**Patient Presents with AKI as Defined by AKIN or RIFLE Criteria**

<table>
<thead>
<tr>
<th>RIFLE category</th>
<th>Serum creatinine criteria</th>
<th>UO criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>Increase in serum creatinine ≥1.5X baseline or decrease in GFR ≥25%</td>
<td>&lt;0.5 mL/kg/h for ≥6 h</td>
</tr>
<tr>
<td>Injury</td>
<td>Increase in serum creatinine ≥2.0X baseline or decrease in GFR ≥50%</td>
<td>&lt;0.5 mL/kg/h for ≥12 h</td>
</tr>
<tr>
<td>Failure</td>
<td>Increase in serum creatinine ≥3.0X baseline or decrease in GFR ≥75% or an absolute serum creatinine ≥354 μmol/L with an acute rise of at least 44 μmol/L</td>
<td>&lt;0.3 mL/kg/h for ≥24 h or anuria ≥12 h</td>
</tr>
<tr>
<td>AKIN criteria</td>
<td>Serum creatinine criteria</td>
<td>UO criteria</td>
</tr>
<tr>
<td>Stage 1</td>
<td>Increase in serum creatinine ≥26.2 μmol/L or increase to ≥150–199% (1.5- to 1.9-fold) from baseline</td>
<td>&lt;0.5 mL/kg/h for ≥6 h</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Increase in serum creatinine to ≥200–299% (≥2.0- to 2.9-fold) from baseline</td>
<td>&lt;0.5 mL/kg/h for ≥12 h</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Increase in serum creatinine to ≥300% (≥3-fold) from baseline or serum creatinine ≥354 μmol/L with an acute rise of at least 44 μmol/L or initiation of RRT</td>
<td>&lt;0.5 mL/kg/h for ≥24 h or anuria ≥12 h</td>
</tr>
</tbody>
</table>

**Evaluation Suggestive of Pre-renal Etiology**
- Poor P.O. intake
- Vomiting
- Diarrhea
- Blood loss
- Diuresis
- FeNa <1%
- U Na <20 mmol/L
- Urea <35%

**Evaluation Suggestive of Intrinsic Renal Etiology**
- Use of nephrotoxic medications
- Evidence of HUS
- Evidence of TTP
- Evidence of vasculitis
- FeNa >1%
- U Na >40 mmol/L

**Evaluation Suggestive of Post-renal Etiology**
- History of BPH or Prostate Cancer
- Foley in place

**Treatment**
- 0.5-1L crystalloid based on clinical picture
- Reassess
- Additional fluids as appropriate
- Address identified etiologies of AKI

**Disposition based on clinical picture and medical co-morbidities**

**Relieve Obstruction**
- Re-evaluate patient

**Baseline Creatinine can be estimated in otherwise healthy patients using the following table:**

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Black males (mg/dl [μmol/l])</th>
<th>Other males (mg/dl [μmol/l])</th>
<th>Black females (mg/dl [μmol/l])</th>
<th>Other females (mg/dl [μmol/l])</th>
</tr>
</thead>
<tbody>
<tr>
<td>20–24</td>
<td>1.5 (133)</td>
<td>1.3 (115)</td>
<td>1.2 (106)</td>
<td>0.8 (88)</td>
</tr>
<tr>
<td>25–29</td>
<td>1.5 (133)</td>
<td>1.3 (115)</td>
<td>1.2 (106)</td>
<td>1.0 (88)</td>
</tr>
<tr>
<td>30–39</td>
<td>1.4 (124)</td>
<td>1.2 (106)</td>
<td>1.1 (97)</td>
<td>0.9 (80)</td>
</tr>
<tr>
<td>40–49</td>
<td>1.3 (115)</td>
<td>1.1 (97)</td>
<td>1.0 (88)</td>
<td>0.8 (80)</td>
</tr>
<tr>
<td>50–59</td>
<td>1.2 (115)</td>
<td>1.1 (97)</td>
<td>1.0 (88)</td>
<td>0.8 (71)</td>
</tr>
<tr>
<td>&gt;60</td>
<td>1.2 (115)</td>
<td>1.0 (90)</td>
<td>0.9 (80)</td>
<td>0.8 (71)</td>
</tr>
</tbody>
</table>

Estimated glomerular filtration rate = 76 (ml/min per 1.73 m²) = 186 x (serum creatinine [mg/dl]) x 1.154 x (age) - 0.203 x (0.742 if female) x (1.210 if black) = exp(0.229 - 1.154 x ln[Scr] - 0.203 x ln(age) - 0.299 if female) - 0.192 if black.

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**Basic Metabolic Panel**
- Urinalysis
- Urine Sodium
- Urine Creatinine
- Urine Urea

**Note:**
- FeNa
- Fe Urea