

AKI = ARF:

**Criteria for acute kidney injury**

	Serum creatinine criteria			Urine output criteria
	RIFLE	AKIN	KDIGO	
<b>Definition</b>	Increase in serum creatinine of >50 percent developing over <7 days	Increase in serum creatinine of 0.3 mg/dL or >50 percent developing over <48 hours	Increase in serum creatinine of 0.3 mg/dL developing over 48 hours or >50 percent developing over 7 days	Urine output of <0.5 mL/kg/hr for >6 hours
<b>Staging</b>				
RIFLE-Risk AKIN/KDIGO stage 1	Increase in serum creatinine of >50 percent	Increase in serum creatinine of 0.3 mg/dL or >50 percent	Increase in serum creatinine of 0.3 mg/dL or >50 percent	Urine output of <0.5 mL/kg/hr for >6 hours
RIFLE-Injury AKIN/KDIGO stage 2	Increase in serum creatinine of >100 percent	Increase in serum creatinine of >100 percent	Increase in serum creatinine of >100 percent	Urine output of <0.5 mL/kg/hr for >12 hours
RIFLE-Failure AKIN/KDIGO stage 3	Increase in serum creatinine of >200 percent	Increase in serum creatinine of >200 percent	Increase in serum creatinine of >200 percent	Urine output of <0.3 mL/kg/hr for >12 hours or anuria for >12 hours
RIFLE-Loss	Need for renal replacement therapy for >4 weeks			
RIFLE-End-stage	Need for renal replacement therapy for >3 months			

AKIN: Acute Kidney Injury Network; KDIGO: Kidney Disease/Improving Global Outcomes.

**References:**

1. Bellomo R, Ronco C, Kellum JA, et al. Acute renal failure-definition, outcome measures, animal models, fluid therapy and information technology needs: the Second International Consensus Conference of the Acute Dialysis Quality Initiative (ADQI) Group. *Crit Care* 2004; 8:B204. Copyright © 2004 BioMed Central Ltd.
2. Mehta RL, Kellum JA, Shah SV, et al. Acute Kidney Injury Network: report of an initiative to improve outcomes in acute kidney injury. *Crit Care* 2007; 11:R31. Copyright © 2007 BioMed Central Ltd.
3. Kidney Disease: Improving Global Outcomes (KDIGO). Acute Kidney Injury Work Group. KDIGO clinical practice guidelines for acute kidney injury. *Kidney Int Suppl* 2012; 2:1.



**Acute** – A rise in the serum creatinine concentration or an abnormal urinalysis that has developed within hours to days. The criteria for AKI include an increase in serum creatinine by 0.3 mg/dL (27 micromol/L) or  $\geq 1.5$  times the baseline value within 48 hours (Acute Kidney Injury Network [AKIN] criteria), or an increase  $\geq 1.5$  times the baseline value within seven days (RIFLE criteria and Kidney Disease: Improving Global Outcomes [KDIGO]-AKI)

**Chronic** – The National Kidney Foundation Kidney Disease Outcomes Quality Initiative (NKF-K/DOQI) and the KDIGO CKD guidelines define CKD as being present if glomerular filtration rate (GFR)  $< 60$  mL/min/1.73 m<sup>2</sup> or evidence of kidney damage such as albuminuria or abnormal findings on renal imaging have been present for three months or more