

# PATIENT EDUCATION

## Administration of TPN Via Sapphire Pump

**Properly administering your medication at home is important to your safety. In the event of an emergency, always call 911.**

The Sapphire pump is built with an integrated Air Detector. The Air Detector on the Sapphire infusion pump is very sensitive, as it detects very small air bubbles. As it is not possible for the air detector sensitivity to be adjusted to avoid unnecessary alarms, the air detector has been turned off to prevent potential unnecessary alarms from being triggered. The tubing used for TPN is designed with an in-line 1.2-micron filter to trap air between the bag and the filter, keeping air from entering your central line catheter. The filter is designed to eliminate the chance of air entering your central line catheter, but we recommend that you regularly inspect the tubing and fluid path for air. Contact your nurse right away if you see any air beyond the filter.

### **SUPPLIES:**

- TPN bag (remove from refrigerator 4 – 6 hours before infusing)
- Sapphire pump
- Sapphire tubing set with filter
- Alcohol/antiseptic wipes
- Sharps container, if appropriate
- (2) Sodium Chloride (Saline) syringes
- (1) Heparin syringe
- Any additional medications or supplies needed for TPN additives
- TPN Placemat
- 6 AA batteries and External Battery Pack (in case of emergency power failure/battery backup)

### **SASH FLUSH PROCEDURE:**

- S** Saline\_\_\_ml
- A** Administer medication as instructed by your nurse
- S** Saline\_\_\_ml
- H** Heparin\_\_\_ml (if required)



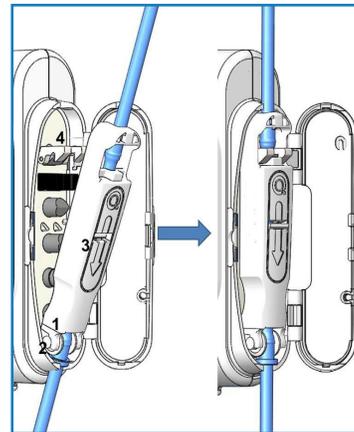
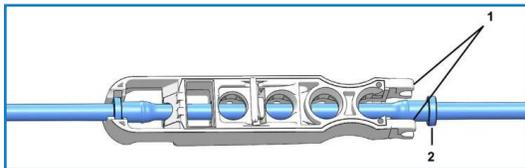
### **PROCEDURE:**

1. Clean work area. Wash Hands thoroughly for at least 20 seconds. Place your TPN placemat on the clean, dry area. Gather supplies.
2. Check labels for name, drug, frequency, and expiration. Inspect the TPN bag for any cracks, leaks, particulate matter, and clarity of medication. Contact your nurse for any discrepancies or concerns.
3. Prepare your prefilled syringes for flushing your IV Catheter as instructed by your nurse.

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4. Prepare TPN additives as instructed by your nurse.
5. Clean injection port of TPN bag with new alcohol/antiseptic wipe vigorously for 30 seconds and let air dry for 60 seconds before injecting each additive into bag.
6. Inject the additives into the TPN as directed by your nurse. Any needles from the TPN additives should be disposed of in the sharps container.
7. Gently rock bag back and forth to mix additives.
8. Remove appropriate Sapphire tubing from package
9. Remove protective tab from entry port to TPN bag.
10. Remove cover from spike on tubing and insert spike into TPN bag using a pushing-twisting motion. DO NOT TOUCH SPIKE.
11. Turn the pump on by depressing the On/Off button.
12. Open the safety door by using your thumb to press on front center of door and swing it outwards.
13. Insert the administration cassette at an angle, by placing the 'saddle' (#1 of figures below) onto the round metal anchor in the cassette's housing. Make sure arrow on the cassette (#3 on figure below) is pointing toward the bottom of the pump and flange (#2 on figures below) is inside of the cassette housing. Clip the upper end of the administration cassette into the metal lock by pressing the cassette on until it clicks in.



14. Close the safety door over the administration cassette. Ensure that the safety door clicks upon closure.
15. Before beginning infusion, administration set (tubing and filter) needs to be primed. Press From initial Start Up menu, press Prime on lower left hand side of screen. Red Disconnect Patient screen will display to ensure that you have not connected the administration set (tubing) prior to priming, press PRIME. A timer will begin to run while tubing is being primed. When priming is completed, pump will display a reminder to connect the set (tubing) to the patient after prime. Ensure that tubing is fully primed, if fluid did not reach the end until at least a drop formed, you may repeat

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this sequence, or Press OK.

16. Clean the injection cap on the end of your catheter with alcohol/antiseptic wipe vigorously for 30 seconds and let air dry for 60 seconds. Repeat this process with a new alcohol/antiseptic wipe vigorously again for 30 seconds and let air dry for 60 seconds. NOTE: It is important to follow this method of double scrubbing the hub/injection cap of your line every time you access your line.
17. Attach a prefilled Sodium Chloride/Saline syringe to the injection cap of your IV catheter and flush the IV catheter as instructed by your nurse.
18. Disconnect the syringe from the injection cap of your IV catheter and discard.
19. Clean the injection cap on the end of your IV catheter with an alcohol/antiseptic wipe vigorously for 30 seconds and let air dry for 60 seconds. Repeat this process with a new alcohol/antiseptic wipe vigorously again for 30 seconds and let air dry for 60 seconds.
20. Attach the Sapphire administration set/tubing to the end of your injection cap.
21. Press Repeat Last Infusion on screen. Review the parameters are correct according to your Plan of Treatment, press OK. Press Start. Fluid delivery will begin.
22. Place Sapphire pump and the bag of TPN into the backpack as instructed by your nurse.

**NOTE:** After a period of time, the screen will go dark while running to conserve battery life. When this occurs, the green light on the side bar will still blink to indicate that the pump is still running. You can press the on/off button to bring back the original display.

### **AT THE END OF INFUSION:**

23. When your infusion is nearing completion, an alarm will sound and you will see the message display – Infusion near end, this is just to give you a warning prior to the completion. To clear this message and alarm, press Mute and then press OK.
24. When infusion has completed, alarm will sound, and screen will display a message – Infusion Complete. It will also display the volume infused, rate and total time it was running. Press Mute. Then press OK. Pump will enter KVO mode.
25. When ready to disconnect, stop your Sapphire pump by pressing Quit. Display will return to beginning screen and read New Infusion and Repeat Last Infusion. Press the On/Off button and then Press OFF on the screen.
26. Disconnect the tubing from your injection port of your IV catheter.
27. Clean the injection cap on the end of your IV catheter with an alcohol/antiseptic wipe vigorously for 30 seconds and let air dry for 60 seconds. Repeat this process with a new alcohol/antiseptic wipe vigorously again for 30 seconds and let air dry for 60 seconds.
28. Attach a prefilled Sodium Chloride/Saline syringe to the injection cap of your IV catheter and flush the IV catheter as instructed by your nurse.
29. Disconnect the syringe from the injection cap of your IV catheter and discard.

***If your catheter requires the Use of Heparin: Complete steps 30-32, otherwise, skip to 33.***

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30. Clean the injection cap on the end of your IV catheter with an alcohol/antiseptic wipe vigorously for 30 seconds and let air dry for 60 seconds. Repeat this process with a new alcohol/antiseptic wipe vigorously again for 30 seconds and let air dry for 60 seconds.
31. Attach a prefilled syringe of Heparin to the injection cap of your IV catheter and flush your IV catheter as instructed by your nurse.
32. Disconnect the syringe from the injection cap of your IV catheter and discard.
33. Flush any additional lumens as directed in your plan of treatment, using the same double scrubbing technique as before.
34. To remove the Sapphire tubing cassette from pump, open the safety door on the side by pressing with your thumb and swinging the door open. Loosen the cassette by pushing the metal lock that secures it to the pump (number 4 in prior figure) towards the top of the pump. Remove cassette and close safety door. Discard used tubing and TPN bag.
35. Wash hands thoroughly, for at least 20 seconds.

**\*\*All Supplies and waste can be double bagged and disposed of with your household garbage\*\***

- To charge the internal battery, plug the power cord into the Sapphire pump by lining up the red arrow on the cord end with the arrow at the bottom of the pump where the power socket is located, by PUSHING the cord straight in. It is important NOT to attempt to twist or turn the cord while plugging it in or removing the power cord, as there are prongs that can be damaged. The yellow Charge light will blink to indicate that it is charging and will remain steady lit when fully charged.



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- To remove the power cord from the pump, grasp the metal connector close to the pump body and pull straight out. Do not pull from the cord or attempt to twist the connector to remove.



- It is recommended that you have pump plugged in and charging while your infusion is running as much as you can. Your Sapphire pump must be plugged in for a minimum of 6 hours a day to maintain charge.
- In the event that an alarm should be displayed, you must press Mute at the bottom of the screen before being able to clear the alarm. After the cause of the alarm is corrected, press OK to dismiss it, then press Request Continue, followed by OK.

Upon return to the company, all equipment is inspected, tested, cleaned, and disinfected in accordance with the manufacturer instructions. Clean equipment is stored in a manner that will prevent recontamination.

### **While in use in your home:**

#### **For infusion and Joey pumps:**

- Use a dry, clean cloth to wipe any liquid spillage.
- Use a slightly damp cloth to clean any dust.
- When not in use, keep the pump covered to avoid dust accumulation.
- If the pump becomes heavily soiled with dirt, blood, or bodily fluids, please contact your nurse for instructions.

#### **For Enteralite Infinity Pumps:**

- Pump may be cleaned with warm soapy water (standard dish soap) and a non-abrasive sponge or soft cloth for moderate, visible soiling.

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- If the pump becomes heavily soiled with formula, dirt, blood, or bodily fluids, please contact your nurse for instructions.



The information included in this document is intended for informational and educational purposes only. It is not intended to replace medical advice offered by a physician or other qualified health provider. If you think you are experiencing a medical emergency, call 911 immediately.

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