

OBSCURE DISEASE RELATED TO AFRICAN MONKEYS Identification of Agent

Further information regarding the identification of the agent responsible for the obscure disease related to African green monkeys has been released from the Microbiological Research Establishment in Porton, England.

HISTOLOGY: Liver

The early passage guinea pig livers contained no obvious degenerative or inflammatory changes. Single cells or groups of 2 or 3 cells could, however, be found scattered about the liver and were found to contain varying amounts of granules. These granules were either clumped together to fill the whole cytoplasm or appeared as dis-

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crete small pleomorphic structures either in the form of larger spheres or smaller almost bipolar granules. They were as a general rule basophilic and stained a dark purple with H & E and reddish-purple with Giemsa. In sections treated according to Ma&hiavello, the granules stained bright red. Feulgen preparations revealed Feulgen-positive material in the cytoplasm in the same situation as the (Continued on page 362)

Chapter A. M. Constant and March 11	43rd WEEK	ENDED	MEDIAN	CUMULA	CUMULATIVE, FIRST 43 WEEKS			
DISEASE	OCTOBER 28, OCTOBER 29, 1967 1966		1962 - 1966	1967	1966	MEDIAN 1962 - 1966		
Aseptic meningitis	89	53	53	2,487	2,515	1.770		
Brucellosis	4	1	5	208	210	311		
Diphtheria	5	7	9	122	165	216		
Encephalitis, primary:	and a surface of the					1201040		
Arthropod-borne & unspecified	47	49	the second	1.358	1.832			
Encephalitis, post-infectious	10	7		679	637			
Hepatitis, serum	47	30)	1,809	1,158			
Hepatitis, infectious	741	721	3 751	31.779	26,442	31,753		
Malaria	54	17	1	1.687	385	81		
Measles (rubeola)	299	731	1,061	59,362	192,862	363,933		
Meningococcal infections, total	27	40	41	1.855	2,940	2,297		
Civilian	26	40		1 737	2 659			
Military	1	-		118	281			
Poliomyelitis, total	-	5	5	26	82	98		
Paralytic		5	511	21	77	78		
Rubella (German measles)	285	254		41.272	43.074			
Streptococcal sore throat & scarlet fever	7,372	6,541	5,977	367,684	345.833	322,911		
Tetanus	3	1	7	186	161	228		
Fularemia	3	6	7	150	152	241		
Typhoid fever	10	6	6	352	327	371		
Typhus, tick-borne (Rky. Mt. spotted fever).	1 1 2 2 3 1 2 3 3 4	3	2	292	229	215		
	RES Saven Tes	ULISIVAR 28	ENCEPHILL					
Rabies in animals	42	79	61	3,604	3,427	3,427		

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

NOTIFIABLE DISEASES OF LOW FREQUENCY

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Anthrax: Botulism:	22	Rabies in man:	2
Leptospirosis: Plague: Psittacosis:	33 2 38	Trichinosis: N.Y.C1 Typhus, murine: Ark1, Tex2 Polio, Unsp.	52 38 5

OBSCURE DISEASE RELATED TO AFRICAN MONKEYS

(Continued from front page)

granules in H & E preparations. The granules were also PAS positive and stained brown with Von Kossa's method. After hydrochloric acid treatment, however, Von Kossa's reaction was negative, but when the same sections were counterstained with H & E, the granules were found undamaged within the cells and staining a dark purple color.

In guinea pigs of the 3rd and 4th passage, small focal necrotic lesions could be found in the liver. In some livers, these necrotic areas were often confluent and formed sharply circumscribed areas. Usually no granules were found in the centre of the completely necrotic liver cells, but comparatively large numbers of granules were found in the cells surrounding the periphery of the necrotic zones. In cells undergoing early degeneration without changes in the nucleus, the cytoplasm appeared to contain small numbers of discrete granules.

No characteristic lesions have been found in any other organ except that reticulo-endothelial cell proliferation was very marked in lymphoid tissue.

HAMSTERS

One-day-old hamsters inoculated either IP or IC with 5th passage guinea pig blood taken in the febrile stage became sick on P.I.D. 9 and 10. Tissues have been removed for histology and also have been further passaged in suckling hamsters.

GUINEA PIGS

Infective guinea pig blood does not infect guinea pigs through intact skin, nor does the disease spread from infected to uninfected guinea pigs in the same cage.

ANTIBIOTIC SENSITIVITY

Seven groups of guinea pigs were used in the experiment. Five groups, (a), (b), (c), (d), and (e), were inoculated with infective guinea pig blood on Day 0.

- Group (a) received terramycin (12.5 mg/day) starting Day 0.
- Group (b) received chloramphenical (37.5 mg/day) starting Day 0.
- Group (c) received terramycin (12.5 mg/day) starting Day 4 (i.e. when guinea pigs were febrile).
- Group (d) received chloramphenical (37.5 mg/day) starting Day 4.

Group (e) remained as infectivity controls.

The two remaining groups, (f) and (g), were antibiotic controls, (f) receiving terramycin and (g) receiving chloramphenical daily in the doses shown above. Neither terramycin nor chloramphenical prolonged the course of the illness although guinea pigs treated with both antibiotics had lowered temperatures. Antibiotic control guinea pigs remained well. After a week's course of antibiotics, these same antibiotic control guinea pigs were infected experimentally and antibiotics continued. They remained afebrile but the course of the illness was not prolonged and they died on P.I.D. 9.

TISSUE CULTURE

Two continuous vervet monkey kidney cell lines (VERO) and BHK_{21} have been inoculated as cover-slip preparations with infected guinea pig material and examined after fixation in formol saline or methanol at various intervals after infection. VERO cells have shown no changes so far but BHK_{21} cells have developed a peculiar vacuolization and small bodies have been seen. More work is under way following this observation.

SEROLOGY

Convalescent sera from febrile guinea pigs and patients have been tested against rickettsial pox, typhus, and Rocky Mountain spotted fever antigens in a complement fixation test. All were negative at dilutions of 1/5.

Convalescent (19 day) sera from febrile guinea pigs were tested in a haemagglutination-inhibition test against Semliki Forest, Sindbis, Chikungunya, Japanese encephalitis, Dengue 1, Dengue 2, Tembusu, Langat, West Nile, Yellow Fever, Louping-ill, Bunyamwera, and Tahyna antigens and all were negative. An antigen prepared from infective guinea pig spleens was tested against these same sera in a complement fixation test. The sera were slightly anticomplementary but appeared to fix complement. This is being confirmed.

Immune guinea pig serum has been tested against psittacosis antigen in a complement fixation test. The results were negative. Known psittacosis antiserum was also negative when tested against an antigen prepared from spleen of infected guinea pigs.

FILTRATION

The infective agent does not pass through gradocol membranes up to average pore diameters of 340 m μ . Results of filtration using larger pore sizes are not yet available.

(Reported by Dr. C. E. Gordon Smith, Microbiological Research Establishment, Porton, England.)

EPIDEMIOLOGIC NOTES AND REPORTS ENCEPHALITIS SURVEILLANCE - South Texas

Following extensive flooding in the Rio Grande Valley in Texas, sharp increases in mosquito populations were reported from that area. Several species have been detected including *Culex tarsalis*, the principal vector of Western Equine Encephalitis (WEE). Of 60 pools of *C.tarsalis* thus far subjected to viral isolation procedures, one yielded WEE virus. Other encephalitis viruses have not been detected in these mosquitoes. In addition to local spraying programs, extensive aerial spraying utilizing the ultra low volume Malathion technique has been carried out. Low-flying airplanes have distributed 3 fluid ounces of 95 percent Malathion per acre in particle size of 50-60 micra. A marked decline in mosquito counts subsequently occurred.

Two cases of encephalitis in horses were diagnosed clinically in Cameron County in early October; one of these was fatal. Acute serum from that horse revealed a hemagglutination inhibition titer of 1:160 against WEE virus. No cases of human arbovirus encephalitis have been confirmed, though several suspected cases were individually investigated as part of the intensive surveillance program. (Reported by Aedes aegypti Program, NCDC; Van C. Tipton, M.D., Director, Division of Communicable Disease Control, Preventive Medical Services, and J.V. Irons, Sc.D., Chief of Laboratories, Texas State Dept. of Health; NCDC Ecological Investigations Laboratories, Ft. Collins, Colorado; 4500th Special Aerial Spray Flight, TAC, U.S. Air Force; and an EIS Officer.)

SHIGELLOSIS - Philadelphia, Pennsylvania

On October 16, 1967, the Epidemiology Division of the Philadelphia Department of Health was notified of an outbreak of gastroenteritis at a small private college. Of the 594 students and 107 staff members, 180 persons became ill between October 14 and 23; 84 percent experienced onset on October 15 and 16 (Figure 1). Symptoms consisted of stomach cramps, severe diarrhea, dizziness, fever up to 104°F., and malaise. Duration of illness was from 2 to 7 days.

Most of the 436 students who resided at the college ate all their meals in the college cafeteria; it was not possible to incriminate any one meal as a common source. Following an alumni banquet held at the school on October 14, at least 20 of 258 guests subsequently became ill. However, three students who did not eat at the college on October 14 or 15 became ill. A few students and staff members who rarely ate meals at the college also became ill; they indicated that they did drink from water fountains in the school. The only factor in common to all those who became ill is the consumption of water, or food which had been prepared using water, from the school water system.

Investigation of the water system revealed that a waterline had broken in the kitchen on October 8, resulting in the flooding of the kitchen and cafeteria. Crossconnections were found between the sewage and fresh water system which could have resulted in backflow of sewage into the fresh water system as a consequence of the transient negative pressure during the break in the waterline.

From rectal swabs taken from 152 ill persons, 100 bacteriologic cultures yielded *Shigella sonnei*. Rectal swabs were also obtained from 316 students and staff members who were not ill; 13 cultures yielded *S. sonnei*. Water samples taken on October 18 yielded 5 *E. coli* per 100 ml; no shigellae were isolated from the water.

It was concluded that the outbreak probably resulted from the presence of *S. sonnei* in the water system for 1 or 2 days. The inoculum would have to have been of sufficient size to overcome the chlorine in the water. Foods such as fruit drinks and gelatine puddings which were pre-



pared using this water on October 9 or 10 could have led to further exposure when served later in the week.

(Reported by Lewis D. Polk, M.D., Deputy Health Commissioner, Community Health Services; Kristine S. Knisely, M.D., Senior Physician, Division of Health Production; Alfred Bogucki, M.D., Director, Division of Epidemiology; Sylvan Fish, M.D., Chief, Communicable Disease Control; Browne C. Lucas, P.E., M.P.H., Chief, Environmental Engineering Section, Division of Environmental Health, all with the Department of Health, City of Philadelphia, Pa.; and an EIS Officer.)

DIPHTHERIA – Alabama

In addition to the 14 diphtheria cases including two deaths recently reported from Alabama (MMWR, Vol. 16, No. 41), four more confirmed cases, two of which were fatal, were reported to the Alabama State Department of Health. One case occurred in a 1-year-old Negro female from Dallas County, one case in a 7-year-old Negro female from Mobile County, and two fatal cases in a farm family from Thomaston, Alabama. The latter cases lived in Marengo County which is due west of Dallas County, the site of 11 of the 14 previously reported cases.

The first recent death was in a 6-year-old unimmunized Negro child who expired on October 26, 1967. The child's 42-year-old mother died the following day. Both (Continued on page 368)

Figure 1 SHIGELLOSIS OUTBREAK - PHILADELPHIA, PA. ONSET OF SYMPTOMS OF 189 PATIENTS OCTOBER 14-21, 1967

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED OCTOBER 28, 1967 AND OCTOBER 29, 1966 (43rd WEEK)

				1 1				FITIS			
AREA	ASE MENII	PTIC NGITIS	BRUCELLOSIS	DIPHTHERIA	Pri incl unsp.	mary uding cases	Post- Infectious	Se	rum	Infec	tious
	1967	1966	1967	1967	1967	1966	1967	1967	1966	1967	1966
UNITED STATES	89	53	4	5	47	49	10	47	30	741	721
NEW ENGLAND	1	5	-	-	2	-	-	-	1	32	33
Maine		1.0.01-1	-	-		L B .		1		2	5
New Hampshire	111.4	1430111	7124001	State of the second	-	-	-	-	-	-	-
Vermont		-	-	-			-	-	-	-	-
Rhode Island	- 1	4	an i fe	1 - 1	1				· · · ·	13	16
Connecticut	11 (3 <u>1</u> -1)	1	10		-	1.5		1.1	1	16	12
MIDDLE ATLANTIC	29	5	_		4	11		20	11	108	137
New York City	3	2	-	-	i	8		18	7	41	40
New York, Up-State.	1	- 1	-		-	2			i	14	34
New Jersey	23	1	-	-	-	1	-	1	3	27	32
Pennsylvania	2	2	85.5	-	3	-	_	1	-	26	31
EAST NORTH CENTRAL	6	6	1.	1	19	5	1	3	-	125	111
Indiana	_	3		1	15	1				31	22
Illinois	_	2	- 12		2	2	1			18	28
Michigan	5	1	105 -		ī	The second		3	1.0	53	46
Wisconsin	1	68	- 10	1.1	1 1.10	0.007-0.00		1 Histophy 1	ett - Sile	5	9
WEST NORTH CENTRAL	4	7	883-		3	9	1	2	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	32	46
Minnesota	4	7	2015-		2	2	1	2		10	4
Iowa		-6242	-		1	2			1.1	1	3
Missouri	-			-	-	1	-		-	12	31
South Dakota	-		103 -		-	_		-		-	3
Nebraska		1 1 0				-		10.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	1 1 1
Kansas	-		- T	-	-	3	- Included	100	a Cont	6	4
SOUTH ATLANTIC	16	5			2	,	- 12 Press	March March			
Delaware	-	1 2 2			2		Territoria.	1	2	89	96
Maryland	15	- 202	2014	-	-			1		22	26
Dist. of Columbia	_	- 400		-	-	-	1.1	-		1	20
Virginia		and the second	- 12.5	-	_	1	AVED DRUGO	DOLD-DUDE	2 U	20	5
West Virginia.	5 m - 1	10 10-3	Solevate	-	-	1.	101 1 1 1 1 1 1 1 1 1 1	11.07 110	for the same	13	6
North Carolina		12/10/03	1000	-	2	10 million Feat	-			2	11
Georgia	0.74 72	1201.03	223243	-	-	-	-	-	-	2	4
Florida	1	5		-	-	-	1		2	5 21	32 10
EAST SOUTH CENTRAL	1	2	1	-	- 14/1	which and	1	U serend		53	38
Tennossoc	denote the second		114,271,0211			1.30W	and still and	-		23	19
Alabama	1	2			-		1	-	-	13	8
Mississippi	201 m=62		1	- 1			-		-	8	10
WEST SOUTH CENTRAL	5	6	1	3		10	3	1			= = 0
Arkansas	1	-		-	-	-	-	-	1	4	7
Louisiana	2	2	Rent Linne	3	1.00	4	2	1	3	12	12
Oklahoma Texas	- 2	-	S. Strangel	1.0	- 14	1	Chief II	1.000	11100.00	8	3
MOUNTA TH	-		drat, but	March 2	_	1	- Tobar	- 11 (A)	1 horne h-	20	30
Montana	1.0	1	1		2	2		-	-	31	41
Idaho	4	104 1.448	and the second	1	 U.S. 	- 100 A	421 Ex	1.00	1110	2	3
Wyoming	1 m	to headh	Num Com Mi	Contra Inter	-dear	C	100 M 200 M 200	10.0	In the second second	1	/
Colorado.	1	1	1		2	2				10	2
New Mexico	-		1.000 A 11.0-0			and the state	a solution of		Contraction of the second	.3	11
Arizona	-	-	2 - 10 T-++	2010/01	1014.501	- 141		-	2005 -	4	10
Utah Nevada	-	163	Chiefford	1050 E 1	Swamp 1	au a	in these	-	- 1	1	4
					al search 1	Laure -			-		
PACIFIC	26	16	1	1.2.5	15	11	3	20	12	191	167
Oregon.	4	3		-		2	-	1		13	24
California	18	12	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.1.2	14	-		10	12	11	16
Alaska			0.001 10.11	30.401.0	1 239		14 Jul 10	19	12	100	121
Hawaii	2	1	Permitteen Permitteen	- C.						1	í í
Puerto Rico	C. ma tem	de e tolla	HALL COM	- 1- - 1	-	Internet				14	24

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Morbidity and Mortality Weekly Report

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

OCTOBER 28, 1967 AND OCTOBER 29, 1966 (43rd WEEK) - CONTINUED

	MALARIA	MEASLES (Rubeola)		MENINGO	ENINGOCOCCAL INFECTIONS, TOTAL		POLIOMYELITIS			RUBELLA	
AREA			Cumul	ative		Cumula	tive	Total	Paral	ytic	_
1.	1967	1967	1967	1966	1967	1967	1966	1967	1967	Cum. 1967	1967
UNITED STATES	54	299	59,362	192,862	27	1,855	2,940	_	_	21	285
NEW ENGLAND	3	2	882	2,377	-	73	132	-	-		31
Maine	-	-	239	235	-	3	11	-	- 1		1
New Hampshire	-	- 1	77	80	- 1	2	9	-	-	-	-
Massachusette	-	-	42	292	-	1	4	-	-	-	1
Rhode Island		2	62	795		34	53	-			5
Connecticut	-		91	903	-	4 29	39	-	-		4 20
MIDDLE ATLANTIC	10	16	2,333	18,186	4	301	363	_	1.00	5	31
New York City	-	2	478	8,325	1	53	53	-	- 1	ī	9
New York, Up-State.	2	3	601	2,578		73	102		- 1	1	10
New Jersey	6	11	503	1,882	2	99	106	-	- 1		9
rennsylvania	2	-	751	5,401	1	76	102		-	3	3
EAST NORTH CENTRAL	1	46	5 732	69 251	-	260	(70				
Ohio	_	4	1,163	6 373	2	209	4/0		-	3	54
Indiana	-	4	621	5,749	1 Î	43	81			-	2
Illinois	_	5	1,028	11.422	1	57	85		12		2
Michigan	1	14	970	14,684	3	62	125			3	24
Wisconsin	-	19	1,950	31,023	1	18	47		-		11
WEST NORTH CENTRAL	2	6	2,893	8,828	2	83	15/			2	28
Minnesota	-	_	123	1,648	ī	21	35			3	20
Iowa		5	760	5.347	1	16	22	12		i -	22
Missouri	-	-	338	536		16	60	-	- 01	-	
North Dakota	1	-	874	1,177	1	3	11	-	- 1		
South Dakota	-	-	55	40	-	6	5		_		-
Nebraska	-	1	649	80	-	13	8	-			6
Kansas	1	-	94	ŃN	-	8	13	-	-	2	-
SOUTH ATLANTIC	18	40	7,065	15,515	5	360	499	1.1	-	2	21
Delaware		- 1	50	260	-	7	4		_	-	-
Maryland		- 1	168	2,120	2	50	48	-	-	1	6
Dist. of Columbia	-		24	386	1	13	14	-		-	-
Virginia	1	2	2,216	2,205	-	42	64	-		-	
North Court	-	14	1,427	5,381	-	34	32				11
South Carolina	17	20	914	511	-	71	130	-	-	1	and the last
Georgia			511	658	-	30	52	-	-	11000	1.000
Florida		4	1,719	3,758	-	58	64 91	<u> </u>	-		4
EAST SOUTH CENTRAL	1.5	15	5 3/8	10.004		14.2	966		Section 1	200	
Kentucky	-	-	1,396	4,745	-	42	90			1	4
Tennessee	_	14	1,946	12,418	1	61	87				3
Alabama		1	1,335	1.711	1	26	54		- 1		5
Mississippi			671	1,030	-	14	24	-	· - 8	1	
WEST SOUTH CENTRAL	2	73	17 744	25 136	2	23/	206				1.1.1.1.1.1.1.1
Arkansas		-	1.404	972	-	234	36			· · · ·	I
Louisiana	2	-	156	99	-	93	148				
Oklahoma	-	4	3,358	513	-	17	21			1	
Texas		69	12,826	23,552	2	91	191	÷	-	6	1
MOUNTAIN	5	20	4.757	12.152		35	01				
Montana	-	12	318	1,848	-	3	5			-	15
Idaho	-		393	1,642	_	3	5	_		_	1
Wyoming			181	170		ĩ	6				
Colorado	4	4	1,594	= 1,331	-	13	49		2 L		7
New Mexico	1		591	1,141	-	3	10	-		_	
Arizona		3	1,028	5,325	-	5	10		- 1	_	4
Utah	L.	1	383	645	-	4	1	-	- 1	2011	3
vevada			269	50		3	5			-	
PACIFIC	13	81	12,608	21,513	6	357	580	_			100
Washington	8	41	5,555	4,084	4	35	43	_	10	a	22
Oregon	2	12	1,667	1,887	-	27	36	-	- eo - 1	_	52
California	5	28	5,068	14,836	2	280	480	-	385		4
Alaska			140	560		11	17	-	-		16
nawaii			178	146		4	4	-			
Puerto Rico		7	2 212	3 028	- 1	14	17				1.5

Morbidity and Mortality Weekly Report

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDED

OCTOBER 28, 1967 AND OCTOBER 29, 1966 (43rd WEEK) - CONTINUED

	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETA	ANUS	TULAI	REMIA	ТҮРІ	IOID	TYPHUS TICK- (Rky. Mt.	FEVER BORNE Spotted)	RABII ANII	ES IN MALS
AREA	1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967
UNITED STATES	7,372	3	186	3	150	10	352	1	292	42	3,604
NEW ENGLAND	1,008	-	2	-	1	-	7	_	1	-	95
Maine	22	-	-	-	_			_		_	22
New Hampshire	11 4	-	-		_	- 1	- 1	-	-	-	45
Vermont	31	_	-	-	_	- 1	-	-	-	_	22
Massachusetts	101	-	1	-	1	-	3	-	1	-	4
Rhode Island	28	-	-	- 1	_	-	1	-	-	-	2
Connecticut	815	-	1	-	-	-	3	-	-		
MIDDLE ATLANTIC	190	-	12	1	1	-	34	-	35	-	87
New York City	9	-	6	-	-	-	17	-	-	-	-
New York, Up-State.	161	-	1	1	1	-	9	-	9	-	73
New Jersey	NN	-	1	-	-	-	4	-	15	-	-
Pennsylvania	20		4	-	-	-	4	-	11	-	14
EAST NORTH CENTRAL	478	-	20	-	12	-	39	-	22	3	341
Ohio	29	-	4	-	-		13	-	11	_	117
Indiana	88		3	-	2		11	-	1	1	78
Illinois	76	-	10	-	10	-	- 5		10	-	64
Michigan	197	-	3	-	-	-	8	-	-	1	22
Wisconsin	88	-	-	-	1		2	-	-	1	60
WEST NORTH CENTRAL	317	1	16	_	21	2	19	-	4	14	848
Minnesota.	4	1	5	-		1	2	-	1	6	168
Iowa	122	-	1	-	1	-	3	-	-	7	113
Missouri	1/	-	8	-	8	1	9	-	1	-	151
North Dakota	14	-	-	-	-		-	-	-	-	143
South Dakota	12	-	L	-	2	-	-	-	-		116
Nebraska	12	-	-	-	-	-	4	-	2	1	58
Kansas,	10	-	1	-	10	-	1	-	-		99
SOUTH ATLANTIC	798	1	40	-	10	2	52	-	116	4	444
Delaware	1	-	-	-	-	-	-		÷	-	-
Maryland	162	-	-		-	- 1	2	-	21	30 - 2	3
Dist. of Columbia	2	-	-	- 1	-	-	2	-			6
Virginia	221	-	9	-	- 1	-	6	-	28	-	190
West Virginia	255	-	1	-	2	1	2	-	1	1	60
North Carolina	7	1	7	-	-	-	4	-	46		3
South Carolina	6	-	1	-	2		10	-	5		2
Georgia	24	-	4	-	5	-	14	- 1	15	3	110
Florida	120	-	18	-	1	1	12	-	-		70
EAST SOUTH CENTRAL	1,134	-	30	-	10	4	62	-	52	8	682
Kentucky	78		3	-	1	3	27	-	14	3	158
Tennessee	871	-	8	-	7	1	11	-	26	4	471
Alabama	95	-	11	- 1	-	-	12	-	12	1	44
Mississipp1	90	-	8	-	2	-	12	-	-	-	9
WEST SOUTH CENTRAL	788	-	46	2	79	1	37	1	42	10	786
Arkansas			5	1	46	1	12	1	15	2	105
Louisiana	-	-	4	-	8	-	14	-	1	-	65
Uklahoma Texas	29 759	-	3 34	-	18 7	-	7		16	2	286
MOUNTAIN	1 744					-			10	Ŭ	100
MOUNTAIN	1,/64		2	-	10	1	20	-	9	1.000	110
Montana	60	-	-	-	1	-	2	-	0.00		-
Warming	104		-	-	-	1 1		-			•
Colorado	1 000			-	2	1	1	-			5
New Mexico	1,088			-	1		12	-	9	-	10
Arizona	102		1	-	- 1	-	2			- 1985 - 19	34
litah	103					-	3	-			49
Nevada					-				98 H	(M)	9
PACIFIC	805	,	10			-					
Washington	127	1	10		0	-	82	-	11	3	211
Oregon.	502				2		2	100	2		2
California	373		12		1	-	3	0.7	3		4
Alaska	50	- 10			د	-	/4	822	6	3	205
Hawaii.	53	1	4				3	1.55			
Buerto Rico	7		16			-					

Week No. 43

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED OCTOBER 28, 1967

			r		r			1		
	All Ca	uses	Pneumonia	Under		All Ca	uses	Pneumonia	Under	
			and	1 vear	August 1			and	l vear	
Area	All	65 years	Influenza	A11	Area	AII	65 years	Influenza	A11	
	Ages	and over	All Ages	Causes		Ages	and over	All Ages	Causes	
						-				
NEU ENGLAND.	826	506	37	66	SOUTH ATLANTIC.	1 101	551	45	83	
NEW ENGLAND:	350	196	16	24	Atlanta Ca	138	60	45	12	
Boston, Mass	30	190	10	24	Allania, Ga.	221	07	4	19	
Bridgeport, Conn	30	20	· '	-	Baltimore, Md.	221	97	1	10	
Cambridge, Mass	23	15	-		Unarlotte, N. C	29	13	2		
Fall River, Mass	17	15			Jacksonville, Fla	102	33		3	
Hartford, Conn	35	34		2	Miami, Fla	103	61		8	
Lowell, Mass	20	16		1 - 1	Noriolk, Va	45	22	3	2	
Lynn, Mass	24	14		-	Richmond, Va	89	44	1	10	
New Bedford, Mass	32	22	1 I	-	Savannah, Ga	26	. 5		6	
New Haven, Conn	41	18	-	6	St. Petersburg, Fla.	78	63	5	5 7 3	
Providence, R. I	50	34	1	2	Tampa, Fla	72	36	8	3	
Somerville, Mass	12	6	2		Washington, D. C	196	91	11	19	
Springfield, Mass	51	34	2	1	Wilmington, Del	44	26	3	2	
Waterbury, Conn	28	22	- 1	1			1			
Worcester, Mass	76	56	5	4	EAST SOUTH CENTRAL:	628	331	27	30	
					Birmingham, Ala	90	44	3	2	
MIDDLE ATLANTIC:	3,173	1,854	109	112	Chattanooga, Tenn	45	22	2	4	
Albany, N. Y	44	25	1	3	Knoxville, Tenn	49	29	0 🚘		
Allentown, Pa	35	14	2	2	Louisville, Ky	121	73	10	9	
Buffalo, N. Y	137	90	-	7	Memphis, Tenn,	143	75	5	10	
Camden, N. J	36	14	3	3	Mobile, Ala,	53	26	1	1	
Elizabeth, N. J	34	22	ī	1	Montgomery, Ala,	39	20	2	1	
Frie Pa	40	23	4	_	Nasbville, Tenn	88	42	Ā	3	
Jorsov City N Lana	66	41		5	indonitiere, reniti		42			
Neuerk N I according	80	38	Ĩ	3	WEST SOUTH CENTRAL	1 0/17	556	1.1.	6/	
New York City N Y	1 635	953	52	46	Austin Tex	1,047	19	44	2	
Deterson N T	1,000	13	2	40	Baton Rouge In	42	10			
Paterson, N. J	50	205	1 1	22	Carryo Christi Toy and	43	23	-	9	
Philadelphia, Pa	490	293		22	Dillis m	30	20	2		
Pittsburgh, Pa	1//	90	1 3	9	Dallas, lex	145	89		6	
Reading, Pa	49	32	2	2	El Paso, lex	42	22	6	6	
Rochester, N. Y	96	63	3	4	Fort Worth, Tex	11	43	3	6	
Schenectady, N. Y	21	15	1 -		Houston, Tex	189	84	8	6	
Scranton, Pa	50	31	2	1	Little Rock, Ark	51	36	3 7 .	4	
Syracuse, N. Y	44	33	1	- 1	New Orleans, La	145	67	5	7	
Trenton, N. J	44	29	9	- 1	Oklahoma City, Okla	64	30	1	3	
Utica, N. Y	24	18	-	1	San Antonio, Tex	124	68	4	6	
Yonkers, N. Y	35	15	3	2	Shreveport, La	48	25	3	2	
					Tulsa, Okla	57	31	2	6	
EAST NORTH CENTRAL:	2,596	1,444	75	129						
Akron, Ohio	78	50	-	2	MOUNTAIN:	406	240	19	25	
Canton, Ohio	37	23	8	1	Albuquerque, N. Mex	45	18	9	2	
Chicago, Ill	733	384	26	41	Colorado Springs, Colo.	20	13	3		
Cincinnati, Ohio	179	101	2	8	Denver, Colo	118	69	2	8	
Cleveland, Ohio	187	96	6	8	Ogden, Utah	16	13	2	-	
Columbus, Ohio	120	68	2	4	Phoenix, Ariz	87	55	2	6	
Davton, Ohio	69	39	1 -	-	Pueblo, Colo	21	13		2	
Detroit, Mich	362	191	3	18	Salt Lake City, Utah	47	28	1	4	
Evansville, Ind	35	23	2	3	Tucson, Ariz	52	31		3	
Flint Mich	52	27		7					-	
Fort Wayne Ind	42	32	-	i	PACIFIC:	1,567	976	30	70	
Cary Ind annual	31	14	3	1 1	Berkeley, Calif	21	17		Ĩ	
Grand Rapids Mich	36	27	4	1 1	Fresno, Calif	50 -	31	1	ŝ	
Indianapolie Ind	163	92	2	4	Glendale, Calif	31	22		1	
Madicon Mic	52	21	1 1	7	Honolulu, Hawaii	34	10	2	2	
Milusukee Mis-	124	24	1 1	6	Long Beach, Calif	24	1.7	1 1		
Popria Ill	3/	21	1 -	2	Los Angeles, Calif	500	221		14	
Peoria, III.	24	22	-		Oakland Calif	105	331	, ,	10	
Rockford, 111	33	23		4	Bacadona Calif	105	51	1	12	
South Bend, Ind	40	20	1 2		Postland Orog	28	21	1.5		
Toledo, Ohio	118	6/	3	5	Portland, Ureg.	108	64	1	5	
Youngstown, Ohio	63	31	2	1 2	Sacramento, Calif	68	35	2	2	
- 20 H		1			an Diego, Calir.	95	56	1	8	
WEST NORTH CENTRAL:	838	502	28	37	San Francisco, Calif	183	123	3	5	
Des Moines, Iowa	75	40	1	5	San Jose, Calif	36	21	1	1	
Duluth, Minn	25	1 15	-	- 1	Seattle, Wash	142	84	7	5	
Kansas City, Kans	38	20	3	5	Spokane, Wash	43	30	1	2	
Kansas City, Mo	138	94	2	3	Tacoma, Wash	43	24	12	4	
Lincoln, Nebr	27	15	-	2		l	540	1		
Minneapolis, Minn	107	67	7	6	Total	12,182	6,960	414	594	
Omaha, Nebr	81	57	4	5	11			<u> </u>		
St. Louis, Mo	221	117	2	8	Cumulative Totals					
St. Paul, Minn	70	45	3	2	including reported corrections for previous weeks					
Wichita, Kans	56	32	6	1	1					
· · · · · · · ·	L	1			All Causes, All Ages			527,	720	
					All Causes, Age 65 and	over		300,	929	
					Pneumonia and Influenza	, All Ages		18,	449	
					All Causes. Under 1 Yes	r of Age		26.	881	
					L					

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

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DIPHTHERIA - Alabama (Continued from page 363)

cases were clinically diagnosed as diphtheria and confirmed by bacteriologic examination. Among the nine siblings of the dead child, five have positive cultures for *Corynebacterium diphtheriae* from nasopharynx specimens, and two of the five also have positive cultures from cutaneous lesions. The father's cultures are negative to date.

Neighborhood and school culture surveys and a vicinity immunization program are underway.

(Reported by W.H.Y. Smith, M.D., Director, Bureau of Preventable Diseases; William J. Donald, M.D., Director, Bureau of County Health Services; Thomas Hosty, Ph.D., Director, Bureau of Laboratories, all with the Alabama State Department of Public Health; and an EIS Officer.)

INTERNATIONAL NOTES IMMUNIZATION INFORMATION FOR INTERNATIONAL TRAVEL PHS 384

The 1967-68 edition of the booklet "Immunization Information for International Travel" is available at the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 at 40c a copy. There is a discount of 25 percent when 100 copies or more are ordered and delivered to the same address.

The principal changes include the recommendations of the Surgeon General's Committee on immunization practices, and changes in the immunization requirements of other countries.

Information in the booklet is kept current in the Morbidity and Mortality Weekly Report, published by the National Communicable Disease Center, Atlanta, Georgia 30333.

ERRATUM: Vol. 16, No. 42, p. 358

The correct number of reported cases of streptococcal sore throat and scarlet fever from Mississippi for week ending October 21 was 167 cases. Typographical error on Weekly Telegraphic Report showed 667 cases. THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULA-TION OF 17,000, 15 PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

DIRECTOR, NATIONAL COMMUNICABLE DISEASE CENTER DAVID J. SENCER, M.D.

CHIEF, EPIDEMIOLOGY PROGRAM ACTING CHIEF, STATISTICS SECTION IDA L. SHERMAN, M.S.

DITOR, MMWR	MICHAEL B. GRE	GG, M.D.

IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

SSED TO: NATIONAL COMMUNICABLE DISEASE CENTER ATLANTA, GEORGIA 30333 ATTN: THE EDITOR MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY: COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

