

HAI Pump (Hepatic Arterial Infusion Pump)

Your doctor has suggested a chemotherapy (chemo) plan for the colon cancer that has spread to your liver. This handout will explain the pump that give you the chemo and how to care for yourself after the pump is placed.

What is a HAI pump?

A hepatic arterial infusion pump is an implanted device about the size of a hockey puck. It is designed to give chemo at a constant rate to the liver. This method allows for higher doses of chemo to the liver. Exposure of normal cells to chemo is reduced, which helps limit some of the side effects.

How does the HAI pump work?

The HAI pump has two chambers, an inner chamber also called the drug chamber and the sealed outer chamber that contains an inert gas. The gas is warmed by the temperature of the body. This causes the gas to expand and increase the pressure on the drug chamber. This pressure causes the medicine to flow out of the drug chamber. It then flows through a filter, out of the pump via a small tube, and to the liver. There are no batteries in the pump.

How is the HAI pump placed?

The HAI pump is placed during surgery. The implant is done under general anesthesia. An incision is made under the rib cage for placement of the pump catheter. A second incision is made on the right or left side of the abdomen for placement of the pump.

If the gall bladder is still in place, it will be removed before placement of the pump. This will prevent irritation of the gall bladder caused by the chemo.

How is the pump filled?

A doctor will insert a needle through the skin into the pump. A syringe with chemo will be attached to the needle. The chemo will then be injected in the pump.

Is the HAI pump right for you?

Your doctor will decide if the HAI pump is an option for you based on the extent of the cancer and your general health. There are guidelines that you must be willing and able to follow to be able to use the pump.

- For most patients, you must be willing and able to travel to UW Hospital every 2 weeks for pump fills.
- You must keep all your scheduled doctor and lab visits.
- You must be able to lie still when the pump is accessed to avoid leakage of chemo.
- Watch for signs of a fever. Call your doctor if you have one. Prolonged fever can affect the flow rate of the pump.
- Do not use a heating pad or hot water bottle over the pump site or sit in a hot tub. The heat will cause the pump to flow faster.
- Carry the Patient ID card at all times in case of an emergency. Carry the ID card through airport security.
- Avoid contact sports that could cause a blow to the abdomen.

- Avoid scuba diving. The increased pressure will affect the flow rate of the pump. You may swim or snorkel.
- Contact your doctor if you are going to travel by air. The cabin pressure of the plane may affect pump flow rate.
- Tell your doctor if you are traveling to or moving to higher altitude. This can affect the flow rate of the pump.

How often will the HAI pump be filled?

Your surgeon will fill the pump in the OR. You will follow the schedule listed below for refills:

- 24 – 48 hours before leaving the hospital a nurse from the Oncology Clinic will come to your room to flush the pump.
Date _____
- 2 weeks later you will have a visit in the Chemo Room of the Oncology Clinic (Atrium clinic J3/2). The nurse will empty the pump, measure the left over liquid, and refill the pump with heparinized saline.
Date _____
- 2 weeks later (4 weeks after the 1st pump fill), you will have lab work and a visit with your oncologist. We will fill the pump with chemo for the first time. If you have not fully healed from surgery, we may delay the start of chemo. If that is the case, your pump will be filled with heparinized saline.
Date _____

- 1 week later you will have lab work done to check for liver toxicity. You may do this at a local lab if you live far from UW Hospital.

Date _____

- 1 week later (2 weeks after the start of the chemo infusion) you will return to the Chemo Room for the pump to be emptied and refilled with heparinized saline.

Date _____

- 2 weeks off

- Return to the Oncology Clinic for lab work and a visit with your doctor. You will restart the 2 weeks on, 2 weeks off chemo cycle.

Date _____

- There may be a time when you and your doctor feel you need a break from chemo, or you want to take a vacation that would interfere with the schedule outlined above. If this happens, the pump may be filled with glycerin which allows for pump fills up to every 3 months.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#6619