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Figure 1. Pathophysiological process in development of post-operative AKI.

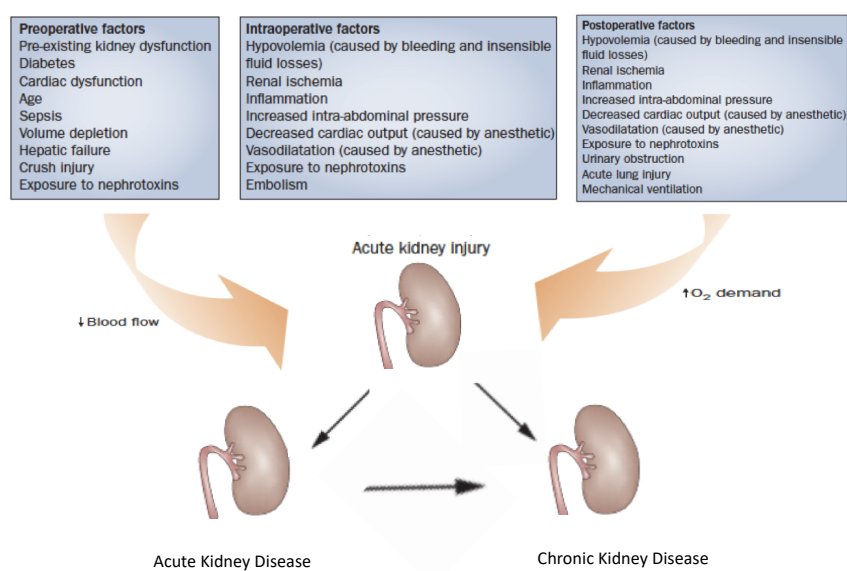


Figure 2: Role of the Kidney Health Assessment (KHA) in risk-assessment, detection, management, and follow-up of post-operative AKI. A series of context-specific KHAs involve integration of medical history and clinical context, optionally aided by further investigations in higher risk settings, to provide a kidney prognostic assessments that guide further monitoring and treatment.

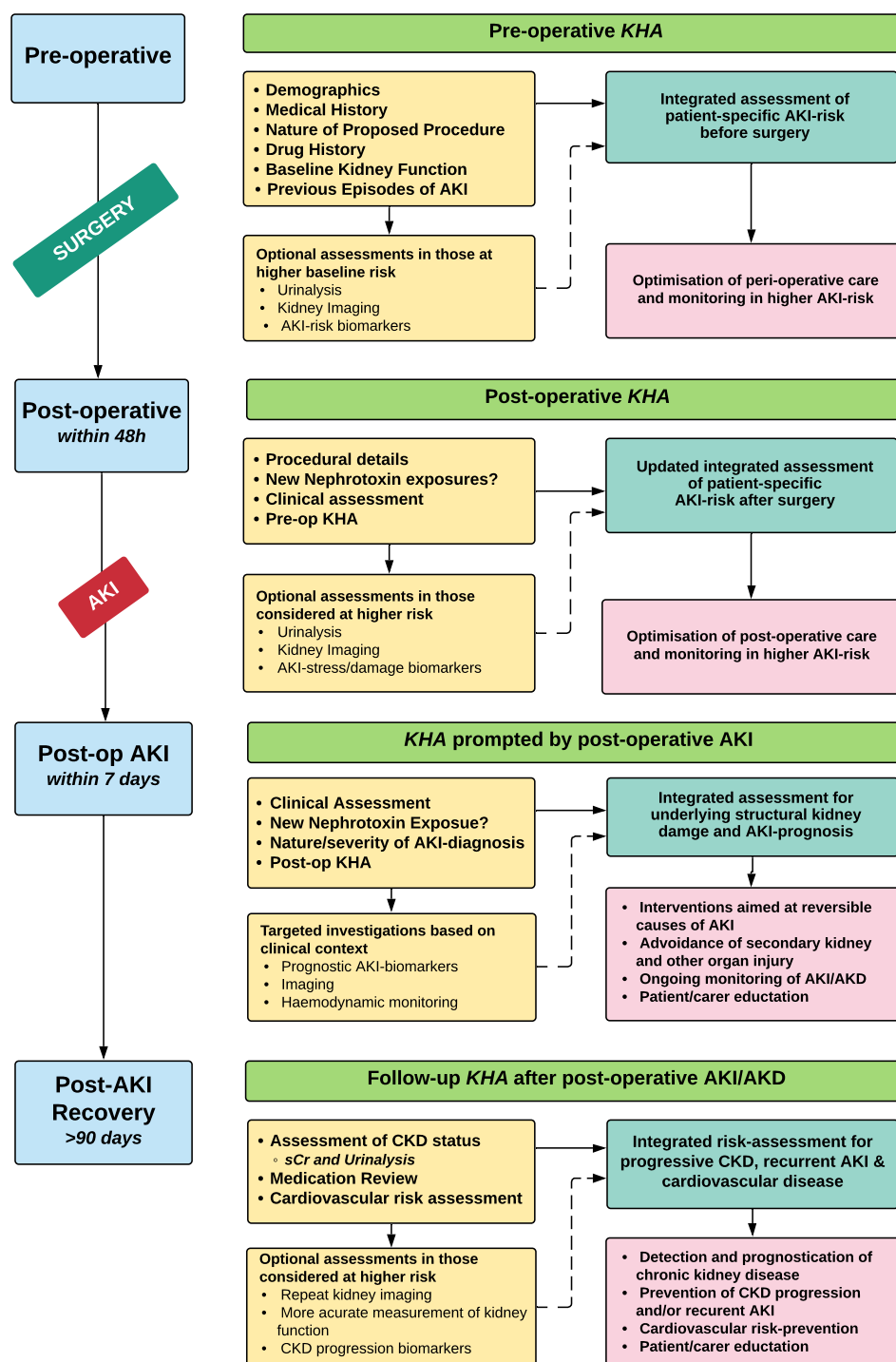
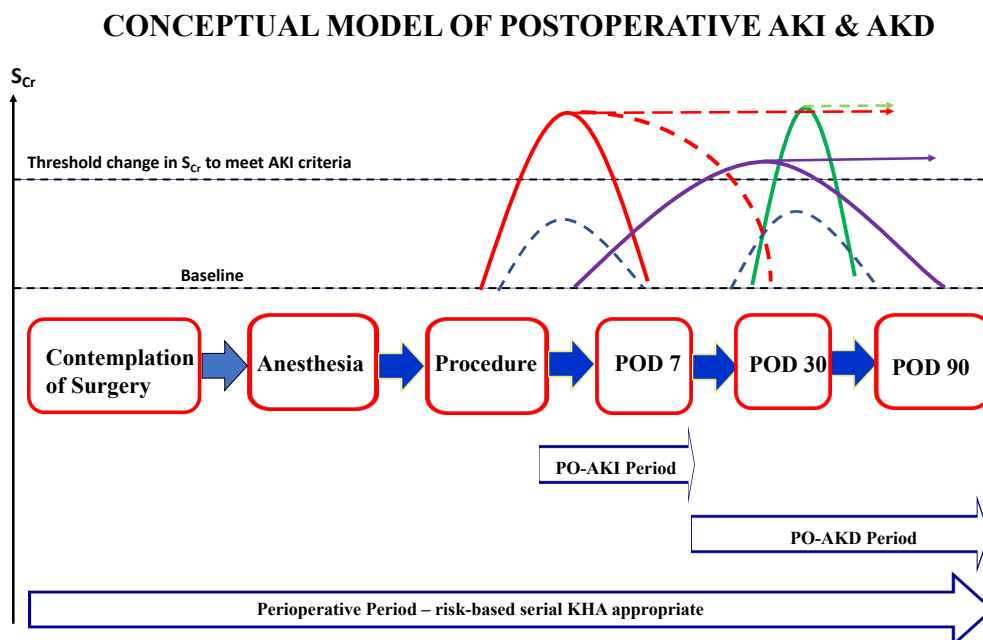


Figure 3: Conceptual model of postoperative AKI and AKD. Several different potential trajectories of S_{Cr} are depicted with suggested application of the proposed nomenclature.



Solid red line: PO-AKI (commenced and resolved before POD7)

Broken red line(s): PO-AKD (Once beyond POD7 PO-AKI becomes PO-AKD). It may get better between POD7 and POD90 or it may continue through POD90 at which time it would qualify as CKD

Solid purple line: PO-AKD (Evidence of new injury was present prior to POD7 but did not meet criteria for PO-AKI prior to POD7). It may recover prior to POD90 or continue to POD90 at which time it would qualify as CKD

Solid green line: AKI or AKD – according to pattern and rate of rise in S_{Cr} above the AKI threshold (</> 7 days)

Broken blue line(s): “Subclinical” renal injury – does not meet current criteria for AKI or AKD, but may be identified by risk-based serial KHAs.

Figure 4: Post-operative AKI is associated with an increased risk of short-term complications, in turn leading to increased long-term morbidity and mortality.

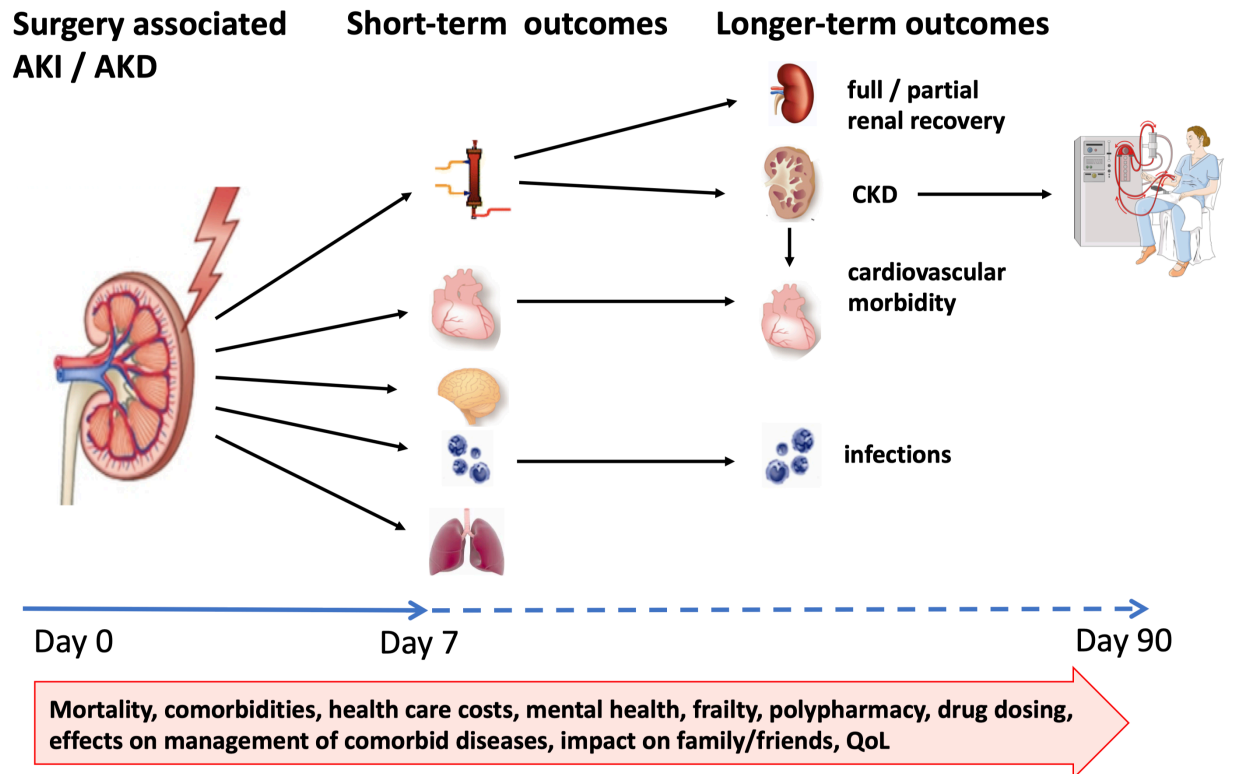


Figure 5: Schematic for surgery associated AKI/AKD monitoring. The figure displays a potential paradigm for the care of patients who experience AKI/ AKD. The timing and nature of monitoring are suggestions as there is limited data to inform this process. Patients with surgery associated AKI/AKD should have their kidney function checked within 1 month of their hospital discharge. The degree of nephrology follow-up should increase as the duration and severity of AKI /AKID increases. Future research efforts should work to clarify the ideal timing and method to provide post-AKI/AKD care.

