

Acute Kidney Injury

• What

- Acute kidney injury (AKI) is a sudden episode of kidney dysfunction that happens within a few hours or a few days.
- AKI is defined by rises in baseline creatinine and/or a decrease urine output and is staged 1 – 3 based on severity.

• Who

- All hospitalized patients are at risk of AKI, particularly elderly, diabetics and those with chronic kidney disease.
- Medications such as IV contrast, antibiotics and NSAIDs can increase the risk of AKI
- All ICU patients are at increased risk of AKI. Those that are hypotensive, septic or trauma patients are at particular risk.

• Why

- AKI is a major risk factor for morbidity and mortality.
- Patients with AKI usually have longer and more expensive hospital stays.

• When

- All ICU patients should be screened for AKI.
- Those at increased risk of AKI should be followed most closely.
- AKI stages should be documented for the purposes of coding and patient care.

Table 2 | Staging of AKI

Stage	Serum creatinine	Urine output
1	1.5–1.9 times baseline OR ≥0.3 mg/dl (≥26.5 μmol/l) increase	<0.5 ml/kg/h for 6–12 hours
2	2.0–2.9 times baseline	<0.5 ml/kg/h for ≥12 hours
3	3.0 times baseline OR Increase in serum creatinine to ≥4.0 mg/dl (≥353.6 μmol/l) OR Initiation of renal replacement therapy OR, In patients <18 years, decrease in eGFR to <35 ml/min per 1.73 m ²	<0.3 ml/kg/h for ≥24 hours OR Anuria for ≥12 hours