Record Nr. UNINA9910300068303321 **Titolo** Image guided prostate cancer treatments / / Robert L. Bard, Jurgen J. Futterer, Dan Sperling, editors Pubbl/distr/stampa Heidelberg, Germany:,: Springer,, 2014 **ISBN** 3-642-40429-4 Edizione [1st ed. 2014.] 1 online resource (xiv, 268 pages): illustrations (some color) Descrizione fisica Collana Gale eBooks Disciplina 610 616.07543 616.0757 616.99463 Prostate - Cancer - Treatment Soggetti Prostate - Cancer - Imaging Image-guided radiation therapy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references. Nota di contenuto Radiologic Introduction -- Urologic Introduction -- Medical Oncology Introduction -- Basic Principles: Scope of Prostate Cancer -- MRI of the Prostate -- Benign Disease -- Intraprostatic Cancer -- Localized Extraprostatic Cancer -- Nodal Cancer -- The Treated Gland -- Case Studies with Multimodality Diagnostic Imaging -- Case Studies with Image Guided Treatments -- Medical Oncology and Imaging -- MRI Thermocoupling and Laser Tumor Ablation -- New Robot and Cybernetic Image Guided Technologies -- Long Term Follow-Up --Minimally Invasive Treatment of Benign Prostate Hypertrophy. Sommario/riassunto Image-Guided Prostate Cancer Treatments is a comprehensive reference and practical guide on the technology and application of ultrasound and MRI in the male pelvis, with special attention to the prostate. The book is organized into three main sections, the first of which is devoted to general aspects of imaging and image-guided treatments. The second section provides a systematic overview of the

application of ultrasound and MRI to the diagnosis and treatment of diseases of the lower urinary tract. Performance of the ultrasound and MRI studies is explained, and the normal and abnormal pathological

anatomy is reviewed. Correlation with the ultrasound in the same plane is provided to assist in understanding the MRI sequences. Biopsy and interventional procedures, ultrasound-MRI fusion techniques, and image-guided therapies, including focused ultrasound, photodynamic therapy, microwave and laser ablation, are all fully covered. The third section focuses on securing treatment effectiveness and the use of follow-up imaging to ensure therapeutic success and detect tumor recurrence at an early stage, which is vital given that prompt focal treatment of recurrence is very successful. Here, particular attention is paid to the role of Doppler ultrasound and DCE-MRI technologies. This book, containing a wealth of high-quality illustrations based on highend equipment, will acquaint beginners with the basics of prostate ultrasound and MRI, while more advanced practitioners will learn new skills, means of avoiding pitfalls, and ways of effectively relating the imaging and image-guided treatments to the clinical situation.