

HOSPITAL PHYSICIAN®

CARDIOLOGY BOARD REVIEW MANUAL

PUBLISHING STAFF

PRESIDENT, GROUP PUBLISHER

Bruce M. White

EXECUTIVE EDITOR

Debra Dreger

SENIOR EDITOR

Miranda J. Hughes, PhD

ASSISTANT EDITOR

Rita E. Gould

EDITORIAL ASSISTANT

Kara V. Warner

EXECUTIVE VICE PRESIDENT

Barbara T. White, MBA

PRODUCTION DIRECTOR

Suzanne S. Banish

PRODUCTION ASSOCIATES

Tish Berchtold Klus

Mary Beth Cunney

ADVERTISING/PROJECT MANAGER

Patricia Payne Castle

NOTE FROM THE PUBLISHER:

This publication has been developed without involvement of or review by the American Board of Internal Medicine.



The Association for Hospital Medical Education endorses HOSPITAL PHYSICIAN for the purpose of presenting the latest developments in medical education as they affect residency programs and clinical hospital practice.

Chronic Stable Angina II: Treatment and Case Studies

Series Editor: Gilbert H. Mudge Jr, MD

Director, Cardiac Transplant Services, Department of Cardiology, Harvard Medical School, Associate Professor of Medicine, Brigham and Women's Hospital, Boston, MA

Contributing Author:

Beth R. Malasky, MD, FACC

Clinical Assistant Professor of Medicine, Native American Cardiology Program, University of Arizona Health Sciences Center, Tucson, AZ

Contributing Editor and Author:

Joseph S. Alpert, MD, FACC

Robert S. and Irene P. Flinn Professor of Medicine, Chairman, Department of Medicine, University of Arizona Health Sciences Center, Tucson, AZ

Table of Contents

| | |
|---------------------------------|----|
| Introduction | 2 |
| Therapeutic Interventions | 3 |
| Case Presentations | 4 |
| Conclusion | 9 |
| Summary Points | 9 |
| References | 10 |

Cover Illustration by Christie Grams

Copyright 2001, Turner White Communications, Inc., 125 Strafford Avenue, Suite 220, Wayne, PA 19087-3391, www.turner-white.com. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, mechanical, electronic, photocopying, recording, or otherwise, without the prior written permission of Turner White Communications, Inc. The editors are solely responsible for selecting content. Although great care is taken to ensure accuracy, Turner White Communications, Inc. will not be liable for any errors of omission or inaccuracies in this publication. Opinions expressed are those of the authors and do not necessarily reflect those of Turner White Communications, Inc.

HOSPITAL PHYSICIAN®

CARDIOLOGY BOARD REVIEW MANUAL

Chronic Stable Angina II: Treatment and Case Studies

Contributing Author:

Beth R. Malasky, MD, FACC

Clinical Assistant Professor of Medicine

Native American Cardiology Program

University of Arizona Health Sciences Center

Tucson, AZ

Contributing Editor and Author:

Joseph S. Alpert, MD, FACC

Robert S. and Irene P. Flinn Professor of Medicine

Chairman, Department of Medicine

University of Arizona Health Sciences Center

Tucson, AZ

I. INTRODUCTION

Cardiovascular disease (CVD) is the leading cause of death in the United States. As CVD mortality rates decline, the population living with atherosclerotic heart disease increases. Most of these patients have chronic stable angina, manifested by exertional chest pain. In the first part of this article, “Chronic Stable Angina I: Risk Factors and Evaluation” (*Hospital Physician Cardiology Board Review Manual*, Volume 7, Part 1), we reviewed the various risk factors for coronary artery disease (CAD). We discussed the importance of clinical assessment in determining the pretest likelihood of disease before embarking on a diagnostic evaluation. The benefits of noninvasive testing are greatest in patients with an intermediate pretest probability of disease. Noninvasive testing is essential to risk stratify patients with chest pain because a high-risk subgroup may bene-

fit from a more invasive evaluation and revascularization. The sensitivity of noninvasive testing is improved when used to detect left main or 3-vessel CAD.

Treadmill electrocardiogram (ECG) testing is the preferred modality for evaluating most patients with chest pain and an intermediate probability of disease. Exercise tolerance on the treadmill adds significant prognostic information to the ECG results. In patients with abnormal baseline ECGs or inability to exercise, pharmacologic stress tests using adjunctive nuclear perfusion imaging or echocardiography can be used to risk stratify patients with chest pain. Coronary angiography remains the gold standard for identifying the presence of CAD, but angiography does not provide information regarding the functional significance of coronary stenoses. Angiography is appropriate for high-risk patients, patients with markedly positive noninvasive tests, patients with nondiagnostic noninvasive evaluations, and patients unable to undergo a noninvasive diagnostic evaluation.