



TPN ADMINISTRATION



A Guide for Patients in the Home

Phone Number: _____

Nurse/Contact: _____

Receiving IV Therapy in the Home

Your doctor has ordered for you to receive your IV medication at home. Receiving IV medication in the home is safe and effective. Your home IV pharmacy and nursing staffs are here to make your home IV experience work for you. We would like to share some basic information with you in this booklet. Please contact your IV nurse or your pharmacist if you have more questions.

What can I expect?

Giving My Own Medication

Being able to have your medical care delivered in the security of your own home is a comfort to many people. Patients and/or caregivers can easily be taught “high-tech” care in the home. Home care is self-controlled care. Self-controlled care means the patient or caregiver are in control of their care. Our staff of nurses and pharmacist will work with you and/or your caregiver to safely teach the care skills you need.

Schedule of Nursing Visits

- A trained home IV nurse will work to teach you and your caregiver to give your medication and care for your IV catheter.
- How often the nurse comes will be based on your ability to care for yourself and your physical needs. Together, you and your nurse will make a plan as to how often the nurse will need to visit. Remember, once you are able to give the medication yourself, the IV nurse is still available to you 24 hours a day if questions or problems arise.

Supply Storage

- Supplies should be kept in the bag or bin provided until you are ready to use them. You will need to keep your supplies in a safe, low “traffic” area of your home and out of the reach of pets and small children.

Supply Delivery

- Your Advanced Home Care pharmacist will plan a certain day of the week that your supplies and medication will be delivered.
- You will receive a delivery **before** you need your new order of supplies and medications. If you run low or have to waste a supply or need more or less of a certain supply, please contact your pharmacist.

Medication Storage

Your medication should be stored in the refrigerator unless you are told otherwise. Here are a few helpful things to remember for refrigerated medications:

- Lay the medication out of the refrigerator before your dose time as instructed by your IV nurse. Lay the medication in a clean dry area.
- **Do not warm the medication using hot water, sun or a microwave oven.**

Disposal of IV Supplies and Medication

- All used syringes, IV tubings and bags of medication can be put in the regular trash can unless they have been used to give chemotherapy. All chemotherapy medications and supplies must be placed in a special chemotherapy waste container for safety.
- All needles used to give your IV medications must be placed in a needle box which Advanced Home Care will provide. Contact Advanced Home Care when your needle box is **2/3 full** for a new needle box to be delivered. When your needle box gets full, make sure that the lid is completely secured and place the box in the regular trash.

Bathing

- A sponge bath is best to protect your IV catheter dressing from getting wet and loose.
- Cover your catheter dressing with a plastic bag or wrap and secure with tape. There are several brands of protective plastic type coverings for IV catheters available at various retail drug stores.
- If you must shower, point the nozzle **downward** to avoid direct contact with the water. Your IV catheter site must stay dry.

If your IV catheter dressing becomes loose, secure the edges of the dressing with extra tape. Contact your IV nurse to change the dressing. **Do not change the dressing yourself if you have not been trained to do so by the nurse.**

TPN Administration

Total Parenteral Nutrition (TPN) is a mixture of protein, carbohydrates, minerals, and vitamins. It is one way to receive complete nutrition directly into a vein. This booklet is a guide to TPN administration. A nurse will teach you all the steps included in this booklet. Use the booklet as a guideline and to answer questions you may have after your teaching session is completed.

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Section One: Preparing Additives

Medications such as vitamins or insulin may be added to your TPN before you 'hang' the TPN bag. Strict cleanliness must be used when preparing and adding these additives to the TPN bag.

Vitamins

- Vitamin bottle(s)
(Vitamins will be 2 bottles)
- 10ml syringe (adults)
- 5 ml syringe (children)
- Alcohol prep pads
- Liquid soap
- Needle

Insulin

- Insulin bottle
- Insulin syringe
- Alcohol prep pads

Other:_____

1. **Wash your** hands with warm water using liquid antibacterial soap. If soap and water are not available, use hand gel (minimum of 60% ethyl alcohol). Rub until completely dry.



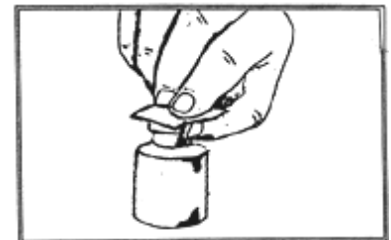
2. **Clean Work Area**

Specify a clean work area free from clutter.
You may use a paper towels or a clean hand towel on your work area.

3. **Gather** your supplies.

4. **Wash** your hands as in Step # 1.

5. **“Flip off”** the lid from medication bottle(s).

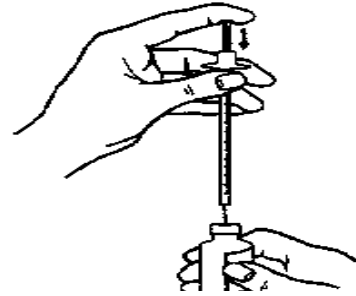


6. **Scrub** the top of the bottles(s) with an alcohol prep pad.

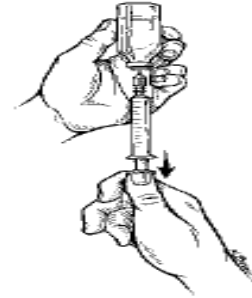
7. **Attach** the needle to the 10 ml syringe.
(The insulin syringe will have the needle already attached.)

8. **Fill the 10 ml syringe with air by pulling the plunger back to the 5 ml mark.**

9. **Remove the needle cover. Inject 5 mls of air into the first vitamin bottle.**



10. **Turn the bottle with syringe connected upside down. Withdraw all of the medication into the syringe.**



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11. **Remove the syringe from the bottle. Pull the plunger with the vitamins to the 10 ml mark. Insert the syringe into the 2nd vitamin bottle. Turn the bottle with the syringe connected upside down. Inject 5 mls of air into the bottle. Withdraw all of the medication into the syringe.**

12. **Remove syringe from bottle and replace the needle cover. NOTE: Repeat steps 4 through 8 with the second vitamin bottle drawing all of the vitamins in the same syringe.**

13. **Insulin**
Repeat steps 7-8 using the insulin syringe and insulin bottle.
You **do not** need to inject air into the insulin bottle.
Withdraw insulin amount as listed on your TPN bag label.

14. To remove air bubbles from the syringe, hold the syringe with the needle pointing straight up and gently tap the side of the syringe. Push a small amount of fluid through the needle
Recap needle to keep it sterile.

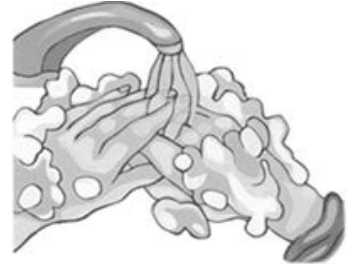
15. **Lay the syringe(s) beside bottles to be added to the TPN bag.**

16. **Instructions for preparing other additives:**

Section Two: Preparing TPN Bag

Supplies:

- TPN Solution – remove from refrigerator two hours before use.
- Saline syringe
- Prepared additive(s)- (vitamins, insulin, etc.)
- Alcohol prep pads
- Liquid antibacterial soap



1. **Wash your hands** with warm water using liquid antibacterial soap. If soap and water are not available, use hand gel (minimum of 60% ethyl alcohol). Rub until completely dry.

2. **Gather your supplies.**

3. **Clean Work Area**

Use paper towels or a clean hand towel on a table for your work area.



4. Wash your hands as in Step # 1.

5. **Check your medication bag for the following information:**

- Your name
 - Expiration date (Do not use if date has passed.)
 - Medication name / dosage / frequency
 - Presence of any cracks / tears / leaks / particles / cloudiness
- Do not use if there are any problems with your medication.
Call your pharmacy if you have a dose that you can't use.

6. **Scrub** the additive port on the TPN bag with an alcohol prep pad. *Note: Clean the port before adding each additive. If adding insulin, add it first.*

7. **Inject** the additive(s) into the additive port on the TPN bag. (Repeat steps 5 and 6 for each additive.)

8. **Discard** the syringe with the needle in the sharps box.



9. **Gently** knead the TPN bag a few times to mix the additive(s). **Do not** shake the bag.

Section Three: CADD Prizm Pump- TPN Profile

CADD Prizm Pump-TPN Profile (Resetting the Reservoir Volume with a Bag Change)

Set Up and Starting the Infusion

- Remove the battery from the pump, flip it over and put it back in the pump with the correct charges. (+ to + and - to -)



*******Allow the pump to completely power up before attaching the IV tubing. You will hear 6 beeps to confirm the pump has successfully powered up. *******

Spiking the Bag and Priming the Tubing

- Spike the IV tubing into the TPN bag port. Squeeze the bag to prime the tubing to remove the air until you see a drip on the end of the tubing. Allow the filter to hang straight down. You do not need to flip or rotate the filter.
- Remove the blue clamp from the cassette once the tubing is primed.

Attaching the Cassette

- Attach the cassette hooks into the hinge pins on the pump. Place the pump on a hard surface and press the cassette down firmly.



- Hold the pump securely. Using a coin, press in and turn the latch on the side of the pump counterclockwise until the mark on the latch is completely straight up.



- Screen will read ***“High volume admin. set latched.”***

HIGH VOLUME ADmin
set latched

NEXT TO CONTINUE

- Screen should read, **“STOPPED”**.
- Press **“NEXT”** to advance to the Reservoir Volume screen. The reservoir volume should be reset back to the amount of your TPN bag.
- If the “Res Vol” has not automatically reset, perform these steps:
 - Press **“ENTER”** while on the Reservoir Volume screen.
 - Screen will read, ***“Reset Reservoir Volume to XXXX ml”***?
 - Press **Y** (Yes). Screen will read ***“Reservoir Volume XXXX ml Resetting”. Infusion Profile has been reset.”***

Reset Reservoir
Volume to _____ ml?

- ***“Prime Tubing”***? Press **N** (No). ***“Start the Pump?”*** Press **N** (No).
- Press **“NEXT”** to advance through the program until you get to the **“Milliliters Given”** screen. Press **“ENTER”** to clear the amount infused/given back to **“0”** (zero).
- Press **Start**. Screen will read, ***“Start the Pump?”*** Press **Y** (Yes).

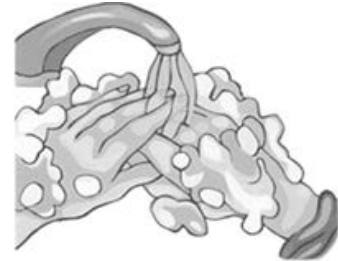
Step Four: Completion of Therapy

Supplies:

- Liquid antibacterial soap
- 2 – Saline syringe
- Alcohol prep pad
- Heparin syringe (if ordered)

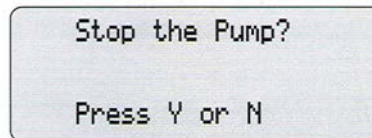
1. **Wash** hands with warm water using a liquid antibacterial soap.

2. **Gather** all supplies



3. **Stopping the Infusion/Turning the Pump Off**

- Press “**STOP**”. Screen will read, “**Stop the Pump?**” Press **Y** or **N**.



- Press “**Y (Yes)**”. Remove the bag and tubing from the pump and discard in the trash.
- Remove the battery from the pump, flip it over and put it back in the pump with the charges reversed. Lay the pump in a clean, safe place until you are ready to hook up the TPN.

4. **Remove** the IV tubing from the catheter. **Do not remove the catheter cap.**

5. **Scrub** the catheter cap with an alcohol prep pad.

6. **Flush** the catheter with the saline syringe using a pumping action.

7. **Remove** the syringe and discard syringe in the trash.

8. **Flush** the catheter with the heparin syringe using a pumping action.
(*PASV PICC, does not need heparin flush.*)

9. **Close** the catheter clamp.

10. **Check** to see that the catheter cap is secure.

11. **Tape/secure** the catheter to your chest or arm as instructed by your nurse.

Potential Complications of Total Parenteral Nutrition (TPN)

Most problems can be avoided by following the procedures that you have been taught and by keeping your work area clean.

Problem	Symptoms	What do I do?	Prevention
<p>Contamination- accidental entry of germs into your IV set up</p>	<ul style="list-style-type: none"> ▪ Change in color of IV medication ▪ Particles in IV medication 	<ul style="list-style-type: none"> ▪ Trash any supplies that may be contaminated ▪ If catheter cap is touched or dropped, scrub with alcohol. ▪ Contact the pharmacy if you trash any supplies or medication 	<ul style="list-style-type: none"> ▪ Use good handwashing ▪ Look closely at all supplies and medication before use ▪ Do not use any contaminated supply or medication ▪ Perform all steps for setting up your TPN as you were taught.
<p>Hyperglycemia- High level of sugar in the blood</p>	<ul style="list-style-type: none"> ▪ Nausea or vomiting ▪ Weakness ▪ ↑ Urination ▪ Headache ▪ ↑ Thirst 	<ul style="list-style-type: none"> ▪ Call your nurse or physician if you experience any of these symptoms. (This will generally happen in the first 1-2 hours after starting your TPN). ▪ The physician may order to change your TPN rate or schedule. 	<ul style="list-style-type: none"> ▪ Do not take shortcuts. ▪ The physician may order to slow down the rate of your TPN so your body can more gradually adjust to the sugar it uses from the TPN.

Problem	Symptoms	What do I do?	Prevention
<p>Hypoglycemia- <i>Low</i> level of sugar in the blood</p>	<ul style="list-style-type: none"> ▪ Sweating ▪ Nausea ▪ Blurred vision ▪ Headache ▪ Feeling shaky or “jittery” ▪ Unable to concentrate ▪ Hunger pains (craving sweets) 	<ul style="list-style-type: none"> ▪ Eat or drink something sweet (orange juice, peanut butter, candy or cookie) ▪ Sit or lie down and call your nurse or physician ▪ This will generally happen in the first 30 minutes to 2 hours after stopping your TPN). 	<ul style="list-style-type: none"> ▪ Do not take shortcuts ▪ The physician may order to slow down the rate of your TPN as your finish your infusion so your body can more gradually adjust to the end of the sugar you are receiving from the TPN.
<p>Infection- Caused by germs or bacteria</p>	<ul style="list-style-type: none"> ▪ Redness, swelling or pain at the catheter site or along the catheter tract. ▪ Drainage from the catheter site. ▪ Fever ▪ Chills and/or sweating. 	<ul style="list-style-type: none"> ▪ Call your physician or nurse when symptoms occur ▪ Call for fever over 100.5 or as ordered by your physician. 	<ul style="list-style-type: none"> ▪ Good handwashing ▪ Perform all steps for setting up your TPN as you were taught. ▪ Store all supplies in an area separate from other items. ▪ Contact your nurse or physician if symptoms occur.

CADD Prizm Pump Alarms and Troubleshooting

If there are alarms or special messages you need to be aware of, the pump will beep or sound the alarm and both the green and yellow lights will be flashing. Look at the screen and follow the steps below, or press the ? button for help.

Solution

**9 volt Battery
Low**

NEXT to continue

The 9 volt battery is low but the pump is operable. Change the 9 volt battery soon.

**9 volt Battery
Depleted**

Install Good Battery

Install a new 9 volt battery. The pump will not run with a depleted 9 volt battery. A good battery must be installed even when an external source of power is connected.

**(blank display or random
characters)**

A two-tone alarm is sounding and the amber light stays on. The 9 volt battery is depleted. Install a new battery.

**Power Pack
Depleted**

Change Power Source

The Power Pack is depleted. Recharge the Power Pack. (This alarm can only occur when using the Power Pack.)

High Pressure

Pump Stopped

There may be a kink in the tubing or a clamp may be closed. Unkink the tubing or open the clamp and the pump will resume delivery. You may press the **Start/Stop** button to stop the pump and silence the alarm for 2 minutes. After you remove the cause of high pressure, start the pump if necessary. If the alarm continues, contact your clinician.

CADD Prizm Pump Alarms and Troubleshooting

If there are alarms or special messages you need to be aware of, the pump will beep or sound the alarm and both the green and yellow lights will be flashing. Look at the screen and follow the steps below, or press the ? button for help.

Solution

(any screen)

You hear **9 beeps**: the infusion profile has ended. Disconnect or change the CADD™ Administration set as appropriate.

**Reservoir Volume
is zero**

NEXT to continue

The Reservoir Volume has reached 0.0 ml. Press the **NEXT** button to stop the alarm. Then change the fluid container if appropriate.

**Reservoir Volume
Low**

NEXT to continue

The Reservoir Volume value is low, indicating that the level of fluid in the fluid container is low.

**Error detected
E (error code)**

There is a problem with the pump. Close the tubing clamp and remove the pump from service. Contact your clinician.

▪ **Special Instructions:**

Lined writing area consisting of 28 horizontal lines for notes.