Insertion of Subcutaneous Indwelling Device AKA 'Subcutaneous Butterfly'

Female1:   Hi, Renee. So today we're going to be putting in a subcutaneous butterfly.

Female2:   Yes. Sometimes when patients are receiving frequent subcutaneous

injections and the injection itself is very painful, like the needle poke, we'll put in

a subcutaneous butterfly. Or perhaps your patient is having a subcutaneous

infusion for hydration or maybe even I've seen morphine given as a subcutaneous

infusion in palliative care. This is a really good device to use.

F1:   So can you use this for multiple things or is it just the one-- ?

F2:   So the rule is each subcutaneous butterfly is used for one particular med. And

that'll make sense once we get it in and we'll talk about how we give meds

through there,

F1:   Okay.

F2:   So I've informed my patient about this idea and they're on board and I've

gathered my supplies. I need my subcutaneous butterfly. I need some

chlorhexidine to cleanse the skin and I need a semi-permeable transparent

dressing. I brought some needleless caps. Once we get the device in we have to

see what kind of cap is on the end. Whenever possible we want to try to avoid the

use of needles and the cap that had been coming on this particular product

required a needle to actually get through the rubber barrier. So we can easily

change that out into a much safer system. So I've done some hand hygiene. I'm

going to put on my gloves.

F1:   And where would you put these on the body?

F2:   You would put this in a place where there's sufficient subcutaneous tissue but

also in a place where we can access it easily.

F1:   So belly, leg, arm.

F2:   Belly, back of arm, yes. Again, you have to assess your patient because every patient will be different in terms of how much tissue they have. So chlorhexidine, like alcohol, you're going to wait for it to evaporate. It has to be dry to have its antiseptic properties.

F1:   Now the antiseptic is all dry and so now you've opened up your package.

F2:   I've opened up my butterfly. There's a wing on here and you'll see on one surface of the wing there's some little dots. That's what's going to come into contact with the patient's skin. I remember when I had my in-service on these they said that the dots just raise this whole surface up a bit to allow some air to circulate. And it would be better for patients' skin. So I've removed the cap. I'm going to hold my pinch and just like any subcutaneous injection we're going to go in at a 45-degree angle. Then you hold the wings and you just pull back. What you're doing is you're pulling the needle out of the patient's skin and into this safety system here.

F1:   Wow, easy.

F2:   Easy, and now it should stay secure unless my patient is restless. I'm going to go ahead and put on the dressing on there. You can see here that this has acted as your safety system. The needle is actually in there. [There's] no chance of it poking me. [The] semi-permeable transparent dressing allows the skin to breathe a little bit but also it allows you to see the site.

F1:   Which is the same principle as an IV, right?

F2:   Exactly. So we're going to put that insertion site right in the center of that clear

window. These edges we can fold over a little bit. This product comes with a couple of extra pieces of tape for security. There's one here that I'm going to put on because I'm going to put the date and time. This thing should probably be changed out at least every seven days. More frequently if the site becomes red and irritated, or swollen. So you can see here that the cap they've supplied us with--

F1:   Oh, it's the rubber one.

F2:   It's the rubber one, so we would have to use a needle every time we were to inject which isn't the end of the world but we should always be thinking about safety. If we can put on a system that is safer for us that's what we should do. So this needleless cap, you can tell by the white ring, tells us that we could Luer lock a syringe on there. What we're going to do is we're going to take off the old and put on the new. Now this is ready for us to use.

F1:   Okay, so now, I'm sure everybody's thinking that we've put this in there, but there's air in here. So what do we do about that?

F2:   Correct. So there is no way to get that air out. You could try aspirating but the end of your needle is in subcutaneous tissue.

F1:   So you're not going to get a flowback, right?

F2:   Exactly. So the patient will get this small volume of air the first dose that you give. The other thing you have to be mindful of is the first dose that you give, the volume always has to be larger than subsequent doses afterwards. So for instance, if the patient was ordered 5 milligrams of morphine and you knew that that was half of a ml and you were to put half a ml in there, part of that dose actually would be sitting in here. So you need to go back to the manufacturer, into your

agency's policies and procedures to find out what extra volume do you have to add to that first dose so that when you give that first dose they actually have received the entire first dose.

F1:   So how do we account for that, especially with narcotics, because you have to put exactly how much you're giving? And you're actually giving more.

F2:   Well, you're actually still giving the dose. What you account for in your wastage, in your narcotic wasted management system, is truly the volume that you're wasting.

F1:   Okay.

F2:   Some of the manufacturers say to take this clip off. Some don't. It really serves no purpose. So you can get rid of it.

F1:   So just to recap, so the first dose would have the extra amount that we would find from the package and the manufacturer. Plus the dose we want to give because this amount will always stay in there.

F2:   Exactly.

F1:   And this is only-- if this was morphine you only use morphine in here.

F2:   Yes.

F1:   Okay, so do we have to label this specifically for morphine?

F2:   So again, depending on your patient, if they have multiple meds that they could receive subcutaneous you would definitely label it so that everybody is very clear what site is being used for which medication.

F1:   Okay.