

1983 ROCKY MOUNTAIN SPOTTED FEVER SUMMARY

Rocky Mountain spotted fever (RMSF) is a rickettsial infection caused by <u>Rickettsia rickettsii</u>. The organism is primarily a parasite of ticks and is passed through unending generations of ticks by transovarial transmission. Man contracts RMSF either through the bite of an infected tick or by contamination of the skin with crushed tissues or feces of infected ticks. In Texas, the tick species most commonly associated with human infection are the Lone Star tick (<u>Amblyomma americanum</u>), the dog tick (<u>Dermacentor variabilis</u>), and the brown dog tick (<u>Rhipicephalus sanguineus</u>).

Symptoms of RMSF include headache, fever, and myalgia, followed in two to three days by a maculopapular rash on the wrists and ankles. The rash then progresses to involve the rest of the body often becoming petechial or purpuric. Early antibiotic treatment may prevent the appearance of the rash.

In 1983, 108 confirmed cases of RMSF were reported to the Bureau of Epidemiology, Texas Department of Health. This is a 69% increase over the 64 cases reported in 1982 and a 140% increase over the 45 cases reported during 1981. Since for every reported case of RMSF, one to two cases generally go unreported, the increased number of cases notably represents better surveillance efforts in reporting suspect cases.

The 1983 incidence rate for RMSF is 0.70 cases per 100,000 Texas residents. The majority of cases reside in north central Texas (Figure 1) with Public Health Regions 5 and 7 reporting incidence rates of 1.92 per 100,000 and 1.50 per 100,000, respectively. Each year these two regions consistently have the highest incidence rates in Texas. Spotted fever was responsible for six deaths in 1983 -- one each in Fort Bend, Hamilton, Henderson, Johnson, Nueces, and Williamson counties.

Seventy-two of the 108 cases were males; 36 were females. Fifty-four cases (51%) were 9 years of age or younger. Although onset of symptoms was reported for at least one case per month throughout the year, the majority of cases (71) had onset of symptoms in the months of April, May, or June. Fifty-three cases reported a recent tick attachment before onset of symptoms.

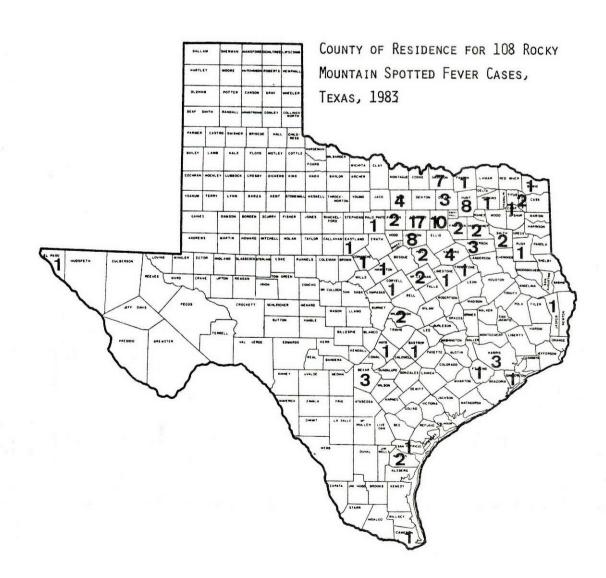
Clinical symptoms were noted with the following frequencies for the 108 cases: fever -98.1%; rash -84.2%; headache -64.8%; myalgia -50.0%; malaise -47.2%; anorexia -37.0%; conjunctivitis -26.8%; lymphadenopathy -25.9%; and photophobia -25.0%. The associated rash was most frequently observed on the legs (80.2%), on the arms (79.1%), and on the trunk (74.7%), while a generalized rash appearing on the trunk, arms, legs, face, soles, and palms was observed in 31(34.1%) of those cases with a rash. The rash appeared, on the average, three days after onset of fever, with appearance ranging from zero to 17 days. Eighteen cases developed their rash on the same day as the onset of fever. Sixteen percent of the 1983 RMSF cases reported no rash.

Treatment data were recorded for all the cases. Forty-seven cases were treated with tetracyline alone; 42 cases with chloramphenicol alone; and 11 cases with both tetracycline and chloramphenicol. Eight cases either recovered without treatment or were treated with antibiotics not recognized as being effective against Rickettsia rickettsii. Appropriate antibiotic treatment was initiated after the appearance of the rash in 64 of 74 cases for whom the starting date of antibiotic treatment was known.

The diagnosis was confirmed in all cases -- 74 (68.5%) by the indirect fluorescent antibody test (IFA), 31 (28.7%) by acute blood inoculation into test animals (Microtus), and 1 case (0.9%) by complement fixation. Two cases were confirmed by skin biopsy.

The Bureau of Epidemiology wishes to thank the public health officials and physicians for their cooperation and assistance in RMSF surveillance. For further information concerning RMSF surveillance, please contact the Bureau of Epidemiology at (512) 458-7328.

This report was prepared by Jeffery Taylor, MPH, Staff Epidemiologist, Bureau of Epidemiology, Texas Department of Health.



REPORTABLE DISEASES IN TEXAS JANUARY 29-FEBRUARY 26, 1984

REPORTABLE DISEASE	PHR 1	PHR 2/12	PHR 3	PHR 4	PHR 5	PHR 6	PHR 7/10	PHR 8	PHR 9	PHR 11	REPOR WEEKS 5 1983		CUMU! 1983	LATIVE 1984
AIDS AMEBIASIS ANTHRAX ASEPTIC MENINGITIS	-	=	-	-	1 - - 5	1 9 -	-	- 8	- 2 -	1 - -	13	3 19 -	43	3 36 -
_======================================			-) =======			1 	6 -=====	1	42 =====	13	49 ======	19
BOTULISM BRUCELLOSIS CHICKENPOX CHOLERA	- 127 -	- - 72	134	- - 59	- 1 199 -	- - 45	- 249 -	- 169	- 185 -	- 38ø -	2,153	- 1 1,619 -	3,136 -	1 2,182
DIPHTHERIA ENCEPHALITIS GONORRHEA HANSEN'S DISEASE	- - NA -	- - NA -	- NA -	- - NA -	- 1 NA -	- - NA -	- 1 NA -	- 1 NA 2	- 1 NA -	- - NA -	- 2 5,690 -	- 4 5,196 2	- 6 12,753 2	5 10,153 2
HEPATITIS, VIRAL TYPE A TYPE B NON-A/NON-B UNSPECIFIED	1 5 2	19 1 - 7	8 - - 3	9 4 – 6	9Ø 3 4 1 82	35 7 - 4	11 15 1 2	2ø 13 - 59	36 4 1 1	14 29 1 16	304 85 NA 165	243 112 6 180	531 160 NA 315	375 171 10 273
INFLUENZA & FLU-LIKE ILLNESS LEPTOSPIROSIS MALARIA	1,587 - -	6,163 - -	145 - -	3,969 - -	16,410 - 1	29,465 - -	.14 , 257 - -	10,562 - -	5,526 - -	10,372 1 -	21 , 537 - 2	98,456 1 1	32,183	104,996 1 1
MEASLES MENINGOCOCCAL	-	40	-	-	-	-	-	-	1	-	-	41	-	41
INFECTIONS MUMPS PERTUSSIS	-	-	-	2 - -	8 2 1	1 - -	6 1 -	- 8 -	_ _ 1	9 4 -	27 37 7	26 16 1	33 60 11	32 21 1
PLAGUE POLIOMYELITIS PSITTACOSIS Q FEVER	-	1 - - -	- - -	1111		-		-	- - -	- - -		1 - - -	- - -	1 - - -
RABIES IN MAN RELAPSING FEVER REYE SYNDROME RHEUMATIC FEVER	- - - -	= -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	-	- - - -	- - - - 2	- - - -	- - - - 3	- - - - 1
ROCKY MOUNTAIN SPOTTED FEVER RUBELLA RUBELLA, CONGEN- ITAL SYNDROME	-	- 1 -	1			-	- 1	- 2	-	- 1	- 16 -	- 6 -	- 23	- 10 -
SALMONELLOSIS SHIGELLOSIS SMALLPOX STREP THROAT	2 4 -	1 8 -	- - -	4 - -	3ø 21 -	4 6 -	7 2 -	11 9 -	14 16 -	20 19 -	124 109 -	93 85 -	200 189 -	135 124 -
& SCARLET FEVER SYPHILIS (P&S) TETANUS TRICHINOSIS TUBERCULOSIS	127 NA - -	325 NA - - 1	61 NA - - 7	383 NA - - 2	1,504 NA - - 12	696 NA - - 9	837 NA - - - 13	8Ø4 NA - - 9	579 NA - - 13	343 NA - - 62	4,741 492 - - 131	5,659 499 - - 128	8,448 1,004 - - 171	7,649 784 - - 171
TULAREMIA TYPHOID FEVER TYPHUS FEVER YELLOW FEVER	- - - - -	- - - -			 - - -	- - - - -	- - - 1	- - - -	- - - - -	- - - -	 - 1 1	- - - 1	 - 1 1	- - 1

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MUMPS IMMUNIZATION IN OUTBREAK CONTROL

In recent years, Texas has recorded several outbreaks of mumps in school-age children. In these outbreaks, mumps vaccine was made available to local health authorities to control the outbreak. Texas immunization rules and regulations governing day-care centers, public schools, and private schools require that children and students through age 11 be protected against mumps illness. This age increases each September, until 1990, when all children enrolled in these facilities will be required to be protected against mumps illness. To prevent mumps cases in older children, local school boards, boards of directors, and other rule-making bodies may wish to adopt more stringent immunization policies than those recommended by the Texas Department of Health. This may include requiring all students to show proof of mumps protection (either a validated vaccination history or a physician-verified statement of mumps illness).

REFERENCE DIAGNOSTIC TESTING BY THE CENTERS FOR DISEASE CONTROL

The Centers for Disease Control (CDC) has established new policies on providing reference diagnostic services. These policies are summarized below:

I. It is CDC's policy to avoid providing diagnostic testing services that are available elsewhere.

[CDC has implemented a stringent specimen screening program to detect these specimens. Specimens are being rejected based on 1) testing service being available elsewhere and 2) lack of sufficient information.]

II. CDC will provide reference diagnostic testing services for uncommon, exotic, or imported diseases or to disease outbreaks with known or suspected epidemiological significance.

TEXAS PREVENTABLE DISEASE NEWS Texas Department of Health 1100 West 49th Street Austin, TX 78756-3180

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