Oral chemotherapy is cancer medicine that is taken by mouth. These medicines come as tablets, capsules, or liquids that can be swallowed. As a result, oral chemotherapy can be taken at home. For people with cancer, taking a medicine by mouth is easier than intravenous (IV) chemotherapy given through a vein because they don’t have to go to the hospital or clinic to have the medicine administered. However, even though these medicines can be taken by mouth, they are not necessarily safer than IV chemotherapy. In fact, chemotherapy pills can be just as strong as the chemotherapy given through a vein by injections and infusions. Mistakes with oral chemotherapy medicine can lead to serious side effects and even death.
What’s so special about oral chemotherapy?

• Cancer chemotherapy medicines can kill healthy cells as well as cancer cells. So, mistakes with these medicines are more likely to cause harm than mistakes with many other medicines.

• Instead of being taken every day like many other medicines, cancer chemotherapy is often taken in cycles. For example, the person might take the medicine for 2 weeks and then go 1 week without taking any doses before starting the next 2 weeks of the medicine. It’s important to keep track of the cycles to avoid taking too much medicine or missing a dose.

• Some chemotherapy medicines are used to treat more than one type of cancer. The prescribed dose can be very different, depending on the type of cancer being treated.

• Chemotherapy medicines may be harmful to people who do not have cancer. To prevent unnecessary exposure and mistakes, oral chemotherapy pills require special handling and disposal.

Errors with oral chemotherapy

Many errors with oral chemotherapy have been reported to the Institute for Safe Medication Practices in the US and Canada. For example, in the US, a 60-year-old woman with brain cancer died after taking all the capsules of lomustine in the bottle she received from the pharmacy. She thought the pharmacy had given her a single dose of the medicine and that she needed to take all the capsules at once. This is how the pharmacy had filled her oral chemotherapy prescriptions before—one dose at a time. But this time, the pharmacy dispensed enough medicine for 3 separate cycles of chemotherapy. One dose of 150 mg was supposed to be taken every 6 weeks as long as her lab tests showed she was tolerating the medicine well. Assuming the lomustine had been dispensed as a single dose, the woman took all the lomustine capsules provided by the pharmacy as a single dose—450 mg in total. The overdose led to her untimely death.

Another example, this one from Canada, involves a person who was taking the oral chemotherapy medicine capecitabine to treat bowel cancer. The capecitabine was supposed to be given on a cycle that included a drug-free period. While the person was in the hospital, the capecitabine was given once a day. When the person was discharged, the capecitabine was again prescribed to be taken daily, so the drug-free or “off” time in the cycle was missed. This problem was discovered by the oncologist after the person was readmitted to the hospital 1 week later, suffering from the toxic effects of the medicine.

If you or a family member are taking oral chemotherapy, here are steps you can take to help prevent errors:

✓ When filling your prescription for oral chemotherapy, be ready to give the pharmacist information that may be needed to check the prescription, such as the type of cancer you have, your height and weight, and what you understand about your chemotherapy schedule.

✓ Keep a list of all your medicines, both prescription and over-the-counter. Bring the list with you any time you see a healthcare provider (e.g., clinic/office visits, emergency/urgent care visits, and hospital admissions). You should also bring all your medicines with you and tell your healthcare providers that you’re taking oral chemotherapy.

✓ Always go over the directions for taking the oral chemotherapy with the pharmacist before you leave the pharmacy, even if you are just picking up a refill. Tell the pharmacist if the directions he or she provides do not match what you believe your doctor told you. Ask your pharmacist to help you create a dosing calendar if the instructions seem complex.

✓ Before leaving the pharmacy, pull your medicine bottle or bottles out of the bag and check the medication name, dose, and directions on the label, and open the vial to see the contents. Tell the pharmacist if anything looks different from what you were expecting.

✓ Save and organize the information leaflets your pharmacy gives you with your medicine to remind you how to take the medicine, any special storage conditions, and side effects.

✓ Be familiar with your oral chemotherapy dosing schedule. Keep a calendar if necessary.

✓ When handling oral chemotherapy, wear disposable gloves to avoid skin contact.

✓ Return unused, discontinued, or expired oral chemotherapy to your doctor or treatment facility for proper disposal.