# Line Management

## Edited Video Transcript

Intravenous (IV) Lines

Okay, so now talking about lines. By lines, I mean any medical device that we're hooking up to that person. First, probably the most common type of line you're going to see—what is this guy? This is an intravenous (IV) line. Has anyone not had an IV? “You have not had an IV? Never had an IV?” Generally, we'll have one or two [students] per class [who have not had an IV]. This IV is simply a way to deliver medications. This is just a bag of saline—salt water, for that person who's dehydrated for example. This [line] will come down, go through some type of pump, and then be inserted into an artery, right. The most common place you'll see [it inserted into] is the brachial artery. You may see it other places. The back of the hand is not uncommon. In the legs is not uncommon.

There are other types of lines that may be inserted into other places. Yes, the wrist is rather common for an IV. The wrist typically means you're a hard stick. You may also see, for example, a peripherally inserted central catheter (PICC) line, which is a different type of IV with different types of access. You may see a venous line. You may see a central line that will actually go in through the neck directly down to the heart into a vein. You'll often see a venous port, which actually will be in the chest. But effectively, with all of these, your rules of thumb are really similar. Let's say you're going in to work with a client. “Katie, can you do me a favor [to help tape this IV to my arm]? Just hold for a second. I thought it was, too. It's a trick. Let me see if I can get that. Yeah that'll give me enough.”

Clients with Lines—Things to Think About Okay, so let's say you're going in. You've got a client who has an IV in their left arm. It looks something like this. They're lying down in bed. What do you need to think about? Yeah, how far can this IV cord go? Right, do you need to get them up on the left side? Do you need to move this [portable IV stand] around so they can get up on the right side of the bed? Is this [line] tangled with anything? Are they going to catch it on anything when they roll over to get up? All that type of stuff. Yep, you don't want to kink this line. It may be uncomfortable to move this arm. That may cause alarms to go off, okay. But the big thing is knowing the distance of your line and planning on your movements around this line, right. But an ADL—what ADL is significantly impacted by this? Toileting—not that bad. Showering—showering not that bad. I heard it—dressing specifically, okay. So, if I would take off my Polo [shirt], what's going to happen? The line is going to wind up here, right? Ah, but generally, it's through this pump thingy. We don't have the pump thingy because that's expensive. I know.

Call Nursing to Disconnect and Reconnect the Lines Instead, what we need to do is contact nursing to remove the IV long enough to get [your client] dressed because this is delivering medication. As OTS and OTAs, we cannot deliver medications. It's not within our scope of practice, right. So, we need to call nursing to disconnect and reconnect. Then, you dress. They can reconnect; you go about your day. Yes, you will never see just a bag. It's always going through a pump. These are used at home. All right then, once you get them up, they're dressed. You get the IV connected. You can just take this along. Yes, you're fine. No, there's a little screw cap, so the actual needle is still inserted. In fact, this may only be on some of the time. They'll still have the needle inserted while they're going to need it—more often than the client wants. All right, so that's line one. [Inaudible question – How much support does an IV pole give for walking? Not a lot. Roughly somewhere around a single-point cane, would be my guess, maybe a little more than a single point-cane, but it's really only going to do that balance piece, all right.

Oxygen Lines

Let’s talk about oxygen, okay. This is our nasal cannula. If they're using a nasal cannula, this will be hooked up to the wall or a portable oxygen canister and delivering oxygen. This [cannula] will be inserted into the naris—into the nose, up over the ears, situated down. Then, it will deliver that increased flow of oxygen. For example, we talked about our first client who had two liters per minute into their nose, effectively making the oxygen more concentrated for them. Now with our nasal cannula, you'll see it has a curve to it. You want to insert it so the curve is pointing down. I had a nursing instructor tell me once that it's like fangs on a snake, right. They're going to go in that way because that's the way our nose goes—our nasal passage goes; it goes in and down to our lungs. If you put it [up] like this, it's just going to point up into the skin of our nose and not be effective, okay. So once you have this on, you hook it to a portable oxygen canister, or you've got a long enough cord to do what you want. You're good to go and walk along.

You also have the oxygen canister here [on the wall], and this is up in their nose. Yes it is. It is within our scope of practice to take it [the oxygen canister] off the wall, switch it to a portable or to a longer hose, right. One other little point here. You may have clients who breathe through their mouth with activity. You may have clients who have it [a cannula], but then it's sitting up here [on top of their nose] or down here [below their nostrils], right. You have to often remind the client, “So, let's get that back into your nose.” You have to remind them, “Take a deep breath in through your nose.” Exactly, all right. I'll pass that around really quick.

The Simple Mask

So, our second [example]. We talked in lab about a simple mask. The simple mask is effectively this [mask], just without this big bag attached to it. So, your nasal cannula can go up to six liters of oxygen per minute. This [mask] can go up to 20 liters per minute. With a simple mask, this is actually a non-rebreather, which contains this extra bag. This has a one-way valve that will get my exhales when I put this in, and it take the exhales down into here [the bag]. So all my spent air is going directly into here [the bag] instead of accumulating into my mask. The simple mask is just without that [valve] part to it. Both of them go up to 20 liters. So, for somebody with a nasal cannula, that may be our client who's recovering from COVID or COPD exacerbation. The simple mask would be that person who's in a more intense situation and can't tolerate activity on six liters; therefore, they need a simple mask. This person is probably in respiratory distress. They are very sick. You still may get them up, but this is going to be definitely one to work closely with nursing on. Some clients may be okay at rest on a nasal cannula and need to move to a simple mask with activity. Again, that's within our scope of practice as long as we're working with our nursing and respiratory colleagues. All right, questions about oxygen?

Catheter Lines

All right, this is a Foley catheter. So, in this case, this tube is inserted into the urethra. You can see there's a little port on the end with holes, and this inflates like a balloon to hold it in the bladder. Nursing will insert it into the urethra, inflate the balloon, and then it will sit there and use gravity to drain urine from the bladder into this bag. Important points here is to keep the bag lower than the bladder because it's drained by gravity. Don't let this hang out on the floor because, again, this is going inside the bladder. Bacteria can just follow its line up. It will be, again, inserted into the urethra and then secured to a leg. This [bag] will be hanging at the bedside.

Important Things to Think About

Now, what do I need to be thinking about? I need to think about kinks, pulling. The bag needs to be emptied. Yeah, usually I can clip it on to the IV pole; it will have something. The walker may be appropriate. I quite commonly clip it onto the edge of my pocket in my pants when I'm walking down the hall. They [your client] may have pockets. Typically, the gown doesn't hold well. The bag is a little too heavy, and gowns don't have pockets. If they're wearing pants, you might be able to pull it off. No, in this case, gravity is enough.

Emptying the Bag It is within our scope to empty the bag. It is actually super simple. Let's say we're going to go in, and the bag is full. We can empty it out. It's actually super easy. Just get a container. We have a little stop-talk lock [on the bag]. Flip that. It unpinches the tube. Drain it into your basin. Record how much you emptied, and pass it [the number amount] on to nursing. I find it easier to drain into something and measure it, just personally, because all the containers I use have measurements on them. All right, and one other piece here.

ADLs to Think About All right, so again, I've got this bag secured to me. What ADL do you need to think about? Pants! How would you put on pants? Let's say that I'm lying in bed. I've got a gown on. Yeah, it's actually really easy because this isn't attached to anything. You simply slip the catheter through the pantleg, then insert the leg to follow, then bring the bag up, and hook it on something else. Do the opposite to get undressed. All right, pass that one around.

Drains

Now, let's look at drains. All right this is a JP drain—a Jackson Pratt drain. It is simply a bulb, a plastic bulb, inserted into let's say a surgical site. Let's say somebody had gallbladder surgery, so they insert this [bulb], secure it with some sutures, put a dressing around there. Then, because it's squeezed in, it has a little bit of suction. It's going to suck that excess fluid from that surgical site. Work with your setting. Generally where I work, it is not within my normal duties to empty this drain because there's added assessment—what does the fluid look like? What's the consistency? What's the volume over what time period? It's actually a much more complex decision that we're not trained in. So again, this is a nursing job to empty this.

Don’t Roll on a Drain Line But this drain is just going to be hanging out like this. What do I need to think about here? It's actually on suction, so that doesn't matter that much. Let's say I’m in bed lying here, got this attached to me. What do you need to pay attention to? What do you need to think about? Don't roll onto it! You don't want to roll onto it because this little thing is going to pop out. May pop out and cause some drainage to go squirting everywhere. Typically, the drainage won't return to the body. This will pop out first in my experience. But, you still don't want that. One, you don't want it just hanging because, again, this just has a couple sutures holding it in. Doesn't have that big bubble like the catheter, so we're going to not want to pull on it. Generally, what you do is once they're standing, secure it to their gown with a clothespin, just so it's hanging there. Again, this isn't being pulled because you don't want to pull that out.

Chest Tubes

One last drain for the day. Guesses? This is our chest tube. This tube is inserted into the chest either around the lungs or the heart. For, let's say, a client who had a pneumothorax. Let's say, a client who had open heart surgery, like a CABG. We saw the video earlier this semester of the women who had open heart surgery and had multiple chest tubes. So, this is in here—this works under suction of some type. This tube may be hooked up to suction, so there's actually suction from the wall constantly pulling to suck the fluid out, or it may work under a siphon effect. When I say siphon effect, it's called a water seal because the water is sealing it to create that siphon. Or, it's under vacuum. If it's under a water seal, you don't need to hook up the vacuum, but you do want to avoid turning it over or knocking it over. Because if you turn it over, you can break the suction that is occurring by the siphon effect, resulting in them having to replace a chest tube. With this, this [suitcase-looking box] would normally just be sitting at the edge of the bed.

Now, what do I need to pay attention to? Yep. One, it has a handle, so you can carry it like a suitcase. It also has hooks that you can use to hook onto the front of the walker, or if there are hooks, hook it on your IV pole.