VETCASE IQ
VETERINARY DIAGNOSTICS

EXAMPLE REPORT

# A sample differential-support report

See what a generated VetCaseIQ report looks like — Detailed View, Condensed View, differentials, do-not-miss risks, and next steps.

## Clinical Safety Notice

VetCaseIQ is for informational, educational, and research-support purposes only.

VetCaseIQ does not diagnose, treat, prescribe, or provide veterinary medical advice.

Output must be reviewed by a licensed veterinarian.

The veterinarian remains solely responsible for all clinical decisions.

AI may make mistakes.

Always verify findings against original patient records, lab results, clinical judgment, and current standards of care.

Do not use in emergencies as a substitute for immediate clinical judgment.

## Case snapshot

| SPECIES | BREED |
|---|---|
| Canine | Labrador Retriever |

| AGE | SEX |
|---|---|
| 8 years | Spayed female |

KEY SIGNS

Lethargy | Decreased appetite | Vomiting | Increased thirst/urination (PU/PD)

KEY ABNORMAL VALUES

Elevated BUN/creatinine | Elevated phosphorus | Mild non-regenerative anemia | Low urine specific gravity

OBJECTIVE

Organize differentials for an older dog with PU/PD, vomiting, and azotemia before deciding on next diagnostic steps.

## AI-generated problem list

Azotemia (elevated BUN/creatinine) with inadequately concentrated urine

Hyperphosphatemia

Mild non-regenerative anemia

Polyuria/polydipsia with vomiting and decreased appetite

Imaging notes describe mildly irregular kidneys, no obvious obstruction

## Differential diagnosis framework

### Chronic kidney disease (CKD)

Medium likelihood | Prompt | Evidence: 72/100

Azotemia with inappropriately dilute urine, hyperphosphatemia, and mild non-regenerative anemia in an 8-year-old dog form a pattern commonly discussed alongside chronic kidney disease. Imaging notes describing mildly irregular kidneys are also consistent with a chronic process, though this cannot be confirmed without prior baseline values.

| Evidence strength | 72/100 | Urgency if missed | 55/100 | Evidence completeness | 55/100 |
|---|---|---|---|---|---|

**Supporting findings**

- Elevated BUN/creatinine
- Low urine specific gravity
- Elevated phosphorus
- Mild non-regenerative anemia
- Imaging: mildly irregular kidneys

**Clinical patterns**

- Azotemia pattern — elevated BUN and creatinine with hyperphosphatemia and inappropriately dilute urine.

**Contradictory findings**

- None identified from the provided data

**Missing / unknown information**

- No prior baseline creatinine or SDMA for comparison
- Blood pressure not provided
- Urine protein:creatinine ratio not provided

**Diagnostic limitations**

- A single azotemic result cannot, on its own, distinguish chronic from acute or acute-on-chronic disease.

**Diagnostics discussed in literature / standard reasoning**

- Consider discussing whether prior bloodwork or SDMA trend is available for comparison
- Consider discussing whether blood pressure measurement is feasible
- Consider discussing whether a urine protein:creatinine ratio would help staging

**Caveat:** Consistent with a chronic process, but a superimposed acute component cannot be excluded without a prior baseline. Staging and prognosis depend on trend over time, not a single value.

## Acute kidney injury (AKI) / acute-on-chronic disease ⚠ Do not miss

**Low likelihood** **Potentially urgent** **Evidence: 40/100**

Vomiting, decreased appetite, and lethargy can accompany an acute insult to the kidneys, or an acute event layered on top of pre-existing chronic disease. This is flagged as a do-not-miss consideration because early recognition materially changes management, even though the imaging description leans toward a chronic picture.

| Evidence strength | 40/100 | Urgency if missed | 85/100 | Evidence completeness | 35/100 |
|---|---|---|---|---|---|

**Supporting findings**

- Acute-onset vomiting and decreased appetite
- Lethargy

**Contradictory findings**

- Imaging described as mildly irregular kidneys, more typical of a chronic process than a purely acute one

**Missing / unknown information**

- No history of toxin, medication, or NSAID exposure provided
- No prior renal values to establish onset/duration
- Hydration and volume status at presentation not detailed

**Diagnostic limitations**

- Distinguishing acute from chronic disease often requires a known prior baseline, which is not available here.

**Diagnostics discussed in literature / standard reasoning**

- Consider discussing whether a toxin/medication exposure history has been fully reviewed
- Consider discussing whether repeat renal values after fluid support would help clarify reversibility

**Caveat:** Cannot be ruled out from the information provided. An acute or acute-on-chronic component should be considered every time azotemia is discovered, particularly before assuming a purely chronic course.

## Pyelonephritis / urinary tract infection Low likelihood Prompt Evidence: 35/100

Ascending or hematogenous urinary infection can contribute to or worsen azotemia and is a routinely considered explanation for PU/PD with systemic signs, particularly when urine is inadequately concentrated.

| Evidence strength | 35/100 | Urgency if missed | 60/100 | Evidence completeness | 30/100 |
|---|---|---|---|---|---|

**Supporting findings**

- Polyuria/polydipsia

**Nonspecific but relevant**

- Vomiting

- Low urine specific gravity
- Decreased appetite

**Contradictory findings**

- None identified from the provided data

**Missing / unknown information**

- Urine culture and sensitivity not provided
- Urine sediment exam not provided
- Fever or pain on abdominal palpation not documented

**Diagnostic limitations**

- Dilute urine can reduce the sensitivity of sediment examination for infection.

**Diagnostics discussed in literature / standard reasoning**

- Consider discussing whether a urine culture and sensitivity would help evaluate for infection
- Consider discussing whether urine sediment examination has been performed

**Caveat:** Nonspecific overlap with other renal and systemic causes of PU/PD; infection has not been confirmed or excluded from the data provided.

## Leptospirosis / other infectious nephritis ⚠ Do not miss

**Low likelihood** **Potentially urgent** **Evidence: 30/100**

Infectious causes of acute nephritis, including leptospirosis, are a standard do-not-miss consideration whenever azotemia and systemic illness co-occur, given zoonotic risk and the availability of specific treatment when identified early.

| Evidence strength | 30/100 | Urgency if missed | 75/100 | Evidence completeness | 25/100 |
|---|---|---|---|---|---|

**Supporting findings**

- Vomiting
- Lethargy
- Azotemia

**Contradictory findings**

- None identified from the provided data

**Missing / unknown information**

- Leptospirosis titer/PCR not provided
- Vaccination history not documented
- Environmental/exposure history not provided

**Diagnostic limitations**

- Confirmatory infectious disease testing has inherent turnaround time and interpretation limitations (e.g., titer timing).

**Diagnostics discussed in literature / standard reasoning**

- Consider discussing whether leptospirosis testing is appropriate given regional risk and exposure history
- Consider discussing vaccination status

**Caveat:** Speculative from the data provided, but retained as a do-not-miss category given zoonotic implications and that it is a treatable cause of acute nephritis if identified.

## Endocrine/metabolic disease (secondary consideration)

**Low likelihood** **Routine** **Evidence: 25/100**

Conditions such as hyperadrenocorticism or diabetes mellitus are routinely considered in older dogs with PU/PD and should remain on the list as a secondary category, even though the current findings are more directly explained by a primary renal process.

| Evidence strength | 25/100 | Urgency if missed | 30/100 | Evidence completeness | 30/100 |
|---|---|---|---|---|---|

**Supporting findings**

- Polyuria/polydipsia
- Decreased appetite

**Contradictory findings**

- None identified from the provided data

**Missing / unknown information**

- Fasting glucose/fructosamine not provided
- ACTH stimulation or low-dose dexamethasone suppression testing not provided

**Diagnostics discussed in literature / standard reasoning**

- Consider discussing whether fructosamine or a glucose curve would help screen for diabetes
- Consider discussing endocrine testing if renal workup does not fully explain the clinical picture

**Caveat:** Nonspecific overlap only; listed as a secondary category to keep in mind if the renal workup does not fully account for the clinical picture.

Scores are heuristic workflow aids (0–100), not calibrated diagnostic probabilities. The attending veterinarian should interpret likelihood and urgency in context.

## ⚠ Do not miss

### ⚠ Acute kidney injury (AKI) / acute-on-chronic disease

Urgency if missed: 85/100

An acute or reversible component to kidney injury is time-sensitive to identify — missing it could delay supportive care that might otherwise improve outcome. Included despite lower evidence strength because the consequence of missing it is high.

**Supported by:** Acute-onset vomiting and decreased appetite; Lethargy

**Missing:** No history of toxin, medication, or NSAID exposure provided; No prior renal values to establish onset/duration; Hydration and volume status at presentation not detailed

### ⚠ Leptospirosis / other infectious nephritis

Urgency if missed: 75/100

Infectious nephritis (e.g., leptospirosis) carries zoonotic risk and is treatable if caught early; missing information (titer/PCR, exposure history) means it cannot be excluded, so it is retained as a moderate consideration rather than dropped.

**Supported by:** Vomiting; Lethargy; Azotemia

**Missing:** Leptospirosis titer/PCR not provided; Vaccination history not documented; Environmental/exposure history not provided

These are conditions that may be less likely but are clinically important if missed. This is not a diagnosis or treatment recommendation; the attending veterinarian should interpret urgency in context.

## Pattern recognition summary

The combination of azotemia, inappropriately dilute urine, hyperphosphatemia, and mild non-regenerative anemia forms a pattern most commonly discussed alongside chronic kidney disease, but a single set of values cannot establish chronicity. Vomiting, lethargy, and decreased appetite keep acute kidney injury, infectious nephritis, and urinary tract infection on the list as do-not-miss or reasonably supported alternatives. Endocrine disease remains a lower-likelihood secondary consideration given the more direct renal findings. Several data points that would materially refine this picture — a prior baseline, blood pressure, urine culture, and infectious disease testing — are not yet available.

## Missing information

- Prior baseline creatinine or SDMA for trend comparison
- Blood pressure measurement
- Urine protein:creatinine ratio
- Urine culture and sensitivity
- Leptospirosis titer/PCR and vaccination history
- Toxin/medication exposure history

## Suggested questions for the vet / specialist

- Has a prior baseline creatinine or SDMA been measured for comparison?
- What is the patient's current hydration/volume status?
- Is there any known toxin, medication, or NSAID exposure?
- Has a urine culture or sediment exam been performed?

## Diagnostics to consider discussing

Consider discussing whether prior bloodwork or an SDMA trend is available

Consider discussing whether blood pressure measurement is feasible

Consider discussing whether a urine culture and sensitivity would help evaluate for infection

Consider discussing whether leptospirosis testing is appropriate given exposure risk

Consider discussing whether a urine protein:creatinine ratio would help with staging

## Literature research

Live literature retrieval is not shown in this example.

## Red flags / escalation considerations

Azotemia with vomiting, decreased appetite, and PU/PD may warrant prompt evaluation depending on hydration status and clinical trajectory — an acute or reversible component should not be assumed away.

## Owner communication summary

Maple's bloodwork shows that her kidneys are not working as well as they should be, and her urine is more dilute than expected, which often go together. There are a few possible explanations, including a long-term kidney condition and, less certainly, a more sudden or infectious cause that can sometimes be addressed if caught early. Additional tests would help clarify which explanation fits best and how to plan next steps. Your veterinarian will interpret all of this alongside Maple's full history and exam.

## Confidence & limitations

Overall confidence is limited by the absence of a prior baseline, blood pressure, and infectious-disease/urine culture results. This framework organizes possibilities discussed in standard veterinary reasoning; it does not establish a diagnosis and must be reviewed by the attending veterinarian alongside the complete patient record.

## Recommended next information to collect

- Prior creatinine/SDMA values, if any exist
- Blood pressure measurement
- Urine culture and sensitivity
- Leptospirosis titer/PCR
- Toxin and medication exposure history

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