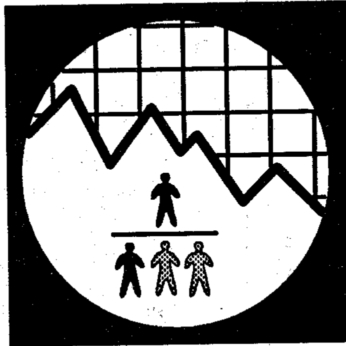

VIRGINIA
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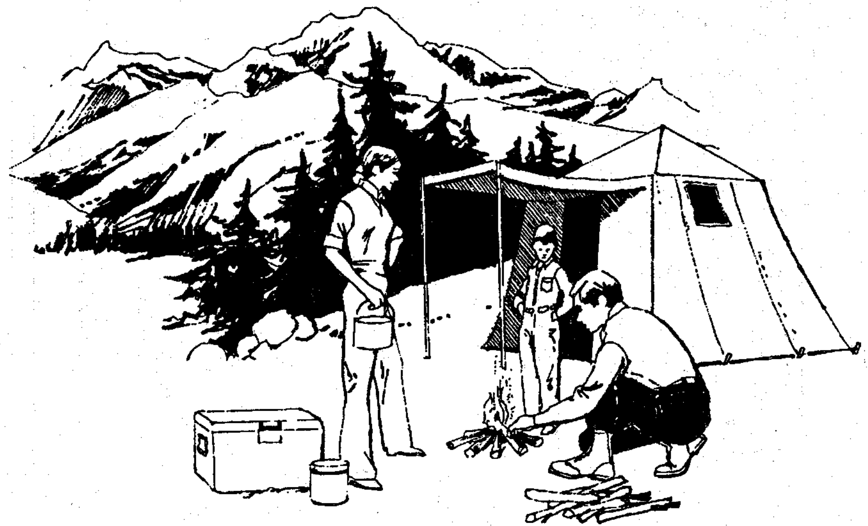
Lyme Disease in Virginia, 1991

Lyme disease, a tick-borne spirochetal infection, typically begins with a characteristic skin lesion, erythema migrans, and can be followed by systemic manifestations involving rheumatologic, neurologic, and cardiac abnormalities if appropriate antibiotics are not administered during the early stages of infection. Diagnosis of this disease may be difficult because of its diverse clinical manifestations and the lack of a definitive serologic test.

Lyme disease was first reported in Virginia in 1982 when three cases were reported. For the next four years the number of cases ranged from zero to seven. In 1987, when widespread publicity on Lyme disease increased public and physician awareness of the disease, 27 cases were counted. Each succeeding year has seen an increase in the number of cases that meet the case definition, with 29 reported in 1988, 54 in 1989, 129 in 1990 and 151 in 1991. Some of the recent increase in case reports may be due to enhanced surveillance activities made possible by special funding from the Centers for Disease Control (CDC).

The Lyme disease surveillance definition being used by Virginia and the CDC describes a case as:



- A person with physician diagnosed erythema migrans (EM) at least 5 cm in diameter; or, in the absence of EM,
- A person with at least one late manifestation, with no alternative explanation, and laboratory confirmation of infection.

Lyme disease case reports are received by the Office of Epidemiology from physicians, hospital infection control practitioners, local health departments and some laboratories. For those reports with missing or incomplete data, follow-up phone calls or letters are used to complete the data collection. Because the serologic tests for Lyme disease are not reliable, it is important for physicians to rule out other possible causes for symptoms compatible with Lyme disease. In situations where a case meets reporting criteria but the clinical picture suggests an alternative diagnosis, we would appreciate having this clinical impression conveyed in the report.

Of the 151 cases reported in 1991, 78 were males (52%) and 73 were females (48%). Ages ranged from 2 years to 97 years, with a mean of 39 years. The majority of cases, 131 (87%), were white, 11 (7%) were black. Lyme disease reports were received for every month except January. From June through September, 94 cases (62%) were received. Cases were reported from 37 counties and 13 cities. Most of the highest case rate localities (Table 1) were in the coastal plain. The single practice cluster in Floyd County is being further investigated.

Erythema migrans (EM) was reported in 106 (70%) of the cases. Arthritis occurred in 53 cases (35%), neurologic symptoms in 54 cases (36%) and cardiac symptoms in 7 cases (5%). Of the 119 cases with serologic results, 75 (50%) were posi-

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Table 1. Lyme Disease Case Rate per 100,000 for Highest Case Rate Counties and Cities, January 1, 1991 - December 31, 1991, Virginia			
Locality	**No. Cases**	**Percent**	**Rate**
Floyd	16	11	133.3
Accomack	15	10	47.3
Southampton	4	3	22.8
Orange	4	3	18.7
King George	2	1	17.8
Northampton	2	1	15.3
Prince William	22	15	10.2
Isle of Wight	2	1	8.0
York	1	1	8.0
Subtotal	68	46	
Virginia	151	100	2.5

Lyme Disease Laboratory Confirmation

- Isolation from tissue or body fluid; or
- Diagnostic levels of IgM or IgG antibodies in serum or CSF; or
- Significant titer change between acute and convalescent serum samples; and
- Exclusion of causes of biologic false positive (eg. syphilis).

Lyme Disease Late Manifestations—Musculoskeletal

- Recurrent, brief attacks of objective joint swelling
- Sometimes followed by chronic arthritis

NOT:
- Chronic, progressive arthritis without brief attacks
- Chronic, symmetrical polyarthritis
- Arthralgia, myalgia, fibromyalgia syndrome

tive for antibodies to *Borrelia burgdorferi*.

Ixodes dammini, the tick vector most often associated with Lyme disease is scarce in this state, but recently it has been identified in York County and on Virginia's Eastern Shore. In Accomack County, which is on the Eastern shore, all stages of the tick life cycle have been identified, verifying that the population is established. In addition, *B. burgdorferi* has been isolated from the ticks and small rodents in that area and military entomologists have collected *I. dammini* from deer on military bases in Caroline and King George Counties.

Lyme disease is a reportable disease. Please contact your local health department or the Office of Epidemiology for Lyme disease case report forms. For further information regarding Lyme disease please contact: Margie Benko, Lyme Disease Sur-

Lyme Disease Late Manifestations—Cardiovascular

- Acute-onset 2nd or 3rd degree atrioventricular conduction defects,
- Resolves in days to weeks,
- Sometimes associated with myocarditis,

NOT:
- Palpitations
- Bradycardia
- Bundle branch block
- Myocarditis alone

veillance, Office of Epidemiology, Room 113, P.O. Box 2448, Richmond, Virginia 23218, (804) 371-4052.

Submitted by Margie Benko, Epidemiologist, Office of Epidemiology, VDH.

Lyme Disease Late Manifestations—Nervous System

- Lymphocytic meningitis
- Cranial neuritis, especially facial palsy
- Radiculoneuropathy
- Rarely encephalomyelitis alone or in combination (must be shown by higher liter in CSF than serum)

NOT:
- Headache
- Fatigue
- Paresthesias
- Mild stiff neck

Expansion of HIV/AIDS Medication Program

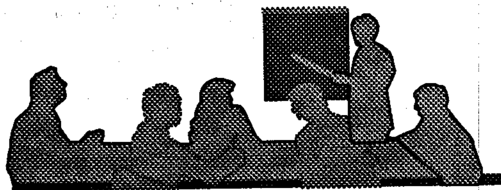
The Virginia Department of Health (VDH) recently expanded its HIV/AIDS Medication Program to include fluconazole, an anti-fungal drug used to treat candidiasis and cryptococcal meningitis. The Medication Program was established in 1987 to supply zidovudine (AZT) at no cost to Virginians who meet eligibility requirements. The program also provides didanosine (ddI) and trimethoprim-sulfamethoxazole (TMP-SMX). Eligibility requirements are based on medical and financial criteria.

Ryan White Funding

VDH receives funding under the Ryan White C.A.R.E. Act, Title II to provide direct services to persons with HIV disease. These services are targeted to individuals with lower incomes. The State funds five regional consortia that contract locally for services including medical case management, medical treatments, transportation, and pediatric day care. The funds also support the HIV/AIDS Medication Program.

For additional information about the above programs or for general HIV/AIDS information, please call the VDH STD/AIDS Hot Line at 1-800-533-4148. The Hot Line is available Monday through Friday from 8:00 a.m. to 7:00 p.m.

APIC-Virginia Annual Conference



September 30, October 1 and 2, 1992

"Emerging Issues—Changes and Challenges," APIC-Virginia's 18th annual educational conference, will be held in the Koger Conference Center-Holiday Inn South, Richmond, Virginia. The conference is sponsored by the Association for Practitioners in Infection Control, Virginia Chapter. For more information contact Connie Jones, RN, CIC, Infection Control Coordinator, John Randolph Hospital, P.O. Box 971, Hopewell, Virginia 23860. Telephone (804)541-7418.

Cases of Selected Notifiable Diseases, Virginia, April 1 through April 30, 1992.

Disease	Total Cases Reported This Month						Total Cases Reported to Date in Virginia		
		Regions							
	State	NW	N	SW	C	E	This Yr	Last Yr	5 Yr Avg
AIDS	72	4	28	6	26	8	211	235	155
Campylobacter	40	9	15	8	6	2	128	114	128
Gonorrhea*	1434	-	-	-	-	-	6420	5406	5099
Hepatitis A	10	0	8	0	2	0	36	64	90
Hepatitis B	20	0	2	4	3	11	69	78	95
Hepatitis NANB	6	1	3	1	0	1	13	9	16
Influenza	4	0	0	3	0	1	116	681	1353
Kawasaki Syndrome	1	0	1	0	0	0	8	14	8
Legionellosis	0	0	0	0	0	0	6	4	4
Lyme Disease	2	0	1	0	0	1	18	10	5
Measles	0	0	0	0	0	0	6	20	23
Meningitis, Aseptic	11	0	8	0	3	0	61	66	53
Meningitis, Bacterial~	11	1	2	2	1	5	51	48	62
Meningococcal Infections	3	1	0	2	0	0	23	13	23
Mumps	2	1	0	0	0	1	20	19	25
Pertussis	2	0	0	0	1	1	4	5	12
Rabies in Animals	34	15	10	1	5	3	81	87	102
Reye Syndrome	0	0	0	0	0	0	0	1	<1
Rocky Mountain Spotted Fever	0	0	0	0	0	0	0	0	0
Rubella	0	0	0	0	0	0	0	0	<1
Salmonellosis	40	8	13	5	6	8	212	287	300
Shigellosis	17	4	6	5	0	2	52	119	103
Syphilis (1° & 2°)*	85	3	12	9	20	41	252	376	218
Tuberculosis	6	0	0	0	2	4	100	95	113

Localities Reporting Animal Rabies: Augusta 1 raccoon, 1 skunk; Fairfax 1 raccoon; Fauquier 1 raccoon; Frederick 1 fox; Greensville 1 raccoon; Hanover 1 skunk; Isle of Wight 1 raccoon; Loudoun 7 raccoons; Madison 1 skunk; New Kent 2 raccoons; Orange 1 raccoon; Page 1 cat; Prince William 2 raccoons; Rappahannock 1 fox; Rockbridge 1 skunk; Rockingham 1 skunk; Scott 1 skunk; Shenandoah 1 dog; Spotsylvania 1 cat, 1 raccoon, 1 skunk; Suffolk 1 raccoon; Sussex 1 raccoon; Warren 1 skunk; York 1 raccoon.

Occupational Illnesses: Asbestosis 5; Carpal Tunnel Syndrome 82; Coal Workers' Pneumoconiosis 25; Lead Poisoning 1; Loss of Hearing 16; Mesothelioma 1; Silicosis 1.

*Total now includes military cases to make the data consistent with reports of the other diseases.
~Other than meningococcal

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