



Texas Preventable Disease

NEWS

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TEXAS STATE DOCUMENTS
COLLECTION

ENTEROVIRAL MENINGITIS AND POSSIBLE LATE COGNITIVE DEFICITS*

Enteroviral meningitis accounts for \geq half of all cases of meningitis in the US. Most occur in children $<$ 1 year old, and a number of studies have indicated late cognitive deficits in these children. To investigate this possibility, Bergman and colleagues identified 48 children $<$ 1 year who had developed meningitis and had accompanying positive CSF (cerebrospinal fluid) culture for coxsackievirus, echovirus, or poliovirus. Siblings of these infected children acted as controls. The authors excluded three from study because of associated conditions affecting neurologic function. In the remaining 21 girls and 24 boys in whom enteroviral meningitis developed between four days and 12 months of life, coxsackievirus B was isolated in 30, coxsackievirus A in 3, and echovirus in 13; 3 infants who had either coxsackievirus B2 or coxsackievirus B4 died of heart failure secondary to the viral myocarditis. Of the 45, 31 survivors with a mean age of slightly over 8 years and their sibling group -- 15 boys and 16 girls with a mean age of slightly $>$ 10 years -- were followed up.

Mortality in the meningitis group was completely attributable to myocarditis with attendant congestive heart failure. There was no long-term morbidity in the population of meningitis survivors. Except for one patient who probably had a familial sensorineural hearing loss, none of the cases had any abnormality on neurologic, visual, or audiologic evaluation; 1 meningitis survivor and 1 control sibling had febrile seizures; 1 survivor and 1 control had epilepsy; and 1 control and 1 survivor had an IQ of $<$ 70.

All three who died contracted meningitis at \leq 12 days of age; the mean age at diagnosis for the 42 survivors was 66 days. Acute illness was mild in the survivors; fever, irritability, nuchal rigidity, and lethargy were predominant symptoms. Tests included Verbal Selective Reminder Test, Grooved Pegboard Test, Connors Parent Symptom Questionnaire, and Wechsler Preschool and Primary Scales of Intelligence. Mean scores for the meningitis and sibling groups were similar on all measures and within normal range. Paired and multivariate comparisons on the normed tests failed to reveal significant differences on any of the measures. (*Bergman I, et al. J Ped 1987; 110:705-9.*)

COMMENT: Enterovirus meningitis is the most common cause of meningitis in the US. It is usually mild; survivors of the illness, at least through the findings of this investigation, have no long-term neurological sequelae. The mechanism for meningitis with enteroviruses appears to involve both invasion of the meninges and the brain itself. There appears to be little permanent damage to brain tissue with little cell death. The inflammation within the central nervous system appears to be transient.

Children who die from this illness succumb to cardiomyopathy rather than neurologic disease. The mechanism here, as described by many other investigations, appears to be cardiac invasion and T cell-mediated damage. Age of infection is critical in determining risk of myocarditis in man and animal models. Very young animals and infants appear to be more susceptible to the full-blown damage that can be caused by these viruses. Acute myocarditis, perimyocarditis, endocarditis, and even aneurysm formation can result from infection with these viruses.

* Reprinted with permission of American Health Consultants. Infectious Disease Alert, June 15, 1987;6(18):69-70.

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Meningitis caused by enteroviruses, although frequent, does not seem to be associated with long-term neurologic morbidity. It is important to recognize this illness early and differentiate it from treatable causes of bacterial meningitis. There is no clinical therapeutic available for this infection.

* * *

CPSC: LAWN DARTS CAN CAUSE SERIOUS OR FATAL HEAD INJURIES AND DEATH*

The Consumer Product Safety Commission has warned parents not to allow children to play with lawn darts or play near where lawn dart games are being played. Lawn darts can cause serious or fatal head injuries. The Commission recently became aware of a 7-year-old girl who died in April after being struck in the head by an altered lawn dart. Although the tip of the lawn dart may appear blunt, when thrown up into the air the lawn dart can penetrate a child's skull.

From 1978 thorough 1986, an estimated 6,100 people were treated in hospital emergency rooms for injuries involving lawn darts. At least 80% of the victims were < 15 years old, and more than 50% were ≤ 10 years of age. More than half of the victims had injuries to the head, eye, ear, or face. Investigations indicated that severe injuries included punctures, lacerations, and fractures to the head and skull. Although victims were often bystanders, in many cases those playing the game were children. In addition to the death of the 7-year-old girl in April, the Commission is aware of one other lawn-dawn death. This occurred in 1970 involving a 4-year-old boy.

Lawn darts sets usually include two targets and four large darts. The targets are plastic tubes which are shaped to form circles and placed on the lawn. The darts, which are about 12 inches long with a weighted tip on one end and three plastic fins and a rod on the other end, are grasped by the rod and thrown underhand toward the target.

Since 1970, the sale of lawn darts has been banned in toy stores and toy departments, but lawn darts have been sold for adult use in sporting goods stores and departments. Lawn-dart packages must bear the following label on the front of the package:

**"WARNING: NOT A TOY FOR USE BY CHILDREN.
MAY CAUSE SERIOUS OR FATAL INJURY. READ
INSTRUCTIONS CAREFULLY. KEEP OUT OF
REACH OF CHILDREN."**

Although lawn-dart packages are required to bear warning labels, and toy stores and toy departments are prohibited from selling lawn darts, children have continued to play with and be injured by these darts. In a recent survey, the CPSC identified numerous violations of the warning label and retail sale requirements. The CPSC is monitoring these situations to make sure that violations are corrected promptly and to prevent future violations.

In addition to keeping lawn darts away from children, the CPSC asks consumers who find lawn darts being sold in toy stores or toy departments, or being sold without the required warning label, to report the name and address of the store and the brand name of the lawn darts to the CPSC. Consumers may write to the CPSC, Washington, DC 20207 or call the CPSC toll-free hotline number at 800-638-CPSC. A teletypewriter number for the hearing impaired is 800-638-8270.

* Adapted from: News from CPSC; 87-42.

MONTHLY SUMMARY OF REPORTABLE DISEASES IN TEXAS

(Counties listed below reflect only those with populations of 100,000 or more, based on 1986 population estimates.) Cumulative through: SEPTEMBER 1987

County	Campylobacteriosis	Chickenpox	Enterocolitis	M. Influenzae Infections	Hepatitis A	Hepatitis B	Hepatitis NA-NB	Influenza	Measles	Meningococcal Infections	Aseptic Meningitis	Mumps	Pertussis	Rubella	Salmonella	Shigella
BEXAR	6	20	1072	10	19	76	43	4	2889	2	3	34	3	1	1	57
BRAZORIA	23	5	12	0	4	2	4	0	0	0	0	6	0	0	0	12
CAMERON	56	8	449	1	0	25	7	0	3289	32	0	1	12	0	0	29
COLLIN	0	3	107	3	0	4	2	1	19	2	0	0	0	0	0	6
DALLAS	38	49	4782	6	67	232	170	15	5966	134	15	98	41	2	0	253
DENTON	0	9	132	1	1	3	5	0	1091	0	2	3	3	0	0	17
EL PASO	6	45	1160	2	17	164	82	4	47	1	5	2	13	0	0	85
FORT BEND	1	15	303	4	9	3	9	3	575	0	0	10	1	0	0	26
GALVESTON	2	3	406	0	5	1	12	1	70	0	2	18	7	0	0	35
HARRIS	12	141	6126	21	116	112	104	24	5110	3	8	193	75	3	0	347
HIDALGO	2	0	37	0	0	6	2	0	0	0	1	2	0	1	0	19
JEFFERSON	0	6	117	2	4	10	20	0	1945	1	1	1	2	1	0	30
LUBBOCK	0	11	51	7	8	28	17	0	147	1	2	26	7	1	2	38
MCKENNA	0	0	130	1	5	7	6	1	182	0	1	0	6	2	0	10
MONTGOMERY	0	0	95	1	5	7	6	1	17	0	1	2	2	0	0	11
MULLEES	0	15	1053	0	4	12	37	1	3987	0	3	5	5	0	0	65
TARRANT	3	37	38	3	29	24	160	10	77	123	9	42	15	3	0	93
TRAVIS	27	84	593	5	45	44	35	9	440	1	4	26	4	0	0	118
All Other Counties	45	142	5953	22	106	386	323	45	21507	136	40	86	44	24	1	536
Cumulative TX 1987	221	594	28616	89	447	1263	1844	119	47279	444	97	563	248	51	4	1780
Cumulative TX 1986	321	591	21228	160	452	1627	1153	170	65925	390	108	1045	182	104	72	1771

1987 CUMULATIVE TOTALS FOR OTHER REPORTABLE DISEASES:

Acute Occ. Pesticide Poisoning	9	Coccidioidomycosis	20	Histoplasmosis	55	Psittacosis	1	Toxic Shock Synd.	18
Anthrax	0	Dengue	0	Legionellosis	32	Q Fever	1	Trichinosis	0
Botulism *	0	Diphtheria	0	Leptospirosis	1	Rabies	0	Tuberculosis	1261
Bruceellosis	26	Elevated Blood Lead Levels	900	Listeria Infections	30	Reye Syndrome	6	Tularemia	3
Chlamydia trachomatis	2333	Gonorrhea	38893	Lyme Disease	20	Rocky Mt Spotted Fever	17	Typhoid	17
Cholera	0	Hansen's Disease	18	Malaria	41	Silicosis *	0	Typhus, Murine	18
		Hepatitis D (Delta Agent)	1	Plague	0	Syphilis (P89)	2833	Vibrio Infect.	14
		Hepatitis type unspecified	430	Poliovylitis	0	Tetanus	2	Yellow Fever	0

* Blood lead level $\geq 40\mu\text{g/dl}$ in persons 15 years of age or older; summarized by date of blood lead test.
 * Regular summaries of these reportable occupational diseases will be included as reporting procedures are better established.

A NEW LOOK FOR THE MONTHLY SUMMARY OF REPORTABLE DISEASES IN TEXAS

The recent reorganization of the public health regions in Texas by the Texas Board of Health necessitated that the format of the Monthly Summary of Reportable Diseases in Texas be revised. Because the previous numbering of public health regions does not correspond to the new numbering system (eg, the old Public Health Region (PHR) 1 is now included in the new PHR 2), 1987 data are not comparable by regional totals. Therefore, the first and maybe the most obvious of the changes in the new table is the presentation of morbidity data by county instead of regions. The 18 most populous counties in Texas were selected for this format; these counties represent 64% of the state population (based on 1986 population estimates provided by the Bureau of State Health Data and Policy Analysis).

The second change in the table is that only the 17 diseases most frequently reported to the Epidemiology Division were selected for presentation by county. Other diseases reported to the Infectious Diseases Program and to the Environmental Epidemiology Program and those reported through other data collection systems within the department (ie, STD Control and Tuberculosis Control Divisions) are reflected as statewide totals at the bottom of the report.

The final change in the report is that disease totals are cumulative from January 1 through the end of the most recent month rather than the previously presented monthly totals. This change allows the inclusion of delayed reports and provides a more accurate reflection of reported morbidity in Texas.

CUMULATIVE TEXAS AIDS CASES BY DATE OF DIAGNOSIS

THROUGH OCTOBER 23, 1987

COUNTY *	1980-1982		1983		1984		1985		1986		1987		CUMULATIVE		
	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS	CASES	DEATHS (CFR%)	
BEXAR	3	3	13	12	9	7	27	20	43	23	38	7	133	72	54
BRAZORIA	0	0	0	0	1	1	7	7	9	4	2	1	19	13	68
BRAZOS	0	0	1	1	5	5	4	4	5	1	2	2	17	13	76
DALLAS	7	7	25	20	73	71	135	118	253	138	215	70	708	424	60
DENTON	0	0	0	0	1	1	1	1	5	2	3	2	10	6	60
EL PASO	0	0	2	2	1	1	1	1	7	4	13	2	24	10	42
FORT BEND	0	0	0	0	1	1	9	9	8	4	6	0	24	14	58
GALVESTON	0	0	1	1	4	3	5	5	13	9	14	3	37	21	57
HARRIS	27	24	74	72	173	151	305	247	492	278	304	63	1375	835	61
JEFFERSON	1	1	0	0	2	1	4	4	8	1	9	3	24	10	42
LUBBOCK	0	0	1	1	0	0	3	3	5	2	4	2	13	8	62
MONTGOMERY	0	0	2	2	1	1	2	2	2	1	5	3	12	9	75
NUECES	0	0	0	0	4	3	2	1	11	7	13	2	30	13	43
ORANGE	0	0	0	0	1	1	1	1	4	2	4	0	10	4	40
TARRANT	1	1	1	1	8	7	29	22	37	15	56	14	132	60	45
TRAVIS	0	0	3	3	19	16	36	31	44	21	50	12	152	83	55
WALKER	0	0	1	1	4	4	4	4	15	6	8	2	32	17	53
ALL OTHERS	0	0	5	5	16	15	44	35	81	46	68	23	214	124	58
STATEWIDE	39	36	129	121	323	289	619	515	1042	564	814	211	2966	1736	
	CFR%	92	CFR%	94	CFR%	89	CFR%	83	CFR%	54	CFR%	26		CFR%	59

* COUNTIES LISTED INDIVIDUALLY ARE THOSE WITH A CUMULATIVE TOTAL OF 10+ CASES.

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