

Alan David Kaye  
Nalini Vadivelu  
Richard D. Urman *Editors*

# Substance Abuse

Inpatient and  
Outpatient Management  
for Every Clinician



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*To my wife, Dr. Kim Kaye, and my children, Aaron and Rachel Kaye, for being the best family a man could ask for in his life.*

*To my mother, Florence Feldman, who, while enduring a lifetime of pain and suffering with seven back surgeries, taught me to accomplish tasks and to reach my dreams and goals.*

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**Alan David Kaye, MD, PhD**

*To my parents, Major General C. Vadivelu and Mrs. Gnanambigai Vadivelu, for their absolute trust in me always. To my husband, Thangamuthu Kodumudi, for his constant support. To my sons, Gopal Kodumudi and Vijay Kodumudi, who, with the highest standards of propriety, inspire me to reach out to perfection. To my siblings and their families for their friendship always, and to my colleagues and innumerable friends everywhere for countless helpful things.*

**Nalini Vadivelu, MD**

*To my patients, who inspired me to write this book to help other practitioners improve their care.*

*To my mentors for their encouragement and support.*

*To my students and trainees so that they can use this guide to better understand the needs of these patients.*

*To my family: my wife, Dr. Zina Matlyuk-Urman, M.D.; my daughters, Abigail and Isabelle, who make it all possible and worth it, every day.*

*And finally, to my parents, Tanya and Dennis Urman.*

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# Foreword

*Substance Abuse: Inpatient and Outpatient Management for Every Clinician* will certainly be a welcomed and very well-timed new text addition to the libraries of practitioners who not only treat patients with substance abuse, but who also care for patients who experience chronic pain and require medication with analgesics and adjuvants with abuse potentials. The timing of this new text coincides with several recently publicized public health trends including the worldwide epidemic of prescription drug abuse and “drugged” driving, the identification of validated risk factors for substance abuse, and a paradigm shift in the management and prevention of substance abuse [1].

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# Preface

Virtually every family and every community will have to deal with substance abuse in one way or another, as there are epidemic rates of affliction in the United States and worldwide. For most people with a substance abuse issue, there are remarkably familiar stages, problematic consequences, and numerous brain chemistry changes that have been better appreciated in recent years.

Society portrays someone with substance abuse issues as a homeless, uneducated, lower socioeconomic individual offering little understanding or compassion. This is most naïve, as a person with a substance abuse disorder can be anyone, a grandmother, a teenager from an affluent family, or a prominent successful person admired for his or her talents in athletics, arts, sciences, or business. How much is related to genetics versus the environment has been a long-standing debate. Many of the common molecular mechanisms and general themes related to substance abuse are better understood today, even though the prevalence of addiction and abuse have never been higher, particularly alcohol abuse, tobacco use, opioid medication abuse, and eating disorders.

The editors of this book have not been immune to the consequences of substance abuse. We have witnessed star quarterbacks die related to acute alcohol binge in high school, family members brought to emergency rooms and rehabilitation facilities for prescription and heroin abuse, pleasant appearing patients, including grandmothers and clergy, fail urine toxicology screens at our pain clinics, and reasonable and compliant patients shot and killed in their homes related to dealing with the same drugs they were prescribed for appropriate spinal cord pathologies or pain syndromes. Over and above these terrible stories, the suffering of loving family members cannot be understated. As examples, anyone who grew up in a home with an alcoholic parent or an overeating child knows that substance abuse, though with many appearances and nuances, is a problem all of us share. Data indicate lack of success for many of these substance abuse issues. This failure is tragic with our ever-evolving technology and robust pharmaceutical industry. On a positive note, science is constantly developing new medications with an ever-evolving and better-understood subtype receptor target or enzyme to combat physical and mental processes prominent with substance abuse-mediated sequelae.

As editors of *Substance Abuse: Inpatient and Outpatient Management for Every Clinician* we have recruited outstanding scientists and clinicians to better outline the current understanding of substance abuse, discuss cutting-edge research, and to summarize treatment options. We hope this book is utilized by health care professionals and non-health care professionals for many years to come. We thank the authors that have contributed outstanding chapters to make our book easy to read yet in depth and pertinent to the reader. Finally, we all need to appreciate that each person we help in life should be thought of as a family member. With this in mind, we can all make decisions to help others and give of ourselves, when those around us have critical and difficult moments. The world is made for comebacks and there is no greater gift than your time, patience, and love for others.

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