Errors involving medications common in outpatient cancer treatment

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Seven percent of adults and 19 percent of children taking chemotherapy drugs in outpatient clinics or at home were given the wrong dose or experienced other mistakes involving their medications, according to a new study led by Kathleen E. Walsh, MD, assistant professor of pediatrics at the University of Massachusetts Medical School, and published in the January 1, 2009 issue of the *Journal of Clinical Oncology*.

"As cancer care continues to shift from the hospital to the outpatient setting, the complexity of care is increasing, as is the potential for medication errors, particularly in the outpatient and home settings," said Dr. Walsh, who is also a Robert Wood Johnson Physician Faculty Scholar.

An analysis of data on nearly 1,300 patient visits at three adult oncology outpatient clinics and 117 visits at one pediatric facility between September 1, 2005 and May 31, 2006 showed that errors in medication were more common than previously reported by oncology patients.

Of the 90 medication errors involving adults, 55 had the potential to harm the patient and 11 did cause harm. The errors included administration of incorrect medication doses due to confusion

over conflicting orders - one written at the time of diagnosis and the other on the day of administration. Patients were also harmed by over-hydration prior to administration of medication, resulting in pulmonary

edema and recurrent complaints of abdominal pain and constipation. More than 50 percent of errors involving adults were in clinic administration, 28 percent in ordering of medications, and 7 percent in use of the drugs in patients' homes.

About 40 percent of the 22 medication errors in children had the potential to cause harm and four children were harmed. More than 70 percent of the errors in children occurred at home. Examples of pediatric errors included parents giving the wrong dose or the wrong number of doses per day of medicines because of a caregiver's confusion about instructions.

"Requiring that medication orders be written on the day of administration, following review of lab results, may be a simple strategy for preventing errors among adults, while most of the errors involving children may have been avoided by better communication and support for parents of children who use chemotherapy medications at home," said Dr. Walsh.

Source: University of Massachusetts Medical School