My Resident Just Pushed 35mls Into The Epidural And The Surgeons Are Closing The Incision-SPPM 2015 PBLD

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A 12 kg two-year-old is undergoing bilateral hip surgery. He was full term, and has had no other health problems. He has a caudal epidural catheter in place, two 20 gauge IVs and a foley. He lost approximately 200ml of blood, but vital signs remained stable, his last hematocrit drawn just prior to the start of skin closure was 29%. The epidural has been dosed throughout the case and seems to have been working well. The resident caring for the patient decides to "top off" the epidural.

1. Do you routinely dose epidurals during the operation? Why? Why not?
2. If you dose what volume and concentration do you routinely use?
3. Do you start the infusion during the operation?
4. Do you routinely "top off" the epidural prior to end of the case?

The resident makes a decimal point error, and instead of the 3.5mls you had discussed administers 35mls of 0.2% ropivacaine.

1. Yikes-now what?

Assuming the patient is still anesthetized:

2. What would you do?
3. How will you recognize signs of toxicity?
4. Would you allow the patient to emerge from anesthesia?
5. Would you administer any prophylactic medications?

What if neither you nor your resident were aware of the dosing error (she didn't realize it was a problem and you didn't witness her administering the dose):

1. How do you think the patient would present?
2. How soon would symptoms appear?

Patient is deep, but extubated when you or the resident realize the dosing error:

1. Would you re-intubate prior to other symptoms?
2. Would you administer intra-lipid? Any other medications?

Patient has NOT emerged from anesthesia. The patient develops ventricular fibrillation as the surgeons are putting on the dressing

1. How will you treat?
2. When would you administer intralipid?
3. What dose would you give?

4. No one can find the intra-lipid, what other options are there for treatment?
5. How long will you observe the patient in the OR?

Ventricular fib has resolved, vital signs are stable, patient is breathing spontaneously

1. Extubate? PICU? Check Blood levels?
2. What about seizure precautions
3. Would you start the epidural infusion? If yes, then when?
4. What would tell the surgeons?
5. How will you discuss this with the family?

The child is comfortable and being observed in the PICU, he is intubated and sedated and the epidural is currently off.

6. How will you counsel the resident?
7. What resources or tools are available at your institution for assistance in these situations?
8. If no adverse events occurred but you still became aware of the medication error, would you report it? To whom?