Renal replacement therapy: RRT

Indications: Indications for renal replacement therapy (RRT) in patients with acute kidney injury (AKI) generally include volume overload refractory to diuretics, hyperkalemia, metabolic acidosis, uremia, and toxic overdose of a dialyzable drug. Among patients with **life-threatening complications of AKI**, we recommend the initiation of RRT

Pearl: It is unproven whether initiation of earlier or prophylactic dialysis offers any clinical or survival benefits. We suggest initiating dialysis prior to the development of symptoms and signs of renal failure due to AKI. It is not possible to specify a specific duration of renal injury or level of azotemia at which RRT should be optimally initiated. General practice is to initiate RRT when the blood urea nitrogen (BUN) reaches 80 to 100 mg/dL, although there is no consensus, and practice patterns vary widely

Data do not support the superiority of either continuous renal replacement therapy (CRRT) or intermittent hemodialysis (IHD). A paucity of data exists concerning the relative benefits of hybrid therapies and acute peritoneal dialysis. Thus, the selection of modality of RRT should be based upon local expertise and experience in combination with the needs of the individual patient. If CRRT is administered, we recommend the use of venovenous circuits rather than arteriovenous circuits

Strategies for dosing of RRT: We recommend that IHD be provided on a three times per week schedule (alternate days), with monitoring of the delivered dose of dialysis to ensure delivery of a Kt/V of ≥1.2 per treatment. We recommend that CRRT be provided with a delivered effluent flow rate (sum of hemofiltration rate and dialysate flow rate) of ≥20 mL/kg per hour. In order to ensure delivery of this flow rate, we prescribe an effluent flow rate of ≥25 mL/kg per hour.

Question:

Regarding renal replacement therapy the following is correct:

a. Data do not support superiority of either CRRT or IHD
b. potassium level of 2.8 is an indication for IHD
c. Acute ST elevations are a clear contraindication to RRT
d. ARDS is a clear indication for RRT

Answer: A - Data do not support the superiority of either continuous renal replacement therapy (CRRT) or intermittent hemodialysis (IHD)