Renal Immune-Related Adverse Event Management Algorithm

Grading of Creatinine Elevation	Action	Follow up
Grade 1 Creatinine mildly elevated but <1.5 x baseline (Note: Baseline = lowest value in last 3 months)	**Investigations** • Review hydration status and medications • Urine dip – for PCR if proteinuria • Urine cultures if UTI symptoms • If obstruction suspected, then renal US to exclude obstruction **Management** • Continue ICI therapy	**If remains stable / resolves:** • Continue ICI therapy but monitor creatinine weekly **If worsens:** • Treat as G2 or 3/4
Grade 2 Creatinine 1.5 – 3 x ULN	**Investigations** • Urinalysis • Renal USS • Consider glomerulonephritis (GN) screen* • Refer to renal team for consideration of biopsy **Management** • Hold I-O therapy • Repeat Creatinine in 48-72h – if not improving then for discussion with renal for biopsy • Start prednisolone 1mg/kg with gastric protection	**If improves to G1:** • Taper oral steroids over 6-8 weeks (see separate document) • Consider resuming I-O therapy if creatinine returns to baseline and steroid treatment complete. **If elevation persists more than 5 days or worsens after initial improvement:** • Treat as G3/4
Grade 3 – 4 Creatinine more than 3 x ULN or more than 3 x baseline	**Investigations** • As per G2 • Refer to renal team for consideration of biopsy **Management** • Discontinue I-O therapy • Admit patient • 1-2mg/kg IV Methylprednisolone OD or pulse dose with 250-500mg IV Methylprednisolone for 3 days (+ gastric protection) • Daily weight and fluid balance • Daily U+Es	**If improves to G1:** • Switch to oral prednisolone 1mg/kg OD (max 60mg OD) • Taper oral steroids over at least 2 months (see separate document) • Ensure early follow-up with home team • Weekly renal function as OP after discharge • PCP prophylaxis and bone protection for all patients on high-dose steroids (>20mg PO prednisolone for >4 weeks) **If worsens:** • Consider MMF 250-500mg BD +/- 10mg prednisolone directed by renal team.

*GN Screen: ANA, complement C3 & C4, ANCA, anti-GBM, hepatitis B and C, HIV, immunoglobulins and protein electrophoresis.

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Authors:	Anil Babar Alekhia Nippani Ben Storey