A concise and updated review of prostate cancer pathologic diagnosis with emphasis on practical issues and recent developments in the field. Each chapter addresses the basic diagnostic features, differential diagnoses, pitfalls and ways to resolve the problem. Additionally, a brief introduction of prostate cancer screening, clinical management and treatment are summarized. Recent development of immunohistochemistry, molecular testing in the diagnosis, prognosis and treatment are also reviewed. Finally, current knowledge of molecular alteration of prostate cancer carcinogenesis and impact in diagnosis and treatment are discussed.