

## **Chronic kidney disease: The good, the bad and the chronic**

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Although chronic kidney disease (CKD) is a common disease encountered in feline practice, how we manage CKD (and case outcome) will depend on how the patient presents. Among the veterinary community, we are fortunate to have very kidney-centric colleagues (International Renal Interest Society or IRIS) who have worked to establish guidelines on the staging and management of our canine and feline patients as a resource.

A small group of cats will present with CKD but instead of the reason for their renal damage being that of the “wear and tear” seen in many aging patients, it is due to an underlying disease process that will cause progressive tissue destruction (no matter what we do). Included in this category would be genetic-linked disease (renal amyloidosis of Abyssinian cats; polycystic kidney disease of Persian and Himalayan cats) and renal neoplasia (lymphoma, carcinoma). These patients can still be managed under the same principles of other CKD cats (such as renal diets) but the case outcome will likely be poorer (and this needs to be communicated with the caregiver).

Some renal cats present to us as unstable or decompensated. In these cats, we cannot IRIS stage them because of their instability and our care plan must be one that focuses on getting them well first (and managing the CKD long term second). In many cases, these cats may mimic a GI case with clinical signs including nausea/vomiting, hyporexia/anorexia, dehydration, and lethargy. Depending on what has caused the cat to decompensate, other findings may include infection (such as pyelonephritis), renal stones, and pancreatitis. Care plans for this category of cat need to focus on rehydration, restoring electrolytes/acid-base, resolving nausea, restoring appetite, pain management and treating the underlying condition. Rehydration in these patients can be achieved via IV or subcutaneous fluid administration. If using IV fluid support, care must be taken not to cause cardiac overload. There are many newer anti-nauseants available to our feline patients including Substance P inhibitors (Maropitant) and 5HT<sub>3</sub> receptor antagonists (Ondansetron, Mirtazapine). Once we have established that these patients are feeling better, appetite stimulants including Mirtazapine and Cyproheptadine are well tolerated. Diet change within this category of cat must be approached with caution. Although there is no doubt that these cats need dietary phosphate restriction, and will ultimately benefit from renal diets, these diets are of zero value if the patient will not eat them. Diet change, therefore, is not an emergency. In the clinic setting, getting these cats to consume any diet should be the goal. Renal diets should only be reached for once we have the cat stable, eating, and at home. With special regards to pain management, dosing must be adjusted to account for the reduced renal clearance. This appears to be especially true for Gabapentin, which is often prescribed at higher doses as a pre-visit anxiolytic.

Focusing on the stable CKD cat, this is where we can use IRIS to both stage these patients and have a guideline for therapy. Staging requires collecting a blood sample in a fasted, euhydrated patient with further sub-staging based on blood pressure and degree of proteinuria. Ultimately, CKD treatment goals will fall into one of two categories: (a) treatment that will slow down the CKD progression and (b) treatment that will improve the quality of life of the patient. The cornerstone of care for all CKD cats involves dietary phosphate restriction (either with renal diets, phosphate binders, or a combination of both). Hypertension can be managed with medication (Amlodipine, Telmisartan being the drugs of choice).

**References/Resources:**

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<http://iris-kidney.com>