MASH
MELBOURNE ANIMAL SPECIALIST HOSPITAL

Vet Resource
Feline Lower Urinary Tract Disease

Feline Lower Urinary Tract Disease (FLUTD) is a common presentation to both GP and emergency services. This is a life-long syndrome affecting the urinary system of many cats. The reasons for its development are still not fully understood.

The syndrome has been found to be more common in middle-aged, neutered or overweight cats, cats with little or no access outside, and cats that eat dry food only. Interestingly, more recent research has found a possible association between highly stressed or anxious cats, or those cats that do not get along well with other cats in the household.

Clinical signs may include frequent urination, straining to urinate, licking the penis, passing small drips of urine, blood in the urine, urinating outside the litter tray and/or frequent trips the litter tray.

A 'blocked cat', (i.e. urethral obstruction) will likely have had some of the above symptoms then progress to straining in the litter tray for some time, vocalising and not be able to pass any urine at all.

All cases are recommended to have complete bloodwork, urinalysis and MC+S, and abdominal radiographs.
Often however an underlying cause is not found. As such, the most common cause of FLUTD is idiopathic, hence the term feline idiopathic cystitis (FIC).

At MASH, our standard approach to a case presenting with symptoms of FLUTD is:

> Immediately determining if the cat is obstructed or not (i.e. obstructive versus non-obstructive FLUTD)
> Emergency treatment for obstructive FLUTD, including complete biochemistry, CBC, electrolytes/blood gases, initial stabilisation and pain-relief
> Preparation for emergency general anaesthesia and passage of a urethral catheter to relieve the obstruction. NB: Some cases may only require sedation, and some cases may require an emergency decompressive cystocentesis prior to catheterisation
> Treatment of hyperkalaemia associated with clinical or ECG changes with either calcium gluconate, and/or glucose/insulin protocols (described elsewhere)
> Full urinalysis
> Abdominal radiographs and urine MC+S are always offered as gold standard, but optional if costs are a concern.
> Ongoing hospitalisation with indwelling urinary catheter and a closed-collection system for a minimum of 24-48h, ensuring the catheter is not removed until any haematuria is resolved
> If this is not the first episode of obstructive FLUTD, discuss perineal urethrostomy (PU) as a strategy to minimise the risk of future episodes
> Minimising stress in hospital including the use of anxiolysis, privacy screens, an elevated cat bed, feline pheromones, gabapentin and careful gentle handling
> Optimising home-care strategies and diet (see ***Recommendations for environmental changes*** below).

For obstructed cats where the owners are unable to afford gold standard treatment, outpatient management immediately after unblocking the cat is a viable alternative.

In a study of 91 cats, urinary catheterization without ongoing in hospitalization or IV fluids was compared to the usual standard of care. Although the outpatient cats were found to be 3 times more likely to re-obstruct in the first 30 days (Seitz et al; 2018) this is a viable option if the alternative is cost-based euthanasia.

A smaller urinary catheter size (3.5Fr v 5Fr) has been shown to reduce re-obstruction rate in one study but not in another similar study; bladder lavage does not affect outcome; and while significant patient comfort is likely achieved, the use of a sacrococcygeal epidural does not affect outcome *(reviewed by Cosford and Koo, 2020).*

Non-obstructive FLUTD can usually be managed on an outpatient basis with a range of medications, pain-relief and lifestyle modifications.

Two studies have shown no benefit to meloxicam, although this is an effective analgesic in cats. Prazosin has been shown to have no proven benefit in several studies; and prednisolone showed no benefit in one prospective, randomized study *(reviewed by Cosford and Koo, 2020).*

Recommendations for environmental changes at home:

> Encourage drinking, for example providing a ceramic water drinking fountain
> Feeding wet food and/or a prescription diet
> Multiple litter trays per cat in various locations
> One litter tray per cat plus one extra
> Separate food and water bowls for each cat
> Somewhere to rest and hide
> Opportunity to play and go outside (if safe to do so)
> Synthetic Pheromone diffusers such as “Feliway’