Dear OncoLink "Ask The Experts,"

My mom has cancer and I just want to know if there are any effects of chemotherapy agents to us caregivers? Thank you.

Carolyn Vachani, RN, MSN, responds:

As more and more cancer medications are given in outpatient clinics and at home, it is important that caregivers and patients understand how to reduce their risk of being exposed to these treatments. When you are in the hospital or infusion center, your nurse wears protective gear to avoid exposure. We want you to learn ways to avoid exposure at home. The risks from limited exposure are really not known, but we feel it is best to avoid exposure whenever possible. There is a risk for exposure for caregivers of patients receiving anti-cancer medications at home and for those who get their treatment at the hospital or infusion center and go home afterwards. Let’s review both scenarios.

Things to consider when getting cancer medications at home

Chemotherapy can be given at home by a portable infusion pump, by a homecare nurse, or in pill form. In both cases it is possible for caregivers to unintentionally be exposed to anti-cancer medications. If you are handling infusion pumps or equipment, traces of the medicine can be present and can be absorbed through the skin. It is important to wear disposable gloves when handling any of these things.

If you are giving a patient his or her medication in a pill/capsule/tablet form, you should take care to not touch the pill. You can pour the pill(s) directly into a small cup to hand to the patient, or wear gloves when getting the pill(s) out.

With a home infusion pump, the medication can be spilled if the tubing is accidentally disconnected. When chemotherapy is spilled, it can be absorbed through the skin or the vapors can be inhaled. Your homecare team should provide you with a spill kit and teach you how to use it.

Safety considerations for all patients getting cancer medications

When a patient is given an anti-cancer treatment, the medicine is present in body fluids (urine, stool, vomit, and semen/vaginal fluid) for 48 to 72 hours after the treatment ends. If you or a family member is currently receiving cancer medications, whether in the clinic or at home, it is recommended that precautions be followed in order to keep household members safe:

- Patients may use the toilet as usual, but close the lid and flush twice after use. Be sure to wash hands with soap and water.
- If a bedpan, commode or urinal is used, the caregiver should wear gloves when emptying it. Rinse it well with water and wash with soap and water at least once per day. The same applies to basins used for vomiting.
- Wash clothing and linen as usual unless it is soiled with chemotherapy (or other cancer medications) or body fluids. Use gloves and immediately put the soiled laundry in the washer separate from other laundry. If you don’t have a washer available at the time, put laundry in a sealed plastic bag until it can be washed.
• If chemotherapy is spilled on skin, irritation or rash may occur. Wash the area thoroughly with soap and water. If redness lasts more than an hour, call the doctor's office. You can avoid contact with skin by wearing gloves when handling cancer medications, equipment or waste.
• For spills on the floor or in the home environment (not on your skin), your home health agency will supply you with a chemotherapy spill kit. Follow the instructions on the box exactly.
• All cartridges, bags, bottles or tubing that contain cancer medications must be disposed of in the supplied needle disposal box.
• Use gloves when handling all oral chemotherapy doses.
• Keep all cancer medications, equipment, waste, needle boxes, etc. out of reach of children and pets.
• Patients and their sexual partners should use condoms for at least 48 hours after treatment to prevent exposure to these medications in semen and vaginal fluid. Effective birth control should always be used during treatment to prevent pregnancy, as these medications can cause harm to an unborn baby.

**What is the effect of exposure to these medications?**

There has been some research into the effects chronic exposure to these medications has on nurses and pharmacists, but very little is known about the effect on caregivers. Acute exposure to body fluids or the cancer medicine itself can cause rash, nausea and vomiting, dizziness, abdominal pain, headache, nasal sores and allergic reactions. Exposure over a longer period of time (such as is seen with nurses and pharmacists) is thought to be associated with birth defects, miscarriage and cancer later in life.

Receiving cancer treatment as an outpatient is much more common than in the past and is much more convenient than getting treatment in a hospital over several days. However, simple precautions need to be taken to make sure everyone at home stays safe. Learn more in OncoLink's home safety section.