Online Resource 3: Diagnostic criteria used for acute kidney injury (AKI).

| Criteria     | Stage | Serum creatinine (SCr)                                                                 | Urine output (UO)                  |
|--------------|-------|--------------------------------------------------------------------------------------|-----------------------------------|
| **AKIN**     | 1     | Increase in SCr of ≥0.3 mg/dl (≥26.4 μmol/l) OR increase to ≥150% to 200% from baseline | <0.5 ml/kg/h hour for >6 h        |
|              | 2     | Increase in SCr to >200% to 300% from baseline                                        | <0.5 ml/kg/h for >12 h            |
|              | 3     | Increase in SCr to >300% from baseline (or SCr ≥4.0 mg/dl with an acute increase of >0.5 mg/dl) | <0.3 ml/kg/h for 24 h or anuria for 12 h |
| **KDIGO**    | 1     | 1.5 – 1.9 times baseline OR ≥0.3 mg/dl increase                                       | <0.5 ml/kg/h for 6-12 h           |
|              | 2     | 2.0 – 2.9 times baseline                                                             | <0.5 ml/kg/h for ≥12 h            |
|              | 3     | 3.0 times baseline OR Increase in SCr to ≥4.0 mg/dl OR Initiation of renal replacement therapy OR In patients <18 years, decrease in eGFR to <35 ml/min/1.73 m² | <0.3 ml/kg/h for ≥24 h or anuria for ≥12 h |
| **Neonatal KDIGO** | 0     | No change in SCr OR rise <0.3 mg/dL                                                  | >0.5 mL/kg/h                      |
|              | 1     | SCr rise ≥0.3 mg/dL within 48 h OR SCr rise ≥1.5 – 1.9 x reference SCr within 7 d     | <0.5 ml/kg/h for 6-12 h           |
|              | 2     | SCr rise ≥2.0 – 2.9 x reference SCr                                                  | <0.5 ml/kg/h for ≥12 h            |
|              | 3     | SCr rise ≥3 x reference SCr OR SCr ≥2.5 mg/dL OR receipt of dialysis                  | <0.3 ml/kg/h for ≥24 h or anuria for ≥12 h |
| **Paediatric-modified RIFLE (pRIFLE)** | Risk | eCCl decrease by 25%                                                                 | <0.5 ml/kg/h for 8 h               |
|              | Injury| eCCl decrease by 50%                                                                  | <0.5 ml/kg/h for 16 h              |
|              | Failure| eCCl decrease by 75% OR eCCl <35 ml/min/1.73 m²                                     | <0.3 ml/kg/h for 24 h or anuric for 12 h |
|              | Loss  | Persistent failure >4 weeks                                                           | -                                 |
|              | End stage renal disease | End-stage renal disease (persistent failure >3 months) | -                                 |

AKIN = Acute Kidney Injury Network[1]; eCCl = estimated creatinine clearance; eGFR = estimated glomerular filtration rate; h = hour; KDIGO = Kidney Disease: Improving Global Outcomes[2-4]; pRIFLE = Paediatric-modified RIFLE (risk, injury, failure, loss, end stage renal disease)[5]; SCr = serum creatinine; UO = urine output
Main differences between neonatal KDIGO and KDIGO criteria is that neonatal KDIGO is based on the lowest previous SCr rather than baseline, stage 1 is a rise within 7 days, and eGFR component is decreased from $<35 \text{ ml/min/1.73m}^2$ to $<10 \text{ mL/min/1.73m}^2$.

Reference SCr is defined as the lowest previous SCr value.

SCr value of 2.5 mg/dL represents $<10 \text{ mL/min/1.73m}^2$.

Conversion factors for units: serum creatinine in mg/dL to μmol/L, $\times 88.4$.

1. Mehta RL, Kellum JA, Shah SV, Molitoris BA, Ronco C, Warnock DG, et al. Acute Kidney Injury Network: report of an initiative to improve outcomes in acute kidney injury. Crit Care. 2007;11(2):R31.
2. Jetton JG, Askenazi DJ. Update on acute kidney injury in the neonate. Curr Opin Pediatr. 2012;24(2):191-96.
3. Kidney Disease: Improving Global Outcomes (KDIGO) Acute Kidney Injury Work Group. KDIGO clinical practice guideline for acute kidney injury. Kidney Int Suppl 2012;2(1):1-138.
4. Jetton JG, Askenazi DJ. Acute kidney injury in the neonate. Clin Perinatol. 2014 Sep;41(3):487-502.
5. Akcan-Arikan A, Zappitelli M, Loftis LL, Washburn KK, Jefferson LS, Goldstein SL. Modified RIFLE criteria in critically ill children with acute kidney injury. Kidney Int. 2007 May;71(10):1028-35.