

Computerised DUR improves prescribing in the elderly

The introduction of a computerised, prospective* drug utilisation review (DUR) system, followed by pharmacist consultation with physicians, improved drug prescribing in elderly US patients receiving prescription benefits from Merck-Medco Managed Care.**¹

A population-based study evaluated a total of 43 007 prescriptions written for 23 269 patients (mean age 72 years) enrolled in Merck-Medco's 'Partners for Healthy Aging Program' who were targeted through the computerised, prospective DUR system with an actionable alert between April 1996 and March 1997. Actionable alerts were generated when any of the 3 following criteria applied to the prescription: the drug was potentially harmful to elderly patients; the dose was excessive given the age of the patient; or the drug was likely to aggravate an existing disease.

24% DUR change rate

Of the 43 007 prescriptions generating actionable alerts, pharmacists were able to reach 19 368 physicians to discuss and recommend alternatives for 24 266 (56%) alerts, and were able to convince physicians to change the prescription for 5860 alerts. This generated a DUR alert change rate of 24%, ranging from 40% for benzodiazepines with long half-lives (drug-age interaction) to 2% for β -blockers in chronic obstructive pulmonary disease (drug-disease interaction).

Lead investigator Dr Mark Monane, director of geriatrics at Merck-Medco Managed Care, US, believes that the 24% change rate associated with the computerised DUR programme is 12-fold greater than that which occurs in the practice of pharmacy without structured programs.² Dr Becky Nagle, also from Merck-Medco, added that '*pharmacists supported by on-line, clinical-based technology are in a unique position to provide physicians with a greater breadth of information and options to draw upon in making prescribing decisions*'.

* Prospective drug utilisation review occurs before the drug is dispensed.

** see also Current Issues section, this issue, p5; 800710627

1. Monane M, et al. Improving prescribing patterns for the elderly through an online drug utilization review intervention: a system linking the physician, pharmacist, and computer. *Journal of the American Medical Association* 280: 1249-1252, 14 Oct 1998. 2. *Journal of the American Medical Association*. JAMA study shows Merck-Medco's Partners for Healthy Aging program significantly reduces the use of potentially harmful medications by seniors. Media Release: [3 pages], 14 Oct 1998

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