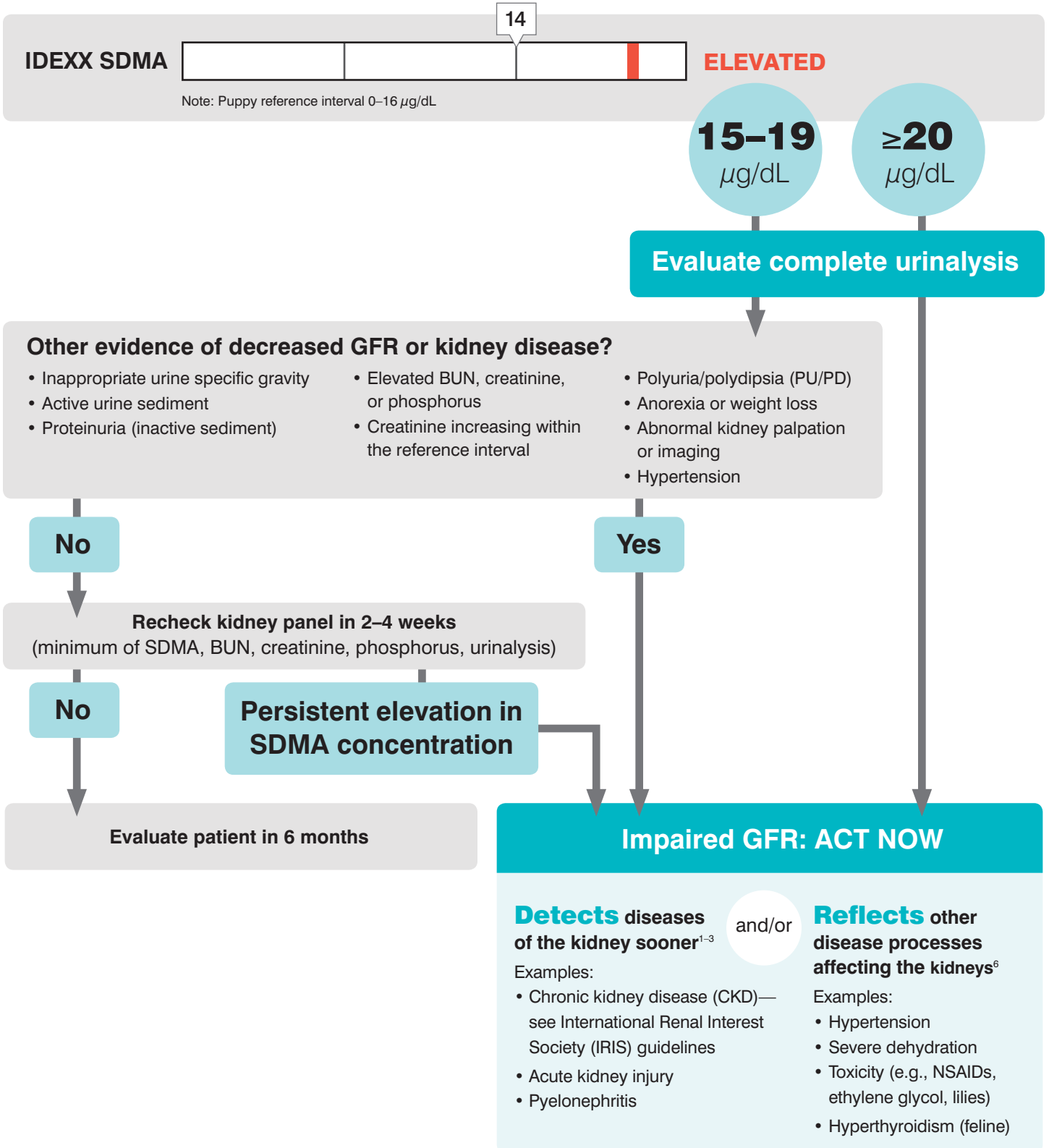


IDEXX SDMA™ algorithm

An elevated SDMA* concentration is a reflection of impaired glomerular filtration rate (GFR). Both primary kidney disease and secondary kidney insults, such as concurrent disease, can cause an elevation in SDMA concentration. Follow this algorithm to investigate elevated SDMA concentrations and determine whether acute, active, or chronic injury is occurring and how to begin to investigate, manage, and monitor disease.



See reverse for the initial steps in investigating, managing, and monitoring impaired GFR as identified by an elevated SDMA

Initial steps in investigating, managing, and monitoring impaired GFR as identified by an elevated SDMA

Investigate

Underlying cause, treatable condition, concurrent disease, chronic kidney disease (CKD)



Underlying cause

Urinary tract infection (UTI)/pyelonephritis
Toxicity (e.g., NSAIDs, ethylene glycol, lilies)
Acute kidney injury
Systemic hypertension
Chronic kidney disease (CKD)



Consider performing

Urine culture and minimum inhibitory concentration (MIC) susceptibility
Infectious disease testing
Abdominal imaging
Urine protein:creatinine (UPC) ratio (proteinuria)
Blood pressure



Concurrent condition to assess

Hydration status
Thyroid status (feline)

Manage

Treat underlying disease, manage assessed kidney injury, adjust care protocols



Treat appropriately

Underlying disease (e.g., pyelonephritis, infectious disease)
Dehydration
Discontinue nephrotoxic medications (e.g., NSAIDs)
Hypertension
Proteinuria



Additional support

Ample, clean water
Kidney-supportive diet if warranted



Adjust anesthesia protocols

Provide fluids (intravenous or subcutaneous)
Oxygen support prior to, during, and after procedure
Adjust pain management

Monitor

Manage and monitor outcomes



Monitor renal biomarkers

Trended testing of the following:
SDMA, BUN, creatinine, and phosphorus
Urinalysis
Blood pressure

Outcome

GFR impairment, stable



SDMA remains increased, but stable

GFR remains impaired but stable

Consider CKD diagnosis, refer to IRIS staging and treatment guidelines

Institute appropriate supportive care and monitoring

GFR impairment, progressive



SDMA continues to increase

Ongoing active kidney injury
Revisit investigate: repeat or perform additional diagnostics
Institute ongoing supportive care

GFR restoration



SDMA returns to normal

Recovery from mild injury
Response to appropriate therapy
Compensatory mechanisms
Recheck within 6 months - 1 year

Remember that patients can move back to an investigation stage from management or monitoring depending on progression or change in renal status.

*Symmetric dimethylarginine.

For a complete list of references, visit idexx.ca/sdma.

The information contained herein is intended to provide general guidance only. As with any diagnosis or treatment, you should use clinical discretion with each patient based on a complete evaluation of the patient, including history, physical presentation, and complete laboratory data. With respect to any drug therapy or monitoring program, you should refer to product inserts for a complete description of dosages, indications, interactions, and cautions. Diagnosis and treatment decisions are the ultimate responsibility of the primary care veterinarian.

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