

## Appendix

Line	MEDLINE, EMBASE Search 28 October 2015	Articles
2	AKI.ti,ab	4646
3	(acute AND kidney AND injury).ti,ab	11204
4	(Acute AND renal AND failure).ti,ab	31204
5	renal.ti,ab	474488
6	Marathon.ti,ab	2583
7	(Endurance AND events).ti,ab	745
8	2 OR 3 OR 4 OR 5 AND 6 OR 7 [Limit to: (Document type Case Reports or Classical Article or Comparative Study or Controlled Clinical Trial or Journal Article or Observational Study) and (Language English) and (Age group Adult) and	12,388
9	Humans]	1,611

## Medline, EMBASE search

AKIN staging		RIFLE		KDIGO		Urine output (common to all 3)
Stage	SCr	Class	SCr or GFR	Stage	SCr	
1	Increase of $\geq 26.5 \mu\text{mol/l}$ or increase 150% to 200% (1.5- to 2-fold) from baseline	Risk	Increase in SCr $\times 1.5$ or GFR decrease $>25\%$	1	Increase of $\geq 26.5 \mu\text{mol/l}$ or increase 150-200% from baseline	$<0.5 \text{ ml/kg/hr}$ $>6$ hrs
2	Increased to more than 200% to 300% baseline	Injury	SCr $\times 2$ or GFR decreased $>50\%$	2	Increased to 200-300% from baseline	$<0.5 \text{ ml/kg/hr}$ $>12$ hrs
3	Increased to more than 300% baseline, or $\geq 354 \mu\text{mol/l}$ with an acute increase $\geq 44 \mu\text{mol/l}$ or on RRT	Failure	SCr $\times 3$ , or SCr $>354 \mu\text{mol/l}$ with an acute rise $>44 \mu\text{mol/l}$ or GFR decreased $>75\%$	3	Increased $>300\%$ from baseline, or $\geq 354 \mu\text{mol/l}$ or on RRT	$<0.3 \text{ ml/kg/hr}$ $>24$ hrs or anuria $>12$ hrs
		Loss	Persistent acute renal failure = complete loss of kidney function $>4$ weeks			
		End-stage kidney disease	ESRD $>3$ months			

AKIN, RIFLE & KDIGO AKI stages. For AKIN, the increase in creatinine must occur in  $<48$  hours. For RIFLE, AKI should be both abrupt (within 1–7 days) and sustained (more than 24 hours). Adapted from AKIN, RIFLE, KDIGO definitions.[23 24 121] GFR – glomerular filtration rate, SCr – serum creatinine.

