GE HealthCare

Oncology Care Pathway Solutions

Where cancer and care connect

A healthcare experience that is more human and flexible, focusing on the needs of both clinicians and patients

Prostate Cancer

Types

Almost all prostate cancers are adenocarcinomas. These cancers develop from the gland cells in the prostate. Other types of cancer that can start in the prostate include small cell carcinoma, other neuroendocrine tumors (including large cell carcinoma), transitional cell carcinoma and sarcomas.

Symptoms

- Difficulty starting urination
- Weak or interrupted flow of urine
- Frequent urination, especially at night
- Pain or burning during urination
- Blood in urine or semen
- Pain in the back, hips or pelvis that doesn't go away
- Painful ejaculation

Early Detection / Screening

Early screening tests detect about 85% of prostate cancers[1] — before the patient develops any symptoms. Prostate cancer can be detected during a routine rectal exam or from bloodwork.

Diagnosis

Multiparametric MRI, biopsy and fusion biopsy provide precise and personalized prostate cancer diagnosis, and inform targeted treatment decisions.

Treatment

Treatment depends on stage and its genetic profile. Options include chemotherapy, radiation, immunotherapies, cryotherapy, hormone therapy — and surgery for early-stage disease.

1.4M

new cases of prostate cancer in 2020.[2]

60%

increase is seen in men over 65 years of age[3]

$8.2B

Health costs attributable to metastatic prostate cancer are $5.2 to $8.2 billion per year[4]

70%

higher incidence of prostate cancer in Black men than White men[5]

~1 in 4

of all prostate cancers diagnosed in the US are an aggressive subtype[6]

[1]https://www.hopkinsmedicine.org/health/conditions-and-diseases/prostate-cancer/prostate-cancer-symptoms#:~:text=Most%20men%20are%20diagnosed%20before,the%20patient%20develops%20any%20symptoms. [2]Prostate Cancer foundation, https://www.pcf.org/about-prostate-cancer/what-is-prostate-cancer/prostate-cancer-survival-rates/ [3]The Risk Factors and Screening Uptake for Prostate Cancer, A Scoping Review, Seidu Mumuni 1, Claire O'Donnell 1,2 and Owen Doody 2,* https://www.mdpi.com/2227-9032/11/20/2780 Sung H, Ferlay J, Siegel RL, et al. Global cancer statistics 2020, GLOBOCAN estimates of incidence and Mortality Worldwide for 36 Cancers in 185 Countries. CA Cancer J Clin. 2021;71(3):209–49. https://doi.org/10.3322/caac.21660. [4]The Cost of Metastatic Prostate Cancer in the United States ©2022 by American Urological Association Education and Research, Inc. https://www.auajournals.org/doi/10.1097/UPJ.0000000000000363 [5]IMPACT, Improving Mortality from Prostate Cancer Together, Dr. William Dahut, chief scientific officer, American Cancer Society, https://www.cancer.org/about-us/what-we-do/health-equity/cancer-disparities-prostate.html [6]Biomarkers of Aggressive Prostate Cancer at Diagnosis, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9916581/

Risk factors & prevention

Preventing prostate cancer remains elusive due to uncontrollable risk factors like age and genetics. Key risk factors include:

- Older age
- Race/ethnicity
- Family history
- Inherited gene mutations, such as BRCA1 or BRCA2
- Veterans and chemical exposure
- Diet and physical activity

GE HealthCare is part of the global effort to reduce the prostate cancer burden.

GE HealthCare's Oncology Solutions help improve clinical efficiency and accuracy at every step of the care pathway. Through precise and individualized imaging technology, data management, treatment, and survivorship, clinicians can deliver improved patient outcomes.

GE HealthCare pursues health equity in prostate care. We strive for the highest possible standard of health for all people, giving special attention to the needs of those at greatest risk. In addition, we are committed to contributing to a healthier planet by helping to address environmental impact and the challenges of healthcare professionals and patients.

Better outcomes through solutions across the prostate care service line:

Timely detection of metastases

Multiparametric MRI technology platform with deep learning for advanced detection and diagnosis

PSMA (Prostate-Specific Membrane Antigen) PET-CT shows metastases that are not seen with conventional imaging

SPECT/CT with CZT (Cadmium Zinc Telluride) technology is optimized for Theranostics

Precise localization and characterization of lesions

New AI (artificial intelligence) and ML (machine learning) technologies like PROview and Pi™, Prostate Intelligence™* from Lucida Medical and detect and report PCa lesions

MR & ultrasound transperineal bx for 84% accuracy in positive detection rate PIRADS (Prostate Imaging Reporting & Data System) 3-5 lesions[1]

Simulation of MR-targeted ablation with planning software enables quantitative longitudinal analysis, linking biopsy results with MRI

Evidence-based therapy selection decision support

Cloud-based platform is used to standardize, compute, and analyze multimodal health data across hospitals and labs

One comprehensive oncology care assistant that aggregates and visualizes patient data

Accelerated and accurate treatment planning and navigation

Brachytherapy with biplane transducer helps for managing treatment with confidence

RT Collaboration platform enables operational efficiency, seamless workflow

Highly specialized in prostate and focused on patients

Full range of comprehensive patient-centered technologies and services

Comprehensive prostate medical and AI care pathway packages for a value-based prostate cancer offering

Wing-to-wing, accelerated and efficient diagnostic and treatment support for patient care

* CE Marked. Not available in all territories. Please contact Lucida Medical for commercial inquiries.. The software does not have regulatory clearance and is not for sale in the US. [1]Immerzeel J., Israël B., Bomers J., et al. Multiparametric Magnetic Resonance Imaging for the Detection of Clinically Significant Prostate Cancer: What Urologists Need to Know. Part 4: Transperineal Magnetic Resonance–Ultrasound Fusion Guided Biopsy Using Local Anesthesia. Journal of European Urology. 2021.