Replacing and Cleaning an Inner Tracheal Cannula

Nurse: Hi Heather. Good morning. What are we going to do today?

RT: Today we're going to go over how to change the inner cannula and clean it. If the patient is going home with a tracheostomy tube, we usually tend to just take the inner cannula out dispose of it put a new one in. But if they're going home with their tracheostomy tube, just to save them a little bit of money, we can also show them how to clean a disposable type of inner cannula.

Nurse: OK. So when would you have to clean it? Is there a routine?

RT: Usually we try to change the inner cannula at least every six hours. It will vary from clinical sites how often that's done. Usually the respiratory therapist will come up and do this. An assessment; change everything; look at the site; check cough pressure about every six hours. And part of that is also changing the inner cannula and ties if needed. Sometimes it's a shared procedure with nursing as well so if that inner cannula looks really bad or gets plugged up the nurse can also look after it, change it out, dispose of it put a new one in.

Nurse: OK so this is actually a skill that both of us, nurses and RTs, need to do.

RT: Absolutely.

Nurse: Is there any risk when taking out that cannula? Will (the patient) still be able to breathe?

RT: You bet. The purpose of the inner cannula is for safety. In case the patient coughs up a huge plug or something like that, we can quickly take the inner cannula out put a new one in. So this is where it's really important especially if the patient needs to be suctioned to ensure that that inner cannula is inserted and not out when they suction. Because if the patient does cough up a huge plug and the inner cannula is out, it's going to plug up the only airway they have. So now it's an emergency situation. We have to take everything off. They have to call up help because now that trach tube has to be changed.

Nurse: OK just to recap here…when suctioning we suction through the inner cannula.

RT: Absolutely.

Nurse: And then if it does plug up or they can't breath they can quickly take that out quickly remove it and then they can breathe.

RT: They can breathe. We've got time to get another inner cannula. Put it back in again because this is their airway. This is the only way they have to breathe. So we have to ensure that it's safe and it's unobstructed.

Nurse: What about sizing? How do you know which one fits?

RT: Tracheostomy tubes are usually sized the same as we would for an endotracheal tube. So if we were going to put a seven endotracheal tube in a patient we would start with a 7 for a tracheostomy tube. That may vary a little bit from patient to patient. And then when they start to get weaned, or trying to get them to breathe without the tracheostomy tube, we can actually size them down so we'll go from a seven to a six. We'll go from a cuffed to an uncuffed type tube as well.

Nurse: So if the trachea is a seven then the inner cannula is also a seven?

RT: Absolutely. The numbers should match. And that's a really important point. This particular brand of tracheostomy tube is color coded so the inner cannula has to be green. That makes it really simple it makes it really easy. But it's important to know because if you put a smaller size of inner cannula in, it makes it much tougher for the patient to breathe. It increases the resistance to breathing because you've got more air space around it. It's like trying to suck through a straw. So you have to make sure that you use the right size of inner cannula. You replace with the same size that was in there before. So like I said this one is easy. Green goes with green. And we would reinsert it with a green type of tube.

Nurse: So there is some safety considerations like if this is a seven… What do you have to have of the bedside.

RT: So at the bedside its part of the equipment check that the RT would do every six hours just to make sure all the safety equipment is there. There'll be a bagger and a mask in case the trach comes out. They'd also have a trach dilator as well. So this helps keep the stoma open in case we had to reinsert another tracheostomy tube. There would be a size seven which is the same size as they have and a size smaller.

Nurse: OK. Because if it came out the stoma might get smaller. So you need it to keep the hole open. So same size and one size smaller and the dilator, bagger, and a mask as well.

RT: Yes. Just in case something happens and we have to bag mask.

Nurse: OK.

RT: Hopefully they'll still have that that airway.

Nurse: So if they're coughing up a lot of secretions I might have to change that. I might have to suction a lot more and I might change that more often. Well how do I go about that?

RT: So we would come up and assess the patient. Do they need to be suctioned first? If they do we'd suction first before we start changing the outer cannula; making sure the inner cannula is in place. Then we would get all the equipment ready that we would need for changing the inner cannula or cleaning it and reinserting it, whichever the case may be. If we were just changing it out I'd get another one. It would be in a package. It would be clean. I've assessed them. They sound really good. They don't need to be suctioned. I'd get some gloves on. Let the patient know what I'm doing.

Mr. Jean Luke I'm going to take care of this. Changing the inner cannula is a really simple procedure. So it's just holding the flange so that you're not pulling the tracheostomy tube in and out. And then just pull this out.

Nurse: And will the patient feel something different with that?

RT: Not usually not unless you're pulling on the tracheostomy tube and wiggling it around. They won't feel this coming in and out at all. That would be disposed of or cleaned. Then we would take the new one, again holding the flange. And it should slide in nicely and it clicks when it's in place. And this is the pull ring on it here. And it won't get coughed out. It should sit really firmly in place. So that's it… changed.

If we were cleaning this; if we were showing them how to clean it we would have a little bin or a little cup of normal saline. It would be sterile normal saline; so from your bottles not from the tap. No never tap water only sterile water. And that would go in there. And then we could clean it out with q tips and show the patient how to do that. It would just be a matter of cleaning it out putting a q tip through.

Nurse: Do they ever use those pipe cleaners?

RT: They can use pipe cleaners as well. Q tips are cheaper. If they were doing this at home we would show, then make sure it's clean and then rinse it well. Give it a shake so you don't have droplets of water going down their tracheostomy and making them cough. So give it a little bit of a shake and then they can reinsert it again. So it's a really quick clean it does save them a little bit of money as well. So that's changing your entire cannula. Then reassess. Make sure they're fine. They can do a little cough for you. Ensure it's still going to stay in place.

Nurse: Well if you were in the hospital do you have to chart the trach change?

RT: Absolutely. They usually have a tracheostomy flow sheet beside them or part of their chart depending on where they are in the hospital. We would just check off we've done it date time etc. and who did it.

Nurse: So what do nurses do? If both RT and the nurses are caring for this, do we chart on yours and ours or both (documents)?

RT: You would probably have to chart it on the trach flow so people knew that all that had been completed. And it would also probably be part of their own soap notes as well. (follow agency guidelines)