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ONCOLOGY BOARD REVIEW MANUAL

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Testicular Cancer: I

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I. INTRODUCTION

This is the first of a 2-part manual on testicular cancer. The first part discusses epidemiology, biology, diagnosis, and staging of germ cell tumors (GCTs) as well as treatment of early stage seminomatous and nonseminomatous GCTs. The second part discusses treatment of good-prognosis advanced stage disease and of poor-prognosis GCTs, management of residual masses, salvage chemotherapy, toxicities of treatment, and mediastinal GCTs. Both parts contain sample board review questions and answers for self-assessment. The second part will be published as "Testicular Cancer: II" in the *Hospital Physician Oncology Board Review Manual*, Volume 6, Part 4.

II. EPIDEMIOLOGY

A. Incidence and mortality

1. Testicular cancer is relatively rare, with roughly 7000 new cases reported annually in the United States.¹
 - a. The incidence of testicular cancer is highest between the ages of 20 and

44 years. It is the most common malignancy in Caucasian men between the ages of 20 and 34 years. The median age at diagnosis is 33 years; occurrence is rare in individuals younger than 15 years or older than 54 years.¹

- b. The incidence of testicular cancer is highest among Caucasian men (5.3/100,000) and lowest among African American men (1.0/100,000); the number of Latino and Asian American men affected is between these values.¹
 2. Almost all patients with testicular cancer are cured; the 5-year survival rate is approximately 95%.¹ The incidence of testicular cancer increased by about 50% between the early 1970s and the late 1990s, although mortality fell by 70% during the same period.¹
- ### B. Risk factors
1. Cryptorchidism (undescended testicle) is the most clearly established risk factor for testicular GCTs, although the increased risk is largely eliminated by early surgical correction. In men with cryptorchidism, both the undescended and the contralateral testicles are at increased for developing cancer.