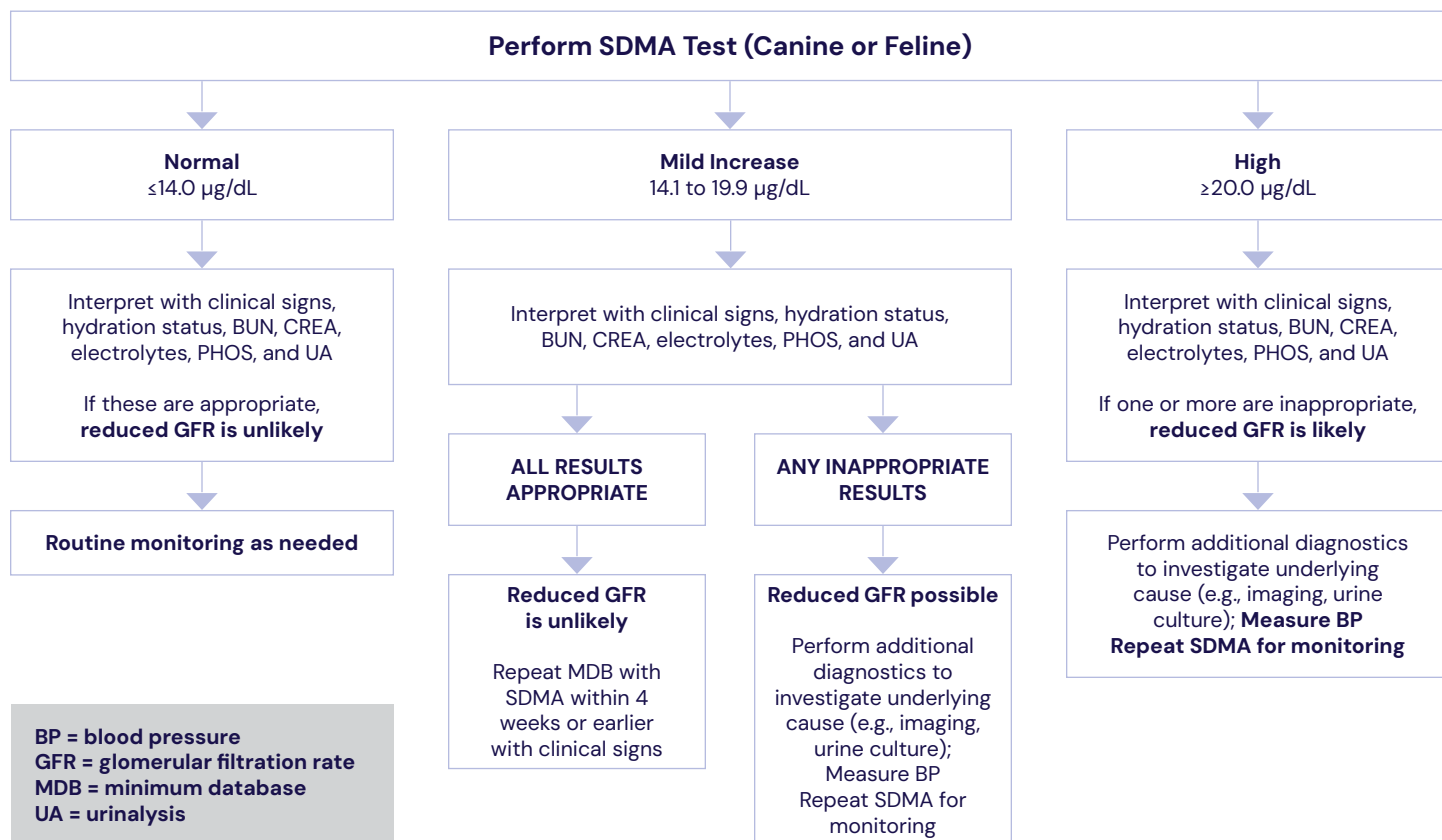


# Antech SDMA on Element i+™

## Companion Animal Clinical Decision-Making Algorithm

Pet signalment, history (clinical signs, treatment), test results, risk, and pet-owner specific factors will inform individual case decisions.



SDMA (symmetric dimethylarginine) is used for early detection of reduced glomerular filtration rate (GFR), staging chronic kidney disease, and monitoring progression or treatment response in dogs and cats.

SDMA is a methylated arginine released during protein turnover and is almost exclusively eliminated by glomerular filtration; increases primarily reflect reduced GFR and can precede creatinine changes.

Compared with creatinine, SDMA is minimally affected by extrarenal factors such as muscle mass.

SDMA may be elevated with primary kidney disease (e.g., CKD, AKI) or secondary conditions that decrease GFR (e.g., hypovolemia, severe dehydration, urinary obstruction, sepsis), and hypertension can contribute by causing kidney damage that lowers GFR.

Interpret SDMA alongside hydration status, urinalysis (potentially including UPC), creatinine, BUN, electrolytes, and body condition score in wellness screening and in problem-based diagnostics.

Because SDMA reflects current GFR, diagnose CKD only when elevation is persistent on repeat testing over weeks and supported by additional evidence.

### SDMA Reference Intervals (Canine and Feline)

- **Normal:** ≤14.0 µg/dL
- **Mild Increase:** 14.1–19.9 µg/dL
- **High:** ≥20.0 µg/dL

**Note:** Puppies (<18 months) may show mildly higher values (up to 16 µg/dL) without underlying disease. Kittens typically have the same reference interval as adults, but mild, transient increases (15–16 µg/dL) can occur in some healthy individuals.

### Interpretation Guidelines

- **SDMA ≤14.0 µg/dL:** SDMA within reference interval and decreased GFR is unlikely if creatinine and urinalysis are appropriate for patient.
- **SDMA 14.1–19.9 µg/dL:** Mild Increase. May indicate early CKD, severe dehydration, concurrent illness, or could be a spurious result. Look for supporting evidence of reduced GFR. Repeat testing in 2 to 4 weeks or earlier if clinical signs present.
- **SDMA ≥20.0 µg/dL:** High. Can support CKD or AKI and should be interpreted with clinical signs, BUN, creatinine, electrolytes, urinalysis, and imaging findings.