eReports

Evaluating Patients for Drug-Induced Disease

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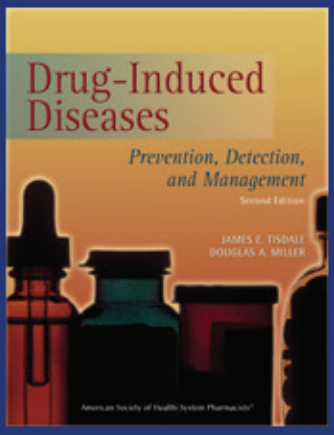

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Evaluating Patients for Drug-Induced Disease

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Any correspondence regarding this publication should be sent to the publisher, American Society of Health-System Pharmacists, 7272 Wisconsin Avenue, Bethesda, MD 20814, attention: Special Publishing.

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Director, Special Publishing: Jack Bruggeman

Acquisitions Editor: Jack Bruggeman

Editorial Project Manager: Ruth Bloom

Production Manager: Johnna Hershey

Cover and Page Design: David Wade and Carol Barrer

ISBN: 978-1-58528-460-3

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INTRODUCTION

There are nearly 5000 unique drug entities available for human use in the United States.[1] A survey of an ambulatory population revealed that 50% of adults regularly used at least one prescription drug and 7% regularly used five or more. Herbal products and other natural supplements were taken by 14% of the population, and 16% of regular prescription-drug users also took an herbal product or natural supplement.[2] Since almost every drug a patient takes has the potential to cause an adverse effect and an associated drug-induced disease, the likelihood that a health care practitioner will encounter patients with one of these drug-related problems is quite high.

Unfortunately, clinicians are often slow to recognize adverse drug reactions and their associated drug-induced diseases. Sometimes they are not recognized at all. Patients' symptoms can easily be confused with those of commonly encountered and naturally occurring disease states. Sometimes an adverse drug effect may be mistaken for an exacerbation of a patient's preexisting condition. Not all adverse drug effects or associated drug-induced diseases are well documented in the literature or even known to the Food and Drug Administration (FDA) at the time of approval. Rare events may be identified only long after a drug reaches the market and following its use in thousands of patients. Despite these difficulties, early detection and correction of drug reactions and drug-induced diseases can help reduce morbidity and mortality and is therefore critically important.

Drug reactions can be divided into four general classes.[3]

1. *Type A reactions* are predictable, common, and related to the pharmacologic action of the drug. These may include reactions associated with drug toxicity or overdose (e.g., acetaminophen-induced hepatic failure), side effects (e.g., sedation due to antihistamines), secondary effects (e.g., diarrhea caused by oral antibiotics), or drug interactions.
2. *Type B reactions* are unpredictable, uncommon, and usually not related to the pharmacologic actions of the drug. These include allergic or pseudoallergic reactions as well as reactions generally described as idiosyncratic (e.g., primaquine-induced hemolytic anemia in a glucose-6-phosphate dehydrogenase–deficient patient). An *idiosyncratic reaction* is defined as an uncharacteristic, non-immunologic response to a drug that is not related to its pharmacologic actions.

Adapted and updated from James E. Tisdale and Douglas A. Miller, *Drug-Induced Diseases: Prevention, Detection, and Management, Second Edition*, Bethesda, MD: American Society of Health-System Pharmacists © 2010.