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Chemotherapy Safety

Chemotherapy drugs are considered to be hazardous to people who handle them or come into contact with them. For patients, this means the drugs are strong enough to damage or kill cancer cells. But this also means the drugs can be a concern for others who might be exposed to them. This is why there are safety rules and recommendations for people who handle chemo drugs.

- Precautions the cancer care team will take
- Special precautions when taking chemo by mouth
- Keeping family and friends safe
- Preventing infections

It's important to know that not all medicines and drugs to treat cancer work the same way or have the same safety precautions. The information below describes some safety concerns of traditional or standard chemotherapy. There are also other drugs that are used to treat cancer in different ways, including targeted therapy¹, hormone therapy, and immunotherapy².

Precautions the cancer care team will take

You may notice special clothing and protective equipment being worn by the nurses and other members of your cancer care team. Pharmacists and nurses who prepare chemo drugs use a special type of pharmacy that must meet certain regulations. And nurses and others who give your chemo and help take care of you afterwards wear protective clothing, such as 2 pairs of special gloves and a gown, and sometimes goggles or a face shield. If you're getting IV chemo, there might be a disposable pad under the infusion tubing to protect the surface of the bed or chair.

Special precautions when taking chemo by mouth

Oral chemo, or chemo you take by mouth and swallow, is usually taken at home. These drugs are as strong as other forms of chemo, and many are considered hazardous. There are usually special precautions for storing and handling oral chemo drugs. You might be told to be careful not to let others come into contact with it or your body fluids while taking it and for a time after taking it. Sometimes you need to wear gloves when touching the pills or capsules. Some drugs have to be kept in the bottle or box they came in. And some drugs and the packages they come in need to be disposed of in a certain way. Some might have to be taken back to the drug store to be thrown away safely. If you are taking an oral chemo drug, talk to your cancer care team about any special precautions needed at home. To learn more, see Getting Oral or Topical Chemotherapy3.

Keeping family and friends safe

There are certain safety precautions that might be needed during and after getting chemo. Unless your health care team tells you differently, you can usually be around family and friends during the weeks and months you're getting chemo. On treatment days, family and friends can often come with you. However, some treatment centers only allow patients in the infusion area and visitors may need to stay in the waiting room.

You are the only person who should be exposed to the chemo you are getting, but it can be irritating if it gets on your skin. Any spilled IV chemo, any powder or dust from a pill or capsule, or any liquid from oral or other kinds of chemo can be hazardous to others if they are around it.

There are many things you can do during and after chemo to keep yourself and your loved ones from being affected by the chemo drugs while your body is getting rid of them. Again, talk to your cancer care team about if these or any other precautions should be followed.

What to do during – and for 48 to 72 hours after – chemo:

It generally takes about 48 to 72 hours for your body to break down and/or get rid of most chemo drugs. But it's important to know that each chemo drug is excreted or passed through the body a bit differently. Talk to your doctor or nurse about how the chemo you are getting is passed and what body fluids may be affected by chemo. Some drugs take longer to leave your body.

Most of the drug waste comes out in your body fluids, such as urine, stool, tears, sweat, and vomit. The drug waste is also in your blood, and may be in other body fluids such

as fluids from semen and the vagina. When chemo drugs or their waste are outside your body, they can harm or irritate skin. Other people and pets could be exposed to the drug waste for a few days if they come into contact with any of your body fluids.

Here are things you can do to help keep your family, visitors, and pets safe during this time:

- If possible, have children use a different toilet than the one you use.
- Flush the toilet twice after you use it. Put the lid down before flushing to avoid splashing. If possible, you may want to use a separate toilet during this time. If this is not possible, wear gloves to clean the toilet seat after each use.
- Sit on the toilet when you use it to cut down on splashing.
- Keep the toilet lid down when you're not using it to keep pets from drinking the water.
- Always wash your hands with warm water and soap after using the toilet. Dry your hands with paper towels and throw them away.
- If you vomit into the toilet, clean off all splashes and flush twice. If you vomit into a bucket or basin, carefully empty it into the toilet without splashing the contents and flush twice. Wash out the bucket with hot, soapy water and rinse it; empty the wash and rinse water into the toilet, then flush. Dry the bucket with paper towels and throw them away.
- Caregivers should wear 2 pairs of throw-away gloves if they need to touch any of your body fluids. (These can be bought in most drug stores.) They should always wash their hands with warm water and soap afterward even if they had gloves on.
- If a caregiver does come in contact with any of your body fluids, they should wash the area very well with warm water and soap. It's not likely to cause any harm, but try to avoid this. At your next visit, let your doctor know this happened. Being exposed often may lead to problems, and extra care should be taken to avoid this.
- Any clothes or sheets that have body fluids on them should be washed in your
 washing machine not by hand. Wash them in warm water with regular laundry
 detergent. Do not wash them with other clothes. If they can't be washed right away,
 seal them in a plastic bag.
- If using throw-away adult diapers, underwear, or sanitary pads, seal them in 2 plastic bags and throw them away with your regular trash.

Preventing infections

Most chemo drugs make you less able to fight infection, but there are ways you can do your best to avoid getting an infection. To learn more, see <u>Infections</u>⁴.

Hyperlinks

- 1. www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html
- 2. <u>www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html</u>
- 3. www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy/oral-chemotherapy.html
- 4. www.cancer.org/cancer/managing-cancer/side-effects/infections.html

References

Centers for Disease Control and Prevention (CDC). *Hazardous Drug Exposures in Healthcare*. Accessed at https://www.cdc.gov/niosh/topics/hazdrug/default.html on November 5, 2019.

Chu E, DeVita VT. *Physician's Cancer Chemotherapy Drug Manual, 2019.* Burlington, MA: Jones & Bartlett Learning; 2019.

Olsen MM, Naseman RW. Chemotherapy. In Olsen MM, LeFebvre KB, Brassil KJ, eds. *Chemotherapy and Immunotherapy Guidelines and Recommendations for Practice*. Pittsburgh, PA: Oncology Nursing Society; 2019:61-90.

Oncology Nursing Society (ONS). *Toolkit for Safe Handling of Hazardous Drugs for Nurses in Oncology.* Accessed at https://www.ons.org/sites/default/files/2018-06/ONS_Safe_Handling_Toolkit_0.pdf on November 5, 2019.

Yuki M, Sekine S, Takase K, Ishida T, Sessink PJ. Exposure of family members to antineoplastic drugs via excreta of treated cancer patients. *J Oncol Pharm Pract*. 2013;19(3):208-217.

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