Adding Multivitamins to Parenteral Nutrition (PN) Solution

If you are to add multivitamins to your PN solution, follow the steps on this handout.

Supplies
- Non sterile gloves (for caregiver)
- 70% alcohol or disinfectant household cleaner spray
- Paper towel
- Bag of PN solution
- Vials (bottles) of multivitamins (added every day)
- 10 ml syringe
- 18 gauge filter needle
- 3 alcohol pads

If more than one vial of medicine is used, you will need another syringe, needle and alcohol pad for each additional vial.
Getting the Vitamin Solution Ready

1. Prepare the work area by cleaning the table with 70% alcohol or disinfectant household cleaner spray and a paper towel. Let the surface air dry.

2. Wash your hands well with soap and water.

3. Lay out the needed supplies on the clean surface.

4. Throw away any packages that are not sealed. This includes PN bags without a plastic cover over the end where the tubing spike will be put into the bag.

5. If you are the caregiver, put on non sterile gloves.

6. Take the plastic cap off the medicine vial.

7. Push down on the rubber stopper to mix the water and medicine powder. Shake the vial gently to mix well.

8. Clean the rubber stopper with the alcohol pad.

9. Screw the needle and cap onto the syringe. Be careful not to touch the hub of the needle or the tip of the syringe.

10. Pull the cap straight off needle. Do not touch the needle. If the needle is touched, replace it with a new (sterile) needle.
11. Pull the plunger of the syringe back to draw air into the syringe equal to the amount of vitamins (_____ ml) to be added.

12. Stick the needle through the middle of the rubber in the top of the vial. Push the plunger of the syringe down to put the air into the vial.

13. Turn the bottle of vitamins upside down, carefully holding the syringe and needle. Pull back on the plunger to get medicine into the syringe. Always keep the needle below fluid level to get all the medicine out.

14. Tap the syringe barrel so any air rises to the top. Push the air out of the syringe back into the vial. Pull back on the plunger to get the amount of vitamins in the syringe.
15. Remove the needle from the vial.

16. Carefully replace the needle cover without touching the needle. Lay the syringe down.

If more than one vial of multivitamins is needed, repeat steps 6 - 16.

Adding the Vitamins to the Bag

1. Clean the injection port on the PN bag with an alcohol pad. Let it dry 2 minutes.

2. Wipe the PN bag injection port with another alcohol pad.

3. Take the cap off the needle. Push the needle straight into the injection port. Be careful not to puncture through the port with the needle. Push the plunger so the medicine goes into the PN bag.
4. Throw the needle and syringe away in a puncture-proof container. Do not re-cap the needle.
5. Mix the vitamin into the PN by gently turning the bag end for end.
6. If you are the caregiver, remove your gloves.
7. Put the supplies away and wash your hands again with soap and water.

**Storing Multivitamins**

- Multivitamins must always be stored in the refrigerator at 36 degrees to 46 degrees F.
- Unmixed vials can be kept in the refrigerator for 1 month. Mixed vials can be kept for only 14 days. If you mix a vial and do not use it right away, write the date it was mixed on the vial.
- Protect the bottles from light.
- Multivitamins are added to the PN solution everyday just before giving the PN.

- **Talk to your doctor or others on your health care team if you have questions.** You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.