



Home Care Services

HomeMed ▪ MedEQUIP ▪ Wheelchair Seating Service

1-800-862-2731

Administration of DESFERAL Using the GemStar® Pump
DAILY BAG CHANGE

Drug Name: _____

Volume and Rate: _____

Schedule: _____

KEY POINTS:

1. Always wash your hands with an antibacterial soap or antiseptic hand gel before any procedure for 15 seconds. Do not touch anything dirty, such as your clothes, glasses or skin after washing your hands. If you do, rewash them.
2. **Do Not** refrigerate medication.
3. Check the bags and syringes for leaks, expiration dates, color changes and floating materials. If any of these occur, set aside and use another. Notify HomeMed.
4. Always check the bag label for your name, drug name, dose and how frequently the drug should be given. If the information does not match, call HomeMed immediately.
5. Work at a comfortable pace. The risk of contamination increases if you rush.
6. **Change your tubing and injection site every 3 days.**

SUPPLIES:

- (2) Prefilled IV bags (**You will prime IV tubing with one medication bag then change to a new medication bag for the dose**)
- (1) GemStar® IV tubing (remove from package)
- (1) GemStar® pump
- (1) Sof-set Ultimate Infusion set (change every 3 days)
- (1) Male adaptor plug (green cap) change every 3 days
- (2) Alcohol wipes
- (2) Locking blunt cannulas
- Household cleaner (such as bleach, alcohol or dish soap) & paper towels

PROCEDURE:

1. Place a trash can next to your work area.
2. Wash your hands by first wetting your hands and wrists under running water. Scrub vigorously with antibacterial soap for 15 seconds. Work lather between fingers, under nails, over the palms and back of hands. Rinse hands well by keeping your hands up with fingers pointing up towards the ceiling so that the dirty water runs toward your elbows. Dry your hands with a clean paper towel from the tips of fingers down. Turn off the faucet with the paper towel.
3. Gather your supplies and place in a corner of your work area.
4. Place a clean paper towel on your work surface or clean it with a household cleaner. Let the area air dry.
5. Place the supplies on your clean work area.



Wash your
hands

PREPARING YOUR IV TUBING

1. Remove the white tab on the IV bag to expose the spike port.
2. Remove the spike cover on the end of the IV tubing (figure 4). **Do not touch the spike.** Insert the spike of the IV tubing into the spike port of the IV bag using a pushing-twisting motion.
3. Insert the IV tubing cassette (figure 1) into the pump. Press on cassette until you hear a click. Make sure all four cassette latches are clearly visible. After the cassette is installed
4. Turn the GemStar® pump on. Review the pump program with the instruction sheets given to you by your *HomeMed* clinician.
5. Prime the tubing on the GemStar® pump by pressing the [PURGE] key. The screen will display the following prompts:

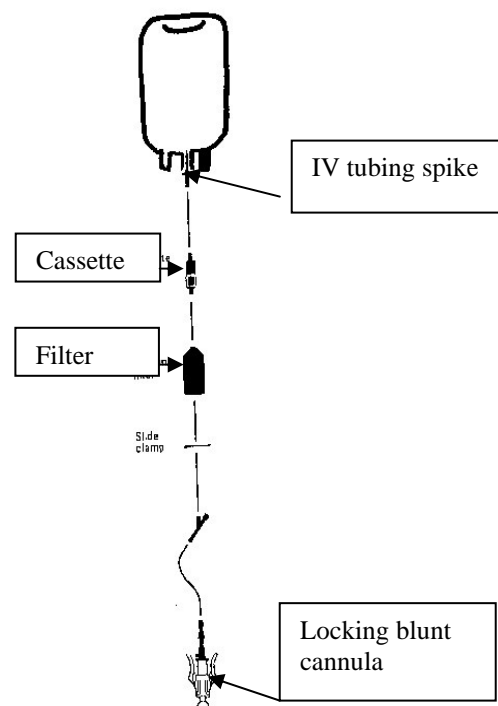
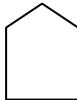


Figure 1.

SCREEN DISPLAY	WHAT TO DO
<div style="border: 1px solid black; padding: 10px; text-align: center;"> PRIME THE SET? YES OR NO </div>	Press the [YES/ENTER] key to begin priming.
<div style="border: 1px solid black; padding: 10px; text-align: center;"> TO PRIME, PRESS AND HOLD THE PURGE KEY </div>	Press and hold the [PURGE] key, while holding the filter with pointed end up. Make sure all air is removed from the container, cassette and tubing. <div style="text-align: right; margin-top: 10px;">  </div>
<div style="border: 1px solid black; padding: 10px; text-align: center;"> PRIME COMPLETE? YES OR NO </div>	When the [PURGE] key is released, you will see this display. If there is no air in the tubing, press [YES/ENTER] key. If you continue to see air in the tubing, press the [NO] key and continue to prime the tubing.

After you have finished priming the tubing:

6. Remove the locking blunt cannula from the package. Touch only the “wings”
7. Remove the protective cap from the end of the Gemstar tubing. Be careful not to touch the end of the tubing.
8. Connect the locking blunt cannula to the Gemstar tubing by twisting clockwise.
9. Open the MiniMed Sof-set subcutaneous needle package.
10. Attach the green male adaptor plug (cap) to the end of the MiniMed Sof-set.
11. Alcohol wipe the end of the green plug (cap).
12. Remove the clear protective cap from the locking blunt cannula attached to the MiniMed Sof-set tubing.

13. With one hand, hold your catheter by the hub and with your other hand squeeze the “wings” of the locking blunt cannula together and insert it into the green cap of your Sof-set (figure 2).

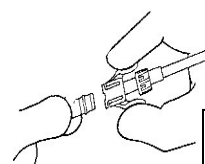


Figure 2.

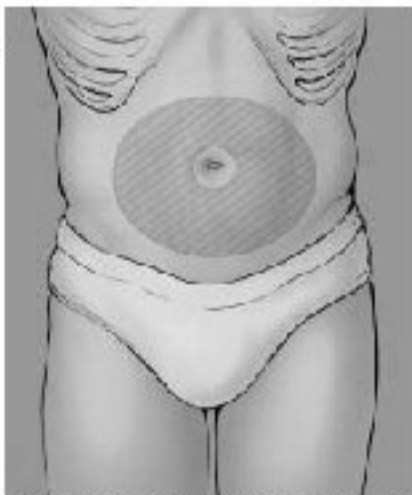
14. Press the [**PURGE**] key and continue to prime tubing until fluid fills subcutaneous needle.

15. Remove the medication bag and replace with a new medication bag for Desferal dose.

16. Press the [CHANGE] key and press #1 for New Container

STARTING YOUR MEDICATION

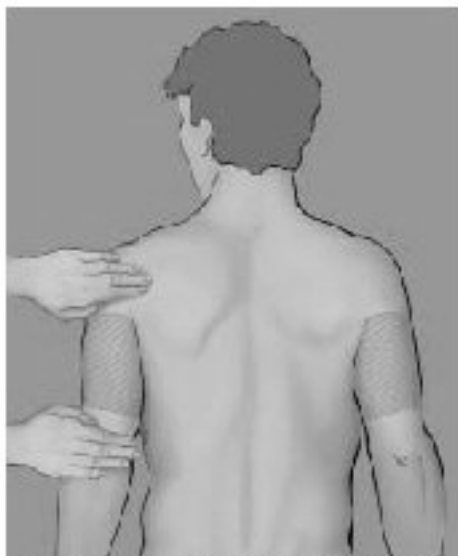
1. Select an appropriate skin site for needle insertion (figure 3). The following are sites for needle insertion. *Alternate the needle site every 3 days to avoid soreness at any one sight.*



Injection sites on the abdomen



Injection sites on the side of the arm



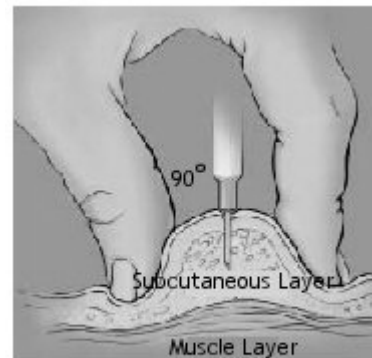
Injection sites on the arm backs



Injection sites on the thighs

Figure 3.

2. **Vigorously** scrub the insertion site with an alcohol wipe using a circular motion. Allow to dry for 30 seconds.
3. Remove the paper from the needle side of the subcutaneous set.
4. Remove the cap from the needle. Avoid touching the needle.
5. Pinch the skin around the prepared insertion site to form a bulge of skin. Firmly insert the needle into the skin.
6. Peel the backing from the dressing and apply over needle. Press dressing down firmly.
7. Push the green [START] key on the Gemstar® pump to begin the infusion. Make sure the pump is infusing by checking the screen. There should be arrows moving across the screen.



A subcutaneous injection into the fatty layer of tissue under the skin.

8. Once your pump has started infusing, place the IV bag and pump into the backpack/fanny pack.

STOPPING YOUR MEDICATION

1. Once your medication is done, press the red [STOP] key and wash your hands. Press [OFF] key on pump.
2. Disconnect the extension set from the subcutaneous needle. Make sure not to touch the open end of the extension set.
3. Remove the locking blunt cannula from the end of the IV pump tubing and attach a new locking blunt cannula. Keep the IV bag attached to the tubing.

CHANGING AN IV BAG OR CONTAINER

SUPPLIES:

- (1) Prefilled IV bag
- (1) GemStar® pump
- (1) Locking Blunt cannula
- (2) alcohol wipes
- Household cleaner (such as bleach, alcohol or dish soap) & paper towels

PROCEDURE

1. Wash your hands by first wetting your hands and wrists under running water. Scrub vigorously with antibacterial soap for 15 seconds. Work lather

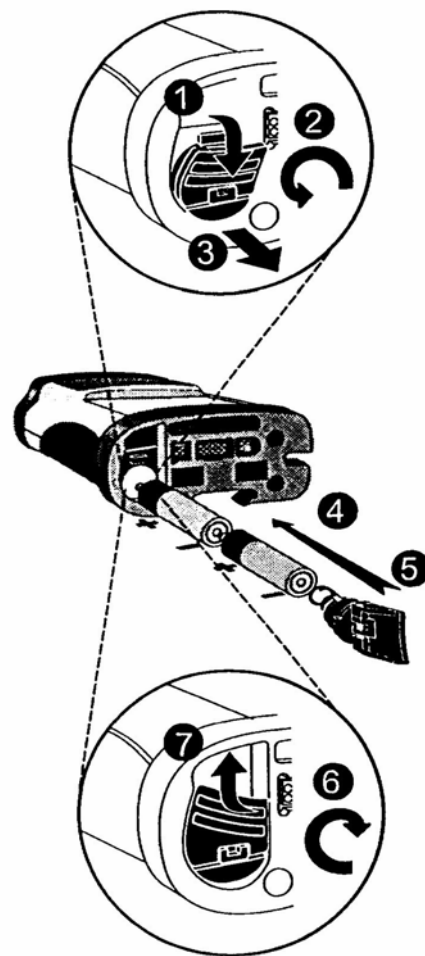


- between fingers, under nails, over the palms and back of hands. Rinse hands well by keeping your hands up with fingers pointing up towards the ceiling so that the dirty water runs toward your elbows. Dry your hands with a clean paper towel from the tips of fingers down. Turn off the faucet with the paper towel.
2. Gather your supplies and place in a corner of your work area.
 3. Place a clean paper towel on your work surface or clean it with a household cleaner. Let the area air dry.
 4. Open the carrying pack and place the empty IV bag and pump on the work area.
 5. Turn the Gemstar pump **[ON]**. The pump will perform a self-test.
 6. Remove the spike from the old IV bag being careful not to touch the white, spiked end of the tubing.
 7. Remove the tab from the new IV bag.
 8. Insert the IV tubing spike into the new IV bag by using a twisting/pushing motion.
 9. Press the # **[1]** key to resume program.
 10. Review the program by pressing the **[▼]** key.
 11. Once you have finished reviewing the program, press the **[ENTER]** key.
 12. Press the **[CHANGE]** key, then select **[1] NEW CONTAINER**.
 13. Press the **[START]** key to begin your infusion
 14. Place the IV bag and pump in your carrying pack.

CHANGING THE BATTERIES







The Gemstar® pump requires two AA-size batteries. If you need to change the batteries, always replace both batteries. To insert or replace batteries:

1. Press the **[SILENCE]** key.
2. Press **[STOP]** key.
3. Flip the tab on the bottom of the pump. (#1 on the diagram)
4. Hold onto the tab and turn the battery door to the left (#2 & 3 on diagram).
5. Remove the old batteries and insert new batteries.
6. Replace the battery door (#5 on the diagram).
7. Turn the door to the right (#6 on diagram).
8. Make sure the battery door is secured under the slot.
9. Flip down the tab of the battery door to lock in place (#7 on diagram).
10. Make sure battery door is flush with the bottom of the pump.
11. Screen on pump will display after new batteries inserted: **UNIT SELF TEST IN PROGRESS**
12. **USING BATTERIES** Press **[ENTER]**
13. Press # **[1]** key to **RESUME PROGRAM**
14. Press the **[Start]** key to restart your infusion.



INFUSION PUMP GUIDE

Listed below are some important keys on your infusion pump. You will need to become familiar with these keys in order to operate your pump.

Pump key	What it does
	<p>Press the [START] key to begin your infusion. As the pump delivers the medication, you will see the amount infused displayed on the screen.</p>
	<p>The [YES/ENTER] key allows you to enter the correct program to infuse your medication. The screen will tell you when to press this key.</p>
	<p>If you need to stop your pump, press the [STOP] key.</p>
	<p>To quiet an alarm, press the [SILENCE] key. The screen will tell you what the alarm means.</p>
	<p>Press the [HELP] key if you are unsure as to how to correct the alarm problem. Step-by-step instructions will guide you on how to correct the alarm condition. Displays shift totals.</p>
	<p>Press the [BACK-UP] key to exit the help screen or to return to the previous screen.</p>

ALERTS, ALARMS AND TROUBLESHOOTING

The GemStar® pump uses screen messages and audible beeps to let you know about conditions that need your attention. Below you will find some of the most common alerts and alarm messages displayed by the pump and tips on how to solve the problem.

Screen Display	Cause	Solution
LOW BATTERIES	Pump detects drop in battery power	<ol style="list-style-type: none"> 1. Press the [SILENCE] key 2. Press [STOP] key 3. Replace batteries
START	Pump is programmed but has remained in the stop mode for more than 3 minutes	<ol style="list-style-type: none"> 1. Press the [SILENCE] key 2. Press the [START] key or turn the pump off
CHECK CASSETTE	Cassette not installed, or installed improperly	<ol style="list-style-type: none"> 1. Press [SILENCE] key 2. Press [STOP] key 3. Reinstall the cassette 4. Press [START] key to begin infusion.
DIST. OCCLUSION	A blockage has been detected in the IV tubing BELOW the pump (i.e. between the pump and the catheter)	<ol style="list-style-type: none"> 1. Press the [SILENCE] key 2. Press the [STOP] key 3. ✓ IV tubing for kinks or blockages BELOW the pump and correct 4. ✓ that all clamps are open 5. Press firmly down on the cassette 6. Press the [START] key
END OF INFUSION	Pump has delivered container amount programmed	<ol style="list-style-type: none"> 1. Press the [SILENCE] key to mute alarm for 2 minutes 2. Clamp your catheter 3. Press the [STOP] key 4. Flush catheter
Screen Display	Cause	Solution

PROX. OCCLUSION	A blockage has been detected in the IV tubing ABOVE the pump (i.e. between the pump and the medication container)	<ol style="list-style-type: none"> 1. Press the [SILENCE] key Press firmly down on the cassette. 2. Press the [STOP] key 3. IV tubing for kinks or blockages ABOVE the pump and correct 4. that all clamps are open 5. for blockage in the bag and IV spike 6. Press the [START] key
AIR-IN-LINE	Air has been detected in line	<ol style="list-style-type: none"> 1. Press [SILENCE] to mute alarm for 1 minute 2. Press [STOP] 3. Check line connections Disconnect IV tubing from patient and follow the prime procedure 4. Reconnect the pump set to the patient-access device 5. Press [START] to begin delivery

REMOVING AIR FROM THE IV TUBING

If you need to remove air from the IV tubing:

1. Press the [**SILENCE**] key if the pump is alarming. Then press the [**STOP**] key.
2. Disconnect the IV tubing from the patient. Keep the end of the locking blunt cannula sterile. If the tubing is dropped or touches any unsterile object, you will need to change the locking blunt cannula.
3. Press the [**PURGE**] key. Make sure to disconnect IV tubing from the patient.
4. Press and hold the [**PURGE**] key until the air is removed from the IV tubing. Once all the air is removed, release the [**PURGE**] key.
5. When the priming is complete (there is no air in the IV tubing), press the [**YES/ENTER**] key to return the pump to the stop mode.
6. Clean the catheter cap with an alcohol wipe and reinsert the locking blunt cannula.
7. Press the [**START**] key and follow the instructions on the screen.

INFUSION PUMP CARE

1. **DO NOT** place the pump in any fluids or cleaning solutions.
2. **AVOID** dropping or hitting the pump. If the pump is dropped or hit, always recheck the program.
3. **NEVER** use sharp objects such as pens, pencils, fingernails, paper clips or needles to clean the pump.
4. *HomeMed* will check your pump every year. Please call if you believe it has been longer than a year without being serviced.
5. If the pump needs cleaning, use a soft cloth dampened with a mixture of household bleach and water (1 part bleach to 10 parts of water). Clean the pump optics surface (across from the pump latch in the cartridge channel), with a cotton swab moistened with the bleach solution at least once a month. Dry the pump after cleaning.
6. You may wash the backpack in regular detergent in your washing machine. After washing, dry under low heat in your dryer.
7. **NEVER** use the pump in the presence of flammable or explosive vapors.
8. **ALWAYS** avoid sources of high intensity electromagnetic radiation such as X-ray machines. While infusing medications with the GemStar® pump stand at least 10 feet away from cell phones or two-way radios that are being used.



FAST FACTS

Organize Yourself!!

Wash your hands
Spike medication bag with tubing
Place IV tubing into pump

Resource numbers:

Call HomeMed if you have questions about **pump** or **supply** problems or if the instructions are unclear to you.

Our **24 hour** number is:



1-800-862-2731

Organize Yourself!!

Wash your hands
Spike medication bag with tubing
Place IV tubing into pump

IF YOU ARE REUSING IV TUBING:

Turn pump on. You will see the following screens:

Self test

Using batteries, press [**YES/ENTER**] key

Press # **1** key - RESUME PROGRAM

Review program by pressing the [**▼**] key

Press the [**YES/ENTER**] if program correct

Press the [**CHANGE**] key

Press the # [**1**] key –New Container

Connect IV tubing to subcutaneous catheter

Press the [**START**]

IF YOU ARE CHANGING IV TUBING:

Turn pump on. You will see the following screens:

Self test

Using batteries, press [**YES/ENTER**] key

Press # [**1**] key - RESUME PROGRAM

Review program by pressing the [**▼**] key

Press the [**YES/ENTER**] if program correct

Press the [**PURGE**] key to prime tubing

Once you have finished priming the tubing:

Press the [**CHANGE**] key

Press the # [**1**] key –New Container

Spike new IV bag for dose

Connect IV tubing to the subcutaneous catheter

Open catheter clamp and press the [**START**] key

IF YOU WISH TO USE AN ANTISEPTIC HAND LOTION OR GEL

Do **NOT** use if your hands are visibly soiled or have body fluids (such as blood) on them

Off-brand hand gels can be less expensive

Always check the label for the gel or lotion to contain either ethyl alcohol (ethanol), normal propyl alcohol (n-propyl) or isopropyl alcohol in concentrations between 60-90%