
 SERVICE OVERVIEW

Prostate Cancer Estimation and Mapping Overview

A physician-facing summary of BioVantra's integrated prostate cancer estimation, mapping, and therapeutic margin assessment service.

This document outlines BioVantra's integrated prostate cancer estimation and mapping service and the structured report it produces, in which AI-assisted prostate MRI lesion localization, sector- and lesion-level cancer probability estimation, targeted biopsy, systematic biopsy, and fine-needle aspiration findings, pathology correlation, and therapeutic margin assessment are interpreted together as a single case-level read.

— 01 / WHAT THIS SERVICE IS

An integrated prostate cancer estimation and mapping service — not a standalone imaging or pathology read.

Prostate Cancer Estimation and Mapping is an integrated, physician-facing reporting service that consolidates AI-assisted prostate MRI interpretation, biopsy and aspiration findings, and pathology correlation into a single spatial map of estimated disease distribution.

The service is designed to support clinicians who need a clearer picture of *where* clinically significant disease is located within the gland, not only *whether* it is present.

It is intended for prostate cancer settings in which imaging, biopsy findings, fine-needle aspiration findings, and pathology need to be correlated as a single map rather than reviewed as separate documents.

Inputs and integrated output

INPUTS

- Multiparametric prostate MRI
- Targeted biopsy cores
- Systematic biopsy cores
- Fine-needle aspiration findings
- Pathology correlation across sampled regions

INTEGRATED OUTPUT

- AI-assisted lesion-level mapping
- Sector-level cancer probability estimation
- Pathology correlation by sector
- Therapeutic margin assessment
- Structured physician-facing report

Designed to give the treating clinician a single, spatially coherent view of the disease — not a series of separate findings.

A structured report built around four integrated layers.

Each report consolidates imaging, biopsy, aspiration, and pathology inputs into a single mapping and margin-assessment artifact — designed for direct use in multidisciplinary review and treatment planning discussions.

01 Lesion-level mapping

AI-assisted localization of MRI-visible lesions, with sector assignment and estimated cancer probability per lesion.

02 Sector-level estimation

Whole-gland sector mapping that integrates imaging signal with biopsy and aspiration yield to produce a per-sector estimate of disease involvement.

03 Pathology correlation

Targeted biopsy cores, systematic cores, and FNA findings are aligned to their corresponding sectors so histologic findings and imaging-derived estimates can be read together.

04 Therapeutic margin assessment

A mapped margin around regions of estimated significant disease, intended to support evaluation of focal therapy candidacy, hemi-ablation feasibility, or broader treatment field planning.

05 Integrated summary

A case-level synthesis that anchors the four layers into a single physician-facing read, structured for direct use in multidisciplinary discussion.

The report is intended to function as an integrated mapping and margin-assessment document — not a standalone imaging read or pathology summary.

— 03 / WHY IT ADDS CLINICAL VALUE

A single, spatially coherent view of the disease — not a side-by-side of separate findings.

The service is intended to give the treating clinician a single, spatially coherent view of the disease — one that imaging alone, pathology alone, or a side-by-side comparison of the two does not readily provide.

Disease distribution within the gland

More confident assessment of where significant disease sits across the prostate — including focality, laterality, and multifocality — rather than from any single input alone.

Margin-aware treatment field planning

The therapeutic margin layer frames mapped disease against candidate treatment fields, supporting margin-aware planning when broader fields are being considered.

Focal therapy and hemi-ablation candidacy

Clearer evaluation of whether mapped disease is sufficiently localized for a focal approach, or whether a hemi-ablation framing is more appropriate.

Multidisciplinary communication

Sharper communication between urology, radiology, pathology, and radiation oncology — on a single, reviewable artifact rather than reconstructed from separate reports.

Support for planning, not a substitute for judgment

The report does not replace MRI interpretation, pathology review, or clinical judgment. It is designed to make the information already gathered easier to read together.

HOW THE FOUR LAYERS READ TOGETHER

■ Lesion-level mapping

AI-assisted localization of MRI-visible lesions with sector assignment and estimated cancer probability per lesion.

■ Pathology correlation

Targeted, systematic, and FNA findings are aligned to their sectors so histologic findings and imaging-derived estimates can be read together.

■ Sector-level estimation

Per-sector estimate of disease involvement that integrates imaging signal with biopsy and aspiration yield across the whole gland.

■ Therapeutic margin assessment

A mapped margin around regions of estimated significant disease, framing focal therapy candidacy, hemi-ablation feasibility, and broader treatment field planning.

— 04 / WHEN TO CONSIDER THIS REPORT

When treatment decisions hinge on *where* disease sits, not only on grade and stage.

The report is most useful when treatment decisions hinge on *where* disease sits within the gland, not only on grade and stage.

SCENARIO 01

Focal therapy or hemi-ablation evaluation

Patients being evaluated for focal therapy or hemi-ablation, where mapped disease distribution and a therapeutic margin shape the candidacy question.

SCENARIO 02

Partial discordance between MRI and biopsy

Cases where MRI and biopsy findings appear partially discordant and would benefit from being read together as a single mapped picture.

SCENARIO 03

Margin-aware treatment field planning

Planning of treatment fields where margin awareness around mapped disease is clinically relevant to the proposed approach.

SCENARIO 04

Multidisciplinary review of intermediate-risk disease

Multidisciplinary review of intermediate-risk localized disease, where a single integrated artifact can anchor the discussion.

SCENARIO 05

Multi-input cases needing a single integrated map

Cases where prior imaging, biopsy, and FNA findings would benefit from being read as a single integrated map rather than reconstructed from separate reports.

This is a planning and communication tool. It is intended to complement — not substitute for — established imaging, pathology, and clinical assessment.

 SERVICE OVERVIEW ONLY — FULL SAMPLE REPORT AVAILABLE SEPARATELY.
