



Dosages are Linear by Weight for Vaccines

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"Scientific literature can be used in veterinary practice to make better clinical decisions for the benefit of patients, clients and society as a whole", Larson, JVMA 2015

"No single study can fully address most clinical questions, and every study, no matter how well designed has limitations. As a result, clinical decision making typically requires consideration of various, often diverse, sources of information"

The following three graphs, based on scientific evidence presented in the referenced articles, when looked at together, clearly indicate all vaccine dosages are based on the weight of the pet, just like all medications. All articles can be found on the Protect the Pets Website.

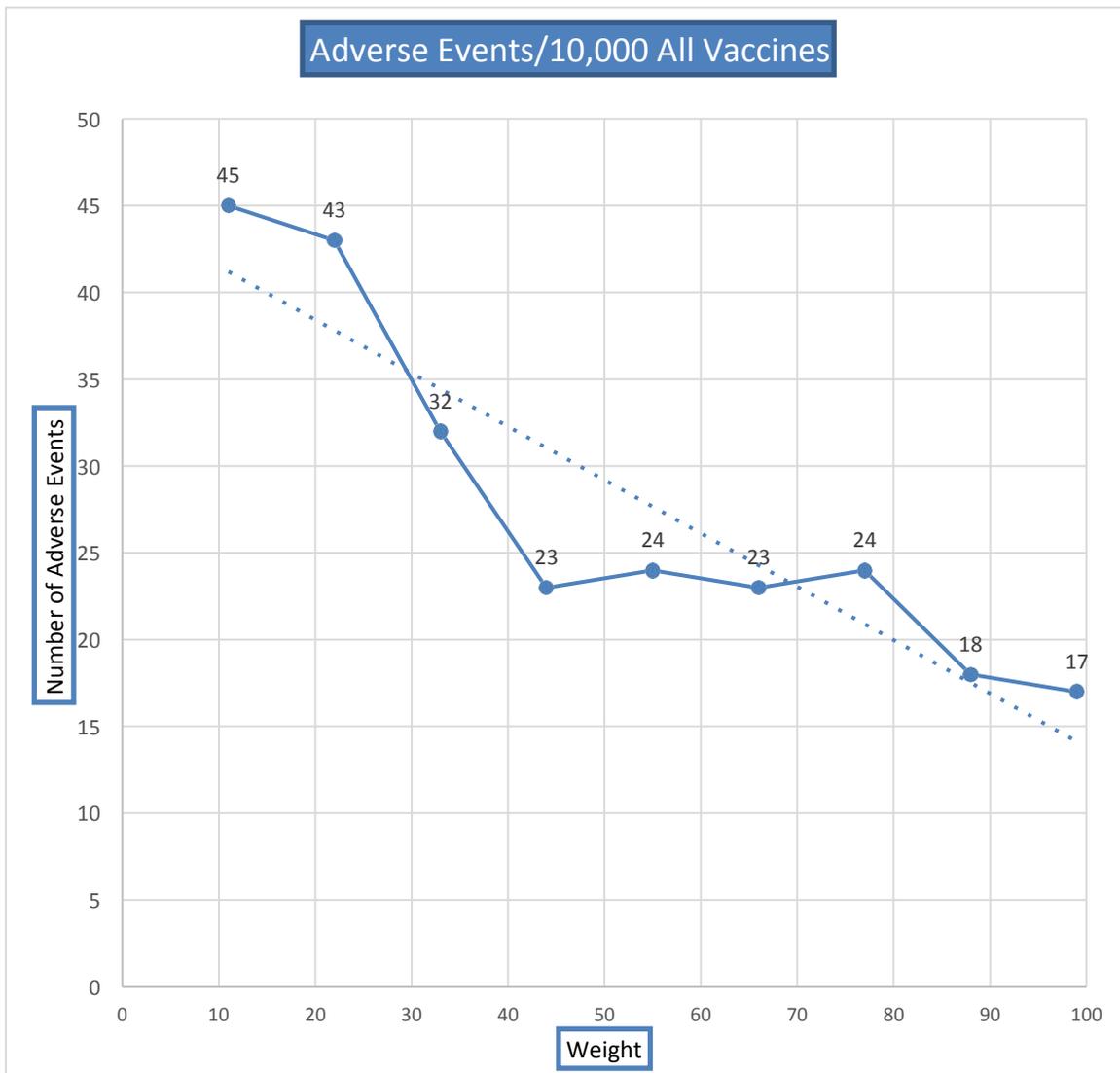
Based on the linear nature of all three variables the vaccine dose is 0.1 cc's per ten pounds of body weight. As with the Rabies Titer where 0.2 IU/ml was found to be protective against a Rabies challenge, a higher threshold was chosen as a safety factor, ≥ 0.5 IU/ml. I have done the same in my protocol for rabies doubling the volume. Therefore a 10- pound dog should receive 0.2 cc's. A 20-pound dog should receive 0.4 cc's of rabies vaccine. A 30-pound dog gets 0.6 cc's, and a 40-pound dog gets 0.8 cc's. Any dog 50 pounds and above is given 1 cc volume of rabies vaccine.

Two weeks following rabies vaccination using this dosage guideline the dog is tested via the RFIT rabies tier test and if the value is $\geq .0.5$ IU/ml, the dog is immune to rabies. A Rabies Titer Certificate would only be issued if the titer was ≥ 0.5 IU/ml. If the titer does not meet this threshold, a second rabies vaccine would be given and the pet re-titer two weeks later. This will get the titer over the threshold.

Graph 1 - Source:

Adverse events diagnosed within three days of vaccine administration in dogs JAVMA 2005

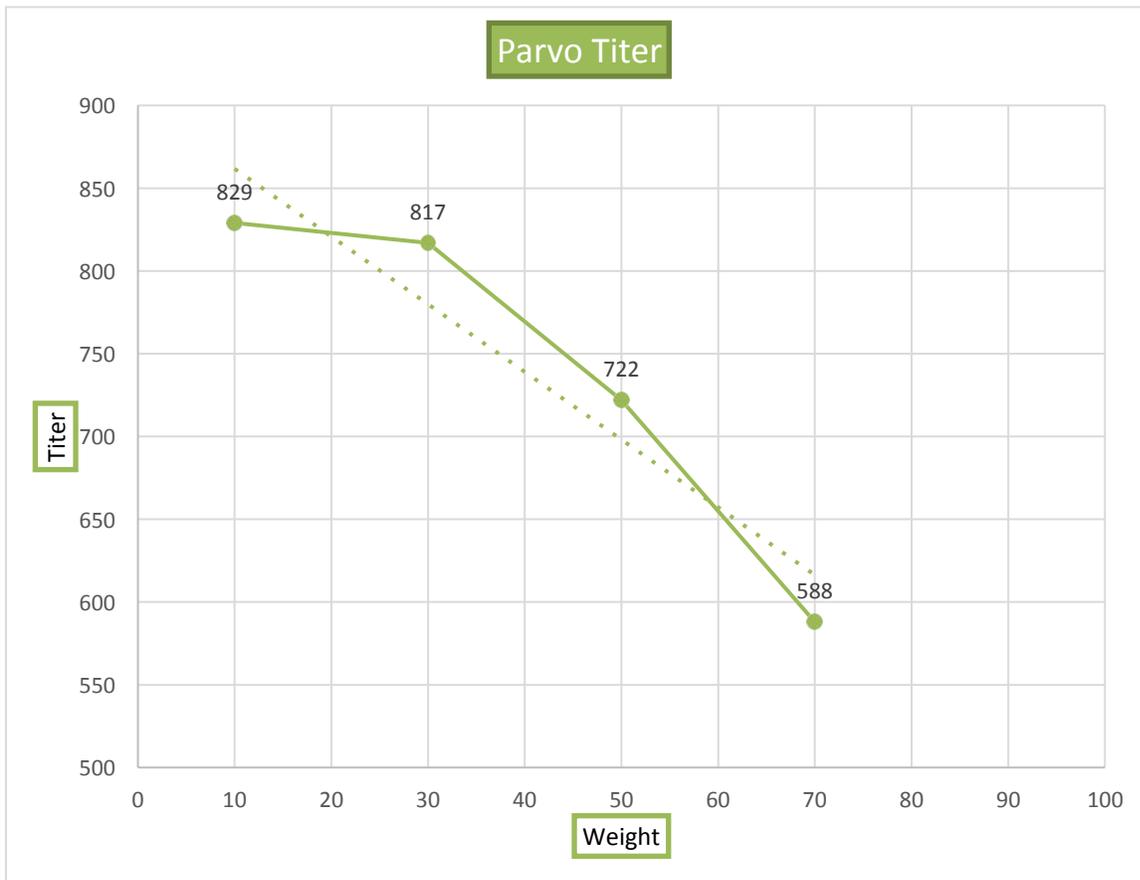
Pounds	#VAAE
11	45
22	43
33	32
44	23
55	24
66	23
77	24
88	18
99	17



Graph 2 – Source:

Effects of body weight on antibody titers against canine parvovirus type 2, canine distemper virus, and canine adenovirus type 1 in vaccinated domestic adult dogs
The Canadian Journal of Veterinary Research 2012

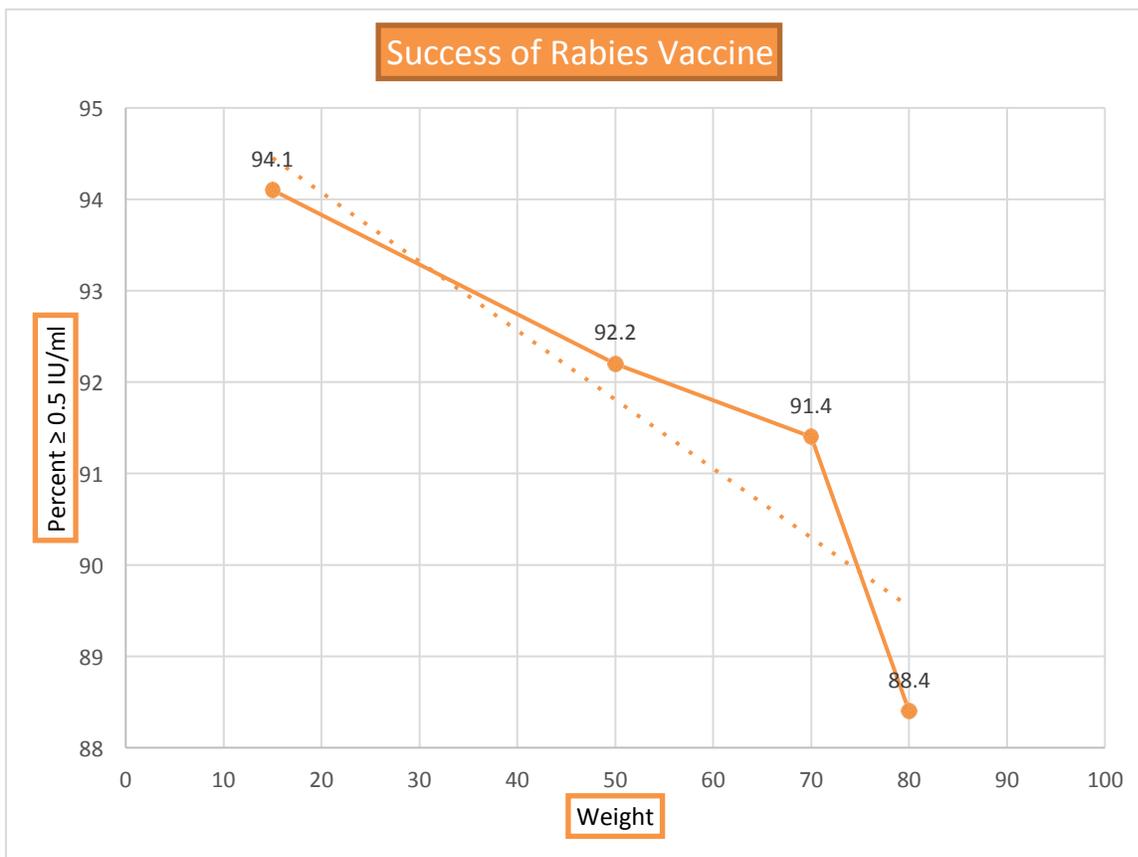
Weight	Parvo Titer
10	829
30	817
50	722
70	588



Graph 3 – Source:

Factors associated with the success of rabies vaccination of dogs in Sweden, Acta Veterinaria Scandinavica (2011)

Weight	%Success Rabies
15	94.1
50	92.2
70	91.4
80	88.4



By incorporating the above information, dosages could be reduced and pets protected without serious reactions. This information also applies to other vaccines and to cats. The Rabies is the only vaccine universally mandated by law.

Lbs	# CC's	kg
2	0.04	0.91
5	0.1	2.27
8	0.16	3.63
10	0.2	4.54
15	0.3	6.8
20	0.4	9.07
25	0.5	11.34
30	0.6	13.61
40	0.8	18.14
50	1	22.68

All dogs 50lbs / 22.68kg or greater get 1.0 cc's.

Always check a rabies titer following vaccination to make sure the dog produced a protective titer. Remember, the 1992 French Study, *Practical significance of rabies antibodies in cats and dogs (1992)*, established 0.2 IU/ml as protective for dog's although the World Health Organization and International travel have based their protective titer level at 0.5 IU/ml as the acceptable level for travel. Those values are still in use. Dr. Schultz has pointed out that any titer at all is protective but this is a good starting point that can be fine-tuned to further lower the dosage through additional research.

About Non-Responders

A certain percentage of dogs are non-responders. For obvious reasons, their survival is more challenging. If a dog is vaccinated against rabies and the titer comes back 0.0 IU/ml, this pet may be a non-responder. Re-vaccinate one additional time but if the titer is still 0.0 IU/ml two weeks after the second vaccine, the veterinarian has identified a non-responder and further vaccination will only put the dog at risk for an adverse event, with no benefit to the patient and no protection for the pet owner. The clients are informed that the pet is always at risk for rabies and should not be bred. By not breeding

non-responders, they can be eliminated from the gene pool and safeguard public health. This is a very important reason to do titers, not just to reduce unnecessary over vaccination, thus decreasing pet injuries and death, but to protect the public from potential exposure to rabid pets who were thought to be immune because they had been vaccinated for rabies. Currently, non-responders go undetected. Rabies vaccination alone gives people a false sense of security. (See *Rabies in vaccinated dogs and cats in the United States, 1997-2001*).