AKI Care Bundle

Institute in all patients with a 1.5 x rise in creatinine or oliguria (<0.5mls/kg/hr) for 6 hours
(for 26.4 micmol/l rises activating National detection algorithm assess and consider institution or recheck)

This is a Medical Emergency

Full set of observations, circulatory assessment, treat life-threatening complications, if NEWS triggering give oxygen, begin resuscitation and contact critical care outreach team

Diagnose the cause(s) and treat all – STOP AKI

Sepsis and hypoperfusion, **T**oxicity, **O**bstruction, **P**rimary renal disease

Sepsis and hypoperfusion

Circulatory assessment (history, heart rate, blood pressure, JVP, capillary refill (should be <3 secs), conscious level

Bolus fluids (e.g. 250-500mls balanced crystalloid) until volume replete with regular review of response.

Senior review if no response 2 litres filling

Stop anithypertensives if relative hypotension

Infection/sepsis screening (history, examination, cultures, CRP) and antibiotics if suspected

If severe sepsis 'sepsis six' and antibiotics < 1 hour

Toxicity

Ascertain full drug history including contrast exposures

Avoid further nephrotoxic insults if possible

Stop ACE/ARB

Stop NSAID

If poisoning AKI (e.g. lithium, ethylene glycol) get specialist renal and toxicology help

Obstruction

Ascertain any urological history. High index of suspicion if malignancy

Examine or bedside scan for bladder, consider urinary catheter.

Perform renal tract imaging (ultrasound or CT KUB) <24 hours unless non-obstructive cause clear.

If obstructed and infected urinary tract suspected (pyonephrosis) imaging <6 hours.

If likely/suspected obstructed AKI refer urology.

Target time to relief of obstruction 12 hours after diagnosis, immediate if infected.

Primary renal disease

Ascertain relevant history (e.g. autoimmune disease, myeloma, HUS/TTP)

Urine dipstick (all AKI patients). If protein high measure PCR.

Check CK (rhabdo), CRP, FBC, If platelets low do blood film, bill, LDH, relics (HUS/TTP)

Consider myeloma screen (Igs, Ig electrophoresis, serum free light chains, urine bench jones

Consider renal immune screen (ANCA, anti-GBM, ANA, complement, rheumatoid factor, Igs)

If likely/suspected primary renal injury refer nephrology

General supportive care and escalation

Once euvolaemic give maintenance fluids (e.g. output plus 500mls), fluid chart, daily weights, regular fluid assessment

Regular (at least 4 hourly) observations/NEWS with clear escalation plans

Review all drug dosages, consider proton pump inhibitor, consider dietetic review and nutrition

Urea, electrolytes, bone and venous bicarbonate at least daily, consider ABG

Monitor for complications, treat and escalate

Severe AKI (AKI 3) should be discussed nephrology and critical care regardless of cause

Follow up

Ensure patient/carers have adequate support and information

Monitor recovery to completion and ensure adequate follow up arrangements in place

aki

website: www.londonaki.net
email: info@londonaki.net