Drugs warning -- check the label

February 2 2011

A new study highlights inconsistencies in black box warnings - medication-related safety warnings on a drug's label - and argues for a more transparent and systematic approach to ensure these warnings are consistent across all drugs within a same category, and any additions to warnings, on the back of a drug withdrawal for example, are done within a reasonable and uniform time period. The work by Orestis Panagiotou and John Ioannidis and colleagues from the University of Ioannina School of Medicine in Greece and Stanford University School of Medicine in the USA is published in Springer's journal *Journal of General Internal Medicine*.

Black box warnings are the strongest medication-related safety warnings that can be placed in a drug's labelling information, according to the FDA. Their purpose is to highlight major drug-related risks. Because serious drug-related adverse events tend to be down to the pharmacological class of drug rather than to the individual drug, most black box warnings are typically applied to all members of a given class of drugs.

Panagiotou and team looked at how consistent black box warning labelling is across same-class drugs in order to assess whether some drugs fail to carry a warning when black box warnings exist for other drugs in the category, as well as whether there are differences in the time it takes to add a warning to drugs in the same class. They studied the labels of 20 drug classes (176 drugs in total) selected from the USA's 'Top 200 Drugs for 2008 by Sales'. Of these 20 categories, 10 had at least one black box warning while the other 10 had none.

The authors identified differences in 9 of the 20 classes, with 15 black box warnings not present on all the labels of drugs in the same class. For 10 of these 15 different warnings, the information was included elsewhere on the labels as simple warnings or text. For the remaining 5, the black box context was not found anywhere else on the drugs' labels. Significantly, withdrawn drugs tended not to have a black box warning before their withdrawal and the reason for their withdrawal rarely became a black box warning for the other drugs in the same category.

In addition, among the 10 drug classes with at least one warning, there was a considerable time-lag in black box warning acquisition in 8 categories, ranging from 2 months to 14 years in some cases.

The authors argue that labels should mention and justify why a major recognized risk is not an issue for a particular agent in the same class, where other members have demonstrated major toxicity. In their view, unjustified omission of a black box warning may leave patients largely unaware of potential risks.

Orestis Panagiotou and colleagues conclude: " Our findings imply that the process of black box warning acquisition requires transparent and systematic rules, as well as clear justification for the presence of, or lack of evidence for, specific major risks for individual drugs."

More information: Panagiotou OA et al (2011). Different black box warning labelling for same-class drugs. Journal of General Internal Medicine; DOI:10.1007/s11606-011-1633-9