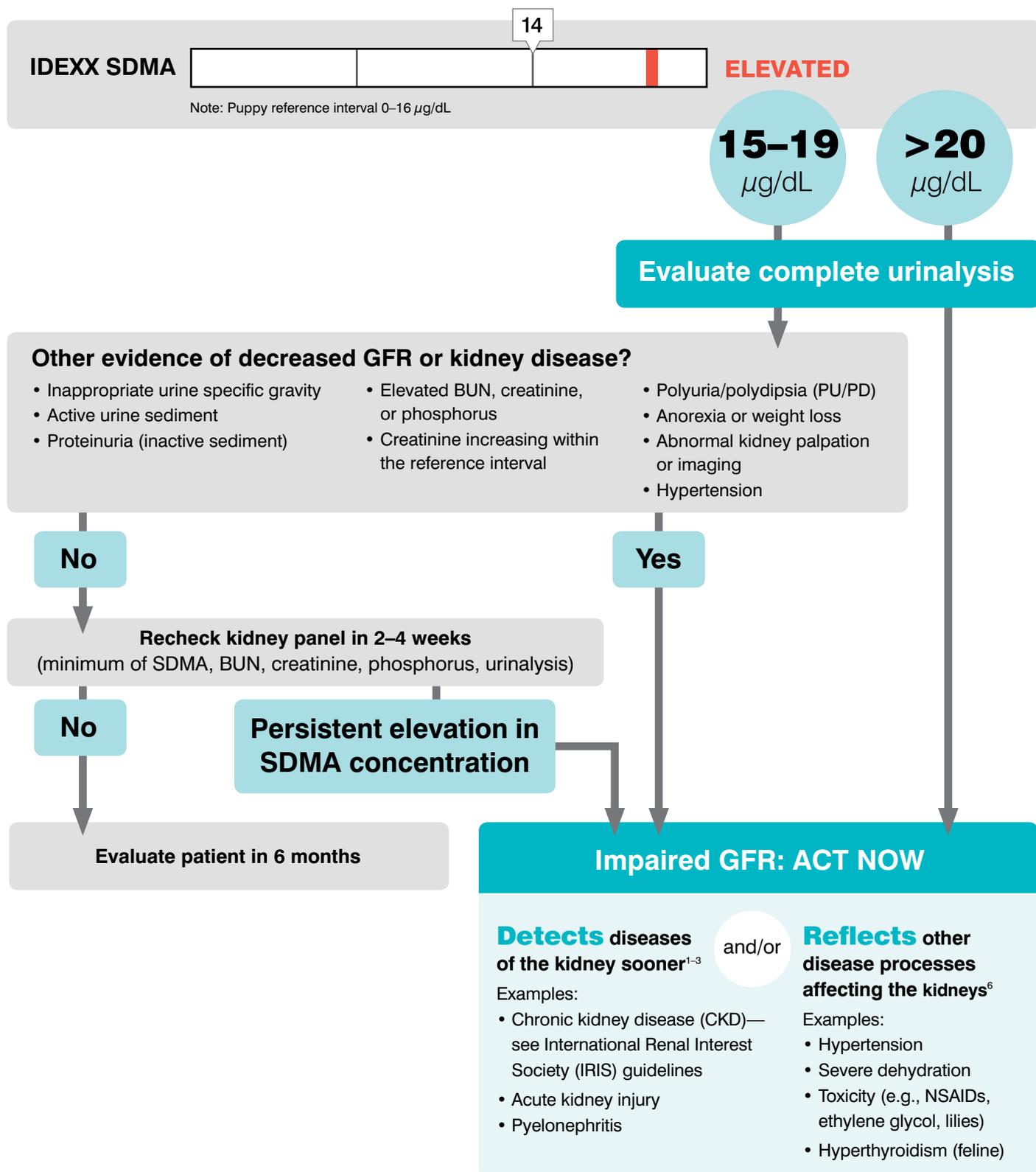


# IDEXX SDMA<sup>®</sup> algorithm

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



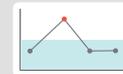
### SDMA continues to increase

Ongoing active kidney injury

Revisit investigate: repeat or perform additional diagnostics

Institute ongoing supportive care

GFR recovery



### SDMA returns to normal

Recovery from mild injury

Response to appropriate therapy

Compensatory mechanisms

**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.co.uk/sdma](http://idexx.co.uk/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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