

1. Record Nr.	UNINA9910502993403321
Titolo	Comprehensive diagnostic approach to bladder cancer : molecular imaging and biomarkers / / Marc A. Bjurlin, Richard S. Matulewicz, editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-82048-3
Descrizione fisica	1 online resource (232 pages)
Disciplina	616.99462
Soggetti	Bladder - Cancer - Diagnosis Urinary Bladder Neoplasms - diagnosis Urinary Bladder Neoplasms - diagnostic imaging Càncer de bufeta Diagnòstic per la imatge Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Foreword -- Contents -- Contributors -- Chapter 1: Epidemiology of Bladder Cancer: Trends and Disparities -- Incidence and Natural History -- Non-muscle Invasive Bladder Cancer -- Muscle-Invasive Bladder Cancer -- Metastatic Bladder Cancer -- Variant Histology -- National and Global Trends -- Disparities in the Diagnosis and Treatment of Bladder Cancer -- Gender -- Race -- Insurance -- Geography -- Financial Toxicity -- Disparities in Survivorship -- Urinary Diversion -- Sexual Function -- Conclusion -- References -- Chapter 2: Environmental and Genetic Factors Contributing to Bladder Carcinogenesis -- Introduction -- Environmental Risk Factors -- Arsenic -- Aristolochia -- Diet -- Food -- Fluid Intake -- Vitamins -- Medications -- Cyclophosphamide -- Pioglitazone -- Phenacetin -- Radiation -- Immunosuppression -- Infection -- Recurrent Bacterial Urinary Tract Infections -- Schistosoma haematobium -- Epstein-Barr Virus -- Neisseria gonorrhoea -- Human papillomavirus -- Polyomaviruses -- Smoking -- Cigarette Smoking -- Electronic

Cigarettes -- Others -- Gender -- Race -- Occupational Risk -- Polyaromatic Hydrocarbons -- Hair Dye -- Genetic Predisposition -- Genetic Polymorphisms -- Germline Mutations -- Conclusion -- References -- Chapter 3: Strategies for Bladder Cancer Screening -- Introduction -- Rationale for Screening -- High-Risk Populations -- Age -- Cigarette Smoking -- Prior Screening Trials: Comparing Cohorts and Methods of Screening -- Urine Dipstick (Chemical Reagent Strip for Hemoglobin) -- Urine Cytology -- Other Urinary Biomarkers -- Looking Forward: Design of and Challenges in an Ongoing Bladder Cancer Screening Trial -- References -- Chapter 4: Staging of Bladder Cancer -- Introduction -- Diagnosis -- Staging Modalities -- TURBT -- Cystoscopy Enhancements -- Resection Method -- Influence of Energy Type.

Special Staging Circumstances: Diverticulae -- Bimanual Exam -- Accuracy of Staging: Importance of Repeat TURBT -- Imaging -- Staging -- Current TNM Staging -- Historical Considerations and Updates -- Risk Stratification Schema -- Surveillance Protocols -- Non-muscle-Invasive Disease -- Recurrence After BCG -- Conclusion -- References -- Chapter 5: Conventional and Investigational Imaging Modalities -- Introduction -- Role of Imaging in the Diagnosis of Bladder Cancer and Directing the Therapeutic Approach -- Imaging Modalities -- Ultrasound -- Imaging Technique -- Imaging Role, Clinical Impact, and Accuracy of US -- Computed Tomography -- Imaging Technique -- Imaging Role, Clinical Impact, and Accuracy of CT -- Magnetic Resonance Imaging -- Imaging Technique -- MR Urography -- Bladder Cancer Staging -- Imaging Role, Clinical Impact, and Accuracy of MR -- MR Urography -- Bladder Cancer Staging -- T Staging -- N Staging -- Radiomics and Bladder Cancer -- Conclusion and Future Directions -- References -- Chapter 6: Evaluation of Hematuria -- Epidemiology and Definitions of Hematuria -- Etiologies of Hematuria -- Pseudohematuria -- Benign Causes of Hematuria -- Malignant Causes of Hematuria -- Indications for Workup of Hematuria -- AUA Guideline Review -- Variation Among International Hematuria Guidelines -- Patient History and Unique Patient Circumstances -- Women -- Antithrombotics -- Components of the Diagnostic Evaluation of Hematuria -- Cystoscopy -- Upper Tract Imaging -- Cross-Sectional Imaging with Contrast Enhancement -- Renal Ultrasound -- Urine Cytology -- Future Potential Use of Urine Markers and Biomarkers -- Risks Associated with Evaluation -- Novel Risk Stratification Approaches for Microscopic Hematuria -- Conclusion -- References -- Chapter 7: Molecular Imaging Modalities: Applications of Current and Novel Radiotracers -- Introduction.

Assessment of Residual Tumor After TURBT -- Bladder Cancer Staging -- 18F-FDG PET/CT -- Primary Tumor Staging -- Lymph Node Staging -- 18F-FDG PET/MRI -- 11C-Choline PET/CT -- 11C-Acetate PET -- Response to Neoadjuvant Chemotherapy -- Detection of Bone Metastases -- Radiotracers and Immunotherapy -- Investigational Radiotracers -- Imaging Guidelines -- Non-muscle-Invasive Bladder Cancer -- Muscle-Invasive and Metastatic Bladder Cancer -- Conclusions -- References -- Chapter 8: Optical Techniques for Bladder Cancer Detection: The Role of Cystoscopy and Enhanced Cystoscopy -- Standard White Light Cystoscopy -- Techniques to Reduce Pain -- Use of Antibiotics -- Enhanced Cystoscopic Modalities -- Narrow-Band Imaging -- Blue Light Cystoscopy with TURBT -- Flexible Blue Light Cystoscopy -- Near-Infrared Fluorescence Imaging -- AUA/SUO Guidelines -- Future Directions -- Conclusion -- References -- Chapter 9: Urine Cytology in the Clinical Management of Bladder Cancer -- Introduction -- Urinary Tract

Cytomorphology and the Paris System for Reporting Urinary Cytology (TPS) -- Urine Cytology in Clinical Practice -- Methods of Obtaining Urine Cytology -- Specimen Preparation and Adequacy Assessment -- Performance Characteristics of Urine Cytology in Detecting Clinically Significant UC of the Bladder -- Urine Cytology in the Diagnostic Evaluation of Hematuria -- Urine Cytology for Surveillance of UC of the Bladder -- Conclusion -- References -- Chapter 10: Urinary Biomarkers: Current Status and Future Opportunities -- Introduction -- Defining an Ideal Bladder Cancer Diagnosis and Surveillance Test -- Current Commercially Available Tests for Bladder Cancer Diagnosis -- UroVysion -- Bladder Tumor Antigen (BTA) -- Cx Bladder -- NMP22 BladderChek -- Xpert Detection -- UroSEEK -- AssureMDx -- Current Commercial Tests for Bladder Cancer Surveillance -- UroVysion. ImmunoCyt/uCyt+ -- BTA Stat/BTA Trak -- NMP22 BladderChek/NMP22-BC -- Cx Bladder Monitor -- Uromonitor -- Epicheck -- Potential Urinary Biomarkers -- Protein Biomarkers -- Genomic Biomarkers -- Telomerase -- Fibroblast Growth Factor Receptor 3 -- Aurora Kinase A -- Epigenetic Biomarkers -- DNA Methylation -- MicroRNAs -- Transcriptomic Biomarkers -- Inflammatory Biomarkers -- Metabolic Biomarkers -- Combination Biomarkers -- Conclusions -- References -- Chapter 11: Bladder Cancer Genomics: Indications for Sequencing and Diagnostic Implications -- Introduction -- Primer on Next-Generation Sequencing -- Muscle-Invasive Bladder Cancer -- Non-muscle-Invasive Bladder Cancer -- Advanced and Metastatic Bladder Cancer -- Germline Alterations -- Liquid Biopsy -- Circulating Tumor Cells and Cell-Free Tumor DNA -- Urinary Cell-Free Tumor DNA -- Guidelines and Practical Approach -- Conclusions -- References -- Chapter 12: Novel and Investigational Diagnostics: Liquid Biopsy and Beyond -- Introduction -- Circulating Tumor Cells -- Circulating Tumor DNA -- Circulating Tumor RNA -- Metabolites -- Other Serum-Based Biomarkers -- Conclusion -- References -- Index.

---