada .....	-	93	66	-	1	2	-	16	-	-	9	-
PACIFIC .....	22	10,491	2,768	5	210	212	34	1,613	52	22	2,666	8
Washington .....	-	559	360	1	33	35	9	332	-	2	466	-
Oregon* .....	-	367	175	-	17	18	7	305	46	5	139	-
California .....	22	9,469	2,216	2	121	134	15	905	6	15	1,646	8
Alaska .....	-	60	11	1	34	22	-	31	-	-	1	-
Hawaii .....	-	36	6	1	5	3	3	40	-	-	414	-
Guam .....	NA	9	16	-	1	-	NA	8	NA	NA	11	-
Puerto Rico .....	1	1,030	485	-	1	5	25	909	-	-	35	11
Virgin Islands .....	-	14	17	-	-	2	-	195	-	-	2	-

NA: Not available

\*The following delayed reports will be reflected in next week's issue: Measles: Mass. -1, Wisc. -3, Va. +2; Men. inf.: N.H. +1, S. Dak. +1, Miss. -1, Wyo. +1, Oreg. +1; Pertussis: Mo. +1, N.Dak. +3, Oreg. +1; Rubella: Va. +1.

Table III-Continued  
 Cases of Specified Notifiable Diseases: United States  
 Weeks Ending December 10, 1977 and December 11, 1976 - 49th Week

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (RMSF)		VENEREAL DISEASES (Civilian Cases Only)				RABIES IN ANIMALS  CUM. 1977		
	1977	CUM. 1977	CUM. 1977	1977	CUM. 1977	1977	CUM. 1977	GONORRHEA		SYPHILIS (Pri. & Sec.)				
								1977	CUMULATIVE		1977		CUMULATIVE	
									1977	1976			1977	1977
UNITED STATES .....	545	28,294	155	7	362	3	1,102	19,513	943,214	950,309	384	19,253	22,536	2,868
NEW ENGLAND .....	21	1,043	2	1	19	-	11	600	25,472	26,801	17	772	775	49
Maine* .....	1	77	-	-	-	-	-	61	1,946	2,263	1	29	22	32
New Hampshire .....	1	27	-	-	-	-	-	22	1,062	818	1	5	10	1
Vermont .....	2	35	-	-	-	-	-	5	625	678	-	7	9	-
Massachusetts .....	14	593	2	-	13	-	5	281	10,821	12,698	8	534	552	8
Rhode Island .....	3	87	-	-	3	-	3	16	1,962	1,905	-	9	19	-
Connecticut .....	-	224	-	1	3	-	3	215	9,356	8,439	7	188	163	8
MIDDLE ATLANTIC .....	81	4,540	3	-	69	-	83	2,342	99,139	108,670	66	2,745	3,759	107
Upstate New York .....	15	764	3	-	8	-	41	412	17,333	17,983	-	249	226	59
New York City .....	31	1,444	-	-	28	-	2	835	38,204	47,639	48	1,736	2,390	-
New Jersey .....	29	1,147	-	-	22	-	11	697	17,721	16,687	9	361	530	28
Pennsylvania .....	6	1,185	-	-	11	-	29	398	25,911	26,361	9	399	613	20
EAST NORTH CENTRAL ..	89	4,385	3	-	33	-	40	2,209	149,177	150,015	30	1,993	1,979	158
Ohio* .....	30	798	1	-	10	-	20	307	39,573	37,357	14	451	468	15
Indiana .....	2	492	-	-	3	-	2	275	13,855	14,546	7	150	101	11
Illinois .....	25	1,670	-	-	6	-	16	619	48,087	51,969	3	1,053	1,053	42
Michigan* .....	30	1,227	-	-	13	-	2	734	34,602	32,920	3	234	251	6
Wisconsin .....	2	198	2	-	1	-	-	274	13,060	13,223	3	105	106	84
WEST NORTH CENTRAL ..	27	955	28	-	22	-	34	1,298	49,175	50,175	13	425	435	734
Minnesota .....	8	194	-	-	5	-	-	427	8,754	8,734	9	147	97	264
Iowa .....	3	88	-	-	-	-	1	132	5,784	6,228	-	40	41	122
Missouri* .....	9	421	25	-	12	-	18	324	20,310	20,135	4	165	170	53
North Dakota* .....	-	27	-	-	1	-	-	23	916	831	-	-	-	115
South Dakota* .....	1	49	2	-	-	-	2	18	1,502	1,490	-	9	6	134
Nebraska .....	1	39	1	-	1	-	2	37	4,240	4,194	-	24	37	3
Kansas .....	5	141	-	-	3	-	11	340	7,669	8,623	-	43	84	43
SOUTH ATLANTIC .....	134	6,163	12	2	58	-	578	4,486	231,258	231,254	111	5,220	6,752	347
Delaware .....	-	53	-	-	-	-	3	57	3,121	3,218	1	20	63	2
Maryland .....	31	888	2	-	5	-	77	565	28,961	30,031	4	310	522	-
District of Columbia ..	14	327	-	-	1	-	-	350	15,173	15,654	7	522	528	-
Virginia .....	7	703	3	-	10	-	153	154	23,978	24,373	10	516	646	5
West Virginia .....	6	222	-	1	6	-	5	83	3,240	3,017	-	5	22	9
North Carolina* .....	19	1,006	2	-	5	-	221	710	34,832	33,476	9	690	1,201	13
South Carolina* .....	6	573	2	-	6	-	53	562	22,041	21,942	6	236	359	36
Georgia .....	28	849	3	-	5	-	65	896	44,366	43,942	38	1,189	1,030	204
Florida* .....	23	1,542	-	1	20	-	1	1,112	55,546	55,601	36	1,732	2,381	78
EAST SOUTH CENTRAL ..	38	2,643	9	-	13	-	176	1,373	82,641	83,691	12	749	850	78
Kentucky .....	6	683	3	-	5	-	43	149	11,224	11,026	2	106	118	29
Tennessee .....	18	844	5	-	2	-	105	696	32,825	33,598	4	239	283	37
Alabama .....	7	649	1	-	1	-	19	419	22,983	23,238	1	163	181	12
Mississippi .....	7	467	-	-	2	-	9	109	15,609	15,859	5	244	262	-
WEST SOUTH CENTRAL ..	75	3,336	77	2	34	3	161	3,351	120,071	119,641	39	2,742	2,701	744
Arkansas* .....	6	361	53	1	8	-	53	192	8,984	11,145	1	63	99	108
Louisiana .....	12	586	1	-	1	-	6	769	18,369	17,341	5	619	549	22
Oklahoma .....	10	282	12	-	2	2	73	310	11,536	11,631	3	78	91	235
Texas .....	47	2,107	11	1	23	1	29	2,080	81,182	79,524	30	1,982	1,962	379
MOUNTAIN .....	9	781	15	-	28	-	14	844	38,195	38,885	8	401	552	183
Montana .....	2	50	1	-	-	-	6	44	2,322	1,941	-	6	11	45
Idaho .....	-	25	-	-	-	-	5	24	1,727	2,095	-	12	23	-
Wyoming* .....	-	15	1	-	-	-	2	7	906	797	-	3	7	1
Colorado .....	2	106	3	-	8	-	1	238	9,984	9,775	2	118	131	57
New Mexico .....	2	152	1	-	-	-	-	100	5,613	6,841	2	84	133	21
Arizona* .....	2	326	3	-	14	-	-	255	10,483	11,566	3	151	195	48
Utah .....	1	43	6	-	5	-	-	69	2,310	2,194	1	11	20	11
Nevada .....	-	56	-	-	1	-	-	107	5,150	3,676	-	16	32	-
PACIFIC .....	71	4,444	6	2	89	-	5	3,010	148,086	141,177	88	4,206	4,733	468
Washington* .....	NA	272	-	-	2	-	-	164	11,406	11,914	NA	216	164	2
Oregon* .....	1	166	1	-	3	-	1	239	10,250	10,486	3	135	104	8
California .....	59	3,379	5	2	82	-	4	2,477	118,715	112,101	84	3,791	4,358	421
Alaska* .....	-	76	-	-	-	-	-	78	4,685	4,103	-	27	25	37
Hawaii .....	11	551	-	-	2	-	-	52	3,030	2,573	1	37	82	-
Guam* .....	NA	53	-	NA	1	NA	-	NA	197	323	NA	2	2	-
Puerto Rico .....	2	361	-	-	7	-	-	55	2,986	2,483	16	517	568	51
Virgin Islands .....	-	2	-	-	-	-	-	6	238	219	-	9	52	-

NA: Not available

\*The following delayed reports will be reflected in next week's issue: TB: Mich. -4, N.C. -2, Fla. -3, Ariz. -1, Wash. +18, Alaska +9; Typhoid fever: Mo. +2; RMSF: Ark. +1; GC: S.C. -130 civ., Wyo. +14 mil., Wash +117 mil., Guam +1 civ.; Syphilis: Maine -1 civ., N. Dak. +3 civ. +2 mil., Wyo. -2 civ., Wash. +25 civ. +1 mil., Oreg. +1 civ.; An. rabies: Ohio +1, S. Dak. +5

Table IV  
Deaths in 121 United States Cities\*  
Week Ending December 10, 1977 - 49th Week

REPORTING AREA	ALL CAUSES					Pneumonia and Influenza ALL AGES	REPORTING AREA	ALL CAUSES					Pneumonia and Influenza ALL AGES
	ALL AGES	65 Years and Over	45-64 Years	25-44 Years	Under 1 Year			ALL AGES	65 Years and Over	45-64 Years	25-44 Years	Under 1 Year	
<b>NEW ENGLAND</b> .....	655	425	163	36	18	31	<b>SOUTH ATLANTIC</b> .....	1,160	658	309	91	53	59
Boston, Mass. ....	188	105	55	15	7	10	Atlanta, Ga. ....	121	72	31	12	1	5
Bridgeport, Conn. ....	41	28	13	3	-	3	Baltimore, Md. ....	286	153	81	25	16	9
Cambridge, Mass. ....	22	15	7	-	-	3	Charlotte, N. C. ....	50	28	8	5	5	4
Fall River, Mass. ....	32	22	9	1	-	-	Jacksonville, Fla. ....	111	61	32	11	2	7
Hartford, Conn. ....	50	30	13	5	3	-	Miami, Fla. ....	76	35	22	3	10	7
Lowell, Mass. ....	25	18	6	-	-	-	Norfolk, Va. ....	62	33	15	8	3	6
Lynn, Mass. ....	15	14	1	-	-	-	Richmond, Va. ....	88	43	26	8	3	5
New Bedford, Mass. ....	29	20	8	1	-	2	Savannah, Ga. ....	44	20	14	5	1	-
New Haven, Conn. ....	48	25	17	2	2	1	St. Petersburg, Fla. ....	76	67	8	-	1	5
Providence, R.I. ....	73	48	15	4	5	7	Tampa, Fla. ....	66	41	19	1	4	7
Somerville, Mass. ....	6	6	-	-	-	-	Washington, D. C. ....	118	66	35	10	5	2
Springfield, Mass. ....	40	31	8	1	-	3	Wilmington, Del. ....	62	39	18	3	2	2
Waterbury, Conn. ....	30	25	4	1	-	2							
Worcester, Mass. ....	56	38	13	3	1	-	<b>EAST SOUTH CENTRAL</b> .....	771	442	208	50	45	38
							Birmingham, Ala. ....	113	62	28	5	12	2
<b>MIDDLE ATLANTIC</b> .....	2,934	1,877	704	171	115	159	Chattanooga, Tenn. ....	84	54	21	2	7	7
Albany, N. Y. ....	76	49	16	4	2	-	Knoxville, Tenn. ....	54	40	12	-	1	-
Allentown, Pa. ....	28	23	4	1	-	6	Louisville, Ky. ....	138	81	34	17	3	6
Buffalo, N. Y. ....	124	69	37	8	7	11	Memphis, Tenn. ....	153	77	51	12	10	6
Camden, N. J. ....	35	22	10	1	2	1	Mobile, Ala. ....	76	50	13	2	6	7
Elizabeth, N. J. ....	22	15	6	1	-	1	Montgomery, Ala. ....	41	23	9	6	-	2
Erie, Pa. ....	46	30	11	3	1	3	Nashville, Tenn. ....	112	55	40	6	6	8
Jersey City, N. J. ....	46	36	6	2	2	2							
Newark, N. J. ....	57	25	10	1	19	3	<b>WEST SOUTH CENTRAL</b> .....	1,253	695	334	93	68	42
New York City, N. Y. ....	1,469	948	336	111	39	67	Austin, Tex. ....	39	25	10	1	1	7
Paterson, N. J. ....	59	26	12	2	17	2	Baton Rouge, La. ....	42	23	11	3	2	1
Philadelphia, Pa. ....	293	169	86	15	16	23	Corpus Christi, Tex. ....	41	24	12	-	4	1
Pittsburgh, Pa. ....	253	158	81	5	5	15	Dallas, Tex. ....	196	103	51	23	12	1
Reading, Pa. ....	46	35	6	4	-	1	El Paso, Tex. ....	44	22	13	1	2	7
Rochester, N. Y. ....	128	91	26	5	3	12	Fort Worth, Tex. ....	98	55	28	6	4	-
Schenectady, N. Y. ....	20	11	4	3	-	1	Houston, Tex. ....	257	129	67	26	18	4
Scranton, Pa. ....	35	25	10	-	-	1	Little Rock, Ark. ....	73	42	20	4	5	12
Syracuse, N. Y. ....	95	69	19	3	2	4	New Orleans, La. ....	159	89	57	9	2	-
Trenton, N. J. ....	39	26	13	-	-	1	San Antonio, Tex. ....	166	95	32	15	12	2
Utica, N. Y. ....	26	22	4	-	-	1	Shreveport, La. ....	38	25	10	1	1	-
Yonkers, N. Y. ....	37	28	7	2	-	4	Tulsa, Okla. ....	100	63	23	4	5	7
<b>EAST NORTH CENTRAL</b> .....	2,332	1,397	607	152	84	67	<b>MOUNTAIN</b> .....	528	315	119	39	26	22
Akron, Ohio ....	83	53	18	2	9	-	Albuquerque, N. Mex. ....	79	47	17	5	2	5
Canton, Ohio ....	34	20	12	-	-	-	Colorado Springs, Colo. ....	26	17	7	-	-	4
Chicago, Ill. ....	566	318	170	40	16	13	Denver, Colo. ....	132	83	26	11	7	6
Cincinnati, Ohio ....	151	84	43	11	6	1	Las Vegas, Nev. ....	25	9	9	3	1	1
Cleveland, Ohio ....	146	87	41	11	4	4	Ogden, Utah ....	11	7	3	-	1	-
Columbus, Ohio ....	135	69	34	16	8	4	Phoenix, Ariz. ....	105	62	26	9	4	1
Dayton, Ohio ....	114	61	34	7	7	5	Pueblo, Colo. ....	18	14	2	-	1	3
Detroit, Mich. ....	286	164	68	24	14	7	Salt Lake City, Utah ....	48	27	11	3	5	2
Evansville, Ind. ....	41	32	4	3	1	2	Tucson, Ariz. ....	84	49	18	8	5	-
Fort Wayne, Ind. ....	41	28	10	1	1	2							
Gary, Ind. ....	16	7	3	4	-	2	<b>PACIFIC</b> .....	1,691	1,145	309	100	70	48
Grand Rapids, Mich. ....	45	28	13	1	2	2	Berkeley, Calif. ....	16	12	4	-	-	1
Indianapolis, Ind. ....	162	105	31	14	3	6	Fresno, Calif. ....	54	38	10	3	3	5
Madison, Wis. ....	39	28	10	-	-	4	Glendale, Calif. ....	24	18	4	1	-	1
Milwaukee, Wis. ....	134	88	37	5	1	2	Honolulu, Hawaii ....	48	25	18	-	5	4
Peoria, Ill. ....	57	35	15	1	5	4	Long Beach, Calif. ....	82	45	23	5	5	1
Rockford, Ill. ....	56	34	15	3	2	4	Los Angeles, Calif. ....	559	416	44	37	24	15
South Bend, Ind. ....	53	35	11	2	1	2	Oakland, Calif. ....	72	43	18	7	2	1
Toledo, Ohio ....	116	78	27	5	3	2	Pasadena, Calif. ....	34	29	4	-	-	-
Youngstown, Ohio ....	57	43	11	2	1	1	Portland, Ore. ....	161	107	38	5	7	3
							Sacramento, Calif. ....	74	46	13	9	3	3
<b>WEST NORTH CENTRAL</b> .....	721	485	159	31	28	29	San Diego, Calif. ....	130	78	33	9	4	-
Des Moines, Iowa ....	34	23	10	-	1	1	San Francisco, Calif. ....	142	136	24	5	6	-
Duluth, Minn. ....	24	14	7	-	1	2	San Jose, Calif. ....	47	37	9	1	-	1
Kansas City, Kans. ....	36	19	8	4	4	1	Seattle, Wash. ....	153	89	43	11	7	4
Kansas City, Mo. ....	107	73	22	6	6	1	Spokane, Wash. ....	55	30	17	3	3	6
Lincoln, Nebr. ....	27	21	5	1	-	1	Tacoma, Wash. ....	40	26	7	4	1	3
Minneapolis, Minn. ....	102	66	24	4	5	2							
Omaha, Nebr. ....	88	58	18	6	1	4	<b>TOTAL</b> .....	12,045	7,439	2,912	763	507	495
St. Louis, Mo. ....	185	125	41	7	8	10	Expected Number .....	11,846	7,201	3,054	711	428	435
St. Paul, Minn. ....	75	57	15	1	-	2							
Wichita, Kans. ....	43	29	9	2	2	5							

\* By place of occurrence and week of filing certificate. Excludes fetal deaths.

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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.

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*Poliomyelitis — continued*

on October 22, 1977, with a 2-day history of nausea, vomiting, fever of 39.4 C (103 F), and extremity weakness, especially of the legs, causing difficulty in walking. Examination of the CSF at the time of admission showed 198 white blood cells (WBCs)/mm<sup>3</sup> (44% neutrophils, 48% lymphocytes, and 8% monocytes), a glucose of 75 mg/dl, and a protein of 122 mg/dl. By the second hospital day flaccid paralysis was rapidly becoming generalized, and on the following day the patient required respiratory assistance. A repeat lumbar puncture performed on the fourth hospital day revealed 122 WBCs/mm<sup>3</sup> (75% neutrophils), a glucose of 75 mg/dl, and a protein of 50 mg/dl. The next day the patient could move only her jaw, tongue, and eyes. On the tenth hospital day, (12th day of illness), she developed severe pneumonia. She continued on a downward course and died November 6, 18 days after onset of symptoms. Histologic examination of the spinal cord at autopsy revealed anterior horn cell pathology consistent with poliomyelitis. An enterovirus was isolated from her CSF drawn at admission and was identified as poliomyelitis type 1 on the day after the patient's death.

The patient, a psychiatric social worker in private practice, had no history of travel to areas where poliomyelitis is endemic or epidemic and no known exposure to recently vaccinated individuals. She had received several doses of inactivated polio vaccine in childhood. The patient was placed on enteric precautions on the first day of hospitalization, and respiratory isolation was used when suctioning and other airway maintenance were performed. The immunization status of hospital personnel in contact with the patient was ascertained, and those not fully protected were counseled on the risks and benefits of receiving oral polio vaccine (1). Forty-five social and professional con-

tacts of the patient were interviewed. None had relevant travel histories, and all were in good health. They were also counseled on the risks and benefits of receiving oral polio vaccine (1).

A survey of hospitals in the area around the patient's residence revealed no cases of polio-like illness. No source of the patient's infection has been identified.

*Reported by El Galaid, MPH, CW Bakal Jr, MD, JS Marr, MD, Director, Bur of Preventable Diseases, SJ Millian, PhD, JC Welton, MPH, New York City Dept of Health; Enteric and Neurotropic Viral Diseases Br, Viral Diseases Div, Bur of Epidemiology, CDC.*

**Editorial Note:** There have been 14 U.S. residents with confirmed poliomyelitis officially reported to CDC with onset of illness in 1977. In addition, there have been 3 cases reported in non-residents.

Of the 14 cases in residents, 12 were endemic and 2 imported (illness contracted outside the country). Three of the endemic cases are classified epidemiologically as without known vaccine association. One endemic case was in a recent vaccine recipient and 8 were in close contacts of recent vaccine recipients. Four of the cases were in the state of Minnesota. These 4 cases occurred in April, August, September, and November in 3 different counties. Each was associated with a different lot of trivalent oral poliovirus vaccine. Virus isolates were: type 1 and type 2 in one case, type 2 in one case, and type 3 in 2 cases.

In addition to the case reported from New York City, there has been 1 death in a vaccine-associated contact case.

*Reference*

1. Public Health Service Advisory Committee on Immunization Practices: Poliomyelitis Prevention. MMWR 26:329-330, 335-336, 1977

**Lead Encephalopathy — New Jersey**

On July 31, 1977, a 2-year-old boy was admitted to the Newark Beth Israel Medical Center in status epilepticus. The child had been evaluated 6 weeks before in another hospital's emergency room for vomiting, lethargy, "not acting right," and a cold of 2 days' duration. A diagnosis of gastroenteritis had been made and the child discharged with dietary recommendations. Four days later he had returned to the same emergency room with continued vomiting, sore throat, and weight loss. Physical examination had shown tonsillar exudates, and penicillin was administered.

On July 29, the child developed another cold with vomiting and diarrhea. An hour before admission, he awakened from sleep, screamed and developed "stiffening" of his entire body. The child's previous development had been normal, and there was no past history of convulsions, trauma, or drug ingestion. The child did have a strong history of pica.

On physical examination the child was initially convulsing and later comatose. He responded only to deep pain. He was afebrile with a blood pressure of 130/70 mmHg, a heart rate of 112/min, and a respiratory rate of 28/min. There were no signs of meningeal irritation. Examination of the optic fundi showed papilledema of the right

disc. Deep tendon reflexes were diminished in all limbs.

A lumbar puncture, performed while the child was still convulsing, showed an opening pressure of 160 mmH<sub>2</sub>O and a closing pressure of 560 mmH<sub>2</sub>O. Spinal fluid glucose was 90 mg/dl and protein, 78 mg/dl; 3 cells were noted. A complete blood count showed a hemoglobin of 9.3 g/dl, hematocrit of 29.5%, and a white cell count of 15,000/mm<sup>3</sup>, with 90% polymorphonuclear leucocytes, 9% lymphocytes, and 1% monocytes. Urinalysis showed albumin of 20 mg/dl, trace glucose, and numerous white blood cells per high power field. Lines of increased density, consistent with "lead lines," were seen on X rays of the knees, and the cranial sutures were widened. The blood lead level was 175 mg/dl, and the erythrocyte protoporphyrin (EP) was 125 mg/dl whole blood.

In the hospital, the child was started on edathamil calcium disodium (CaEDTA), (75/mg/kg/day), 2,3-dimercaptopropanol (BAL), (4 mg/kg/dose), diphenylhydantoin, and phenobarbital as well as on ampicillin and chloramphenicol; the antibiotics were discontinued when the blood lead level became known. Cerebral edema was managed by severe fluid restriction, intravenous mannitol, induced hypothermia, and endotracheal intubation with controlled hyperventilation. On the 30th day after admission the child

began to respond with semi-purposeful movements. At that time, he had a left hemiparesis and questionable visual ability. When discharged, he could walk unassisted and feed himself.

Environmental evaluation of the 2 apartments where the child had lived before hospitalization showed 24 surfaces covered by lead-based paint. Many of the lead-painted areas in one of the apartments were chipped and peeling.

*Reported by SM Marcus, MD, R Ziering, MD, Newark Beth Israel Medical Center; Environmental Health Services Div, Bur of State Services, Special Studies Br, Chronic Diseases Div, Bur of Epidemiology, CDC.*

**Editorial Note:** Although the number of cases of childhood lead encephalopathy reported to CDC has decreased sharply in the past 5 years, cases continue to occur whenever children are exposed to lead-based paint or to other high-dose sources of lead. Physicians who treat high-risk children, that is, children 1-6 years old who live in areas of dilapidated pre-war housing or in proximity to industrial lead sources, should be aware of the possibility of lead poisoning in their patients.

### International Notes

#### Imported Cholera — Canada

One imported case of *Vibrio cholerae* has been reported this year in Canada.

On March 2, a 67-year-old Filipino woman, who had arrived the same day by air from Manila, the Philippines, was admitted to the Health Sciences Centre, Winnipeg, Manitoba, with an acute onset of severe explosive diarrhea. On examination she was in moderate distress, complaining of severe abdominal pain. The only abnormal physical finding was decreased skin turgor. She was having profuse watery diarrhea, slightly yellow in color, and turbid, with a "rice water" appearance.

She was treated initially with intravenous fluids and electrolytes and was given tetracycline for a total of 4 days. A stool culture grew *V. cholerae*, which was identified as biotype El Tor, serotype Ogawa (Heiberg group 1). The strain was phage-typed as type 4 (Basu and Mukerjee typing scheme). Three consecutive stool cultures taken at the time her diarrhea ceased were negative. She was discharged well after 6 days. Stool cultures several weeks after discharge were negative.

Epidemiologic investigation revealed that this woman

The initial EP level of 125 mg/dl whole blood in this patient, while above normal, is not in the range of  $\geq 190$  mg/dl whole blood seen more typically in cases of childhood lead poisoning (1). However, the child's EP level did rise to  $>190$  mg/dl several days after admission. This lag in EP elevation has been reported previously in cases of acute lead poisoning (2) and may reflect initial low levels in maturing erythrocytes in the peripheral circulation that are forming increased amounts of protoporphyrin. In children suspected of having acute lead poisoning both the blood lead and EP levels should be monitored.

A nationwide laboratory proficiency testing program for EP has been established by CDC. Details are available on request from the Director, Environmental Health Services Division, Bureau of State Services.

#### References

1. CDC: Increased Lead Absorption and Lead Poisoning in Young Children: A Statement by the Center for Disease Control. Atlanta, U.S. Department of Health, Education, and Welfare, 1975
2. Sassa A: Studies in lead poisoning. *Biochem Med* 8: 135-148, 1973

had spent the entire week before her departure in Manila at the home of a relative; she had eaten only in this home. Although sanitation in this household was reported to be good, the house was located in a heavily populated area with less than ideal sanitation. There were no additional cases reported in the patient's family or contacts in Manila, and no probable source of infection was found. In Winnipeg, 8 persons were identified who had possible exposure to this woman after her arrival. None of these people became sick, and none had positive stool cultures.

*Reported by J Waters, MD, Winnipeg; M Gurwith, MD, H Major, Health Sciences Centre, Winnipeg; R Cadham, MD, Inner City Health Dept, Winnipeg; D Hall, MD, H Lior, MSc, RA Sprenger, MD, National Dept of Health and Welfare, Canada, in Canada Diseases Weekly Report 3:161-162, 1977; and Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.*

**Editorial Note:** In September 1977 the United States had 2 imported cases of cholera, both in individuals who also had traveled in the Philippines (1,2).

#### References

1. MMWR 26:302, 307, 1977
2. MMWR 26:284, 1977

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

Director, Center for Disease Control, William H. Foege, M.D.  
Director, Bureau of Epidemiology, Philip S. Brachman, M.D.  
Editor, Michael B. Gregg, M.D.  
Managing Editor, Anne D. Mather, M.A.  
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