The seven-year rule for safer prescribing

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Public Citizen is a national research-based advocacy organisation in the USA. In 1999 our Health Research Group decided to advise against the use of any new prescription drug, except for truly ‘breakthrough’ drugs, for five years after approval by the Food and Drug Administration (FDA). Our decision was based on the impression that it was during this first post-approval period that a large proportion of drugs either required a new ‘black box’ warning or were actually withdrawn from the market for safety reasons.1 This empirical observation was buttressed by the knowledge that the approval process for drugs is heavily tilted toward establishing evidence of benefit, but statistically underpowered to detect all but the most commonly occurring harms. Once the drug is approved, considerably larger numbers of people, including groups which were under-represented in the trials, become exposed to the drug. New adverse reactions and interactions with other drugs are then reported. As the information about harm begins to catch up with the information about benefits, a regulatory decision is frequently needed to either add a new black box warning or to withdraw the drug. The validity of this five-year rule, however, was challenged by the findings of a study published in 2002, based on the ultimate fate of the 548 new drugs approved in the USA between 1975 and 1999.2 The study examined how many of the new drugs were eventually the subject of a new black box warning or market withdrawal and when these actions occurred relative to the dates of approval. Our study found that by 25 years after approval, the estimated probability of either acquiring a new black box warning or market withdrawal was 20%. We also found that half of these changes occurred within seven years of the drug’s introduction. Of the 16 drug safety withdrawals studied, 94% had occurred within seven years.3

Our initial assumption, that five years was a safe enough time to wait after the approval of a non-breakthrough drug before considering its use, turned out to be inadequately conservative. We thus started using a seven-year rule (see Box). Our reasoning was that since one-half of all new safety actions, including almost all safety withdrawals, have occurred within seven years, these drugs should be in a DO NOT USE category. This change was reflected in the most recent edition of the book Worst Pills, Best Pills4 and in articles in our monthly publication Worst Pills, Best Pills News.

From the Editor

With summer not too far away, it is an appropriate time (of year) for Jane Hanrahan to review sunscreens. Warmer weather also sees snakes on the move, so Ian Whyte and Nick Buckley report on changes to the way antivenom should be used.

The use of tests to measure bone turnover is the subject of Devika Thomas’ article. At present, the tests are not for everyday practice.

Herpes zoster is being increasingly reported in general practice. Michael Wehrhahn and Dominic Dwyer discuss how to prevent it.

Prevention of relapse is also an important part of the management of bipolar disorder. Jon-Paul Khoo considers the current evidence for drug treatment.
In recent years drug regulatory agencies have required drug companies to prepare risk management plans, however these plans are predicated on known risks. The revelation of risks occurs, far too slowly, over time. Better postmarketing surveillance would need to involve more than 10% of adverse drug reactions being reported to the FDA. It would then be sooner rather than later that the required number of adverse reactions occurred to force a change in the product information or the withdrawal of the drug. Drugs which have been available for more than seven years have already gone through the tests of time and the amount of information about their risks has expanded enormously from what was available when they were initially approved. The worst offenders have either been removed from the market or have important new information about harm that will aid prescribers and patients concerning safer use. As a result, for most patients using older drugs for their approved indications, the benefits will hopefully outweigh the risks.

Conflict of interest: none declared

REFERENCES

The U.S. Food and Drug Administration (FDA) wants the American public to know that cannabidiol (CBD), the non-intoxicating component of the cannabis sativa plant, might not be as safe and effective in the grand scheme of their overall health and wellness as they are being told. Adopting high-value prescribing strategies can help family physicians increase the quality of care, decrease costs, and fulfill our professional obligation to provide health care that is based on the wise and cost-effective management of limited clinical resources. The seven-year rule for safer prescribing. Sidney M. Wolfe. Medicine. 2012. "Top 5" lists top $5 billion. Minal S. Kale, Tara F. Bishop, Alex D. Federman, Salomeh Keyhani. Medicine.