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ARTICLE

Medications for Alcohol, Illicit Drug, and Tobacco Dependence

An Update of Research Findings

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Abstract—*Physiologic, behavioral, and social factors contribute to dependence on alcohol, nicotine, and other drugs. During the past decade substantial research has focused on identification/development of medications to assist in reducing urge to use these substances. This article describes these agents and reviews recent research findings on them.* © *1999 Elsevier Science Inc. All rights reserved.*

Keywords—pharmacotherapy; alcohol dependence; naltrexone; acamprosate; bupropion; medication compliance.

INTRODUCTION

A VARIETY OF PHYSIOLOGICAL, psychological, and social factors underlie dependence on psychoactive substances to include alcohol, illicit drugs, and tobacco. While a variety of psychosocial interventions have been developed to assist in resolving these problems, until the past decade or so little research was undertaken to develop medications that could also assist in treatment of chemically dependent patients. Several medications now appear promising and are likely to significantly influence clinical practice of the future. This article summarizes state of the knowledge on this topic.

PHARMACOTHERAPY FOR ALCOHOLISM

Progress in development of medications to prevent or reduce drinking is most strikingly illustrated by consideration of two agents, naltrexone and acamprosate. Both have been demonstrated as efficacious and both currently available for clinical use in a large number of countries. In this section we review research on these agents as well as on disulfiram and the antidepressants fluoxetine and sertraline.

Naltrexone

In December 1994, the opioid antagonist naltrexone (Revia™) was approved by the U.S. Food and Drug Administration (FDA) as an adjunct to treatment of alcoholism. Since then, it has been approved in 18 additional countries. Approval of naltrexone was based primarily on two landmark studies (O'Malley et al., 1992; Volpicelli, Alterman, Hayashida, and O'Brien, 1992). In the first project, 70 alcohol-dependent male outpatients, recruited from a Veterans Affairs (VA) hospital, were treated with either 50 mg of naltrexone or placebo daily for 3 months (Volpicelli et al., 1992). Patients also received 4 weeks of intensive abstinence-oriented verbal therapy followed by 8 weeks of aftercare treatment. Those on naltrexone experienced fewer drinking days, were less likely to re-

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