# Interpreting IDEXX **SDMA™** Test results and what to do when SDMA is increased

# SDMA can increase with both active or acute kidney injury, as well as chronic kidney disease.

Take action when SDMA\* results are increased. Follow this algorithm to determine if kidney disease is probable and what steps you should take to investigate, manage, and monitor the disease.

When SDMA result is ≥20 µg/dL When SDMA result is 15–19 µg/dL<sup>†</sup> Perform a complete urinalysis Perform a complete urinalysis Other evidence of kidney disease? • Inappropriate urine specific gravity (USG) of · History of weight loss, decreased <1.030 in a dog or <1.035 in a cat appetite, polydipsia, polyuria · Active urinary sediment, particularly casts,

- white blood cells, or bacteria • Proteinuria or urine protein:creatinine (UPC)
- ratio > 0.5 in a dog or > 0.4 in a cat
- Physical examination findings, such as palpable kidney abnormalities
- Creatinine, BUN, and/or phosphorus above reference interval
- Creatinine increasing within reference interval
- Anemia
- Other diagnostic findings (abnormal kidney imaging, unexplained hypertension)

NO

Recheck in 2-4 weeks

Kidney disease probable—act immediately

If SDMA remains increased

#### Follow IMM protocol

# Investigate

#### To identify an underlying cause, perform:

- Urine culture and MIC susceptibility Infectious disease testing
- (Lyme disease, leptospirosis, ehrlichiosis, FeLV, FIV, FIP, toxoplasmosis)
- Diagnostic imaging (stones, pyelonephritis)
- History/possibility of toxin exposure?
- History/exposure to potentially nephrotoxic drugs?

#### For confounding conditions, assess:

- Hydration status
- Blood pressure
- Urine protein:creatinine ratio
- Thyroid status



#### Treat appropriately

- · Underlying disease if identified
- Clinical dehydration
- Persistent hypertension
- Persistent proteinuria
- Hyperthyroidism

#### Provide kidney support immediately

- Feed kidney-supportive diet
- Provide fresh, clean water sources
- Discontinue all potentially nephrotoxic drugs if possible

#### Adjust anesthesia protocols

- · Provide intravenous fluids, before, during, and upon recovery
- Provide oxygen, before, during, and upon recovery
- Maintain and monitor blood pressure and body temperature
- If needed, use narcotic for pain management



#### **Underlying or confounding** disease identified

Monitor as indicated

#### **Underlying or confounding** disease not identified

Recheck in 2 weeks



# SDMA returns to normal

- Kidney function has returned to normal
- Monitor confounding conditions and other underlying disease if present

## SDMA remains increased but stable

- If SDMA and creatinine are stable, chronic kidney disease (CKD) is diagnosed
- Initiate appropriate treatment based on International Renal Interest Society (IRIS) CKD staging

## **SDMA** continues to increase

- If SDMA and/or creatinine are increasing, consider ongoing, active kidney injury
- Perform additional diagnostics to determine cause and to guide treatment

#### The IDEXX SDMA™ Test is more reliable than creatinine.

SDMA increases earlier than creatinine in dogs and cats as kidney function decreases. And unlike creatinine, SDMA is not impacted by muscle mass.‡

\*Symmetric dimethylarginine.

<sup>‡</sup>To see the proof and a complete list of references, visit idexx.eu/sdma.

 $^{\dagger}$ SDMA reference interval is 0–14  $\mu$ g/dL. However, in puppies, the SDMA reference interval is  $0-16 \mu g/dL$ . SDMA reference interval studies are underway for kittens and greyhounds, and results may also be slightly higher and should be interpreted in light of other findings.

Visit www.idexx.eu/sdma to learn more about the IDEXX SDMA™ Test

