

NIO AKI deel 2

1. (17) A 60-year-old man with diabetes mellitus, hypertension, and chronic obstructive pulmonary disease is admitted to the hospital with pneumonia. Blood cultures grow *Pseudomonas aeruginosa*. Over the next 48 hours, he experiences acute respiratory distress syndrome, hypotension requiring hemodynamic support with vasopressors, and oliguric stage 3 AKI. It is determined that continuous RRT is the best dialysis option.

Which ONE of the following statements most accurately reflects current evidence regarding the MOST appropriate modality of dialysis for this patient?

- (A) Continuous venovenous hemodiafiltration is superior to other modalities of solute removal in gram-negative sepsis
- (B) A polymyxin B adsorptive modality is indicated and has been shown to improve 28-day mortality in patients with endotoxic shock in randomized controlled trials
- (C) Diffusive solute removal is superior to convective solute removal in this clinical setting with both continuous and intermittent therapies
- (D) There is no significant difference in outcomes between diffusive or convective modalities of CRRT

2. (19) A 55-year-old man with diabetes mellitus is evaluated in consultation for AKI complicating a 25% total body surface area burn and septic shock. The BUN and serum creatinine have risen from 46 mg/dl and 1.5 mg/dl on admission to 100 mg/dl and 5.7 mg/dl, respectively. The urine output has fallen to <200 ml over the past 24 hours. The blood pressure is 108/60 mmHg on vasopressors, and the central venous pressure is 14 cm H₂O. The intensivists caring for the patient ask you about high-dose continuous RRT.

Which ONE of the following should you tell them about dialysis dose and modality based on evidence derived from randomized controlled trials?

- (A) Continuous RRT, if chosen, should be provided with effluent flow rate of at least 35 ml/kg per h
- (B) Continuous RRT, if chosen, should be provided with effluent flow rate of at least 20 ml/kg per h
- (C) Continuous venovenous hemofiltration should be chosen over continuous venovenous hemodialysis because it offers a survival advantage in this patient
- (D) Randomized trials support high-volume effluent flow of 70 ml/kg per h in this clinical setting

3. (28) A 60-year-old man is admitted to neurosurgical intensive care unit after experiencing a hemorrhagic stroke. A ventriculostomy drain is placed because of increased intracranial pressure. His course is complicated by contrast-induced AKI, which progresses to oliguric AKI after onset of pneumonia and sepsis. On physical examination, he is intubated and sedated. The blood pressure 110/50 mmHg. The chest examination shows crackles and decreased breath sounds in the right midlung zone. There is 21 leg edema. Laboratory studies show sodium 130 mEq/L, potassium 6.2 mEq/L, chloride 94 mEq/L, total CO₂ 16 mmol/L, BUN 82 mg/dl, and creatinine 6.1 mg/dl (increased from 1.2 mg/dl 8 days ago). The leukocyte count is 14,700/ml, the hemoglobin is 9.2 g/dl, and the platelet count is 203,000/ml. Which ONE of the following is the BEST choice of RRT for this patient?

- (A) Intermittent hemodiafiltration
- (B) Intermittent hemodialysis
- (C) Continuous RRT
- (D) Sustained low-efficiency dialysis

4. Convectie en diffusie is niet te combineren in een continue nierfunctie vervangende behandeling

- (T) True
- (F) False

5. Welke beweringen zijn juist:

1. De dosering van continue nierfunctie vervangende therapie wordt beïnvloed door "downtime"
2. De dosering van continue nierfunctie vervangende therapie moet zo hoog mogelijk zijn
3. De dosering van continue nierfunctie vervangende therapie is niet afhankelijk van pre en post dilutie verhouding
4. Continue nierfunctie vervangende therapie wordt gedoseerd op lichaamsgewicht

- (A) 1 en 2
- (B) 2 en 3
- (C) 3 en 4
- (D) 1 en 4
- (E) 1 en 3

- 6.** Bij een patiënt op de IC met een ernstige acidose die snel gecorrigeerd moet worden kan je het best ...
- (A)** een HD orderen in het EPD en de dialyseverpleegkundige in huis bellen zodat na een lijnplaatsing gedialyseerd kan worden
 - (B)** CVVH(DF) opstarten
 - (C)** Natriumbicarbonaat 8,4% infusie geven
- 7.** Een gestoorde iCa/Ca ratio bij een patiënt die CVVH(DF) met regionale citraat antistolling ondergaat wijst op...
- (A)** Citraat accumulatie en gaat gepaard met alkalose
 - (B)** Citraat accumulatie en gaat gepaard met acidose
 - (C)** Netto citraat overload en gaat gepaard met alkalose
 - (D)** Netto citraat overload en gaat gepaard met acidose
- 8.** Bij stolling van het CVVH filter kan je 1. de bloedflow verhogen of 2. de predilutie verhogen. Wat doet dit met de klaring?
- (A)** In beide gevallen blijft de klaring gelijk
 - (B)** In beide gevallen neemt de klaring af
 - (C)** 1. Klaring blijft gelijk en 2. klaring neemt af
 - (D)** 1. Klaring neemt af en 2. klaring blijft gelijk