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Clinical Skills

Name of the Procedure/Rubric/*Rationale*: Saline Lock Flushing of Peripheral IV Catheter

Step	Procedure	Yes	No	Remarks
1.	Perform hand hygiene.			
2.	Collect supplies in a clean tray: - Alcohol Swabs - 3-5 ml syringes prefilled with 0.9% normal saline (sterile) - Or, sterile 3-5 ml syringe and sterile 0.9% normal saline - Clean gloves			
3.	Greet and identify the client using two identifiers (name and date of birth). Explain what you will do. Obtain the client's consent.			
4.	Perform hand hygiene.			
5.	Go to the side of the bed where the saline lock (SL) that needs to be flushed is present, raise the bed to working height, and lower the side rail (if raised)			
6.	Don clean gloves.			
7.	Assess the IV site for signs and symptoms of phlebitis. If the IV site is red, tender, or swollen, then SL needs to be discontinued. Do not flush.			
8.	Remove the cap of the prefilled saline syringe and purge the air out by gently pushing on the plunger upwards, keeping the syringe vertical. OR, If pre-filled syringe is not available then, prepare a saline flush syringe by:- 1- Uncap a new bottle of 0.9% NS. If the bottle is already open, clean the rubber stopper with an alcohol pad or			

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	an antimicrobial or antiseptic swab for 15 seconds and let it dry for 30 seconds. 2- Take out the syringe from the wrapper, pull the syringe plunger back up to 3-5 ml to fill the syringe with that amount of air. 3- Uncap the needle or needle-free device and put it into the stopper. 4- Push the plunger in all the way to push the air. 5- Turn the bottle upside down, pull back on the plunger and withdraw 3-5 ml saline solution. 6- Use one hand aseptic technique to cap the syringe needle and remove the needle from the syringe. 7- Hold the syringe vertically with it's hub facing upwards. Gently tap so air bubbles rise on the top of the solution. Then gently purge the air out of the syringe by pushing on the plunger. *Purging air out of the syringe prevents air embolism.*			
9.	Make sure the hub of the syringe does touch anything to ensure its sterility. *Keeping syringe hub sterile prevents cross-infection through IV catheter.*			
10.	Scrub the end/hub of the IV extension tube/neutral connector for 15 seconds and let dry for 30 seconds. *All access ports should be disinfected to prevent infection.*			
11.	By pushing and twisting the syringe, attach it onto the end/hub of the IV extension tube or neutral connector.			
12.	Open up the clamp (if present) and pull back on the syringe plunger and watch for blood to appear in the catheter. This is a sign that the catheter is working correctly. If the blood does not appear when pulling back the plunger or if there is resistance while you try to push the saline with the syringe, stop. Do not force the plunger to push the saline. IV line is probably blocked by the blood clot and needs to be changed.			

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13.	Push the saline into the catheter using pulsating pressure (push-pause) technique if there is no resistance felt. Stop if the client complains of pain or there is swelling. IV line needs to be taken out.			
14.	After flushing the IV catheter with 3 -5 ml of normal saline, clamp the neutral connector/extension tubing while continuing to push the syringe. Or if there is no clamp, continue pushing the syringe while disconnecting the syringe from the neutral connector/IV extension tubing hub/end. *Continuing to push the syringe while disconnecting applies positive pressure and prevents flashback of the blood into the IV catheter thus preventing blood clots from forming in the lumen.*			
15.	Dispose of the used materials as per agency policy.			
16.	Remove gloves and perform hand hygiene.			
17.	Ask the client for any discomforts, ensure the call bell is within the client's reach, lower and lock the bed, and assess to determine the need for side rails before you leave.			
18.	Perform hand hygiene.			
19.	Document saline flushing procedure and assessments made as per agency policy.			

References:

Clinical Procedures for Safer Patient Care by British Columbia Institute of Technology (BCIT) , licensed under a Creative Commons Attribution 4.0 International License, Retrieved from: https://ecampusontario.pressbooks.pub/clinicalskills/chapter/3-3-care-of-iv-tubing-administration-sets/