

## Priming IV Lines

Female1: Hi, Renee. So we've just got an order here that we have to start our--  
prime an IV line for this patient. So how do we-- what do we do?

Female2: Okay, so the solution and the rate will be ordered by the prescriber. Then  
we can go to our clean surface room and find our equipment. So we need our IV  
bag and we need to think about things like correct solution, expiry date, if there's  
anything unusual about it. If there's anything floating you need to get rid of it  
'cause obviously you wouldn't want to put solid--

F1: Like throwing the whole thing out, right.

F2: Throwing the whole thing out, yeah, and probably contacting somebody 'cause  
maybe there's a problem with the manufacturer. Sometimes-- this all comes in a  
outer sleeve or an outer plastic. So sometimes when you take this IV bag out of  
there it feels sweaty. It doesn't mean that it's leaking. That moisture's just very  
normal. But it's not a bad idea just to give it a squeeze just-- if there is any holes  
in it you will know. And better to know before you've hooked it up to a patient.

F1: And there should be a blue top on the bottom here?

F2: Yeah, so right now they're coming as blue, but actually there are IV solutions that  
have white tops. There should be a cap on there. 'Cause you have to be able to  
guarantee sterility. Okay, so you can prepare this bag wherever. You just need  
some gravity to be in your-- to be your friend.

F1: So you could be doing this in the clean surface rooms.

F2: Yes. You select tubing that is going to serve your needs 'cause there's different

kinds of tubing. Some have ports for you to be able to Y into to hang mini bags or to do IV push. Some have no ports because some tubings that might look very similar have a different purpose. So tubing used for epidurals might look very similar but they usually are characterized by a-- I'm seeing them with a yellow stripe along them. Yeah. So always look at your products. Okay, and again, make sure that its integrity is intact. If it looks like it has been opened before you would question if everything is sterile. On this package there is a drop factor. That only comes into play if you're running your IV's by gravity. We'll explain that later. Okay, so they have that nice paper wrapping on there to keep things neat and tidy. So first thing I always suggest is blue's your boss. Clamp it. If you don't clamp it and you spike your bag you will have lots of IV fluid flowing through which isn't the end of the world but it creates a lot of air bubbles. So we're going to just rip off our protective cap.

F1: So how come when you take that protective cap off the fluid doesn't come out?

F2: That's a really good question. It's because there's a rubber dam in there. Yeah, so sometimes in the lab because we reuse our equipment that rubber dam has been punctured and so sometimes that's hard learning for students, but again, we don't have the finances to have brand new bags each time. But you can see nothing leaves it. Okay, so I've uncovered my spike, and I'm going to maintain sterility of those two connections.

F1: And you can see you know when we've gone through that little dam because there was a little bubble of air that went up in the IV bag.

F2: Yeah. So a good way to learn how to remember to prime your tubing is you start

at the top and you work to the bottom. So we've spiked our bag. We're going to squeeze our drip chamber. It just has to be a third to a half full. Go to your next point of interest which is this check valve. What this check valve does is it prevents the backflow of medications back into the bag. So the manufacturer when I had my in-service said if you don't prime this correctly the check valve doesn't actually work. And again, it's a safety system and so we should be implementing all the safety precautions we can. So we're just going to hold that upside down. And I'm just going to slowly open my roller clamp here and you'll see some drips start and you can see the fluid. It's going to fill that check valve and then we go to our first Y port. We invert it because what we're doing is we're trying to get rid of the air bubbles. And then we have quite a distance of tubing before we actually get to our next point of interest which is this final Y. You can see the fluid coming here. Sometimes my students will be priming tubings and they'll say, well, why isn't it dripping? Well, if you have it really high gravity's not your friend. So, of course, the dripping stops. So you kind of have to be mindful of that. Okay, and we'll just get our last of our drops out, thank you. You could drop this into a garbage can if you want. You don't want to put it all over the floor because then it becomes a slipping hazard. Okay, I'm going to check all my tubing. I'm looking for significant air bubbles.

F1: So what do you mean by significant air bubbles?

F2: So again, there's no literature to support what should be taken away and what can be left. My personal rule of thumb is if it's bigger than an inch get rid of it, okay. What you have to remember is that things are magnified in the tubing. So I don't

know if the camera can pick up this little bubble, but if you look closely it doesn't even span the width of the tubing. So that's really something to be ignored.

F1: So it's not like the movies, like, you know, when the little bit goes in the patient, they're going to have a--

F2: Exactly. And if you think about it, who did the research to say so much air is okay and so much is not, right.

F1: Yeah, I wouldn't want to be the patient, right.

F2: You're right. And then we have to remember to put an IV tubing change label on there 'cause the tubing's now good for 96 hours. That has changed in the last few years. It used to be 72. So we'll write our date. Our date and our time that we've hung this and then the day that it should be changed. And we're going to put it somewhere quite visible so that all the nurses can pay attention to that. And that's one of the first things that you check when you come in in the morning is is your patient stable. What are the fluids going in. So is your solution correct, is the rate correct. What's your IV site like.

F1: And do I have to change it today.

F2: And do I have to change it today, yeah. Okay.

F1: Okay. And do I have to chart that someplace in the chart?

F2: Yes, you do. IV's are medication so you need to make sure that the documentation is somewhere and again, depending on your agency, it will be charted in different places.

F1: Okay, thank you.