Prevalence of Adverse Drug Effects and Adverse Drug Reactions in the 200 Most Commonly Prescribed Drugs

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BACKGROUND

ADR/ADEs, especially in the community setting. This may positively impact patient safety across settings, since adverse drug reactions (ADRs) and adverse drug experiences (ADEs) are common experiences with medication usage. The 2009 version of the Drug Topics Top 200 Drugs list was used to identify the drugs most commonly used within the ambulatory population during 2008. The list was analyzed to identify which ADR/ADEs occur for the prescribed medications in the Top 200 list. Each drug in the Top 200 was categorized according to pharmacologic class, as classified in the most recent version of Drug Facts and Comparisons. The ADR/ADEs for the medications in each class were obtained from the literature, along with estimates of frequency.

Once the ADR/ADE matrix was identified for each medication, cross-tabulation between the classes permitted the identification of overlap and development of a master list of ADR/ADEs. The resulting ADR/ADE matrix for a specific pharmacologic class was sorted to include those ADR/ADEs common to all medications of the class and ADR/ADEs specific to individual compounds. When an ADR/ADE matrix for all identified pharmacologic classes was identified, the matrices were compared to identify ADR/ADE and symptom overlap, as well as the most common ADR/ADEs across all drugs and classes.

The ADR/ADE matrix for the top 200 drugs was sorted to tabulate the number of times each potential ADR/ADE was reported in the prescribing information. Clinical judgment was used to consolidate the list of ADR/ADEs by combining terms that represented the same type of reaction, such as shortness of breath and dyspnea. A ranking of this data revealed which ADR/ADEs have the greatest potential to occur within the ambulatory population based on current prescribing patterns.

OBJECTIVE

To determine the 30 most common adverse drug reactions likely to occur in the top 200 medications of the Drug Topics Top 200 Drugs.

METHODS

The 2009 version of the Drug Topics Top 200 Drugs list was used to identify the drugs most commonly used within the ambulatory population during 2008. The list was analyzed to identify which ADR/ADEs occur for the prescribed medications in the Top 200 list. Each drug in the Top 200 was categorized according to pharmacologic class, as classified in the most recent version of Drug Facts and Comparisons. The ADR/ADEs for the medications in each class were obtained from the literature, along with estimates of frequency.

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DATA

Evaluation of reported ADR/ADEs associated with each of the 2009 The Drug Topics Top 200 Drugs list resulted in 9829 individual potential ADR/ADEs. Of these, there were 758 unique ADR/ADE groupings reported.

DISCUSSION

Knowledge of ADR/ADEs is important for pharmacists in all settings. Remembering all possible ADR/ADEs for each medication can be daunting or seem impossible. Consolidating the ADR/ADEs for each medication, each drug class, and all medications may enable pharmacists to recall the most common side effects and aid in earlier identification of ADR/ADEs, especially in the community setting. This may positively impact patient safety across settings, since adverse drug reactions (ADRs) and adverse drug experiences (ADEs) are common experiences with medication usage.

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