

Renal Support in COVID-19

1

Avoid AKI by good volume management

- Ensure AKI not driven by hypovolaemia
 - Review fluid balance charts for previous days and take account of insensible losses (especially fever)
 - Consider oral or iv fluid to improve renal perfusion
 - Echocardiography and non-invasive measures of filling status may support clinical decision-making

2

Escalate concerns to ICU consultant

- AKI is associated with increased mortality in all critical illnesses
- AKI may precede (and drive) other organ failures
- Provision of RRT requires additional equipment and nursing workload
- Drug chart will need adjusting for changes in clearance
- Insertion of dialysis catheter may require patient to be turned supine (if prone) and then returned to prone again if necessary for their ventilation

3

RRT prescription and delivery

- Pro-thrombotic state may shorten filter life and impair clearance
- Significant additional critical care nursing burden from RRT delivery (in an already stretched system)
- Consider moving patient to area where CVVH is easier to deliver, rather than providing CVVH in situ

Adjustments to standard CVVH in COVID-19 patients

1. Heparin-based filter as first-line therapy
2. Consider combining Heparin with Flolan if good access but short filter life-span (separate *systemic* heparin infusion at therapeutic doses then Flolan directly into CVVH circuit)
3. Keep blood pump speed high
4. Optimise fluid management