

Physician Prescription Error Frequency Linked to Location

Cheryl Clark, for HealthLeaders Media, November 5, 2010

Providers and policymakers all know about geographic variation in healthcare spending, but a new report reveals great disparity in the frequency with which doctors make medical errors in prescribing inappropriate, potentially harmful medications to people over age 65.

A research perspective in the *New England Journal of Medicine* dissects two categories of prescribing practices in 2007 for each of 306 Dartmouth Atlas referral regions in the country.

"We have long known that the quality of prescribing drugs is definitely not optimal everywhere," says study author Yuting Zhang, professor of health policy and management at the University of Pittsburgh. "But this study demonstrates how big the problem is, and how much (practice habits) are different from one part of the country to another."

Zhang added that while she doesn't know why some doctors in some parts of the country are less likely to adhere to the guidelines, she postulated that "perhaps some of them don't know about the guidelines" or that the drugs are contraindicated in people over 65.

Category 1: The first category of the study details the rate at which doctors prescribe drugs considered high risk for elderly patients and which should be avoided in seniors. Zhang says that doctors serving Medicare beneficiaries in Bronx, NY and White Plains, NY had the best prescribing practices, in that they had the lowest rates of prescribing at least one drug that is hazardous when used in the elderly. Examples of such drugs include certain antihistamines, long-acting benzodiazepines, thioridazine, and some skeletal muscle relaxants.

The two regions of the country that had the worst rates of high-risk drug prescribing practices were Alexandria, LA and Wichita Falls, TX. In the Alexandria, LA referral region, 44% of elderly beneficiaries received high risk medications but in the Bronx referral area, only 11.4% were prescribed these medications.

The measures used to evaluate sound prescribing practices were drawn from the Healthcare Effectiveness Data and Information Set (HEDIS.)

Category 2: The second category of the study details in outpatient settings, the rates at which physicians prescribed certain medications that have potentially harmful drug-disease interactions. For example, tricyclic antidepressants are considered harmful in older adults with dementia and who have a history of hip fracture, and non-steroidal anti-inflammatory drugs are considered harmful for seniors with chronic renal failure.

Overall, the areas with the worst prescribing practices were Jonesboro, AR and Amarillo, TX. The best were Rochester, MN and Santa Cruz, CA.

More Conclusions: "In sum, according to HEDIS measures of potentially dangerous prescribing patterns, the quality of prescribing for the elderly varies substantially among local markets—substantially more in fact than does spending on drugs overall," Zhang and colleagues state. "Our results do not support the theory that high spending areas simply use more of everything, including inappropriate drugs, since the association between overall drug spending and inappropriate prescribing is weak."

Zhang says she plans to do more work on the issue. Co-authors include Katherine Baicker and Joseph Newhouse, both of the Harvard School of Public Health and the Harvard School of Public Policy.