

ROUTING AND TRANSMITTAL SLIP

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| 1 TO (Name, office symbol or location) Lt Col Hubbs | INITIALS | CIRCULATE |
| | DATE | COORDINATION |
| 2 | INITIALS | FILE |
| | DATE | INFORMATION |
| 3 | INITIALS | NOTE AND RETURN |
| | DATE | PER CON - VERBATION |
| 4 | INITIALS | SEE ME |
| | DATE | SIGNATURE |

REMARKS

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| | 6 Sep 74 |
| | PHONE |
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Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE

DATE OF RELEASE: AUGUST 30, 1974 - ATLANTA, GEORGIA 30333-

CURRENT TRENDS

ARBOVIRAL DISEASE - United States, August 1974

The following article summarizes the results of recent arbovirus surveillance activities reported from 13 selected states* and the U.S. Department of Agriculture (USDA). So far this summer, these sources have recorded minimal activity in humans, equines, birds, and mosquitoes.

Western Equine Encephalitis (WEE)

Through August 16, 1974, the National Animal Disease Laboratory (NADL), USDA, reported 13 serologically confirmed cases in horses. Cases were sporadically distributed in Minnesota (3), Indiana (2), North Dakota (2), Wyoming (2),

*Selected states: Arizona, California, Florida, Georgia, Kansas, Louisiana, Massachusetts, Mississippi, New Jersey, New York, South Dakota, Texas, and Utah.

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Idaho (1), Iowa (1), Oklahoma (1), and Oregon. Also, WEE virus was isolated from a horse from Alabama. In addition, the Texas State Health Department Laboratory and the South Dakota State University Laboratory each reported 2 serologic confirmations in equines.

In other activities, the Kansas State Health Department isolated WEE from 9 of 14 mosquito pools from 3 counties in

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

| DISEASE | 34th WEEK ENDING | | MEDIAN 1969-1973 | CUMULATIVE, FIRST 34 WEEKS | | |
|---|--------------------|--------------------|---------------------|----------------------------|---------|---------------------|
| | August 24, 1974 | August 25, 1973 | | 1974 | 1973 | MEDIAN 1969-1973 |
| Aseptic meningitis | 124 | 230 | 230 | 1,748 | 2,500 | 2,498 |
| Brucellosis | 1 | 2 | 3 | 102 | 128 | 128 |
| Chickenpox | 231 | 263 | --- | 98,895 | 144,519 | --- |
| Diphtheria | 3 | 1 | 6 | 165 | 119 | 107 |
| Encephalitis: | | | | | | |
| Primary: Arthropod-borne and unspecified | 40 | 52 | 35 | 587 | 865 | 852 |
| Post-Infectious | 10 | 6 | 6 | 184 | 204 | 231 |
| Hepatitis, Viral: | | | | | | |
| Type B | 185 | 167 | 166 | 6,180 | 5,215 | 5,215 |
| Type A | 774 | 998 | 1,119 | 27,610 | 32,981 | 36,021 |
| Type unspecified | 160 | --- | --- | 5,474 | --- | --- |
| Malaria | 9 | 5 | 30 | 131 | 156 | 1,801 |
| Measles (rubeola) | 107 | 212 | 185 | 19,579 | 23,999 | 26,651 |
| Meningococcal infections, total | 16 | 14 | 30 | 938 | 1,012 | 1,714 |
| Civilian | 16 | 14 | 29 | 913 | 988 | 1,525 |
| Military | --- | --- | 1 | 25 | 24 | 184 |
| Mumps | 332 | 291 | 446 | 43,846 | 54,589 | 66,989 |
| Pertussis | 64 | --- | --- | 1,051 | --- | --- |
| Rubella (German measles) | 134 | 87 | 201 | 9,536 | 25,773 | 37,948 |
| Tetanus | 2 | 5 | 2 | 56 | 57 | 74 |
| Tuberculosis, new active | 583 | 558 | --- | 20,089 | 20,595 | --- |
| Tularemia | 1 | 5 | 4 | 91 | 109 | 92 |
| Typhoid fever | 6 | 17 | 10 | 242 | 459 | 201 |
| Typhus, tick-borne (Rky. Mt. spotted fever) | 34 | 23 | 15 | 605 | 489 | 339 |
| Venereal Diseases: | | | | | | |
| Gonorrhea | 17,197 | 18,659 | --- | 572,916 | 528,513 | --- |
| Syphilis, primary and secondary | 449 | 415 | --- | 15,881 | 15,938 | --- |
| Rabies in animals | 57 | 66 | 63 | 1,928 | 2,442 | 2,441 |

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

| | Cum. | | Cum. |
|-----------------------------|------|-----------------------|------|
| Anthrax | 2 | Poliomyelitis, total: | 3 |
| Botulism | 9 | Paralytic: | 3 |
| Congenital rubella syndrome | 27 | Pittacosis: Wis. 1 | 77 |
| Leprosy* | 72 | Rabies in man: | --- |
| Leptospirosis: Fla. 1 | 26 | Trichinosis: | 65 |
| Plague | 1 | Typhus, murine: | 15 |

*Delayed reports: Leprosy: Mass. 1, Hawaii 3

LOUIS ENCEPHALITIS — Continued

house sparrows. On June 25 intensified larvacide and adulticide of mosquitoes was begun in areas of Memphis known to be heavily infested. A total of 18,000 gallons of 95% malathion were sprayed over the next 2 months in an attempt to avert or lessen an epidemic. As soon as human cases were confirmed, ground spraying of 95% malathion was initiated in all urban areas of Memphis and Shelby County.

(Reported by Alan L. Bisno, M.D., Director, Infectious Diseases, Department of Medicine, University of Tennessee College of Medicine; Robert C. Rendtorff, M.D., Director, Division of Communicable Diseases, I.K. Mosley, Director, Field Services Division, Harold Carver, Administrative Assistant, and Irene Duncan, R.N., Supervisor, Communicable Diseases, Memphis-Shelby County Health Department; Robert H. Hutcheson, Jr., M.D., M.P.H., State Epidemiologist; the Arbovirus Reference Branch, Vector-borne Diseases Division, and the Virology Division, Bureau of Laboratories, CDC; a Public Health Advisor; and an EIS Officer.)

Table 1
Hemagglutination Inhibition (HI) Titers to
St. Louis Encephalitis Virus in 6 Patients
Memphis, Tennessee, August 1974

| Case No. | Serum Specimen | |
|----------|----------------|--------------|
| | Acute | Convalescent |
| 1 | 1:20 | 1:160 |
| 2 | 1:40 | 1:160 |
| 3 | 1:20 | 1:160 |
| 4 | 1:10 | 1:80 |
| 5 | 1:10 | 1:80 |
| 6 | 1:10 | 1:40 |

Reference

1. Sudia WD, Fowinkle E, Coleman BH: St. Louis Encephalitis in Memphis, Tennessee, 1964. *J Med Entomol* 4:77-79, 1967

ILLNESS ASSOCIATED WITH TCDD-CONTAMINATED SOIL — Missouri

In 1972 the Missouri Division of Health and CDC investigated a horse arena in eastern Missouri where 54 of 57 horses exposed to the arena had died of an illness characterized by skin lesions, severe weight loss, and hepatotoxicity. Birds, dogs, cats, insects, and rodents were also found dead in and around the arena, and one 6-year-old girl exposed developed hemorrhagic cystitis. Urine cultures for bacterial and viral pathogens were negative. Immediately prior to the onset of illness, the arena had been sprayed with salvage motor oil for dust control.

Similar horse illnesses and deaths occurred in 2 other horse arenas in the eastern Missouri area sprayed by the same salvage oil company. The 3 arenas had been sprayed within 1 month of each other. Subsequent to investigation, soil from all 3 arenas was excavated and disposed. No further problems have occurred since these excavations.

Recent results from laboratory analysis of soil samples taken from the initial arena implicate 2,4,5-trichlorophenol and 2,3,7,8-tetrachlorodibenzodioxin (TCDD) as the probable toxic substances. TCDD is a waste byproduct in the synthesis of trichlorophenol and the herbicide 2,4,5-trichlorophenoxy-

acetic acid. An investigation is underway to determine the source and extent of the TCDD disposal.

(Reported by H. Denny Donnell, Jr., M.D., State Epidemiologist, and Pat Phillips, D.V.M., Division of Health, Missouri Department of Health and Welfare; the Toxicology Branch, Clinical Chemistry Division, Bureau of Laboratories, and the Cancer and Birth Defects Division, Bureau of Epidemiology, CDC; and 2 EIS Officers.)

Editorial Note

TCDD is a very persistent chemical and a potent contact poison (1). Its acute oral LD-50 for rabbits, mice, guinea pigs, and other species is in the microgram-per-kilogram range. TCDD may cause chloracne and liver damage in humans, chick-edema disease in chickens, and porphyria cutanea tarda in animals and perhaps man. It has been shown to be teratogenic in some mice strains and has also a general embryotoxic effect.

Reference

1. Kimbrough RD: Toxicity of chlorinated hydrocarbons and related compounds. *Arch Environ Health* 25:125-131, 1972

TULAREMIA MIMICKING PLAGUE — New Mexico

On May 19, 1974, a 39-year-old man from Coolidge, New Mexico, developed rhinorrhea, headache, generalized malaise, and a fever of 103°F. He was seen by a physician at a Gallup outpatient clinic and given long-acting penicillin intramuscularly. His symptoms improved until May 24, when he developed a tender swelling at the anterior axillary line. On June 6 physical examination revealed a rectal temperature of 100°F and 2 right para-axillary and 3 right epitrochlear tender lymph nodes.

An interview revealed that 1 day prior to the onset of his illness, the man had shot a prairie dog near Coolidge. He took the carcass to his wife, who skinned and dressed the animal. Both the man and his wife ate some of the meat after it had been cooked for 2 hours over a wood fire. Bubonic plague was suspected, and the patient was hospitalized.

A direct smear of lymph node aspirate stained by Gram's method and with *Yersinia pestis* fraction 1 specific fluorescent

antibody did not reveal suspicious organisms. Cultures of blood, sputum, and lymph node aspirate were negative for *Y. pestis*. Table 2 gives the results of serologic tests performed on a serum specimen obtained on June 6.

The patient denied a history of recent insect bites, tick attachments, or carbuncles. He repeatedly denied having skinned or dressed rabbits or other small mammals. The

Table 2
Results of Serologic Tests for Plague and Tularemia
June 6, 1974

| | Tube Agg. Titer | PHA* Titer |
|-----------|--------------------|------------|
| Plague | Negative | Negative |
| Tularemia | 1:320 | 1:8192 |

*Passive hemagglutination