Drug-Related Adverse Events: A Readers’ Guide to Assessing Literature Reviews and Meta-analyses

With the increase in concern about drug safety, this article provides a practical guide to critically appraising reviews and meta-analyses of drug-related adverse events.

Predictors of Persistence of Use of the Novel Antidiabetic Agent Acarbose

Acarbose is the first of a new class of oral antidiabetic agents, the α-glucosidase inhibitors. Although the efficacy and safety of acarbose in hyperglycemic control subjects have been thoroughly demonstrated, approximately 50% or more of acarbose-treated subjects in recent clinical trials reported adverse gastrointestinal effects. Acarbose causes delayed absorption of carbohydrates from the intestine, providing a substrate for fermentation by colonic flora. Although these effects are not serious and are known to diminish over time, patients in general clinical practice may not be adequately informed of this fact or as motivated as trial subjects to persist with the therapy, and hence may prematurely discontinue use of the agent. This cohort study assesses adverse effects with acarbose treatment among new users of the drug. Forty percent of patients aged 21 to 64 years and 33% of senior citizens failed to renew their first dispensed prescription within a permissible period. Predictors of early discontinuation were identified and discussed. This study underscores the importance of the role of prescribing practitioners in educating patients receiving acarbose treatment about the anticipated gastrointestinal adverse effects and their expected diminution over time. Such education may improve compliance and prevent the waste of health care resources.

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Management of Severe Hypokalemia in Hospitalized Patients: A Study of Quality of Care Based on Computerized Databases

Severe hypokalemia is a common, life-threatening abnormality among hospitalized patients. A computerized laboratory database was used to ascertain cases of hypokalemia, and the pattern of subsequent test results (whether and when subsequent tests were performed and their results) after initial low serum potassium level was compared with the actual management of hypokalemia as determined by medical record review. The pattern of test results as ascertained by the computer was significantly associated with the actual clinical treatment given in the presence of hypokalemia. Computerized laboratory databases can serve as efficient and valid sources of information on the quality of management of electrolyte disorders.

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Individualized Stress Management for Primary Hypertension: A Randomized Trial

This study is an important contribution because it successfully challenges previous conclusions (as expressed by consensus committees) that psychological treatment for hypertension is merely an adjunct to medical therapy and that it is useful as a single treatment only for borderline hypertension. This article shows positive results for patients with true hypertension and reports further improvements at 6-month follow-up, using the most conservative form of blood pressure measurement (24-hour ambulatory). The challenges are identifying the most effective treatment and understanding why some patients benefited greatly while others did not.

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