

Post Renal Acute Kidney Injury (AKI) Diagnosis and Management



PLAY PICMONIC

Diagnosis

Physical Examination

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BUN: Creatinine ratio of 20:1 in the Initial Stages

Early Bird, Early-sun, Bun with Cr-eam Ratio of (20) Dollar-bill to (1) Wand

The BUN:Cr ratio in the initial stages of post-renal AKI is typically at or above 20:1. This is similar to pre-renal acute kidney injury and can be a source of confusion. As such, the BUN:Cr ratio cannot be used alone to establish a diagnosis of either pre-renal or post-renal AKI. Further diagnostic studies are needed to differentiate between these 2 diseases.

BUN:Creatinine ratio of 10:1 in the late stages

Running late runner, Late-moon Bun with Cr-eam Ratio of (10) Tin to (1) Wand

The BUN:Cr ratio in the late stages of post-renal AKI is typically at or above 10:1. This ratio is similar to that which is seen in intrinsic AKI and can be a source of confusion.

| Strict | Str

Urine Osmolality <350 mOsm/kg

Urinal Ozzy-mole Less-than 350, 3-tree and 50-cent Rapper

The Urine Osmolality in post renal AKI is typically below 350 mOsm/kg.

Variable Fractional Excretion of Sodium (FENa)

Up and Down Arrow FENA-agent

Ultrasound

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Ultrasound can be used to evaluate the degree of hydronephrosis present in patients with post-renal acute kidney injury.
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CT Scan

Cat-scanner

CT scan can be used to diagnose the cause of the post-renal acute kidney injury as well as the degree of hydronephrosis.
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Management



Treat Underlying Cause

Treat Underlying Attacker

There are multiple etiologies of post-renal acute kidney injury including: benign prostatic hyperplasia, neoplasms, incomplete bladder emptying due to autoimmune diseases such as multiple sclerosis, and other causes of bilateral kidney outflow obstruction. Severe acute obstructions can cause permanent damage to the kidney. Complete recovery is possible if the obstruction is relieved within 14 days of onset.
