

MEDLEY

Medical AI Ensemble Clinical Decision Report

Case ID: Case_13

Title: Case_13 - Medical Analysis

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Primary Diagnostic Consensus

Diagnosis	ICD-10	Agreement	Confidence	Status
Lupus Nephritis <i>Evidence: Positive ANA, Low C3 and C4 complement levels, Dysmorphic RBCs and RBC casts, Proteinuria and hematuria</i>	M32.14	0.0%	Very Low	PRIMARY

Alternative & Minority Diagnoses

Diagnosis	ICD-10	Support	Type
IgA Nephropathy <i>Evidence: Episodic gross hematuria, Young male patient, Glomerular disease pattern</i>	N02.8	22.2%	Alternative (10-29%)
Post-infectious Glomerulonephritis <i>Evidence: Low complement levels, Acute glomerular disease, Hematuria with RBC casts</i>	N05.9	14.8%	Alternative (10-29%)
ANCA-Associated Vasculitis <i>Evidence: Glomerulonephritis pattern, Systemic involvement, Young male patient</i>	M31.3	7.4%	Minority (<10%)
Rapidly Progressive Glomerulonephritis <i>Evidence: Acute onset, Decreased urine output, Weight gain</i>	N02.0	3.7%	Minority (<10%)
Membranoproliferative Glomerulonephritis <i>Evidence: Low C3 and C4 levels, Complement consumption, Glomerular disease</i>	N05.5	3.7%	Minority (<10%)
Acute Pyelonephritis <i>Evidence: Dysuria, Flank pain, Urinary symptoms</i>	N10	3.7%	Minority (<10%)
Interstitial Nephritis <i>Evidence: Acute kidney injury, Decreased urine output</i>	N17.0	7.4%	Minority (<10%)
Chronic Kidney Disease <i>Evidence: Progressive kidney dysfunction, Proteinuria, Family history</i>	N18.3	3.7%	Minority (<10%)

Diagnosis	ICD-10	Support	Type
Alport Syndrome <i>Evidence: Young male, Hereditary nephritis pattern, Family history of kidney problems</i>	Q87.81	3.7%	Minority (<10%)
Interstitial Cystitis <i>Evidence: Chronic dysuria, Suprapubic discomfort, Episodic symptoms</i>	N30.0	7.4%	Minority (<10%)

Analysis Overview
Models Queried: 22
Successful Responses: 22
Consensus Level: High
Total Estimated Cost: \$0.385

Critical Decision Points & Evidence Synthesis

Critical Decision Points

Key areas where models showed significant divergence in diagnostic or management approach:

Evidence Synthesis & Clinical Correlation

Symptom-Diagnosis Correlation Matrix

Symptom	Lupus Ne	IgA Neph	Post-inf
Hematuria with	Strong	Strong	-
Low complement	Strong	-	Strong
Positive ANA	Strong	-	-

Legend: +++ Strong association, ++ Moderate, + Weak, - Not typical

Diagnostic Decision Tree

Step	Action	If Positive	If Negative
1	Initial Laboratory Tests	→ Confirm suspicion	→ Broaden differential
2	Imaging Studies	→ Identify pathology	→ Consider specialized tests
3	Specialized Testing	→ Definitive diagnosis	→ Empiric treatment
4	Treatment Trial	→ Continue if effective	→ Reconsider diagnosis

Executive Summary

Case Description

Complex Urology Case Presentation

Patient Demographics

Age: 24 years old

Sex: Male

Ethnicity: Middle Eastern (Iranian heritage)

Occupation: Graduate student in chemistry

Chief Complaint

"Burning when I urinate and blood in my urine for the past 6 months, on and off"

History of Present Illness

24-year-old male presents with a 6-month history of intermittent dysuria, gross hematuria, and suprapubic discomfort. Episodes occur every 2-3 weeks, last 3-5 days, then resolve completely. Patient reports no fever during episodes. Pain is described as "deep burning" both during and after urination. Has had 4 courses of antibiotics from urgent care with temporary improvement each time.

Recently developed new symptoms: bilateral flank pain, decreased urine output, and weight gain of 8 lbs over 2 weeks. Denies recent travel, new sexual partners, or illicit drug use. Reports family history of "kidney problems" in paternal uncle.

Past Medical History

- Recurrent "kidney stones" as teenager (no documentation available)
- Treated for depression with sertraline 50mg daily for 2 years
- No known allergies

Social History

- PhD student in organic chemistry, works with various solvents and compounds
- Denies tobacco use
- Social alcohol use (2-3 drinks/week)
- Sexually active with one female partner for 8 months
- Recent immigrant (3 years ago), limited family medical records

Physical Examination

- Vital Signs: BP 145/92, HR 88, Temp 37.1°C, RR 16
- General: Mild periorbital edema, appears fatigued
- Genitourinary: No penile discharge, testes normal, mild suprapubic tenderness
- Costovertebral angle: Bilateral tenderness
- Extremities: 1+ pitting edema to mid-shins

Laboratory Results

Urinalysis (during symptomatic episode)

- Color: Dark amber with visible blood
- Protein: 3+ (300 mg/dL)
- Blood: 3+
- RBC: >50/hpf, many dysmorphic

- WBC: 15-20/hpf
- Nitrites: Negative
- Leukocyte esterase: 2+
- Casts: 3-5 RBC casts/lpf, 1-2 granular casts/lpf

Urine Culture

- Day 1: Mixed flora <10,000 CFU/mL
- Day 3: No growth

Serum Chemistry

- Creatinine: 2.1 mg/dL (baseline unknown)
- BUN: 45 mg/dL
- eGFR: 42 mL/min/1.73m²
- Sodium: 138 mEq/L
- Potassium: 4.8 mEq/L
- Chloride: 104 mEq/L

Additional Labs

- CBC: WBC 8,200, Hgb 11.2 g/dL, Plt 180,000
- ESR: 45 mm/hr
- CRP: 12 mg/L
- C3: 45 mg/dL (Low, normal 90-180)
- C4: 8 mg/dL (Low, normal 10-40)
- ANA: Positive, 1:160 homogeneous pattern
- Anti-dsDNA: Pending
- ANCA: Pending

Imaging

- Renal Ultrasound: Bilateral increased echogenicity, no hydronephrosis, no obvious stones
- CT Abdomen/Pelvis (non-contrast): Bilateral renal enlargement, no stones identified

Key Clinical Findings

- Positive family history of similar episodes
- Elevated inflammatory markers (CRP, ESR)

Primary Recommendations

- Consider Lupus Nephritis among differential diagnoses
- Obtain renal biopsy for histologic classification
- Assess disease activity and severity
- Evaluate for extrarenal lupus manifestations
- Obtain Renal biopsy for diagnostic confirmation

Primary Diagnosis Clinical Summaries

■ Key Clinical Findings

Finding	Supporting Evidence	Clinical Reasoning
Dysmorphic RBCs and RBC casts indicating glomerular disease	Clinical presentation	Key diagnostic indicator
Low C3 and C4 complement levels	Clinical presentation	Key diagnostic indicator
Positive ANA suggesting autoimmune etiology	Clinical presentation	Key diagnostic indicator
Episodic gross hematuria over 6 months	Clinical presentation	Key diagnostic indicator
Recent acute deterioration with decreased urine output and weight gain	Clinical presentation	Key diagnostic indicator

■ Recommended Tests

Test Name	Type	Priority	Rationale
Renal biopsy	Laboratory	Urgent	Diagnostic confirmation
Anti-dsDNA antibody	Laboratory	Urgent	Diagnostic confirmation
24-hour urine protein	Laboratory	Urgent	Diagnostic confirmation
Complement levels (C3, C4)	Laboratory	Urgent	Diagnostic confirmation
Complete metabolic panel	Laboratory	Urgent	Diagnostic confirmation

■ Immediate Management

Intervention	Category	Urgency	Clinical Reasoning
Obtain renal biopsy for histologic classification	Medical	Immediate	Critical intervention
Assess disease activity and severity	Medical	Immediate	Critical intervention
Evaluate for extrarenal lupus manifestations	Medical	Immediate	Critical intervention

Intervention	Category	Urgency	Clinical Reasoning
Monitor blood pressure and fluid status	Medical	Immediate	Critical intervention

■ Medications

Medication	Dosage	Route/Frequency	Indication
Prednisone	1 mg/kg/day	oral / daily	Initial immunosuppression for lupus nephritis
Mycophenolate mofetil	1-1.5 g	oral / twice daily	Induction and maintenance therapy for lupus nephritis
ACE inhibitor	varies	oral / daily	Renoprotection and blood pressure control

Diagnostic Landscape Analysis

Detailed Diagnostic Analysis

The ensemble analysis identified **Lupus Nephritis** as the primary diagnosis with 0.0% consensus among 5 models.

Detailed Alternative Analysis

Diagnosis	Support	Key Evidence	Clinical Significance
IgA Nephropathy <i>Evidence: Episodic gross hematuria, Young male patient, Glomerular disease pattern</i>	22.2%	6 models	Less likely
Post-infectious Glomerulonephritis <i>Evidence: Low complement levels, Acute glomerular disease, Hematuria with RBC casts</i>	14.8%	4 models	Less likely
ANCA-Associated Vasculitis <i>Evidence: Glomerulonephritis pattern, Systemic involvement, Young male patient</i>	7.4%	2 models	Unlikely
Rapidly Progressive Glomerulonephritis <i>Evidence: Acute onset, Decreased urine output, Weight gain</i>	3.7%	1 models	Unlikely
Membranoproliferative Glomerulonephritis <i>Evidence: Low C3 and C4 levels, Complement consumption, Glomerular disease</i>	3.7%	1 models	Unlikely
Acute Pyelonephritis <i>Evidence: Dysuria, Flank pain, Urinary symptoms</i>	3.7%	1 models	Unlikely
Interstitial Nephritis <i>Evidence: Acute kidney injury, Decreased urine output</i>	7.4%	2 models	Unlikely
Chronic Kidney Disease <i>Evidence: Progressive kidney dysfunction, Proteinuria, Family history</i>	3.7%	1 models	Unlikely

Minority Opinions

All alternative diagnoses suggested by any models with their clinical rationale:

- **ANCA-Associated Vasculitis** (ICD-10: Unknown) - 7.4% agreement (2 models)
Supporting Models: Model 14, Model 3
- **Rapidly Progressive Glomerulonephritis** (ICD-10: Unknown) - 3.7% agreement (1 models)
Supporting Models: Model 13

- **Membranoproliferative Glomerulonephritis** (ICD-10: Unknown) - 3.7% agreement (1 models)

Supporting Models: Model 11

- **Acute Pyelonephritis** (ICD-10: Unknown) - 3.7% agreement (1 models)

Supporting Models: Model 4

- **Interstitial Nephritis** (ICD-10: Unknown) - 7.4% agreement (2 models)

Supporting Models: Model 15, Model 18

- **Chronic Kidney Disease** (ICD-10: Unknown) - 3.7% agreement (1 models)

Supporting Models: Model 22

- **Alport Syndrome** (ICD-10: Unknown) - 3.7% agreement (1 models)

Supporting Models: Model 16

- **Interstitial Cystitis** (ICD-10: Unknown) - 7.4% agreement (2 models)

Supporting Models: Model 4, Model 22

Additional Diagnoses Considered:

- **IgA Nephropathy** (ICD-10: N02.8) - 27.3% (6 models)

Evidence: Episodic gross hematuria, Young male patient, Glomerular disease pattern, RBC casts

- **Post-infectious Glomerulonephritis** (ICD-10: N05.9) - 18.2% (4 models)

Evidence: Low complement levels, Acute glomerular disease, Hematuria with RBC casts

Management Strategies & Clinical Pathways

Immediate Actions Required

Priority	Action	Rationale	Consensus
1	Obtain renal biopsy for histologic classification	Clinical indication	50%
2	Assess disease activity and severity	Clinical indication	50%
3	Evaluate for extrarenal lupus manifestations	Clinical indication	50%
4	Monitor blood pressure and fluid status	Clinical indication	50%

Recommended Diagnostic Tests

Test	Purpose	Priority	Timing
Renal biopsy	Diagnostic confirmation	Routine	As indicated
Anti-dsDNA antibody	Diagnostic confirmation	Routine	As indicated
24-hour urine protein	Diagnostic confirmation	Routine	As indicated
Complement levels (C3, C4)	Diagnostic confirmation	Routine	As indicated
Complete metabolic panel	Diagnostic confirmation	Routine	As indicated
ANCA panel	Diagnostic confirmation	Routine	As indicated

Treatment Recommendations

Treatment recommendations pending diagnostic confirmation.

Model Diversity & Bias Analysis

Model Response Overview & Cost Analysis

Model	Origin	Tier	Cost	Diagnosis	Training Profile
mistral-7b-inst	France	Budget	<\$0.01	Renal Infection (Pyelonephritis)	General
grok-4	USA	Premium	\$0.039	Glomerulonephritis with lupus nephritis	Alternative
gpt-oss-120b	USA	Mid-Range	<\$0.01	Lupus nephritis (probable class III/IV)	Standard
command-r	Canada	Mid-Range	<\$0.01	Acute Pyelonephritis	Standard
deepseek-chat	China	Budget	<\$0.01	Lupus Nephritis	Regional
gemini-2.5-pro	USA	Premium	\$0.036	Not specified	General
deepseek-r1	China	Budget	<\$0.01	Lupus Nephritis	Regional
sonar-deep-rese	USA	Premium	\$0.017	Lupus Nephritis	Standard
jamba-large-1.7	Israel	Premium	\$0.017	Lupus Nephritis	Standard
gemini-2.5-flas	USA	Budget	<\$0.01	Lupus Nephritis	General
mistral-large-2	France	Premium	\$0.022	IgA Nephropathy (Berger's Disease)	Standard
command-r-plus	Canada	Premium	\$0.028	Glomerulonephritis	Standard
wizardlm-2-8x22	USA	Mid-Range	<\$0.01	Rapidly Progressive Glomerulonephritis	Standard
grok-2-1212	USA	Premium	\$0.018	Lupus Nephritis	Standard
gemma-2-9b-it	USA	Budget	<\$0.01	Systemic Lupus Nephritis	Standard
gpt-4o	USA	Premium	\$0.028	IgA Nephropathy	Comprehensive
gemini-2.5-flas	USA	Budget	<\$0.01	Glomerulonephritis, likely related to autoimmune disease (e.g., Lupus Nephritis)	General
llama-3.2-3b-in	USA	Budget	<\$0.01	Systemic Lupus Erythematosus (SLE) with renal involvement	General
gpt-4o-mini	USA	Budget	<\$0.01	Glomerulonephritis	General
qwen-2.5-coder-	China	Mid-Range	<\$0.01	Acute Interstitial Nephritis with Hematuria	Regional
claude-3-opus-2	USA	Premium	\$0.158	Lupus nephritis	Comprehensive
llm-40b	USA	Mid-Range	<\$0.01	Interstitial cystitis	Standard

Total Estimated Cost: \$0.385

Understanding Training Profiles

Training profiles indicate the type and depth of medical knowledge in each model:

Comprehensive: Extensive medical literature training with broad clinical knowledge

Standard: Standard medical knowledge base with general clinical training

Regional: Region-specific medical training reflecting local practices and conditions

General: Broad general knowledge, not specifically trained on medical literature

Alternative: Alternative medical perspectives and non-conventional approaches

AI Model Bias Analysis

AI model bias analysis is generated during orchestration (Step 2). This comprehensive analysis examines cultural, geographic, and training data biases across the AI models used.

Detailed Model Responses

Complete diagnostic assessments from each model:

1. mistral-7b-inst (France, Released: 2023-09-27)

Primary Diagnosis: Renal Infection (Pyelonephritis) (ICD-10: N10.90) - Confidence: 0.8

Differential Diagnoses:

- Renal Cell Carcinoma (ICD: C64.9) - 0.2
- Urolithiasis (Kidney Stones) (ICD: N13.9) - 0.15
- Glomerulonephritis (ICD: B80.9) - 0.1

Key Clinical Findings:

- Recurrent UTI episodes, gross hematuria, flank pain, decreased urine output, proteinuria, RBC casts in urine, elevated ESR, elevated CRP, positive ANA
- Bilateral renal enlargement on CT Abdomen/Pelvis, normal renal ultrasound

2. grok-4 (USA, Released: 2024-12-26)

Primary Diagnosis: Glomerulonephritis with lupus nephritis (ICD-10: M32.14) - Confidence: 0.8

Differential Diagnoses:

- Membranoproliferative glomerulonephritis (ICD: N05.5) - 0.6
- IgA nephropathy (ICD: N02.8) - 0.5
- ANCA-associated vasculitis (ICD: M31.30) - 0.4

Key Clinical Findings:

- Intermittent dysuria and gross hematuria with dysmorphic RBCs and RBC casts on urinalysis
- Acute kidney injury with creatinine 2.1 mg/dL and eGFR 42 mL/min/1.73m²
- Hypocomplementemia with low C3 (45 mg/dL) and C4 (8 mg/dL)
- Positive ANA (1:160 homogeneous pattern)

3. gpt-oss-120b (USA, Released: 2025-08-05)

4. command-r (Canada, Released: 2024-03-11)

Primary Diagnosis: Acute Pyelonephritis (ICD-10: N10) - Confidence: 0.75

Differential Diagnoses:

- Interstitial Cystitis (ICD: N30.9) - 0.6
- Bladder Cancer (ICD: C67) - 0.4

- Renal Abscess (ICD: N14.9) - 0.3

Key Clinical Findings:

- Recurrent urinary tract infections with transient relief from antibiotics
- Bilateral flank pain, tenderness & renal enlargement
- Gross hematuria, dysuria, suprapubic discomfort
- Mild periorbital edema, elevated BP, pending ANCA & anti-dsDNA results

5. deepseek-chat (China, Released: 2024-12-20)

Primary Diagnosis: Lupus Nephritis (ICD-10: M32.14) - Confidence: 0.9

Differential Diagnoses:

- IgA Nephropathy (ICD: N02.8) - 0.7
- Post-Infectious Glomerulonephritis (ICD: N00.9) - 0.5
- Chronic Kidney Disease (ICD: N18.9) - 0.6

Key Clinical Findings:

- Intermittent dysuria and hematuria
- Bilateral flank pain and decreased urine output
- Elevated creatinine and BUN
- Low C3 and C4 levels

6. gemini-2.5-pro (USA, Released: 2024-12-19)

7. deepseek-r1 (China, Released: 2025-01-20)

8. sonar-deep-rese (USA, Released: 2025-03-07)

9. jamba-large-1.7 (Israel, Released: 2025-07-01)

Primary Diagnosis: Lupus Nephritis (ICD-10: N02.2) - Confidence: 0.8

Differential Diagnoses:

- IgA Nephropathy (ICD: N02.0) - 0.6
- Membranous Nephropathy (ICD: N02.3) - 0.4
- Chronic Pyelonephritis (ICD: N11.9) - 0.3

Key Clinical Findings:

- Bilateral renal enlargement

- Dysmorphic RBCs in urinalysis
- Low C3 and C4
- Positive ANA

10. gemini-2.5-flas (USA, Released: 2024-12-19)

Primary Diagnosis: Lupus Nephritis (ICD-10: N04.9) - Confidence: 0.9

Differential Diagnoses:

- IgA Nephropathy (ICD: N02.2) - 0.6
- Post-infectious Glomerulonephritis (ICD: N03.8) - 0.4
- Recurrent Urinary Tract Infection with Secondary Glomerulonephritis (ICD: N08.8) - 0.3

Key Clinical Findings:

- Intermittent dysuria and gross hematuria for 6 months
- Bilateral flank pain, decreased urine output, weight gain, periorbital edema, pitting edema
- Hypertension (BP 145/92)
- Elevated BUN and Creatinine with decreased eGFR

11. mistral-large-2 (France, Released: 2024-11-01)

Primary Diagnosis: IgA Nephropathy (Berger's Disease) (ICD-10: N08.0) - Confidence: 0.85

Differential Diagnoses:

- Lupus Nephritis (ICD: M32.14) - 0.7
- Post-infectious Glomerulonephritis (ICD: N05.9) - 0.6
- Membranoproliferative Glomerulonephritis (ICD: N01.7) - 0.55

Key Clinical Findings:

- Intermittent dysuria and gross hematuria
- Bilateral flank pain and suprapubic tenderness
- Decreased urine output and weight gain
- Proteinuria and hematuria with RBC casts

12. command-r-plus (Canada, Released: 2024-04-04)

Primary Diagnosis: Glomerulonephritis (ICD-10: N03.9) - Confidence: 0.7

Differential Diagnoses:

- Interstitial Nephritis (ICD: N16.1) - 0.6
- Nephrolithiasis (Kidney Stones) (ICD: N20.9) - 0.5
- Urinary Tract Infection (UTI) (ICD: N39.0) - 0.4

Key Clinical Findings:

- Gross hematuria
- Elevated creatinine and BUN
- Low C3 and C4 levels
- Positive ANA

13. wizardlm-2-8x22 (USA, Released: 2024-04-15)

Primary Diagnosis: Rapidly Progressive Glomerulonephritis (ICD-10: N02.0) - Confidence: 0.7

Differential Diagnoses:

- IgA Nephropathy (ICD: N03.2) - 0.5
- Lupus Nephritis (ICD: N05.1) - 0.6
- Post-infectious Glomerulonephritis (ICD: N05.9) - 0.4

Key Clinical Findings:

- Intermittent dysuria, gross hematuria, and suprapubic discomfort for 6 months
- New onset bilateral flank pain, decreased urine output, and weight gain
- Proteinuria (3+) and hematuria with dysmorphic RBCs and RBC casts on urinalysis
- Elevated serum creatinine and BUN with reduced eGFR

14. grok-2-1212 (USA, Released: 2024-12-12)

Primary Diagnosis: Lupus Nephritis (ICD-10: M32.14) - Confidence: 0.8

Differential Diagnoses:

- IgA Nephropathy (ICD: N02.8) - 0.6
- ANCA-Associated Vasculitis (ICD: M31.3) - 0.5
- Chronic Interstitial Nephritis (ICD: N11.9) - 0.4

Key Clinical Findings:

- Intermittent dysuria and gross hematuria for 6 months
- Bilateral flank pain, decreased urine output, and weight gain
- Elevated serum creatinine and BUN, low eGFR
- Urinalysis showing proteinuria, hematuria, and RBC casts

15. gemma-2-9b-it (USA, Released: 2024-06-27)

Primary Diagnosis: Systemic Lupus Nephritis (ICD-10: N17.0) - Confidence: 0.8

Differential Diagnoses:

- Acute Interstitial Nephritis (ICD: N17.9) - 0.15
- Renal Cell Carcinoma (ICD: C64.9) - 0.05
- Glomerulonephritis (Other) (ICD: N03.9) - 0.1

Key Clinical Findings:

- Gross hematuria
- Proteinuria
- Dysmorphic red blood cells on urinalysis
- Renal casts on urinalysis

16. gpt-4o (USA, Released: 2024-05-13)

Primary Diagnosis: IgA Nephropathy (ICD-10: N02.8) - Confidence: 0.8

Differential Diagnoses:

- Lupus Nephritis (ICD: M32.14) - 0.7
- Alport Syndrome (ICD: Q87.81) - 0.6
- Acute Glomerulonephritis (ICD: N00.9) - 0.5

Key Clinical Findings:

- Intermittent dysuria and gross hematuria
- Bilateral flank pain
- Decreased urine output
- Weight gain with 1+ pitting edema

17. gemini-2.5-flas (USA, Released: 2024-12-19)

Primary Diagnosis: Glomerulonephritis, likely related to autoimmune disease (e.g., Lupus Nephritis) (ICD-10: N08.5) - Confidence: 0.9

Differential Diagnoses:

- IgA Nephropathy (ICD: N02.8) - 0.7
- Post-infectious Glomerulonephritis (ICD: N08.0) - 0.5
- Alport Syndrome (ICD: Q87.81) - 0.6

Key Clinical Findings:

- 6-month history of intermittent dysuria, gross hematuria, suprapubic discomfort
- Recent development of bilateral flank pain, decreased urine output, 8 lbs weight gain
- Elevated BP (145/92)
- Mild periorbital edema, 1+ pitting edema to mid-shins

18. llama-3.2-3b-in (USA, Released: 2024-09-25)

Primary Diagnosis: Systemic Lupus Erythematosus (SLE) with renal involvement (ICD-10: M32.0) - Confidence: 0.9

Differential Diagnoses:

- Interstitial Nephritis (ICD: N17.0) - 0.6

- Glomerulonephritis (ICD: N05.0) - 0.5
- Chronic Pyelonephritis (ICD: N35.0) - 0.4

Key Clinical Findings:

- Bilateral flank pain
- Decreased urine output
- Weight gain
- Dark amber urine with visible blood

19. gpt-4o-mini (USA, Released: 2024-07-18)

Primary Diagnosis: Glomerulonephritis (ICD-10: N00) - Confidence: 0.8

Differential Diagnoses:

- Interstitial Nephritis (ICD: N10) - 0.7
- Renal Stones (ICD: N20) - 0.5
- Urinary Tract Infection (ICD: N39.0) - 0.4

Key Clinical Findings:

- Intermittent dysuria and hematuria
- Bilateral flank pain
- Bilateral renal enlargement on imaging
- Low C3 and C4 levels

20. qwen-2.5-coder- (China, Released: 2024-11-12)

Primary Diagnosis: Acute Interstitial Nephritis with Hematuria (ICD-10: N17.2) - Confidence: 0.85

Differential Diagnoses:

- Renal Cell Carcinoma (RCC) (ICD: C64.9) - 0.15
- IgA Nephropathy (ICD: N30.0) - 0.1
- Systemic Lupus Erythematosus (SLE) (ICD: M32.9) - 0.1

Key Clinical Findings:

- Recurrent hematuria and dysuria for 6 months
- Bilateral flank pain, decreased urine output, and weight gain over 2 weeks
- Recent significant rise in creatinine and BUN
- Positive ANA with homogeneous pattern

21. claude-3-opus-2 (USA, Released: 2024-02-29)

Primary Diagnosis: Lupus nephritis (ICD-10: M32.14) - Confidence: 0.8

Differential Diagnoses:

- Acute interstitial nephritis (ICD: N12) - 0.6
- IgA nephropathy (ICD: N02.8) - 0.5
- Granulomatosis with polyangiitis (ICD: M31.3) - 0.4

Key Clinical Findings:

- Recurrent dysuria, hematuria, and suprapubic discomfort
- Bilateral flank pain and decreased urine output
- Proteinuria, dysmorphic RBCs, and RBC casts on urinalysis
- Elevated creatinine and decreased eGFR

22. Ifm-40b (USA, Released: 2024-10-29)