March 9, 2023 06:50 AM EST Pharma, Manufacturing

Short supply of commonly used cancer drugs raises concerns among hospital pharmacists

Tyler Patchen News Reporter

Experts who track drug supply and care for cancer patients say they are watching with concern about shortages of several generic drugs that are widely used in treating cancer patients.

Three drugs used in various cancer treatments are currently on the shortage list kept by the American Society of Health-System Pharmacists (ASHP). Those include methotrexate, which treats cancer by slowing the growth of cancer cells; cisplatin, a backbone of chemotherapy for advanced cancers in the ovaries, bladder and other locations; and fluorouracil, another widely used chemotherapy drug.

"If you read anything on evidence-based cancer care, it'll tell you that the most likely predictor of success is getting that regimen on time at the full dose," said Michael Ganio, the senior director of pharmacy practice and quality and the ASHP.



Michael Ganio

He said in an interview that the ASHP

hasn't heard about inventory problems at cancer centers yet, but there are other areas where the shortages could have an impact.

the next line. That usually means less success as far as treatment outcomes, it can also mean more side effects or worse side effects," Ganio said.

The shortages are tied to several companies, according to ASHP. Pfizer, one maker of methotrexate, has shortages in several dosage forms, as does Accord, Hikma and Teva, according to ASHP. Hikma may be back in supply sometime this month, but for the other companies, there are no estimated dates for when they will be back in full supply.

For cisplatin, the ASHP lists Accord, Fresenius Kabi, Hikma and WG Critical Care as reporting shortages. Accord is listing the shortages due to manufacturing delays, while Fresenius Kabi reports it's because of an increase in demand.

Fluorouracil is in shortage from Fresenius Kabi and Sagent. The ASHP reports that Fresenius Kabi will have more doses available later in the month for some dosage forms and expects more coming in either later March or early April. Sagent is expected to have more doses available in June.

Endpoints News reached out to the manufacturers but did not get a response by press time.

So far, only cisplatin is listed in the FDA's drug shortages database. While both ASHP and the FDA provide shortage information, the FDA receives its information from the manufacturers while the ASHP gets reports from other sources including patients and practitioners.

Seeking supply



Grace Suh, the medical director of Northwestern Medicine's Delnor Hospital Cancer Center, said that drug shortages in oncology are nothing new, but the stakes are much

treat everyone as needed. Pharmacists have been working hard behind the scenes to secure the necessary drugs "in a timely manner" so that no interruptions occur, she said.

Suh said that as long as there are no more supply interruptions or sudden changes in patient volumes or the type of patients they are seeing, her hospital can deal with the problems.

"As long as that is in steady state, I think we can manage. And we won't have to use alternatives or, skip doses, for example, which we really don't want to do," Suh said.

Emily Pherson, the assistant director of medication use policy and clinical informatics at the Johns Hopkins Hospital, said the hospital's wholesaler is in short supply of cisplatin and fluorouracil at the moment. However, it's been able to obtain supplies straight from manufacturers and no "mitigation strategies" are in place at the moment.



Emily Pherson

The challenge, though, is that there is no clear return to supply dates, she said.

"At the end of the day, the supply is what the manufacturer has. And the fact that we're at the point where we're getting it directly means that there could be a risk the supply runs out and that we would have to look towards alternative strategies," Pherson said.

The supply situation with methotrexate is more serious, she said, and the hospital is having more trouble getting the drug directly. So far, though, it hasn't had to make changes such as reducing doses.

The drugs in shortage are used across a wide array of childhood cancers as well, said Yoram Unguru, a pediatric hematologist/oncologist at the Children's Hospital at Sinai in Baltimore and a core faculty member at the Johns Hopkins Berman Institute of Bioethics. Cisplatin is used in several childhood cancers, while fluorouracil is pri-



Yoram Unguru

marily used for treating pediatric patients with hepatoblastoma, he said in an email.

"These shortages create numerous challenges for patients and families as well as clinicians and health systems," he said. "Patients and families must endure anxiety and the potential for compromised outcomes if not enough drugs or no drug at all is available for planned treatment."

Methotrexate is used for children with acute lymphoblastic leukemia, one of the more common childhood cancers, and also for osteosarcoma, the more common bone cancer in children and non-Hodgkin's lymphoma. With any "increased demand," Unguru said there is a real concern that the currently available supply could be depleted.

The methotrexate shortage is particularly worrisome not only for children with acute lymphoblastic leukemia and osteosarcoma but also for the treating hospital, Unguru said. That's because two of the three ways they get the drug — IV infusion or directly into the spinal fluid — are no longer readily available.

"Like so many hospitals, we face these types of considerations," Unguru said. He said he was hopeful the pharmacy would be able to continue to obtain the drugs, but that the consequence was "time diverted from other important hospital tasks, which increases risk that care will be affected and, of course, sizable financial cost."