Medical Institutions Implement Changes to Reduce Medication Errors

A 1999 Institutes of Medicine report indicated that almost 98,000 patients die each year from medication errors. As a result, medical institutions have taken steps to help reduce this number and provide better cancer care.

The DeVos Children’s Hospital in Grand Rapids, MI, implemented a multidisciplinary, triple-check system to reduce dosing errors. At DeVos, the standard of care requires that all three disciplines—oncology, pharmacy, and nursing—ensure that the dosages are correct for patients’ size, the math to calculate them has been done correctly, and protocols have been interpreted correctly.

Every time a chemotherapy order is sent to the pharmacy, a nurse, oncologist, and pharmacist review it. Each discipline independently calculates the dosage, interprets the protocol, and records agreement directly on the chemotherapy orders.

Although the triple-check adds about 15–20 minutes per dose for each discipline, the hospital agrees that the time is well spent. “We’re actively looking for errors instead of assuming that none are made,” said Diane Sinsabaugh, RPH, a pediatric oncology pharmacist at DeVos. “This way, we catch errors before they reach the patient.”

Mary Ann Long, RN, BSN, assistant director of nursing at Roswell Park Cancer Institute in Buffalo, NY, and Rose Taibbi, RN, BSN, OCN®, director of ambulatory oncology at North Shore University Hospital in Manhasset, NY, presented their experiences with medication safety at the Oncology Nursing Society 27th Annual Congress in April 2002.

Roswell Park introduced a new pharmacy computer system that interfaces with the laboratory system and notifies the pharmacy of patients’ lab results, prompting pharmacy action. For example, if the lab records an elevated creatinine level, the patient’s dose could be reduced. All IV bags list brand and generic names for drugs so that patients and staff can learn medication names. Physicians sign and print their names when ordering prescriptions so that other staff easily can know who to contact with questions. Nurses take administration orders to the bedside so that they make sure the right patients get the right medications.

North Shore also offers thorough guidelines. A maximum dosage chart for common medications is available for reference, and orders greater than the maximum require verification with the physician. Chemotherapy orders are standardized, with each patient record noting specific information such as patient height and weight, clinical trial protocol number (if applicable), lab results, patient profile information, and treatment plan. Written dosages do not use the trailing zero to avoid a missing decimal and the resulting tenfold dose increase. Doses less than 1 mg require a leading zero before the decimal. Staff also inform patients of the name and dosage of chemotherapy drugs so that the patients can alert them if they don’t recognize something that is administered to them.

In 2001, the triple-check system at DeVos caught about 21 medication errors, a low error rate for a system that fills more than 3,400 doses. North Shore’s error rate was even smaller with its new guidelines; it was estimated at 0.002%, or about one actual error per 53,000 dispensed prescriptions.

Tomato-Based Products May Lower Risk of Prostate Cancer

Findings from a recent study following the health and diet history of 47,000 men between the ages of 50–75 from 1986–1998 suggested that eating tomato-based foods may lower the risk of prostate cancer. The Health Professional Follow-Up Study found that men who consumed tomato products in at least two meals per week lowered their risk of prostate cancer by 24%–36%. Tomatoes contain the antioxidant lycopene that may protect against cancer by absorbing oxygen free radicals. In addition to products containing tomatoes, such as tomato sauce, salsa, and ketchup, watermelon and pink grapefruit also offer significant amounts of lycopene. Researchers adjusted the data for the effects of other lifestyle factors and found that tomatoes, especially when cooked, offered protection against prostate cancer.

Magazine Offers Resources for Patients With Cancer

CURE: Cancer Updates, Research, and Education began publication in April 2002 for patients with cancer and their caregivers. The quarterly consumer magazine includes information on new treatments, recent advances in prognosis and prevention, and advice on how to join clinical trials. Articles highlight the human impact of cancer, with topics such as how cancer changes people’s lives, caregivers’ issues, and advocacy and patient rights.

Editor-in-Chief Joseph S. Bailes, MD, noted that he hoped the magazine would help increase enrollment in clinical trials. Currently, about 3%–5% of patients with cancer enter clinical trials. “We need to raise that to 15–20 percent,” he said. “CURE will help by making more patients aware of opportunities.”

CURE is published by Cancer Information Group, LP, a physician-managed publishing company in Dallas, TX. A limited number of free subscriptions until the end of the year are available; further information and part of the first issue can be found at www.curetoday.com, or call 800-272-4909.

ASSOCIATE EDITOR
DIANE COPE, PhD, ARNP-BC, AOCN®