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## THE CURRENT LITERATURE IN BRIEF

### Diet & Acute Renal Failure in Rabbits

Acute renal failure (ARF) in rabbits may be caused by prerenal, postrenal, or intrinsic factors. It is initiated by ischemia, nephrotoxins, or intrinsic renal disease and is potentially reversible if quickly diagnosed and aggressively treated. Rabbits with prerenal azotemia may be differentiated from those with intrinsic ARF based on history, clinical findings, and rapid response to therapy. Postrenal causes of azotemia are usually partial or complete urethral or bladder obstructions by uroliths, blood clots, or sand or mucous plugs. Intrinsic renal disease may be caused by drugs (including NSAIDs), hypercalcemia, glomerulonephritis/nephrotic syndrome, pyelonephritis, or infectious diseases (eg, *Encephalitozoon cuniculi*). For diagnosis, ARF must be distinguished from chronic renal failure (CRF), which is not reversible. Rabbits are azotemic in both types of renal failure; however, rabbits in CRF also have a history of weight loss, polydipsia/polyuria, and anemia. Other tests, including urinalysis and *E cuniculi* serologic evaluation, should be performed in cases of suspected ARF. It should also be noted that, unlike dogs and cats, azotemic rabbits usually have severely elevated serum urea nitrogen levels, but serum creatinine levels may be only mildly elevated. The primary goals of treating rabbits in ARF include reestablishing urine flow and treating the initiating cause. Perfusion abnormalities should be corrected when hypotension is present (systolic blood pressure < 90 mm Hg), and the patient should be rehydrated, with the calculated volume of fluid to be given over 6 to 8 hours. Ongoing losses (eg, from diarrhea) need to be calculated into the volume—most ARF patients require an increase of 3% to 5% in the final volume. The amount of urine produced once the rabbit is rehydrated should be recorded every 4 hours. Adequate nutrition should be ensured, and use of a nasogastric tube with a fiber diet is recommended. Hyperphosphatemia and hypercalcemia should be treated, as should urinary tract infection or suspected cases of *E cuniculi*. Drugs that may have precipitated the ARF should be discontinued. Once hydration and urine production are restored (fluid input = urine output), azotemia has resolved, and the patient is eating and drinking, fluids can be gradually discontinued, tapering by 50% per day.

**COMMENTARY:** *This article is a quick read that hits the salient points of common differential diagnoses and an outline of treatment of ARF in rabbits. It's worth a read if you are interested in treating rabbits.—Chris Wong, DVM*  
*Acute renal failure in rabbits. Lichtenberger M. EXOTIC DVM 8:9-11, 2006.*