Nasogastric Tube Insertion

Female1: Hi, Renee. What are we doing today?

Female2: Hi, Wendy. Today we're going to show students how to insert an NG tube. So you always want to know what the purpose of your tube is. So what I find is students in clinical will automatically think that the NG tube is for tube feeding. And I'm not sure where that's coming from. But there are other reasons. So, yes, sometimes we put nasogastric tubes in for tube feeding. Sometimes it's for decompression. In my experience, just because of the nature of nursing that I do, it's most often for decompression. So this patient-- that's what we're going to say [that] we're going to put it in for this case. He's got some distension. His abdomen's really firm. He has no bowel sounds. [This] suggests there's no peristalsis. So his stomach still produces gastric secretions. His small bowel produces secretions. And he's just distending because there's no peristalsis moving it through.

F1: Is there a safety reason why we do that too? In terms of, like, if you're still producing all this gastric secretions in there, he's probably going to feel a little nauseated, right.

F2: Super nauseated. And he may start to vomit and depending on if he's had a surgery he increases the risk of wound dehiscence if he should start to vomit. So it can provide a lot of relief. It's not a pleasant thing to have an NG tube put in, but it can provide a lot of relief. So I had made my assessment. I called my prescriber, they said, yes, put in a nasogastric tube to some low suction. So I've come and I've explained it to Julio already. He's not happy, but he is willing. So in terms of

supplies, I need a stethoscope because I need to-- there's a couple ways we can check placement and we'll have some conversation about that.

F1: Is there different sized tubes?

F2: Yes, there are different sized tubes. Probably a 14 or a 16 is a good size to have on a regular sized adult.

F1: And there's something-- because we're not using this for tube feeds, we want to use it for decompression, so it's a different tube, right?

F2: Really great question. So this is actually a double lumen tube and you know that because it's got this blue pigtail. So just like there can be multiple lumens of IV's to infuse different solutions, in this case the double lumen, -- so what you need to imagine is if this is your stomach and we've put a tube in there and we're sucking it empty, eventually that suction would just happen on the wall of your stomach which could cause lots of irritation. So this second lumen is hooked to the air. So if the stomach is empty this lumen will start sucking [atmospheric] air. So an NG tube that is working perfectly will actually whistle at you. And that's how you know. Lots of them don't whistle and it's because that second lumen gets filled with gastric secretions.

F1: And what's this little cap on the end?

F2: Good question. And because that second lumen gets filled with secretions so often, we put this anti-reflux valve, all it's doing is it's preventing secretions from getting all over the bed and the patient and making a big mess.

F1: Can we get it put in backwards?

F2: Yes, you can. So the way you remember is blue to blue. Okay, so we have our

Levine, that's the brand name. We have some lubricant. So this is not a sterile procedure because the stomach is not sterile. But you need to figure out how much length you need to put into the patient. So we measure from the nose to the earlobe to the xiphoid process.

F1: And I see it's all measured here.

F2: Yes, this one does come with measures. So when I'm at the 52 centimetre mark that's when I know I'm at that [correct] place. If I don't want to use these measures or I have a tube that doesn't have measures, I'm just going to put a little piece of tape there to remind me.

F1: Yes, that's a good little flag to say, yes, I'm in far enough.

F2: Exactly. Okay. So you've got a cup of water and straw there for me because this is really going to help the procedure. The lubricant we're just going to squirt it onto our paper here. I'll tell you what the syringe is for later. And there is some controversy around that. But we'll talk about that. Okay, so Julio, I'm going to put the tube into your-- I'm going to try your right nostril. But first tell me, have you ever been-- had some nasal surgery or been punched in the nose or--

F1: Oh, yeah, I'm a real fighter.

F2: -- is one of your nostrils more patent than the other.

F1: Yeah, I can't breathe out of the left one.

F2: Okay, then we will definitely try the right. Okay. That will be our starting point. Okay. So I'm just going to--

F1: So I've see you've got him sitting up-- pretty much upright here.

F2: Yes. So the chances of him vomiting are quite large. So you might even want to

put on some personal protective equipment or don't stand right in front of him.

F1: Unless you want an earful.

F2: That's right. Okay. So I'm going to put on lots of lubricant here, maybe up six to seven inches and a big blob on the end. I've also already checked my suction and I have my suction tubing ready so that I can hook up to this as soon as I can. So I'm just going to get Julio to put his head forward and I'm going to point the tip of the nasogastric tube up toward the top and we're going to feel some resistance and then I'm just going to try to curl it back through that oral pharynx. At this point he might feel like he's gagging. So I'll say, Julio, I want you to sip some water from that straw and as he's swallowing I'm just going to continue moving it in. Sometimes when you hit that first bit of resistance, you just need to turn it [meaning the NG tube] just a quarter of a turn. That helps the nasogastric tube to find its way down the right path. Now there's a 50/50 chance we can be going into his esophagus or his trachea at this point. So if he were coughing, turning blue, having respiratory distress, you're in the wrong place. So you-- first I would just suggest stop. Remain calm. And then if things don't subside after a few seconds you need to pull it out. All right, Julio, you're doing really well. So at this point sometimes you'll see some gastric secretions come through the tube and that can confirm your placement. Another way to confirm placement is with an x-ray. I'm just securing the tube to his nose.

Text in video: Verify tube placement according to agency policy. Thi8s may include:

- X-ray (gold standard)
- Gentle aspiration with a syringe to observe gastric contents for amount, color, and quality. Gastric contents can be green, off white, tan, bloody, brown, or yellow.

- Use pH paper to measure pH of aspirate. Gastric secretions are acidic.

** Nasogastric tubes used for feeding MUST have x-ray confirmation prior to initiating the tube feed.

F2: That's a little bit long, so I would trim that because that's really going to bug him. I can trim that right now, actually. And I would come back and put another piece across here. Some institutions have really fancy pieces of tape that you can use to do this same thing.

F1: Like one of those StatLoc kind of things but for NG's.

F2: Yes, so if you have that luxury, use it because they're really great but if you don't, you can just use waterproof tape.

F1: I've also seen it-- this is put on the other way so it's up here and then the two legs go around the bottom.

F2: Yes, you bet. As long as it's secure. And that's one of the things you check first thing on your shift and frequently throughout is are your tubes secure because what happens, I think, is the heat from the breath coming out of the nose and the oils from our nose deteriorate the quality of the tape up here and here. And then sometimes the tube ends up sliding. So you'll have to renew that tape. So you check placement by looking at secretions. Maybe there are no secretions coming out. You know you're in as far as you had intended to. So you could even aspirate for secretions to see if anything comes out.

So next I'm going to hook this up to my suction and put another piece of a tape and a safety pin and just secure that so that there's not a lot of wear and tear on his nare because just like the urinary meatus the nose can get very sore and raw

and hurt. Then we'll hook him to suction and hopefully we'll get some relief from this distension.