New developments in prostate cancer therapy.

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Abstract
Prostate cancer is the most common nonskin malignant neoplasm in men worldwide. In the United States, 241,740 new diagnoses of prostate cancer and 28,170 prostate cancer deaths have been estimated for 2012, representing 28% of new cancer cases and 10% of male cancer deaths. Although metastatic prostate cancer remains an incurable disease, substantial advances have been made in therapeutic options available for men in the past several years. Development of novel agents that modulate the androgen receptor pathway, growth factor signaling pathways, and immune function and bone targeting pathways has been the focus of therapeutic strategies because of its significance in the biology of prostate cancer progression. Several of the agents have gained U.S. Food and Drug Administration (FDA) approval, whereas many are in late-stage clinical trials. With the growth of available treatment options, a major challenge as we move forward will be to determine the best sequence and/or combination of therapy that will result in maximum clinical efficacy with minimum toxicity. Highlighted in this publication are several of the exciting advances in prostate cancer therapy for patients with metastatic, castrate-resistant prostate cancer.