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Epidemiologic Notes and Reports

Viral Gastroenteritis — Pennsylvania

Two recent waterborne outbreaks of gastroenteritis totaling at least 423 cases have occurred in Pennsylvania summer camps. Serologic evidence from 6 patients has implicated parvovirus-like agents as the cause.

Outbreak 1: In June 1978, CDC was notified of a gastrointestinal illness occurring in visitors at a camp in northeastern Pennsylvania. Fifty-seven of the 74 groups visiting this camp between May 1 and June 16 were questioned, and 13 reported illness in over 15% of their members. A total of 350 persons were reported to have been ill. All but 1 of the 13 groups with illness stayed at the camp between either May 12 and May 21 or June 5 and June 14. The attack rate among the 8 groups that had illness and also completed questionnaires ranged from 17%-73%.

Serum and stool specimens were collected from the members of the last group that visited the camp and reported illness. Studies for bacterial pathogens were negative, but 3 of 5 ill persons had a 4-fold titer rise in antibody to a Norwalk-like agent; 2 controls were negative. The illness in this group was characterized by vomiting (81%), abdominal pain (74%), nausea (67%), and diarrhea (56%). A questionnaire administered to this group showed no association between illness and performing activities, eating food, occupying a particular cabin, or drinking water from a stream that flows through the camp. However, a significant association was found between quantity of camp water consumed and illness. A similar questionnaire, administered to 2 other ill groups, showed no association between illness and activities performed, food eaten, cabin occupied, or exposure to stream water. In 1 of the 2 groups, however, a significant association between quantity of camp water consumed and illness was shown.

The initial study of the water system demonstrated the presence of coliforms (38/dl), inadequate chlorination (0 ppm), and several sites of possible contamination. These problems were corrected, and no further illness has been reported from the camp.

Outbreak 2: On July 27, 1978, an outbreak of gastroenteritis was reported from another summer camp in northeastern Pennsylvania. The cases were characterized by abdominal pain (80%), nausea (73%), and vomiting (53%). Headache (47%), diarrhea (38%), and chills (38%) were also prominent findings. The median duration of illness was 2 days.

Review of the infirmary records revealed 73 cases of gastroenteritis during the first session of the summer camp, which lasted from June 6-July 23. This is approximately 10 times the rate reported from last year. A sharp increase in cases began 48 hours after the arrival of the second-session campers. As determined from questionnaire data, the attack rate in the second session was 61.5% (120/195). Food was not incriminated. However, consumption of 5 or more glasses a day of water or water-containing beverages was sig-

Viral Gastroenteritis – Continued

nificantly associated with illness ($p<.05$). Bacterial samples from the camp water supply revealed fecal coliforms from well water. Although the camp water supply was chlorinated, tests for residual chlorine level revealed 0 ppm until July 28, when an adequate chlorination level was achieved. No new cases have been reported since July 29.

Laboratory studies of stools from 10 patients and 10 controls revealed no bacterial pathogens. Three of 3 paired serum specimens, however, showed 4-fold or greater rises to Norwalk agent by radioimmunoassay. Electron microscopy of stools is pending.

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Editorial Note: Parvovirus-like agents (for example, Norwalk, Montgomery County, Hawaii) have been suspected of causing waterborne outbreaks of gastroenteritis (*1*). The agents responsible for 2 outbreaks previously reported have been confirmed as Norwalk-like viruses (*2,3*). These 2 Pennsylvania outbreaks further illustrate that parvovirus-like agents may contribute to gastrointestinal disease. Newer techniques, such as radioimmunoassay, have made diagnosis of outbreaks easier as long as proper specimens have been collected.

These 2 outbreaks also substantiate previous reports that a high attack rate, predominance of upper gastrointestinal symptoms, and a relatively short duration of illness are compatible with viral gastroenteritis (*2,4*).

References

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Foodborne Marijuana Outbreak – Colorado

On April 27, 1978, 9 of 22 persons who had attended an office coffee party became ill with muscular incoordination (9 persons), dizziness (8), difficulty concentrating (8), confusion (7), difficulty walking (7), dysarthria (7), dry mouth (7), dysphagia (5), blurred vision (5), and vomiting (1). Three persons consulted a physician. Food-specific attack rates implicated a bundt cake as a cause of the symptoms. Illness began 15-120 minutes after consumption of the cake. Most symptoms resolved after several hours, but 2 persons manifested extreme excitability and paranoia for about 3 weeks.

An interview with the baker of the cake provided no information on the cause of the illness. The remainder of the cake had disappeared, and the platter on which it was served had been washed. However, thin-layer chromotographic analysis of a few crumbs scraped from the knife used to slice the suspect cake and 2 other cakes served at the party indicated the presence of tetrahydrocannabinol (THC), the major active ingredient of marijuana. Analysis of urine collected 3 days after the episode revealed THC in 3 of 4 specimens tested. All 9 patients denied prior marijuana use.

Reported by WS Dunn, SW Ferguson, PhD, K Kelley, S Terry, A Wislocki, Colorado Dept of Health, in the Colorado Disease Bulletin VI(20), May 20, 1978; Special Studies Br, Chronic Diseases Div, Bur of Epidemiology, CDC.

Foodborne Marijuana Outbreak — Continued

Editorial Note: The pharmacologic effects of marijuana vary with the dose, cannabinoid content and concentration, route of administration, and prior exposure of the subject. The concentration of ℓ-▲^{9}-tetrahydrocannabinol, the primary active ingredient, varies in different parts of the plant and in plants of different geographic origins (*1*). Following oral ingestion, effects usually begin in 30-60 minutes, peak after 2-3 hours, and may persist another 2 hours (*2*). In spite of the fact that gastrointestinal absorption is complete, ℓ-▲^{9}-THC is nearly 3 times more potent when inhaled than when swallowed, in part because the liver and the lungs produce different metabolites (*2,3*). Metabolites can be found in the urine for several days (*2*).

Persons not previously exposed to marijuana respond differently than persons who have had experience with the drug. For example, non-users are less likely to have a strong subjective experience (a "high") (*4*). The severe and somewhat unusual symptoms reported in this episode may be due to the dose ingested, the lack of experience with marijuana of the ill persons, or the presence of another unidentified contaminant.

References

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Cutaneous Myiasis in Participants of an Archaeologic Expedition in Guatemala

Between April 2-12, 1978, a group of 25 persons participated in an expedition to several archaeologic sites in the lowland jungle region of the Peten in northern Guatemala. Following the trip 3 persons developed cutaneous myiasis, or botfly infestation. These included a 37-year-old female airline employee from Albany, New York, a 30-year-old male naturalist from Nashville, Tennessee, and a 26-year-old male student from Europe, who remained in Guatemala City.

Lesions in all cases were multiple. The airline employee had 4, the naturalist 6, and the student 2. Five were on the upper extremities; 2 were on the lower extremity, 3 on the trunk, 1 on the buttock, and 1 on the scrotum. Depending upon the case, lesions were first distinguished from numerous minor insect bites, cuts, and scratches 4 days to several weeks after the patients had left the jungle area. Initially the maculopapular lesions were erythematous and intensely pruritic; they developed into somewhat nodular furuncles, 1-2 cm in diameter, with a volcano-like appearance. They became episodically painful, with sharp, needle-like pains and a sensation of "something moving" within. Most lesions were centrally necrotic, and drained small amounts of bloody, serous, or purulent fluid. When an opening was occluded, a tiny, white, worm-like organism would appear. One patient was found to have transient regional lymphadenopathy. Generalized symptoms, other than anxiety, were absent. Total and differential white blood cell counts and eosinophil counts were within normal limits on 3 occasions on the 1 patient tested. One patient was diagnosed as having probable onchocerciasis and was hospitalized in isolation for 10 days.

The lesions resisted antibiotics, when used, and persisted for up to 5 weeks until surgical removal, in 1 case, or self-treatment by occlusion and subsequent expulsion of

Cutaneous Myiasis — Continued

the living parasite. Fly larvae collected from the lesions of 2 patients were identified as *Dermatobia hominis.*

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Editorial Note: The human botfly (or warble fly), *D. Hominis*, ranges from southern Mexico to northern South America. Infestation is indirect since the female fly deposits her eggs on various biting arthropods, including mosquitos, which serve as mechanical carriers of the eggs. Lesions develop on exposed areas of the body frequently, but not exclusively, as in 2 of these cases. Under jungle conditions virtually all areas of the body are occasionally exposed to mosquitos.

Lesions of myiasis must be distinguished from other tropical diseases. They are easily confused with onchocerciasis or bacterial infection. Cutaneous myiasis should be suspected in returnees from Central and South America who present with persistent, pruritic, and occasionally painful, furuncular lesions, particularly with central necrosis and bloody, serous, or purulent discharge. Preferred treatment includes incision and extraction of the larvae. Subsequent healing is generally rapid. Since the usual vector is a mosquito, the use of insect repellent, protective clothing, and screens or bed nets should offer at least partial protection from this parasitic infection as well as onchocerciasis and malaria.

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

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

DISEASE	41st WEEK ENDING		MEDIAN	CUMULATIVE, FIRST 41 WEEKS		
	October 14, 1978	October 15, 1977*	1973-1977**	October 14, 1978	October 15, 1977*	MEDIAN 1973-1977**
Aseptic meningitis	173	135	111	4,453	3,650	3,104
Brucellosis	1	3	4	120	180	180
Chickenpox	582	628	610	125,446	162,809	146,578
Diphtheria	1	1	1	64	73	147
Encephalitis: Primary (arthropod-borne & unspec.)	13	57	34	735	859	1,146
Post-infectious	7	1	3	167	168	225
Hepatitis, Viral: Type B	242	309	219	11,608	12,992	9,083
Type A	586	434	684	22,745	24,129	27,482
Type unspecified	196	142		6,971	6,938	
Malaria	8	10	10	564	436	339
Measles (rubeola)	104	90	103	24,279	53,282	24,543
Meningococcal infections: Total	36	17	19	1,895	1,394	1,164
Civilian	36	17	19	1,871	1,385	1,139
Military	—	—	—	24	9	25
Mumps	128	231	403	13,873	16,807	45,987
Pertussis	40	54	---	1,622	1,354	---
Rubella (German measles)	39	84	87	16,703	18,935	15,122
Tetanus	2	2	1	66	58	71
Tuberculosis	456	543	543	23,506	23,793	24,692
Tularemia	3	3	3	101	134	123
Typhoid fever	7	13	13	390	309	332
Typhus fever, tick-borne (Rky. Mt. spotted)	14	11	11	943	1,047	759
Venereal diseases:						
Gonorrhea: Civilian	19,820	20,558	20,558	788,398	783,457	783,457
Military	320	455	455	20,037	21,461	23,367
Syphilis, primary & secondary: Civilian	476	305	381	16,842	16,146	19,022
Military	5	2	6	240	238	272
Rabies in animals	59	66	58	2,447	2,457	2,398

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1978		CUM. 1978
Anthrax	5	Poliomyelitis: Total (Va. 1)	3
Botulism	61	Paralytic	1
Cholera	9	Psittacosis† (Calif. 1)	84
Congenital rubella syndrome †	23	Rabies in man	—
Leprosy †	122	Trichinosis	43
Leptospirosis (Oreg. 1, Hawaii 1)	49	Typhus fever, flea-borne (endemic, murine)†	33
Plague	7		

*Delayed reports received for calendar year 1977 are used to update last year's weekly and cumulative totals.

**Medians for gonorrhea and syphilis are based on data for 1975-1977.

†The following delayed reports will be reflected in next week's cumulative totals: Cong. rubella syn.: Calif. 1; Leprosy: Calif. 2; Psittacosis: Calif. 1; Typhus, murine: Calif. 1

TABLE III. Cases of specified notifiable diseases, United States, weeks ending October 14, 1978, and October 15, 1977 (41st week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1978	1978	1978	1978	CUM. 1978	1978	1977*	1978	1978	1978	1978	1978	CUM. 1978
UNITED STATES	173	1	582	1	64	13	57	7	242	586	196	8	564
NEW ENGLAND	4	–	51	–	–	–	1	–	10	24	13	–	28
Maine	–	–	28	–	–	–	–	–	–	6	–	–	1
N.H.†	–	–	3	–	–	–	–	–	–	1	–	–	4
Vt.	–	–	2	–	–	–	–	–	1	1	1	–	–
Mass.	2	–	23	–	–	–	1	–	4	5	11	–	7
R.I.	1	–	21	–	–	–	–	–	–	4	–	–	5
Conn.	1	–	14	–	–	–	–	–	5	7	1	–	11
MID. ATLANTIC	42	–	22	–	1	–	3	–	29	25	13	1	118
Upstate N.Y.	6	–	7	–	–	–	–	–	2	4	1	–	18
N.Y. City	19	–	9	–	1	–	1	–	14	4	4	–	52
N.J.†	12	–	NN	–	–	–	–	–	13	17	8	–	22
Pa.	5	–	6	–	–	–	2	–	–	–	–	1	26
E.N. CENTRAL	20	–	157	–	–	5	17	1	27	69	14	–	39
Ohio†	–	–	8	–	–	2	9	1	13	21	–	–	5
Ind.†	1	–	–	–	–	–	2	–	3	6	2	–	3
Ill.	–	–	12	–	–	–	2	–	3	14	4	–	14
Mich.	17	–	59	–	–	1	3	–	6	21	6	–	15
Wis.†	2	–	78	–	–	2	1	–	2	7	2	–	2
W.N. CENTRAL	9	–	42	–	2	–	–	–	8	61	8	–	22
Minn.	–	–	–	–	–	–	–	–	5	32	–	–	4
Iowa	–	–	23	–	–	–	–	–	–	2	1	–	–
Mo.	9	–	1	–	1	–	–	–	2	19	4	–	8
N. Dak.	–	–	4	–	–	–	–	–	–	–	–	–	–
S. Dak.	–	–	–	–	–	–	–	–	–	6	2	–	1
Nebr.	–	–	3	–	1	–	–	–	1	–	1	–	4
Kans.†	–	–	11	–	–	–	–	–	–	2	–	–	5
S. ATLANTIC	27	–	51	–	–	3	20	6	36	79	29	2	98
Del.	–	–	–	–	–	–	–	–	–	–	–	–	1
Md.	3	–	–	–	–	–	–	–	–	–	–	1	22
D.C.	–	–	1	–	–	–	–	–	–	1	–	–	2
Va.†	5	–	4	–	–	1	–	–	8	7	4	–	20
W. Va.	–	–	17	–	–	2	6	–	1	–	–	–	1
N.C.	–	–	NN	–	–	–	–	–	3	3	–	–	10
S.C.	1	–	–	–	–	–	–	–	1	5	2	–	4
Ga.†	–	–	–	–	–	–	–	–	3	18	–	1	8
Fla.†	18	–	29	–	–	–	14	6	20	45	23	–	30
E.S. CENTRAL	15	–	8	–	–	1	6	–	24	48	11	–	6
Ky.	1	–	1	–	–	–	–	–	2	–	1	–	2
Tenn.	1	–	NN	–	–	1	4	–	8	16	3	–	1
Ala.	9	–	7	–	–	–	2	–	12	9	7	–	1
Miss.	4	–	–	–	–	–	–	–	2	23	–	–	2
W.S. CENTRAL	17	–	21	–	1	1	4	–	21	68	49	–	26
Ark.	3	–	2	–	1	1	1	–	2	4	7	–	1
La.	–	–	NN	–	–	–	2	–	3	15	10	–	3
Okla.	2	–	–	–	–	–	–	–	1	3	6	–	–
Tex.†	12	–	19	–	–	–	1	–	15	46	26	–	22
MOUNTAIN	2	–	21	–	4	–	3	–	13	67	12	–	7
Mont.	–	–	5	–	–	–	–	–	1	3	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	4	–	–	–
Wyo.†	1	–	–	–	–	–	–	–	–	1	1	–	–
Colo.	1	–	14	–	2	–	3	–	9	18	2	–	4
N. Mex.†	–	–	–	–	–	–	–	–	1	5	1	–	1
Ariz.	–	–	NN	–	1	–	–	–	–	32	6	–	1
Utah	–	–	–	–	–	–	–	–	1	2	2	–	–
Nev.	–	–	2	–	1	–	–	–	1	2	–	–	1
PACIFIC	37	1	169	1	56	3	3	–	74	145	47	5	220
Wash.†	–	–	106	1	52	–	1	–	7	12	1	–	7
Oreg.	8	–	–	–	–	–	–	–	4	21	12	–	9
Calif.†	29	1	–	–	1	3	2	–	60	108	33	5	180
Alaska	–	–	50	–	3	–	–	–	2	2	1	–	4
Hawaii	–	–	13	–	–	–	–	–	1	2	–	–	20
Guam	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
Pac. Trust Terr.†	–	–	14	–	–	–	NA	–	–	–	4	–	–
P.R.	–	–	9	–	–	–	–	–	–	1	3	–	4
V.I.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	1

NN: Not notifiable. NA: Not available.

*Delayed reports received for 1977 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Asep. meng.: Ohio +41, Ind. +12, Wis. +3, Tex. –1, Wash. +5, Calif. +24; Chickenpox: Calif. +11, Pac. Trust Terr. +12; Enceph., prim.: Ind. +10, Wis. +4, Kans. –1, Calif. +6; Enceph., post: Fla. +1, Hep. B: N.J. +5, Va. –1, Ga. +3, N. Mex. +1, Calif. +57; Hep. A: N.H. +1, N.J. –3, Kans. –5, Ga. +4, Tex. –8, Calif. +96; Hep. unsp.: N.J. –4, Wis. +2, Kans. +3, Va. –1, Tex. –11, Wyo. +1, Calif. +44, Pac. Trust Terr. +4; Malaria: Fla. +1, Calif. +5.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending October 14, 1978, and October 15, 1977 (41st week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	1978	1978	CUM. 1978	CUM. 1978
UNITED STATES	104	24,279	53,282	36	1,895	1,394	128	13,873	40	39	16,703	66
NEW ENGLAND	14	1,981	2,456	1	103	57	4	749	–	1	747	2
Maine	1	1,315	170	–	8	3	–	492	–	–	153	–
N.H.†	–	46	511	–	7	3	–	15	–	–	101	–
Vt.	7	31	254	–	2	6	–	5	–	–	27	2
Mass.	10	253	624	–	40	17	1	89	–	1	220	–
R.I.	–	8	64	–	18	1	1	39	–	–	42	–
Conn.	1	328	833	1	28	27	2	109	–	–	204	–
MID. ATLANTIC	2	2,186	8,358	2	315	181	4	638	6	6	3,010	4
Upstate N.Y.	–	1,399	3,817	–	100	43	1	207	3	–	525	1
N.Y. City	2	357	732	–	73	48	1	152	3	2	135	–
N.J.	–	74	195	2	60	42	1	138	–	2	1,608	–
Pa.	–	356	3,614	–	82	48	1	141	–	2	742	3
E.N. CENTRAL	19	10,986	11,362	6	202	153	53	5,646	14	7	8,406	3
Ohio	3	490	1,858	2	70	56	25	983	14	2	1,372	1
Ind.†	–	199	4,335	2	36	9	–	321	–	–	593	1
Ill.	5	1,145	1,765	–	30	36	1	1,868	–	1	1,712	1
Mich.	2	7,668	977	2	55	38	9	1,394	–	2	3,185	–
Wis.†	9	1,484	2,427	–	11	14	18	1,080	–	2	1,544	–
W.N. CENTRAL	3	398	9,466	3	64	59	16	1,946	–	4	675	6
Minn.	1	38	2,622	1	15	19	–	21	–	–	128	1
Iowa†	2	55	4,284	–	5	8	10	136	–	1	60	–
Mo.	–	14	1,044	2	27	20	1	1,170	–	2	107	–
N. Dak.	–	196	24	–	3	1	–	15	–	1	82	–
S. Dak.	–	–	67	–	3	4	–	7	–	–	111	1
Nebr.	–	5	214	–	–	2	–	25	–	–	34	–
Kans.	–	90	1,211	–	11	5	5	572	–	–	153	4
S. ATLANTIC	34	5,065	4,636	9	471	310	8	821	2	2	1,029	17
Del.	–	7	22	–	16	21	–	56	–	–	35	–
Md.	–	51	372	1	32	20	–	70	–	–	7	2
D.C.	–	–	14	–	2	–	–	2	–	–	1	–
Va.	1	2,829	2,725	–	55	26	4	172	1	1	247	1
W. Va.	–	1,054	248	–	13	9	2	176	–	1	322	–
N.C.	–	120	65	1	93	64	–	69	1	–	180	3
S.C.	–	198	153	1	28	33	–	17	–	–	28	4
Ga.†	–	31	768	2	50	47	–	68	–	–	26	–
Fla.	33	795	265	4	182	90	2	191	–	–	183	7
E.S. CENTRAL	4	1,389	2,033	5	154	142	2	1,147	6	–	504	3
Ky.	–	119	1,190	2	30	26	1	192	4	–	130	2
Tenn.	4	955	727	1	40	36	–	451	–	–	202	–
Ala.	–	89	78	1	46	53	1	423	2	–	22	–
Miss.	–	226	38	1	38	27	–	81	–	–	150	1
W.S. CENTRAL	13	1,104	2,101	5	281	280	13	1,715	5	4	940	14
Ark.	–	16	29	–	22	15	2	602	1	–	58	1
La.	–	343	74	4	117	127	–	65	–	–	486	1
Okla.	1	14	60	–	16	14	–	4	1	–	12	3
Tex.	12	731	1,938	1	126	124	11	1,044	3	4	384	9
MOUNTAIN	1	251	2,530	1	42	34	4	418	–	3	207	3
Mont.	–	105	1,162	–	3	3	2	145	–	–	18	–
Idaho	–	1	161	–	4	5	–	20	–	–	2	1
Wyo.	–	–	19	–	–	2	–	1	–	–	–	–
Colo.	1	31	503	–	3	1	1	95	–	1	48	1
N. Mex.	–	–	257	1	8	9	–	16	–	–	3	–
Ariz.	–	51	317	–	15	10	–	17	–	1	94	–
Utah	–	44	18	–	5	3	–	116	–	–	30	1
Nev.	–	19	93	–	4	1	1	8	–	1	12	–
PACIFIC	14	899	10,300	4	263	178	24	793	7	12	1,185	14
Wash.	8	204	542	–	44	23	7	189	–	5	114	1
Oreg.	–	148	366	1	29	18	12	108	1	–	120	–
Calif.†	6	534	9,257	2	180	106	5	461	6	7	932	13
Alaska	–	1	60	1	7	29	–	9	–	–	7	–
Hawaii	–	12	35	–	3	2	–	26	–	–	12	–
Guam	NA	24	9	–	–	1	NA	38	NA	NA	4	1
Pac. Trust Terr.†	3	16	NA	–	–	NA	1	2	–	–	2	–
P.R.	10	265	988	–	7	1	45	1,308	1	–	16	7
V.I.	NA	6	14	–	1	–	NA	1	NA	NA	1	–

NA: Not available.
*Delayed reports received for 1977 are not shown below but are used to update last year's weekly and cumulative totals.
†The following delayed reports will be reflected in next week's cumulative totals: Measles: Wis. –2, Ga. +2, Calif. +7, Pac. Trust Terr. +3; Men. inf.: Ind. +1, Ga. +1, Calif. +2; Mumps: Calif. +10, Pac. Trust Terr. +2; Pertussis: Iowa +1, Ga. +1, Calif. +7; Rubella: N.H. +1, Calif. +16.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending October 14, 1978, and October 15, 1977 (41st week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1978	CUM. 1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	1978	CUM. 1978	CUM. 1977*	1978	CUM. 1978	CUM. 1977*	CUM. 1978
UNITED STATES	456	23,506	101	7	390	14	943	19,820	788,398	783,457	476	16,842	16,146	2,447
NEW ENGLAND	2	764	2	1	77	–	13	405	20,450	21,082	11	465	649	89
Maine	–	57	–	–	–	–	–	35	1,638	1,557	–	7	23	72
N.H.†	–	14	–	–	5	–	–	12	934	854	–	5	4	3
Vt.	–	31	–	–	1	–	–	11	504	524	–	3	6	2
Mass.	2	448	–	1	58	–	5	192	8,988	8,988	7	287	456	6
R.I.	–	53	–	–	4	–	1	22	1,454	1,678	–	20	8	–
Conn.†	NA	161	2	–	9	–	7	133	6,932	7,481	4	147	152	6
MID. ATLANTIC	83	4,038	5	1	47	1	51	1,983	85,334	81,656	65	2,188	2,267	90
Upstate N.Y.	11	612	4	–	6	–	28	468	14,498	13,983	–	153	210	58
N.Y. City	31	1,421	1	–	31	1	4	600	32,419	31,941	41	1,510	1,435	–
N.J.†	8	960	–	–	5	–	11	326	15,957	14,629	14	272	290	13
Pa.	33	1,045	–	1	5	–	8	489	22,460	21,103	10	253	332	19
E.N. CENTRAL	86	3,686	1	–	35	1	45	3,762	122,113	123,583	52	1,908	1,682	134
Ohio†	12	656	1	–	6	1	21	930	31,726	32,309	20	344	388	12
Ind.†	7	426	–	–	1	–	1	431	12,281	11,439	10	128	132	13
Ill.	32	1,400	–	–	15	–	23	1,271	38,721	40,213	21	1,212	878	41
Mich.†	27	1,030	–	–	13	–	–	773	28,386	28,623	–	174	196	7
Wis.†	8	174	–	–	–	–	–	357	10,999	10,999	1	50	88	61
W.N. CENTRAL	18	748	21	1	17	–	40	912	40,161	40,960	17	372	364	500
Minn.	–	132	–	–	7	–	–	211	6,847	7,457	–	133	115	150
Iowa	–	86	1	–	3	–	1	71	4,422	4,798	–	38	34	103
Mo.†	12	317	17	–	4	–	20	338	17,708	16,934	5	117	140	65
N. Dak.	–	31	–	–	–	–	1	14	727	764	1	3	3	84
S. Dak.†	–	61	–	–	–	–	6	25	1,371	1,211	–	3	9	64
Nebr.	3	21	–	–	–	–	7	189	2,939	3,544	2	13	25	6
Kans.†	3	100	3	1	3	–	5	64	6,147	6,252	9	65	38	28
S. ATLANTIC	103	5,014	9	1	54	7	514	4,943	193,021	193,033	113	4,451	4,453	365
Del.	4	45	–	–	3	–	5	70	2,736	2,618	–	9	19	3
Md.†	16	750	5	–	11	–	105	603	24,861	23,939	1	331	283	–
D.C.	2	246	–	–	1	–	1	286	12,852	12,630	13	346	461	–
Va.	12	526	4	–	5	1	107	497	18,633	20,305	14	374	442	12
W. Va.	8	195	–	–	5	–	11	68	2,655	2,543	–	16	3	12
N.C.†	24	787	–	–	2	3	186	461	27,104	28,926	12	466	601	12
S.C.	6	436	–	–	5	–	54	579	19,059	18,207	4	233	197	84
Ga.	–	683	–	–	4	3	45	861	37,323	37,280	18	1,101	997	228
Fla.	31	1,346	–	1	18	–	–	1,518	47,798	46,585	51	1,575	1,450	14
E.S. CENTRAL	52	2,237	6	–	8	3	174	1,604	67,765	69,452	25	895	623	119
Ky.	12	505	2	–	2	2	42	164	8,890	9,438	7	116	81	61
Tenn.	13	690	3	–	3	–	110	726	25,024	28,101	3	310	195	24
Ala.	21	550	1	–	2	–	11	491	19,375	18,548	4	151	137	34
Miss.	6	492	–	–	1	1	11	223	14,476	13,365	11	318	210	–
W.S. CENTRAL	43	2,739	47	2	36	2	92	2,348	106,532	98,555	89	2,738	2,322	740
Ark.	7	313	33	2	7	–	14	216	7,747	7,622	–	60	57	118
La.	8	477	6	–	3	–	1	377	17,397	14,603	21	588	549	18
Okla.	2	268	5	–	2	–	53	225	10,058	9,461	3	80	63	153
Tex.	26	1,681	3	–	24	2	24	1,530	71,330	66,869	65	2,010	1,653	451
MOUNTAIN	14	682	7	–	19	–	10	707	29,997	31,585	4	362	339	94
Mont.	2	50	–	–	3	–	2	30	1,680	1,667	–	8	4	19
Idaho	–	27	2	–	5	–	3	23	1,241	1,449	–	13	11	–
Wyo.†	–	14	2	–	–	–	1	24	701	748	–	8	2	–
Colo.	–	74	–	–	4	–	2	292	8,348	8,294	3	113	103	33
N. Mex.	5	116	–	–	2	–	–	99	4,214	4,643	–	71	71	15
Ariz.	6	310	1	–	3	–	1	104	7,810	8,759	–	81	126	20
Utah	–	32	2	–	1	–	–	33	1,625	1,877	1	12	8	7
Nev.	1	59	–	–	1	–	1	102	4,378	4,148	–	56	14	–
PACIFIC	55	3,598	3	1	97	–	4	3,256	123,025	123,551	100	3,459	3,447	316
Wash.	NA	244	–	–	7	–	1	367	10,349	9,426	NA	176	201	2
Oreg.	–	145	–	–	1	–	2	295	8,724	8,566	5	128	114	11
Calif.†	48	2,714	3	1	81	–	1	2,411	97,733	98,862	94	3,111	3,077	295
Alaska	–	59	–	–	–	–	–	137	3,983	4,116	–	9	23	8
Hawaii	7	436	–	–	8	–	–	56	2,236	2,581	1	35	32	–
Guam	NA	50	–	NA	–	NA	–	NA	173	169	NA	–	2	–
Pac. Trust Terr.†	2	4	–	–	–	–	–	1	29	NA	–	–	NA	–
P.R.	3	302	–	–	3	–	–	23	1,724	2,544	5	389	431	30
V.I.	NA	4	–	NA	2	NA	–	NA	151	170	NA	14	9	–

NA: Not available.

*Delayed reports received for 1977 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: TB: N.J. –147, Mich. –5, Kans. –2, Md. –1, N.C. –2, Calif. +52, Pac. Trust Terr. +1; T. fever: Conn. –1, Ind. +1, Calif. +4; GC: N.H. +1 civ., Conn. +16 mil., Ind. +549 civ., Wis. –4 civ., S. Dak. –1 civ., Wyo. +28 civ., Calif. +3798 civ. +125 mil.; Syphilis: Ind. +7 civ., Mo. +2 civ. +1 mil., Calif. +64 civ.; An. rabies: Ohio +6, Wis. +2, Calif. +9.

TABLE IV. Deaths in 121 U.S. cities,* week ending October 14, 1978 (41st week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	658	445	157	25	11	26
Boston, Mass.	188	107	59	4	8	6
Bridgeport, Conn.	44	30	11	3	–	1
Cambridge, Mass.	26	23	1	2	–	2
Fall River, Mass.	26	19	4	1	–	–
Hartford, Conn.	51	37	11	3	–	1
Lowell, Mass.	28	18	9	1	–	3
Lynn, Mass.	12	10	2	–	–	–
New Bedford, Mass.	26	19	5	2	–	3
New Haven, Conn.	49	34	12	–	1	1
Providence, R.I.	59	37	16	3	2	7
Somerville, Mass.	7	6	1	–	–	–
Springfield, Mass.	45	33	9	2	–	1
Waterbury, Conn.	29	22	3	2	–	1
Worcester, Mass.	68	50	14	2	–	–
MID. ATLANTIC	2,553	1,634	621	181	54	109
Albany, N.Y.	69	44	14	4	1	1
Allentown, Pa.	21	12	7	2	–	–
Buffalo, N.Y.	109	74	27	4	4	7
Camden, N.J.	38	25	9	3	–	3
Elizabeth, N.J.	30	20	7	3	–	–
Erie, Pa.	27	12	14	1	–	1
Jersey City, N.J.	50	35	10	4	–	3
Newark, N.J.	50	26	16	3	4	1
N.Y. City, N.Y.	1,381	878	326	120	25	39
Paterson, N.J.	55	36	9	6	2	6
Philadelphia, Pa.	296	189	73	18	10	25
Pittsburgh, Pa.	54	32	18	–	1	2
Reading, Pa.	34	26	7	1	–	2
Rochester, N.Y.	110	78	21	3	4	11
Schenectady, N.Y.	25	17	7	–	1	1
Scranton, Pa.	25	17	8	–	–	2
Syracuse, N.Y.	103	67	23	6	2	3
Trenton, N.J.	35	18	15	2	–	–
Utica, N.Y.	17	12	4	–	–	1
Yonkers, N.Y.	24	16	6	1	–	1
E.N. CENTRAL	2,241	1,399	531	145	85	56
Akron, Ohio	63	25	24	4	5	–
Canton, Ohio	48	34	8	2	2	2
Chicago, Ill.	549	351	126	45	14	17
Cincinnati, Ohio	118	81	23	5	5	4
Cleveland, Ohio	153	88	39	10	4	1
Columbus, Ohio	127	81	25	8	6	–
Dayton, Ohio	103	57	41	2	2	2
Detroit, Mich.	290	175	67	21	13	2
Evansville, Ind.	69	46	18	2	2	3
Fort Wayne, Ind.	53	36	7	2	3	3
Gary, Ind.	12	6	3	2	–	1
Grand Rapids, Mich.	52	37	6	6	2	5
Indianapolis, Ind.	150	89	35	11	9	2
Madison, Wis.	60	42	9	5	3	4
Milwaukee, Wis.	130	87	28	5	7	2
Peoria, Ill.	36	21	8	4	2	1
Rockford, Ill.	33	21	10	–	–	2
South Bend, Ind.	43	24	14	4	1	4
Toledo, Ohio	93	59	24	4	4	1
Youngstown, Ohio	59	39	16	3	1	–
W.N. CENTRAL	670	427	143	37	39	30
Des Moines, Iowa	56	34	12	5	3	1
Duluth, Minn.	23	11	9	2	1	3
Kansas City, Kans.	30	18	4	3	2	–
Kansas City, Mo.	134	78	27	8	15	4
Lincoln, Nebr.	26	19	6	–	1	5
Minneapolis, Minn.	77	56	11	3	5	3
Omaha, Nebr.	70	43	17	2	7	1
St. Louis, Mo.	131	79	39	7	4	1
St. Paul, Minn.	59	46	9	2	1	3
Wichita, Kans.	64	43	9	5	–	9

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
S. ATLANTIC	1,210	696	362	70	41	46
Atlanta, Ga.	152	88	39	16	1	6
Baltimore, Md.	189	88	73	2	12	8
Charlotte, N.C.	38	20	7	8	2	–
Jacksonville, Fla.	92	57	22	3	8	8
Miami, Fla.	138	79	47	7	4	–
Norfolk, Va.	59	37	12	6	1	1
Richmond, Va.	64	34	23	4	1	4
Savannah, Ga.	52	32	14	4	1	6
St. Petersburg, Fla.	92	76	12	1	3	4
Tampa, Fla.	63	41	19	1	2	2
Washington, D.C.	228	120	77	17	6	5
Wilmington, Del.	43	24	17	1	–	2
E.S. CENTRAL	559	324	139	42	29	24
Birmingham, Ala.	91	56	19	8	5	2
Chattanooga, Tenn.	61	29	18	6	7	3
Knoxville, Tenn.	30	24	4	–	1	1
Louisville, Ky.	85	57	18	3	3	5
Memphis, Tenn.	144	80	40	10	6	3
Mobile, Ala.	26	12	4	8	1	2
Montgomery, Ala.	38	20	12	2	2	3
Nashville, Tenn.	84	46	24	5	4	5
W.S. CENTRAL	1,194	673	302	101	67	25
Austin, Tex.	47	30	5	7	3	3
Baton Rouge, La.	39	24	7	4	2	3
Corpus Christi, Tex.	31	17	6	2	5	1
Dallas, Tex.	149	77	45	9	9	3
El Paso, Tex.	45	26	15	3	1	2
Fort Worth, Tex.	89	49	19	10	8	2
Houston, Tex.	346	183	88	38	17	1
Little Rock, Ark.	36	24	6	2	3	–
New Orleans, La.	115	56	38	8	8	–
San Antonio, Tex.	147	90	41	7	4	2
Shreveport, La.	61	42	10	3	5	3
Tulsa, Okla.	89	55	22	8	2	5
MOUNTAIN	523	321	116	41	24	13
Albuquerque, N.Mex.	43	27	11	–	2	3
Colo. Springs, Colo.	22	14	6	1	1	1
Denver, Colo.	118	74	23	10	6	3
Las Vegas, Nev.	50	22	13	10	1	–
Ogden, Utah	13	10	2	–	–	1
Phoenix, Ariz.	123	65	32	10	10	–
Pueblo, Colo.	31	22	7	1	1	3
Salt Lake City, Utah	47	36	7	4	–	2
Tucson, Ariz.	76	51	15	5	3	–
PACIFIC	1,352	873	309	95	38	34
Berkeley, Calif.	16	7	8	–	–	–
Fresno, Calif.	60	44	12	2	1	7
Glendale, Calif.	20	16	4	–	–	1
Honolulu, Hawaii	49	25	12	6	5	–
Long Beach, Calif.	79	53	25	1	–	3
Los Angeles, Calif.	365	246	76	23	5	6
Oakland, Calif.	62	35	14	8	3	1
Pasadena, Calif.	22	14	8	–	–	–
Portland, Oreg.	113	80	21	5	6	–
Sacramento, Calif.	64	35	17	7	3	1
San Diego, Calif.	88	43	19	18	3	2
San Francisco, Calif.	146	88	37	13	5	3
San Jose, Calif.	57	38	18	–	–	–
Seattle, Wash.	127	85	27	9	4	7
Spokane, Wash.	46	34	9	1	1	2
Tacoma, Wash.	38	30	2	2	2	1
TOTAL	10,960	6,792	2,680	737	388	363
Expected Number	10,814	6,584	2,774	681	421	373

*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

Current Trends

Primary and Secondary Syphilis — United States, July 1978

Reported primary and secondary syphilis cases numbered 1,677* in July 1978, representing an increase of 4.5% over cases for July 1977 (1,605). July is the fifth consecutive month this year that more infections were reported compared to the same month of last year. During the first 7 months of 1978 (January-July), 11,918 such cases were reported—2.3% more than the number reported during the same time period of 1977.

Although 30 areas reported an increase in the number of cases occurring in 1978 compared to 1977, the problem remains largely localized to 5 areas. Fifteen areas reported fewer cases and 4 areas reported the same number of cases in the first 7 months of 1978 compared to the same time period of 1977 (Table 2).

TABLE 2. Summary of reported primary and secondary syphilis cases by reporting area, July 1978 and July 1977 — provisional data

Reporting Area by HEW Regions	July		Calendar Year Cumulative January-July		Reporting Area by HEW Regions	July		Calendar Year Cumulative January-July		Reporting Area by HEW Region	July		Calendar Year Cumulative January-July	
	1978	1977	1978	1977		1978	1977	1978	1977		1978	1977	1978	1977
Connecticut	12	12	93	105	Illinois	21	10	89	100	Arizona	13	12	58	98
Maine	0	2	7	14	(Excl. Chicago)					California	145	119	970	858
Massachusetts	10	47	198	346	Chicago	95	75	735	547	(Excl. LA & SF)				
New Hampshire	0	0	4	4	Indiana	13	10	48	60	Los Angeles*	175	85	984	774
Rhode Island	3	1	16	8	(Excl. Indianapolis)					San Francisco*	45	76	362	498
Vermont	0	0	3	5	Indianapolis*	7	7	32	32	Hawaii	3	4	26	22
REGION I TOTAL	25	62	321	482	Michigan	18	20	136	155	Nevada	12	1	29	9
					Minnesota	9	10	111	83	**REGION IX TOTAL**	393	297	2,429	2,259
New Jersey	24	27	180	201	Ohio	34	26	245	289					
New York	23	32	128	168	Wisconsin	5	7	40	58	Alaska	0	2	7	19
(Excl. NYC)					**REGION V TOTAL**	202	165	1,436	1,324	Idaho	2	0	6	4
New York City	121	130	1,117	1,017						Oregon	9	6	83	71
REGION II TOTAL	168	189	1,425	1,386	Arkansas	4	8	45	38	Washington	16	28	119	136
					Louisiana	60	61	393	379	**REGION X TOTAL**	27	36	215	230
Delaware	1	1	7	15	New Mexico	6	7	60	47					
District of Columbia	28	51	244	351	Oklahoma	11	8	58	47	**UNITED STATES**				
Maryland	13	11	92	95	Texas	195	182	1,330	1,129	**TOTAL**	1,677	1,605	11,918	11,650
(Excl. Baltimore)					**REGION VI TOTAL**	276	266	1,886	1,640					
Baltimore	17	22	166	155						Puerto Rico	33	51	281	350
Pennsylvania	7	10	64	92	Iowa	2	3	28	22	Virgin Islands	4	1	13	10
(Excl. Philadelphia)					Kansas	13	2	52	41	**UNITED STATES, INCLUDING OUTLYING AREAS**	1,714	1,657	12,212	12,010
Philadelphia	17	15	106	148	Missouri	17	11	73	89					
Virginia	24	48	263	329	Nebraska	1	0	8	24					
West Virginia	1	0	10	1	**REGION VII TOTAL**	33	16	161	176					
REGION III TOTAL	108	158	952	1,186										
					Colorado	7	10	59	73					
Alabama	18	13	92	73	Montana	0	1	6	5					
Florida	135	149	1,150	1,124	North Dakota	0	0	2	2					
Georgia	67	75	465	427	South Dakota	1	0	2	2					
(Excl. Atlanta)					Utah	0	1	11	5					
Atlanta*	50	39	312	242	Wyoming	0	0	4	2					
Kentucky	13	8	80	50	**REGION VIII TOTAL**	8	12	84	89					
Mississippi	38	20	227	155										
North Carolina	52	55	314	521										
South Carolina	34	27	165	155										
Tennessee	30	18	204	131										
REGION IV TOTAL	437	404	3,009	2,878										

*County data

Note: Cumulative totals include revised and delayed reports through previous months.

Source: CDC 9-98, HEW, PHS, CDC, BSS, VD Control Division, Atlanta, Georgia 30333

Reported early latent (less than 1 year's duration) syphilis cases numbered 9,768 during January-July 1978, up 1.1% over the number reported during January-July 1977.

Reported by Venereal Disease Control Div, Bur of State Services, CDC.

*provisional data

Epidemiologic Notes and Reports

Infant Botulism — Arizona

Botulism toxin has been isolated from the serum and stool of a 6-week-old boy hospitalized in Phoenix, Arizona, with infant botulism. This is the first time that toxin has been isolated from the serum of an infant with the disease.

Infant Botulism — Continued

The infant was born on July 31 in California and was constipated since birth (4 stools in 6 weeks). He was breast-fed but occasionally drank some canned fruit juices. He had no known ingestion of honey. On September 17, he was noted to have decreased appetite; previously he had been described as a vigorous eater. On September 18, he was hypotonic and suffered a respiratory arrest after being hospitalized. He was noted to have pooling of secretions, poorly reactive pupils, extra-ocular muscle dysfunction, and absent deep tendon reflexes.

CDC isolated botulism toxin from the boy's serum and stool on September 23. The stool contained type A botulism toxin; insufficient serum was available to permit typing the toxin detected in it. A subsequent serum specimen obtained on September 23, 3 days after the initial specimen, was shown to contain type A toxin.

Blood chemistries and hematological studies were normal. Blood, urine, throat, and spinal fluid cultures showed no pathogens on culture. Cerebrospinal fluid pressure, cell count, and glucose and protein content were normal. An electromyogram was consistent with neuromuscular blockade, showing the BSAP pattern described in infant botulism.

The infant was initially treated with ampicillin and gentamicin for presumed sepsis. These were discontinued when cultures were negative and the diagnosis of infant botulism was made. No antitoxin has been given. As of October 16, the infant continued to require mechanical ventilation, although bowel motility was normal, and he showed increased spontaneous movements.

Reported by D Alexander, MD, A Kaplan, MD, A Lersch, MD, St. Joseph's Hospital, Phoenix; A Kelter, MD, State Epidemiologist; Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: The syndrome of infant botulism has been recognized frequently since its initial description in 1976 (*1-3*). The question of whether antibiotics and/or antitoxin are indicated in therapy, in addition to supportive care, remains to be answered, pending further studies on the natural history of this illness.

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Follow-up on *Vibrio cholerae* serotype Inaba Infection — Louisiana

No new confirmed environmental, seafood, or human *Vibrio cholerae* isolates have been identified in Louisiana in the past week. Subsequent culturing of the Gueydan sewerage system, triggered by the positive isolate last week (*1*), yielded no cholera organisms, and review of the area's hospital and physician records disclosed no recent cases of severe diarrhea.

Air-transported shipments of unprocessed crabs from Louisiana were received by 4 states last week, and their public health officials are being kept apprised of the developments in Louisiana. Monitoring of these air shipments by the U.S. Food and Drug Administration (FDA)—including culturing crabs and noting distribution sites—continues.

Reported by HB Bradford, PhD, Director, Bur of Laboratories, CT Caraway, DVM, State Epidemiologist, Louisiana Dept of Health and Human Resources; FDA; Enteric Diseases Br, Epidemiologic Investigations Laboratory Br, Bacterial Diseases Div, Quarantine Div, Field Services Div, Bur of Epidemiology, CDC.

Editorial Note: Although Louisiana has been removed from the World Health Organization's list of cholera-infected areas, travelers should be aware that because of possible

Vibrio cholerae – Continued

delays in communication, some countries may require evidence of cholera immunization. A single dose of vaccine is sufficient to satisfy International Health Regulations (*2*).

Each of the Louisiana cholera patients was treated with tetracycline. The recommended dose in adults is 3 to 4 gm of tetracycline orally over 2 to 3 days (*3*). For pediatric cholera, the dosage is 30 to 60 mg/kg/day for 2 to 3 days, an amount believed unlikely to cause staining of teeth (*4*). For moderate or severe cholera cases, antibiotic therapy is merely an adjunct to the primary objective of rapidly replacing fluid and electrolyte losses. Ringers lactate with 10 mEq potassium added to each liter, or a comparable solution, is the treatment of choice (*2*).

The finding of 3 asymptomatic persons among the 11 cholera infections in Louisiana underscores the fact that El Tor cholera produces a high percentage of symptomless infections (*5*).

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Errata, Vol. 27, No. 36

p 339 Because of some numerical errors in the references to the article on Human Diploid Cell Strain Rabies Vaccine, those references are being reprinted here in correct form.

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