Dialysis Emergencies OSCE
Scenario 4.  Hemolysis due to Chloramines

Dr. ____________
I’m over here in the MICU, and Mr. Port is short of breath, and has really severe back and chest pain, after about 10 minutes of dialysis. His EKG is ok according to the intern, but his blood has turned dark brown-red. What should I do?

1. ______ Stop dialysis  ___________ Continue dialysis
   STOP (Fatal)

2. ______ Give back the blood  ______ Clamp the lines. Don’t give back
   STOP (Fatal)  the blood.

3. FELLOW WILL BE COMING IMMEDIATELY.  Y____ N_____ FATAL

4. Do you want me to send labs or anything else?
   _____ Vitals
   _____ Oxygen
   _____ Calcium chloride or gluconate to bedside
   _____ iStat or stat potassium
   _____ Hct/Hgb
   _____ Type and Screen
   _____ Check chloramines
   _____ Water temperature
   _____ Other (indicate)
   _____ None
Tell the fellow that this is an OSCE, and that you have a few questions about the scenario. Ask him to meet you at your location. Circle answers:

1. Provide a positive dipstick for chloramines. Ask: “This is the result of a test on the product water coming from the RO. What does this indicate?” __________________

2. What is the most likely cause of the symptoms? Hemolysis; Other (indicate)____________________

3. What are some specific things that can produce this? Too high water temperature; chloramines break-through; saturation of the carbon filter; hypotonic dialysate; copper, bleach, silver-stabilized hydrogen peroxide; nitrates; shearing at the roller pump.

4. What do you need to check for to make sure the patient is ok? Potassium level; monitor: EKG for hyperkalemia changes; labs for hemolysis; Hct; Hgb; Type+Screen. __________________

5. What should you do to look for an etiology? Water temperature; chloramines in product water; check dialysate conductivity; check roller pump function.