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Contact: Bruce Spiher

spiher@umich.edu

734-764-2220

[University of Michigan Health System](#)

Some older ER patients are getting the wrong medicines, U-M study finds

Certain pain relievers and antihistamines are among most common drugs used in emergency visits, in spite of known risks to those over age 65

ANN ARBOR, Mich. – A University of Michigan study recently published in *Academic Emergency Medicine* says that it is common for patients 65 and older to receive potentially inappropriate medications when treated in an emergency room.

Nearly 19.5 million older patients, or 16.8 percent of eligible emergency visits from 2000-2006, received one or more potentially inappropriate medications – or PIMs. The large sample of approximately 470,000 ED and outpatient clinic visits, corresponding to a national estimate of about 1.5 billion total visits, allowed the researchers to determine the extent of the problem nationwide.

"There are certain medications that probably are not good to give to older adults because the potential benefits are outweighed by potential problems," says lead author, William J. Meurer, M.D., M.S., assistant professor, U-M Departments of Emergency Medicine and Neurology.

Researchers looked at a nationwide sample of emergency visits using data from the National Hospital Ambulatory Medical Care Survey, to see how many patients aged 65 and older sent home from the ED were prescribed potentially inappropriate medications.

Ten medications accounted for 86.5 percent of PIMs used in the ED. The five most common ones were promethazine, ketorolac, propoxyphene, meperidine, and diphenhydramine; and two of these – promethazine and ketorolac – accounted for nearly 40%.

Meurer suggested that further efforts are needed to educate doctors about the suitability of certain medications for older adults.

He also says the study showed that prescribing inappropriate medications was less likely to occur if a resident or intern was involved in the treatment, probably due to the fact that younger doctors have had recent training about medications.

There was substantial regional and hospital type (teaching vs. non-teaching) variability. PIMs were less likely to occur in visits to hospitals in the Northeast and twice as likely in other parts of the country. And receiving a potentially inappropriate medication was more likely to occur at for-profit hospitals.

The study did not explore the possibility of medication interactions, so it is possible that the potential harm by medications is underestimated.

Meurer offers the following advice to patients:

- Make sure you talk to your primary care physician, either during or after your ED visit.
- Know what medications and supplements you are taking and make sure the nurses and doctors at the ED know.
- Talk to the ED doctors and nurses about how long the medicines they have given you will affect you.
- Ask for a list of all medications that you received while at the ED before you leave the ED for home or to go to a bed in the hospital. The list should include information on the possible side effects of those medicines.
- If you leave the ED and then have an adverse event caused by medication, contact your physician immediately or go back to the emergency department.
- Be proactive with your pharmacy and make sure you understand what you are taking.

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Paper: <http://www3.interscience.wiley.com/cgi-bin/fulltext/123305845/PDFSTART>

Additional authors: Tommy A. Potti; Kevin A. Kerber, M.D., M.S.; Comilla Sasson, M.D., M.S.; Michelle L. Macy, M.D., Brady T. West, M.S.; and Eve D. Losman, M.D. All are part of the University of Michigan Health System.

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