



EPIDEMIOLOGY BULLETIN

EPIDEMIOLOGY OFFICE
DIVISION OF PUBLIC HEALTH
DEPARTMENT OF HEALTH AND SOCIAL SERVICES
STATE OF ALASKA
3601 C Street Pouch 6333
Anchorage, Alaska 99502-0333
(907) 561-4406

John Pugh, Commissioner
Department of Health
and Social Services

Editor: John Middaugh, M.D.

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RABIES IN ALASKA

Beginning in 1975, the Division of Public Health developed a comprehensive Rabies Control Program to make available consultation and to provide anti-rabies medication free of charge. Analysis of human exposure data resulted in the implementation, in 1978, of a lay vaccinator program to vaccinate dogs, particularly in rural areas. Consultation is available on all animal exposures when anti-rabies prophylaxis is considered. Human rabies immune globulin (HRIG) and human diploid cell vaccine (HDCV) are available free of charge to all persons requiring anti-rabies treatment. Consultation is required and medication is released only when review of all information about the exposure dictates treatment. The Section of Laboratories maintains a superb rabies laboratory which provides testing of animals for rabies 24-hours a day. Through the Rabies Control Program, pre-exposure vaccination with HDCV is available free of charge to all persons whose activities place them at high risk of exposure to rabies.

In 1978, a program was developed to improve dog vaccination and animal control throughout the State. Regulations were revised in accordance with recommended guidelines from the National Association of Public Health Veterinarians. In addition, we included provisions to establish a lay vaccinator program. Periodically, courses are given to train and certify lay vaccinators to administer rabies vaccine to dogs and cats throughout Alaska. Animal rabies vaccine (Rabguard TC) is purchased by the State and distributed free of charge with tags and standard vaccination certificates to all lay vaccinators and all private veterinarians.

Since its initiation in 1975, the Rabies Control Program has been an outstanding success! In 1982, we published an article reporting our first six years experience with the program (Am J of Public Health 1982; 72:384-386). From 1975 - 1980, 182 persons received post-exposure rabies prophylaxis, while 2,569 initially thought to have been exposed were not treated after consultation, at a cost saving of approximately \$3,220,241. Since our previous report, the program has continued to be successful in reducing the number of individuals exposed to rabid animals and in reducing the number of individuals who need post-exposure anti-rabies treatment.

During 1975-84, 347 of 2,060 (17%) animals examined at the rabies laboratory were rabid. The vast majority of rabid animals were foxes (296) and dogs (36). (Table 1) Other animals found rabid include wolf (4), caribou (2), reindeer (7), and river otter (1).

During 1975-84, 239 people were determined after investigation to have been exposed to rabies and were treated with anti-rabies biologics through the state program. No people are known to have been treated in Alaska except through our program. Of the 239 people treated, 193 were exposed to a laboratory-confirmed rabid animal.

Although red and arctic foxes are the animals most frequently found to be rabid, 156 of the 239 (65%) people who had to undergo anti-rabies prophylaxis were exposed to rabid dogs, all of which were unvaccinated. Of people exposed to rabid dogs, 88 of 157 (56%) were exposed to puppies three to six months of age.

Our lay vaccinator program began in 1978. Since then, the number of dogs vaccinated through the Rabies Control Program has increased dramatically. In 1984, approximately 60,000 doses of animal vaccine were distributed through the program. In 1983 and 1984, each year only 5 individuals required anti-rabies treatment. These figures represent an all time low for the State (Table 2).

The Rabies Control Program is an outstanding example of effective disease prevention! It stands as a tribute to all individuals whose active participation and support have made the program a success. The Rabies Control Program has assured optimal use of personnel and knowledge, has increased rabies vaccination of dogs and cats, and has reduced significantly the number of people who need anti-rabies treatment at significant cost savings to the State.

Table 1. RABIES CONTROL PROGRAM: State of Alaska, 1975-1984
Laboratory confirmed Animal Rabies

YEAR	POSITIVE/TESTED						TOTAL
	Red Fox	Arctic Fox	Dog	Cat	Sub Total	Other*	
1975	6/18	0/8	1/77	0/21	7/24	0/31	7/155
1976	34/64	2/12	8/81	1/31	45/188	0/172	45/360
1977	12/55	22/60	3/76	0/21	37/212	3/52	40/264
1978	4/12	3/6	2/81	0/23	9/122	2/47	11/169
1979	13/31	5/7	1/74	0/23	19/135	0/38	19/173
1980	31/65	17/21	6/136	0/15	54/237	0/33	54/270
1981	26/51	15/23	4/56	0/20	45/150	0/17	45/167
1982	38/62	35/37	8/74	0/13	81/186	9/28	90/214
1983	9/45	8/10	2/41	0/15	19/111	0/14	19/125
1984	5/18	11/17	1/58	0/9	17/102	0/61	17/163
Total	178/421	118/201	36/754	1/191	333/1567	14/493	347/2060
(%)	(42)	(59)	(5)	(0.5)	(21)	(3)	(17)

* Wolf (4), caribou (2), reindeer (7), other (1)

Table 2. RABIES CONTROL PROGRAM: State of Alaska, 1975-1984
People receiving post-exposure
anti-rabies treatment by exposure category

YEAR	EXPOSED TO:				TOTAL TREATED
	RABID DOG (<u><</u> 6 months)	RABID DOG (<u>></u> 6 months)	ANIMAL NOT TESTED	OTHER RABID ANIMAL	
1975+	0	5	2	0	7
1976	49	16	0	10	75
1977	10	14	0	2	26
1978	0	18	1	9	28
1979	0	9	0	2	10
1980	20	6	4	6	36
1981	6	1	19	1	27
1982	2	1	15	3	21
1983	0*	0	4	0	4*
1984	0	0	2	3	5
TOTAL	87	69	47	36	239

* One person exposed to rabid dog \leq 6 months refused treatment
+ data incomplete - partial year

(We would like to thank all of the individuals who have contributed to the success of the Rabies Control Program and particularly acknowledge the sanitarians with the Environmental Service Section, Alaska Area Native Health Service; our lay vaccinators; private veterinarians throughout the State; military sanitarians and veterinarians; Richard Barrett, and Dr. Bert Gore. The success of the Rabies Control Program would not have been possible without the superb contributions, exceptional skills, and extreme dedication of Don Ritter, Chief, Northern Regional Laboratory - the heart and soul of the Rabies Control Program in the State of Alaska.)