PICC (Peripherally Inserted Central Catheter) Removal-Action/Rationale

	ACTION		RATIONALE
1.	Check physician order for PICC removal and determine **pre-insertion** catheter length and arm circumference.	1.	Assures that physician orders are followed and that pre-insertion length is determined.
2.	Explain procedure to patient.	2.	Informs patient.
3.	Gather all equipment and supplies needed.	3.	Organizes materials needed for care.
4.	Wash hands/provide hand hygiene and clean work area with anti-germicidal cleanser.	4.	Reduces microorganisms.
5.	Place a linen saver pad or protective barrier under patient's affected arm.	5.	Reduces microorganisms.
6.	Have patient in sitting or recumbent position with the catheter exit site at or below the level of the heart and the patient's arm extended perpendicular to the body.	6.	Aids in removal of catheter.
7.	Remove any tape if any on tubing or extension. Inspect catheter-skin junction.	7.	Aids in removal of catheter and provides assessment of area.
8.	Don non-sterile gloves.	8.	Reduces microorganisms.
9.	Open 2-4 sterile gauze pads.	9.	Provides supplies needed to assist in removal.
10.	Stabilize the catheter at the insertion site with one hand. Without dislodging the catheter, use your other hand to gently remove the dressing by pulling it toward the insertion site. Remove any stabilization device or sutures. Discard dressing and gloves. Wash hands/provide hand hygiene.	10.	Provides stabilization and reduces microorganisms.
11.	Don clean non-sterile gloves.	11.	Reduces the spread of microorganisms.
12.	Clean the insertion site with skin antiseptic cleanser Providone-iodine or prepackaged cleanser such as Chlorhexidine-gluconate with Isopropyl Alcohol. Clean according to cleanser instructions included in the kit or in a circular motion starting at insertion site and	12.	Provides cleanser to the site.

	working outward, allow to air dry for approx. 30 seconds.		
13.	Place sterile gauze just above insertion site, (to have ready to apply pressure when catheter is removed).	13.	Allows for the gauze to be in close proximity of exit site.
14.	Next, instruct the patient to perform the Valsalva maneuver or, if Valsalva maneuver is contraindicated, have patient exhale during procedure (prevents air from being accidentally drawn into the systemic venous circulation). Grasp the catheter close to insertion site and withdraw the catheter with smooth, gentle motion in small increments. Approx 3-5 c, (1-2 in.) at a time, returning to the insertion site each time. It should come out easily. If you feel resistance, **stop**. If procedure is unsuccessful, stop, cover insertion site with sterile gauze and call the physician. **DO NOT** use force.		Valsalva Maneuver –The patient attempts to forcibly exhale with the glottis, nose (pinch closed), and mouth closed. Contraindications to the Valsalva maneuver include aortic stenosis, recent MI, glaucoma, and retinopathy.
15.	Once the catheter has been successfully removed, immediately apply light manual pressure to the site with a sterile gauze pad for one full minute.	15.	Reduces the chance of bleeding.
16.	Assess the insertion site for redness, drainage or hematoma. Apply either: sterile antiseptic ointment if physician orders, or sterile petroleum-based ointment to exit site. Then cover with sterile gauze, transparent dressing. May tape to secure, if needed. Notify physician if any redness, drainage or hematoma noted.	16.	Applying ointment to exit site protects and assists in occluding/closing exit site. Sterile gauze and transparent dressing is recommended.
17	Patient should be maintained in the recumbent position for 30 minutes post removal.	17.	Reduces the potential for complications such as air embolism or bleeding.
18.	Measure and inspect the catheter and arm circumference. If any part has broken off during the removal, notify physician	18.	Provides safety measures.

	immediately and monitor the patient for any signs of distress. (If distress noted call 911.) **See Emergency Measures below**.		
19.	Compare the measurement obtained with the pre-insertion measurements for the line and the arm circumference. Notify the physician of any differences.	19.	Provides safety measures.
20.	Instruct the patient/caregiver in the site care and signs and symptoms of infection and potential complications. The dressing may be changed after 24 hours, and then every 24 hours until healed with gauze and transparent dressing.	20.	Informs the patient/caregiver on care and signs and symptoms to report. (Recommended: sterile gauze and transparent dressing to cover/protect site.)
21.	Notify pharmacy that the PICC has been discontinued. Notify physician and supervisor of any PICC related complications.	21.	Provides continuity of care.
22.	Document all of the above in the patient's record.	22.	Provides for continuity of care.
	PICC Removal with Culture		**PICC Removal with Culture**
1.	Check physician order for PICC removal with culture and determine pre-insertion catheter length and arm circumference.	1.	Assures physician's orders are followed and pre-insertion length.
2.	Explain procedure to patient.	2.	Informs the patient.
3.	Gather all equipment and supplies.	3.	Organizes materials needed for care.
4.	Wash hands/provide hand hygiene and clean work area with anti-germicidal cleanser.	4.	Reduces microorganisms.
5.	Place a linen saver pad or protective barrier under patient's affected arm.	5.	Reduces potential for spread of microorganisms.
6.	Have patient in sitting or recumbent position with the catheter exit site at or below the level of the heart and perpendicular to the body.	6.	Aids in removal of catheter.

7.	Remove tape if any on tubing or extension. Inspect catheter-skin junction.	7.	Aids in removal of catheter and provides assessment of area.
8.	Don non-sterile gloves.	8.	Reduces the spread of microorganisms.
9.	Mask all participants since culture is to be obtained.	9.	Reduces the potential for infection/contamination.
10.	Using wrapper as sterile barrier open tray.	10.	Provides barrier.
11.	If sterile scissors, gauze and specimen container are not in tray open them, may place in tray maintaining sterile technique.	11.	Assimilates equipment.
12.	Stabilize the catheter at the insertion site with one hand. Without dislodging the catheter, use your other hand to gently remove the dressing by pulling it toward the insertion site. Remove any stabilization device or sutures. Discard dressing and gloves. Provide hand hygiene/wash hands.	12.	Stabilizes catheter while allowing for removal of dressing.
13.	Apply sterile gloves.	13.	Reduces spread of microorganisms.
14.	Clean the insertion site with skin antiseptic cleanser Providone-iodine or prepackaged cleanser such as Chlorhexidine-gluconate with Isopropyl Alcohol. Clean according to cleanser instructions included in the kit or in a circular motion starting at insertion site and working outward, allow to air dry for approx. 30 seconds.	14.	Cleanses site.
15.	Place sterile gauze just above insertion site, (to have ready to apply pressure when catheter is removed-do not touch tip of catheter).	15.	Allows for the gauze to be in close proximity of exit site.

16.	Next, instruct the patient to perform the Valsalva maneuver, or if Valsalva maneuver is contraindicated, have patient exhale during procedure (prevents air from being accidentally drawn into the systemic venous circulation). Grasp the catheter close to insertion site and withdraw the catheter with smooth, gentle motion in small increments. Approx 3-5 c, (1-2 in.) at a time, returning to the insertion site each time. It should come out easily. If you feel resistance, **stop**. If procedure is unsuccessful, stop, cover insertion site with sterile gauze and call the physician. **DO NOT** use force.	16.	Valsalva Maneuver –The patient attempts to forcibly exhale with the glottis, nose (pinch closed), and mouth closed. Contraindications to the Valsalva maneuver include aortic stenosis, recent MI, glaucoma, and retinopathy.
17.	Once the catheter has been successfully removed, immediately apply light manual pressure to the site with a sterile gauze pad for one full minute.	17.	Reduces the possibility to bleeding.
18.	Assess insertion site for redness, drainage, or hematoma then cover with a sterile gauze. Notify physician if any redness, drainage or hematoma noted.	18.	Provides for assessment of area.
19	Measure and inspect the catheter keeping catheter tip sterile. If any part has broken off during the removal, notify the physician immediately and monitor patient for signs of distress. **Call 911 if distress noted**. See below for emergency measures.	19.	Provides safety measures.
20.	For culture: with sterile scissors, hold catheter over the opening of sterile container, cut approximately 2 in. off end of catheter. Allow cut piece to fall into sterile container.	20.	Provides portion of catheter for analysis.
21.	Now that culture has been obtained, apply either: sterile antiseptic ointment if physician orders, or sterile petroleum-based ointment	21.	Applying ointment to exit site protects and assists in occluding/closing exit site.

	to exit site. Then cover with sterile gauze and transparent dressing. May tape to secure, if needed. Notify physician if any redness, drainage or hematoma noted.		Sterile gauze and transparent dressing is recommended.
22.	Patient should be maintained in the recumbent for 30 minutes post removal.	22.	Reduces potential for complications such as air embolism or bleeding.
23.	Compare the measurement obtained with the pre-insertion measurements for the line and the arm circumference. Notify the physician of any differences.	23.	Provides safety measures.
24.	Instruct the patient/caregiver in site care and signs and symptoms of infection or complications. The dressing may be changed after 24 hours, and then every 24 hours until healed.	24.	Informs the patient/caregiver of care that is to be provided and signs and symptoms to report.
25.	Notify pharmacy that the PICC has been discontinued. Notify physician and supervisor of any PICC related complications.	25.	Provides continuity of care.
26.	Document all the above in the patient's medical record.	26.	Provides a record of care provided.
	Special Considerations		**Special Considerations**
1.	Know total catheter length prior to performing PICC removal.	1.	Allows the clinician to determine if the catheter removed is shorter/damaged.
2.	Routine tip cultures are not required: obtain order for culture if indicated (i.e. infection suspected.)	2.	Allows for prompt diagnosis.
3.	Do not pull catheter if any resistance is felt. Follow above instructions if this should occur.	3.	Provides safety measures.
4.	After 24 hours dressing is to be changed, teach family the signs and symptoms to report and how to perform dressing change.	4.	Provides education of care.
5.	Document procedure, patient tolerance, site assessment, education provided related to	5.	Provides a record of care given and patient's tolerance.

	PICC removal.		
6.	Notify physician if any problems occur with: A. Excessive bleeding B. Drainage C. Swelling of extremity D. Removed catheter length less than insertion length, and/or tip is not intact E. Redness or irritation at site	6.	Informs physician of complications.
7.	When removing catheter avoid direct pressure on the insertion site and catheter tract.	7.	Helps to avoid venospasm.
8	Having patients arm perpendicular to the body will minimize bends in the catheter which will aide in the removal of the catheter.	8.	Ease of removal.
	Emergency Measures		**Emergency Measures**
	Catheter Breakage: If any portion of the catheter breaks during removal, immediately apply a tourniquet to the upper arm, close to the axilla, *to prevent advancement of the catheter piece into the right atrium*. Then check the patient's radial pulse. If you don't detect the radial pulse, the tourniquet is too tight. Notify physician. **Call 911 if distress noted.** Keep the tourniquet in place until you speak to the physician for further orders or until EMS arrives.		Provides safety measures while awaiting emergency personnel arrival**.**
	Signs and Symptoms of air embolism: Sudden onset of dyspnea, chest pain, coughing, hypotension, Jugular vein distention, tachyarrhythmias, wheezing, tachypnea, altered mental status, altered		Education on signs and symptoms to monitor.

	speech, changes in facial appearance, numbness, paralysis, a loud continuous churning sound heard over the pericardium during auscultation. If air embolism is suspected: Place patient in the left lateral decubitus position immediately if not contraindicated; verify that the exit site is occluded provide basic life support and **call 911**, notify physician. Continue to monitor vital signs and observe patient.		Provides safety measures while awaiting emergency personnel.

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