WA Sepsis/MODS Case study from Lewis 11th Ed. Teach for Nurses

Patient Profile

W.A. is a 70-year-old black woman who presented to the emergency department with fever, severe nausea, vomiting, and diarrhea. She is admitted to the intensive care unit (ICU) with a diagnosis of kidney failure and septicemia. Her previous medical history includes glaucoma, chronic kidney failure, hypertension, and insulin-dependent diabetes. She had a left above-the-knee amputation 1 year ago.

Subjective Data

- W.A.'s daughter states she was able to do her daily chores at home independently, but for the last few days it was getting difficult for her to get around and that she needed to take frequent breaks because of shortness of breath and no energy. Her daughter also reports that W.A. had been having headaches with nausea and dizziness for the past few days.
- Goes to hemodialysis 3 days a week

Objective Data

Physical Examination

- Blood pressure 172/92, pulse 110, temperature 101.5°F, respirations 28
- Oxygen saturation 86% on 15 LPM via mask
- Oriented to name only
- Crackles in bilateral lower lobes
- 2+ edema bilateral lower extremities and hands
- Abdomen is distended with hypoactive bowel sounds x4 quadrants

Diagnostic Studies

- CBC: Hemoglobin 7 g/dL, hematocrit 23.8%, RBC 2.57 million/mm^3, WBC 14.8 mm^3
- Chemistry Panel: Serum sodium 132 mEq/L, serum potassium 6.0 mEq/L, calcium 9.3 mg/dL, phosphorus 6.0 mg/dL, glucose 197 mg/dL, albumin 2.4 U/L, serum blood urea nitrogen 77 mg/dL, serum creatinine 7.30 mg/dL, eGFR African American 10, BNP 182 pg/mL
- Urinalysis: Dark yellow and cloudy, protein 28 mg/dL, positive for casts, positive for red blood cells and white blood cells, positive for glucose and ketones
- Blood cultures pending

Discussion Questions

1. What is multiple organ dysfunction syndrome (MODS)? After reviewing W.A.'s presentation, what organ systems do you suspect are involved and why?

2. What do you think is the origin of W.A.'s septicemia?

WA Sepsis/MODS Case study from Lewis 11th Ed. Teach for Nurses

3. What additional tests would you anticipate for W.A.?

4. What are the interprofessional care goals for W.A.?

5. Describe interprofessional care that would be appropriate for W.A.

6. W.A.'s urine output over the past 4 hours is 20 mL, and her latest potassium level is 7 mEq/L. The provider is ordering a continuous renal replacement therapy machine (CRRT). Why would a CRRT be ordered for W.A.?

7. Outline a care plan for W.A., describing nursing interventions that would be appropriate for promoting oxygenation, maintaining fluid volume, and promoting tissue perfusion.