

### QUESTION

1. A patient with a long history of chronic kidney disease (CKD) is admitted to the hospital with a severe case of acute kidney injury (AKI). The patient's serum creatinine has risen significantly from a baseline of 2.5 mg/dL to 8.0 mg/dL over the last 48 hours. The patient is currently on a low-protein diet and has been receiving intravenous fluids. The patient's blood pressure is 180/100 mmHg, and they are experiencing oliguria (urine output < 0.3 mL/kg/hour for the last 24 hours). The patient's electrolyte panel shows a potassium level of 5.5 mEq/L and a bicarbonate level of 18 mEq/L. The patient's physical examination reveals mild fluid overload (peripheral edema) and no signs of infection.

Parameter	Value	Reference Range
Serum Creatinine	8.0 mg/dL	0.6 - 1.2 mg/dL
BUN	45 mg/dL	7 - 20 mg/dL
Urea Index	1.8	0.1 - 0.3
Urine Output	0.2 mL/kg/hour	> 0.5 mL/kg/hour
Blood Pressure	180/100 mmHg	120/80 mmHg
Electrolytes	K <sup>+</sup> 5.5 mEq/L, HCO <sub>3</sub> <sup>-</sup> 18 mEq/L	K <sup>+</sup> 3.5 - 5.0 mEq/L, HCO <sub>3</sub> <sup>-</sup> 22 - 28 mEq/L

2. The patient's condition is worsening, and the medical team is considering dialysis. The patient's family is concerned about the risks and benefits of dialysis. The patient's medical history includes a long history of hypertension, diabetes mellitus, and a recent diagnosis of heart failure. The patient's current medications include lisinopril, metoprolol, and furosemide.

### ANSWER



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