

# Antech SDMA Algorithm

Diagnostic and therapeutic approach to an increased SDMA



## Antech SDMA

Increased SDMA<sup>1</sup> — Cat >15 µg/dL • Dog >14 µg/dL

Evaluate patient to determine cause of decreased GFR

### Pre-Renal

Dehydration and/or cardiovascular instability (shock)

- Clinical signs and laboratory findings consistent with dehydration (increased BUN and urine specific gravity), hypovolemia and/or poor perfusion
- Physical examination findings may include tachycardia, pale mucous membranes, abnormal peripheral pulse quality, weakness

Treat appropriately for dehydration and/or etiology of shock

### Renal

Clinical and laboratory findings consistent with primary renal disease

- Any combination of the following:
- Increased BUN and/or creatinine
  - Decreased urine specific gravity
  - Proteinuria
  - Systemic hypertension

Is the patient clinically ill?

Yes

No

- Provide supportive care as necessary
- Perform additional diagnostics and imaging to distinguish between acute kidney injury versus acute on chronic renal disease (diagnostics may include urine culture, infectious disease testing, and renal imaging)<sup>2</sup>

No cause found

No detectable abnormalities

- Normal physical exam
- Normal CBC and biochemistry results
- Normal/borderline urine specific gravity
- No proteinuria
- Normal blood pressure

- Recheck SDMA along with other biochemical values in 2-4 weeks to evaluate for persistent increase
- If SDMA remains elevated or increases, renal disease is likely

Pursue staging and further diagnostic evaluation per IRIS guidelines<sup>3</sup>

### Post-Renal

Obstructive urinary disease

- Evaluate for signs of upper or lower urinary tract obstruction:
- History of inappropriate or lack of urination
  - Firm/painful bladder or evidence of bladder rupture on physical exam or imaging
  - Biochemical changes such as increased BUN, creatinine, and potassium

Identify cause of obstruction, stabilization, and emergency treatment in critical patients is warranted

Recheck SDMA and biochemical values once patient is stable and rehydrated to evaluate for signs of renal insult

1. IDEXX SDMA cat and dog >14

2. [iris-kidney.com/education/differentiation\\_acute\\_kidney\\_injury\\_chronic\\_kidney\\_disease.html](http://iris-kidney.com/education/differentiation_acute_kidney_injury_chronic_kidney_disease.html)

3. [iris-kidney.com](http://iris-kidney.com)