

Student name.....

Teacher name.....

Date / / 2021-2022

PROCEDURE: Medication – Preparing vial containing powder

No.	Skill steps	Rational	D	M	A	S	I
			0	1	2	3	4
1.	Prepared procedure equipment: <ul style="list-style-type: none"> • Patient's medical record • Medication chart • Syringes and needles • Gauze • Disinfecting solution or alcohol swab • Hand rub gel • Sharps box • Plastic tray 	Organizing skill equipment facilitate accurate skill performance					
2.	Wash hands using effective techniques	Hand washing prevents the spread of infection					
3.	Review order, including medication name, dose, route and time of administration. Select the proper medication from the patient's medication drawer or unit stock.	Allows nurse to administer medication properly and to monitor client's response					
4.	Check the expiration date on the vial	Medication potency may increase or decrease when outdated					
5.	Remove cap covering top of unused vial to expose sterile rubber seal, keeping rubber seal sterile. If reusing multidose vial, firmly and briskly wipe surface of rubber seal with alcohol swab and allow it to dry	Vial comes packaged with cap to prevent contamination of rubber seal. Cap cannot be replaced after seal removal. Allowing alcohol to dry prevents needle from being coated with alcohol and mixing with medication					
6.	Pick up syringe. Attach the needle to syringe and remove needle cap. Draw up the prescribed amount of diluent into syringe.	Prepares diluent for injection into vial containing powdered medication.					
7.	With vial on flat surface insert tip of needle with beveled tip entering first through center of rubber seal. Apply pressure to tip of needle during insertion	Center of seal is thinner and easier to penetrate. Injecting beveled tip first and using firm pressure prevent coring of rubber seal, which could enter vial or needle					
8.	Inject diluent into vial and remove needle.	Diluent begins to dissolve and reconstitute medication					
9.	Mix medication thoroughly. Roll in palms. Do not shake	Ensure proper dispersal of medication throughout solution. Shaking produces bubbles.					
10.	Pull back on plunger to draw amount of air into syringe equivalent to volume of medication to be aspirated from vial	Air must first be injected into vial to prevent build up of negative pressure in vial when aspirating medication.					

11.	Inject air into the vial's airspace; holding on to plunger may be forced backwards by air pressure within the vial.	Air must be injected before aspirating of the fluid. Injecting into vial's airspace prevents formation of bubbles and inaccuracy in dose.					
12.	Invert vial while keeping firm hold on syringe and plunger. Hold vial between thumb and middle fingers of non-dominant hand. Grasp end of syringe barrel and plunger with thumb and forefinger of dominant hand to counteract pressure in vial	Inverting vial allows fluid to settle in lower half of container. Position of hands prevents forceful movement of plunger and permit easy manipulation of syringe					
13.	Keep tip of needle below fluid level	Prevents aspiration of air					
14.	Allow air pressure from the vial to fill syringe gradually with medication. If necessary, pull back slightly on plunger to obtain correct amount of solution	Positive pressure within vial forces fluid into syringe (unless vial has been used several times).					
15.	When desired volume has been obtained, position needle into vial's airspace; tap side of syringe barrel carefully to dislodge any air bubbles. Eject any air remaining at top of syringe into vial	Forcefully striking barrel while needle is inserted in vial may bend needle. Accumulation of air displaces medication and cause dose error.					
16.	Remove needle from vial by pulling back on barrel of syringe	Pulling plunger rather than barrel causes plunger to separate from barrel, resulting in loss of medication					
17.	Hold syringe at eye level, at 90-degree angle to ensure correct volume and absence of air bubbles. Remove any remaining air by tapping barrel to dislodge any air bubbles. Draw backs slightly on plunger; then push plunger upwards to eject air. Do not eject fluid	Holding syringe vertically allows fluid to settle in bottom of barrel. Pulling back on plunger allows fluid within needle to enter barrel so fluid is not expelled. Air at top of barrel and within needle is then expelled					
18.	Change needle to appropriate gauge and length according to route of medication.	Inserting needle through a rubber stopper may dull beveled tip. New needle is sharper, because no fluid is along shaft.					
19.	Discard the used vials and used needle in puncture proof- sharps box or container.	To prevent injuries					
20.	Clean work area and Perform hand hygiene.	Hand washing prevents the spread of infection					