

# HOSPITAL PHYSICIAN®

## ONCOLOGY BOARD REVIEW MANUAL

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## Testicular Cancer: II

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## Table of Contents

Introduction . . . . .	2
Treatment of Good-Prognosis Advanced Stage Disease . . . . .	2
Treatment of Poor-Prognosis Germ Cell Tumors . . . . .	4
Management of Residual Masses . . . . .	5
Salvage Chemotherapy . . . . .	6
Toxicities of Treatment . . . . .	7
Mediastinal Germ Cell Tumors . . . . .	8
Board Review Questions . . . . .	9
Detailed Answers . . . . .	9
References . . . . .	10

Cover Illustration by Roy Scott

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## I. INTRODUCTION

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This is the second of a 2-part manual on testicular cancer. The second part discusses treatment of good-prognosis advanced stage disease and of poor-prognosis germ cell tumors (GCTs), management of residual masses, salvage chemotherapy, toxicities of treatment, and mediastinal GCTs. The first part discussed epidemiology, biology, diagnosis, and staging of GCTs in general as well as treatment of early stage seminomatous and nonseminomatous GCTs. Both parts contain sample board review questions and answers for self-assessment. The first part was published as "Testicular Cancer: I" in the *Hospital Physician Oncology Board Review Manual*, Volume 6, Part 3.

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## II. TREATMENT OF GOOD-PROGNOSIS ADVANCED STAGE DISEASE

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A. **Overview.** The development of highly effective chemotherapy for advanced stage GCTs represents one of the greatest success stories of modern oncology. Advanced stage disease includes bulky stage II (IIC) and stage III disease. Roughly 70% to 80% of these patients can now be cured with chemothera-

py and, if necessary, surgery. As regimens were being tested in the 1970s and 1980s, it became clear that some advanced stage patients had a much better prognosis than others; therefore, subsequent trials were tailored to either good- or poor-risk patients. With more than 90% of good-risk patients achieving long-term disease-free survival, attention shifted to minimizing treatment-related toxicity in this population, although more effective treatments were sought for poorer risk patients. At this time, 2 standard regimens are used for patients with good-risk GCTs: 3 cycles of bleomycin, etoposide, cisplatin (BEP) or 4 cycles of etoposide and cisplatin (EP) (**Table 1**).

B. **Early trials.** In early trials, treatment with 4 cycles of cisplatin, vinblastine, and bleomycin (PVB) was the first regimen shown to cure most patients with metastatic or bulky retroperitoneal disease.<sup>1</sup> Subsequently, a multicenter, randomized trial demonstrated that 4 cycles of BEP (which substitutes etoposide for vinblastine) produced equivalent results as PVB with less toxicity.<sup>2</sup> Moreover, in patients with bulkier disease, BEP resulted in higher survival. This trial established 4 cycles of BEP as the standard regimen for advanced stage GCTs. Attempts to reduce toxicity in good-risk