
Evidence Update: Azodyl for Chronic Kidney Disease in Dogs

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One of the products I have kept track of over the years is Azodyl, a probiotic reported to be useful in treating kidney disease in dogs and cats. Though [the company has reported](#) positive results in laboratory studies involving rats, cats, and pigs, the independent studies so far reported in [dogs](#) and [cats](#) have not found any real-world benefits. Apparently last summer another study was presented at the ACVIM Forum, a conference for veterinary internal medicine specialists.

Kanakubo; S. Ross; H. Finke; J. Kirby; S. Nalor; C. Stafford; L.D. Cowgill. [Influence of Azodyl™ on Urea and Water Metabolism in Uremic Dogs](#). ACVIM Forum 2013, June 12-15, Seattle, WA.28970

The study was not a clinical trial but a laboratory study of a small number of dogs (4) undergoing dialysis for treatment of kidney disease. The investigators evaluated the effects of Azodyl, given at two different doses over 1-2 months of time, by comparing various laboratory tests for measuring kidney function and the processing of nitrogen from protein in the diet in the same dogs before and after giving the probiotic. The study was partially funded by the manufacturer of Azodyl.

The investigators concluded that there were no changes in any of the measured values when these dogs were put on Azodyl. However, the dogs did appear to gain weight from fluid, suggesting that perhaps the product influenced water consumption or absorption.

The results of this short-term study demonstrated:

- *Azodyl™ had no significant or beneficial effect on pre-dialysis BUN in dialysis-dependent dogs.*
- *Azodyl™ had no significant effect on single treatment or weekly time-average urea, TAC_{urea}; urea appearance rate, G_a; or the whole-body urea clearance, C_{urea}.*
- *Azodyl™ administration produced no demonstrable effect on the intestinal clearance of urea, C_{int}.*
- *Azodyl™ administration was associated with a positive increase in total body water requiring increased dialytic removal to maintain dry-weight.*
- *Despite manufacturer's suggestion, Azodyl™ did not influence short-term azotemia or nitrogen metabolism in this CKD cohort.*
- *Azodyl™ was associated with a positive fluid balance in these dogs.*
- *These results were unable to support the potential for Azodyl™ to facilitate 'Enteral Dialysis' in dogs with CKD undergoing hemodialysis*

This is a pretty small and unusual population of dogs compared to those who will normally be treated with Azodyl in routine clinical practice, so it does not determine whether or not the product is clinically useful in more typical