Dialysis Orders OSCE
Scenario 3. Dialysis Membrane Reactions

Dr. ____________
We just started dialysis a few minutes ago, and Mr. Blue is itching all over, and says he feels tight and like he might throw up. What do you want me to 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___

4. We’ve already stopped dialysis and taken down the set. Is there anything else?

__________ Vitals
__________ Oxygen
__________ EKG Monitor
__________ Crash Cart
__________ Epinephrine (EpiPen) at bedside
__________ Benadryl
__________ Steroids

STOP

Tell the fellow that this is an OSCE, and that you have a few questions about the scenario. Circle answers:
1. What do you think is the most likely problem here? Dialysis membrane reaction/allergy; Reaction to sterilant/ethylene oxide; Reaction to heparin; Reaction to component of dialyzer set (plasticizers, etc); Other__________
2. What are some of the specific causes of this type of reaction? Dialysis membrane; ethylene oxide; endotoxin; heparin; latex; acetate; formaldehyde.

3. This used to be called “first use syndrome”. What dialysis membranes are most likely to be associated with first use syndrome? Unmodified cellulosic/cuprophan; cellulosic membranes reused with bleach. Un-reused dialyzer membranes. Other ____________

4. What drug makes patients receiving RRT with an AN69 membrane more likely to have a membrane reaction? ACE inhibitors; Other ____________

5. What type of reaction is this? Anaphylactoid; Other ____________

6. Is this less likely to be seen with reuse? Y_____ N______

The “type A syndrome” is described here. Some patients, largely on cellulosic dialyzers, have much milder symptoms about 30 to 60 minutes into the treatment, which are reported to ameliorate as the treatment proceeds. This is called “Type B”, and is complement mediated. The author of this exercise can’t imagine waiting to see if things are going to improve.

*Optional: It is a good practice to provide the fellow with a review article on membrane and other reactions associated with RRT components.