



APIC Prostate Test Report

PATIENT

Name: John Doe
Date of Birth: --/--/---
ID: M1-AAA111
Date of Biopsy: --/--/---
Biopsy WSI ID: M1-AAA111-1

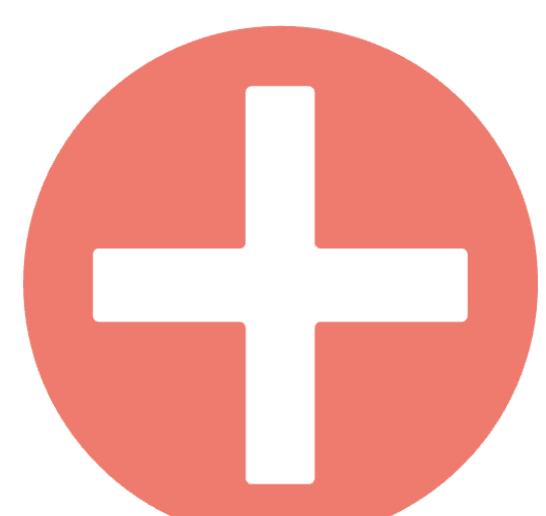
CLINICAL AND PATHOLOGY

Clinical Stage: T4
PSA (ng/mL): 40
Gleason Score: High
Metastasis Volume:
Metastasis Timing: Synchronous
NCCN Risk Group: Very high

ORDERING PHYSICIAN

Name: Naoto Tokuyama, MD, PhD
Clinic: Tokyo Medical University

CONCLUSION



More Likely to Benefit from Docetaxel

Patients classified as APIC Positive are predicted to experience improved survival with the addition of docetaxel. These patients may be suitable candidates for intensification, including doublet (ADT + Docetaxel) or triplet (ADT + Docetaxel + ARPI) therapy.

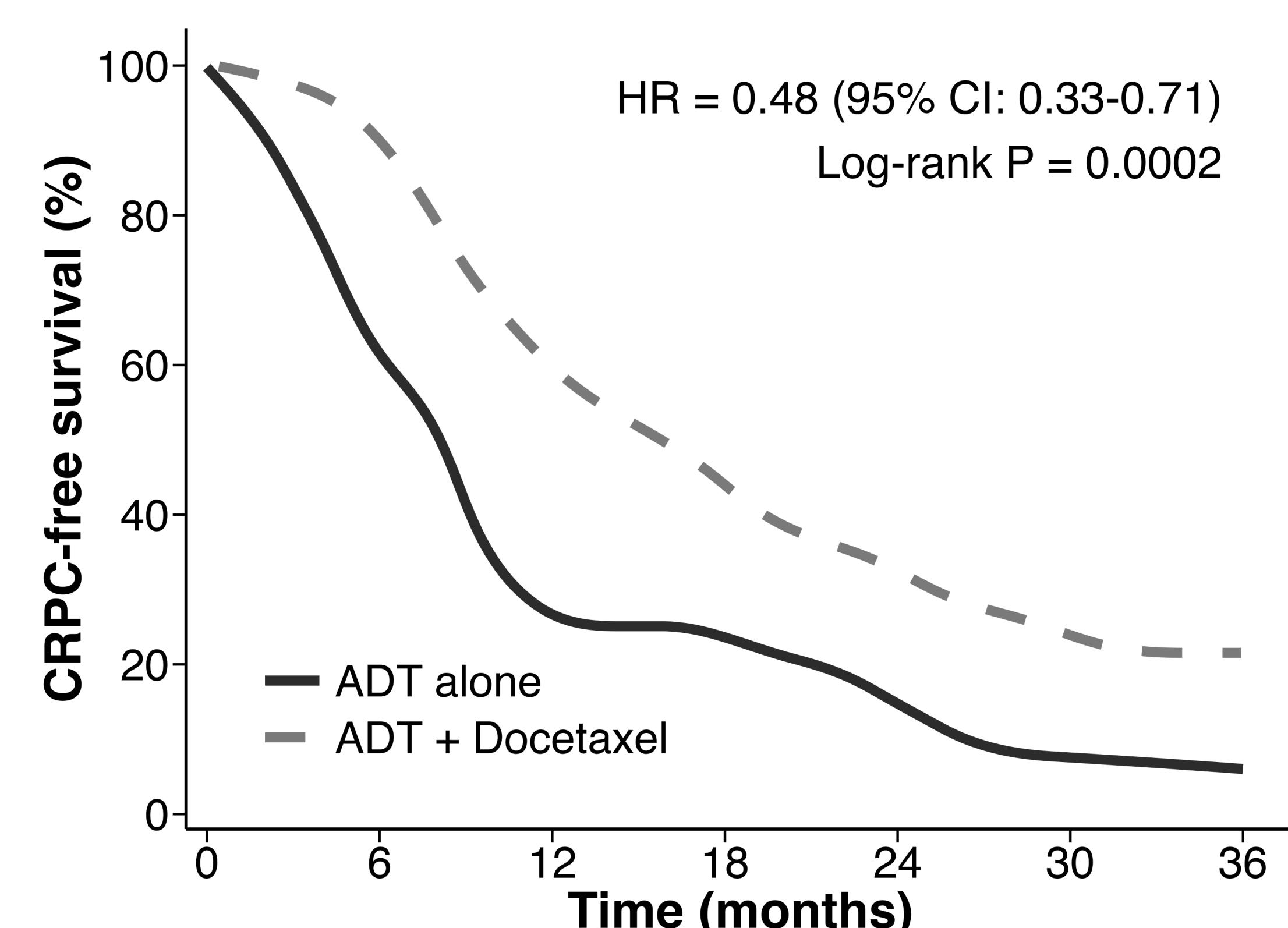
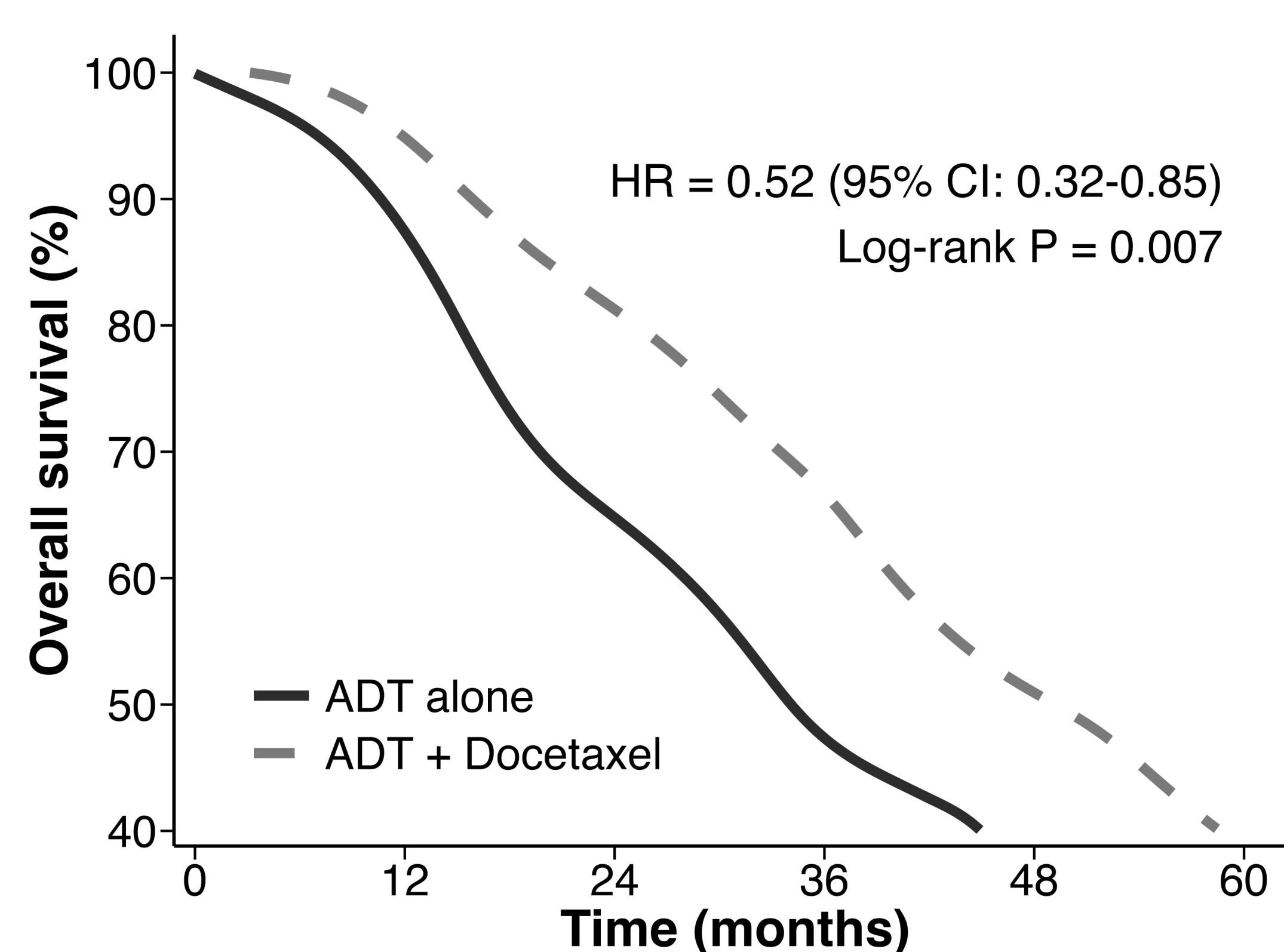
Current treatment guidelines recommend ARPI based doublet or triplet therapies based on clinical risk assessment. APIC complements these guidelines by providing additional information which may help refine treatment decisions, particularly in evaluating whether the inclusion of docetaxel, as part of doublet or triplet regimens, is likely to provide meaningful benefit for a given patient.

PROGNOSTIC ESTIMATES

5-YEAR RISK OF DEATH (With standard of care)
15%
95% CI: 10%-20%

2-YEAR RISK OF CASTRATION RESISTANCE (With standard of care)
55%
95% CI: 40%-70%

TREATMENT CONSIDERATIONS



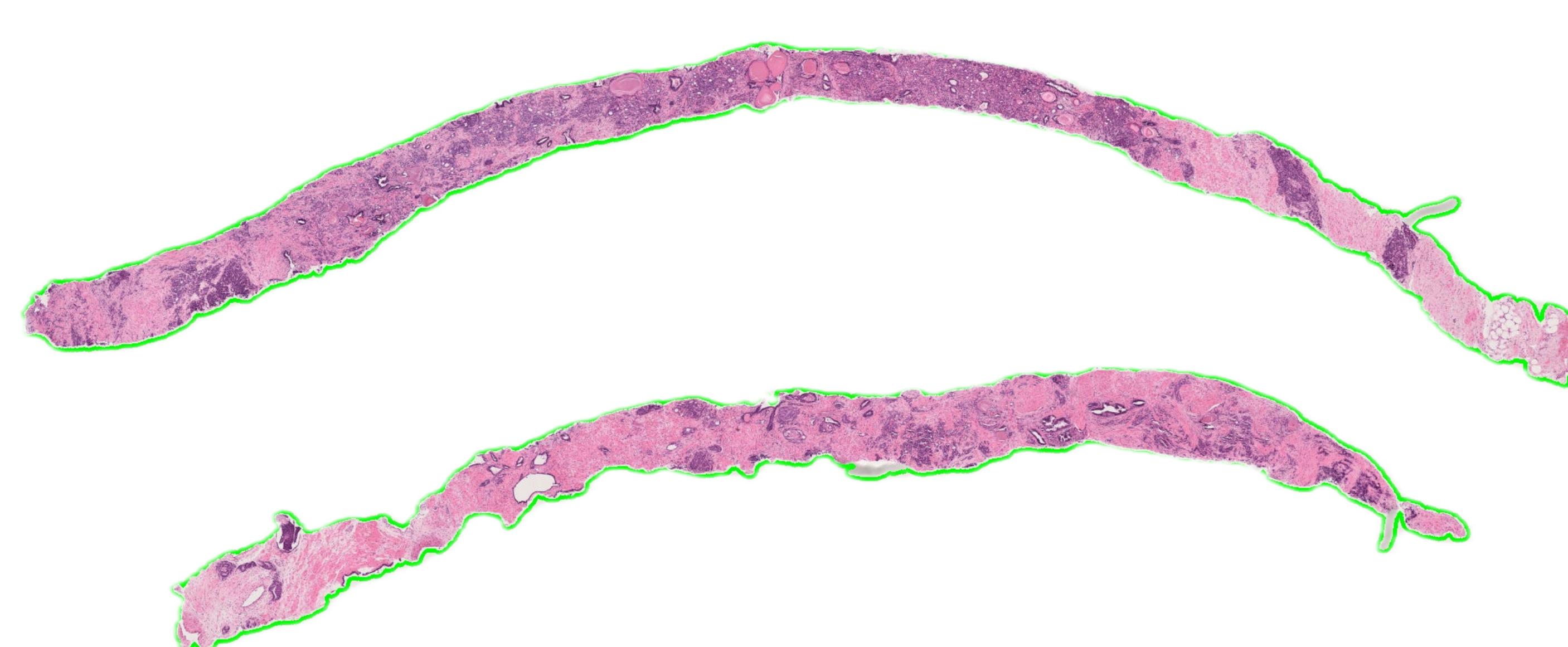
ON AVERAGE, PATIENTS IN THE APIC POSITIVE GROUP HAD SIGNIFICANT RISK REDUCTION IN DEVELOPING CASTRATION RESISTANCE AND DEATH WITH THE ADDITION OF DOCETAXEL TO LONG-TERM ANDROGEN DEPRIVATION THERAPY.¹

INTERPRETATION AND QUALITY CONTROL

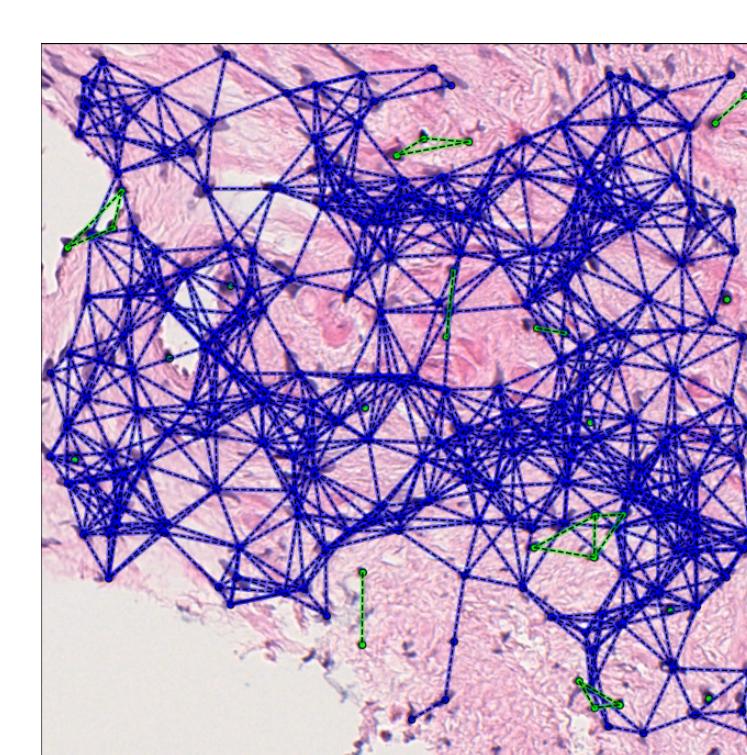
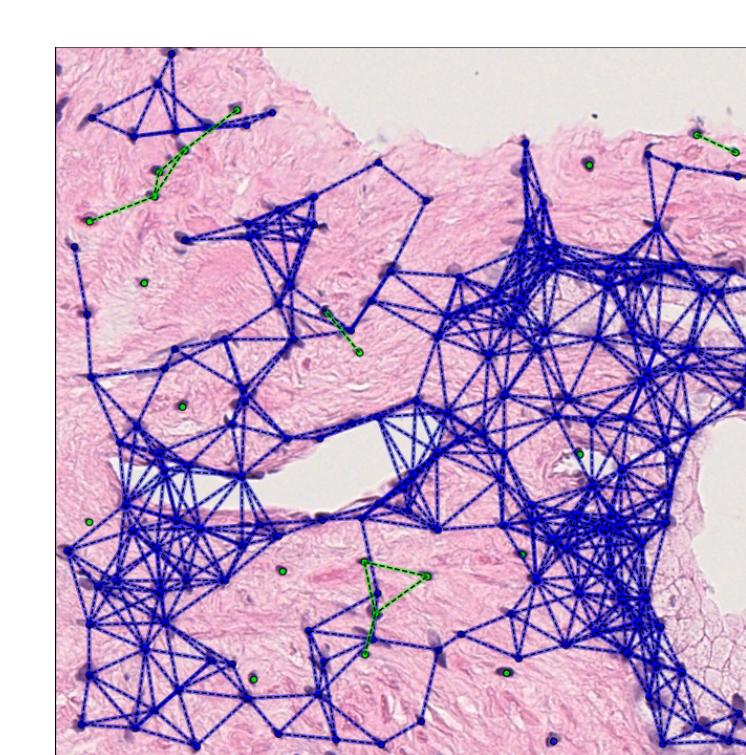
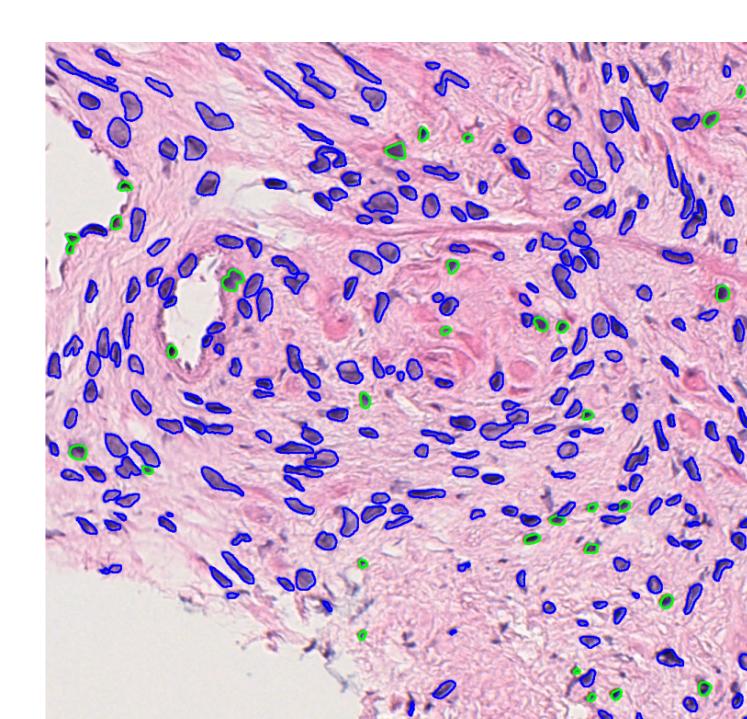
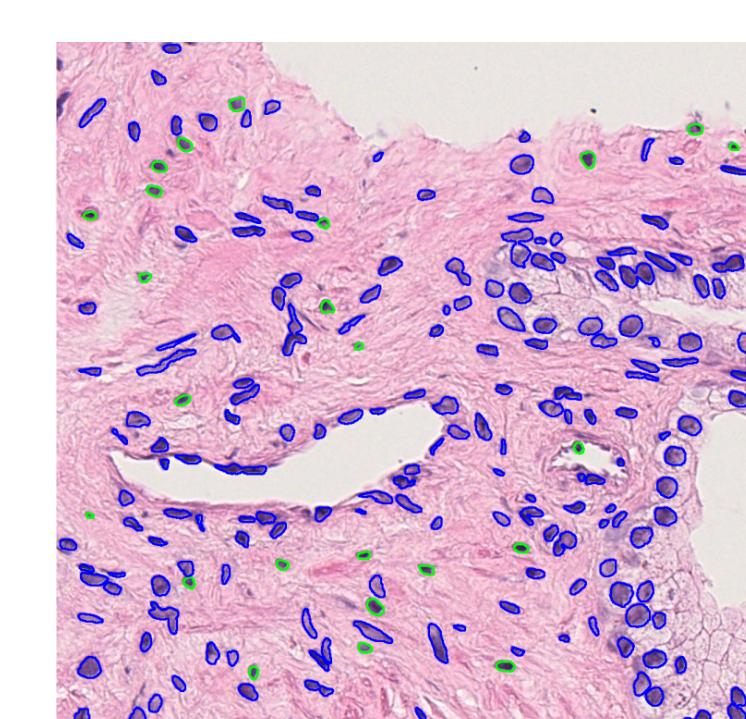
PATIENT GROUP:
APIC POSITIVE



BIOPSY ANALYZED



Core-needle biopsy analyzed, green contours show tissue following QC.



APIC analyzes digitized prostate biopsy images to identify specific patterns in how tumor cells are arranged and how immune cells (green) interact with the tumor (blue). APIC examines features like tumor cell diversity and the spatial relationship between cancer cells and immune cells that are challenging to visually quantify by the human eye but predict treatment response. Based on these microscopic patterns, APIC classifies patients as either likely to benefit from docetaxel chemotherapy (APIC-positive) or unlikely to benefit (APIC-negative).



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PROGNOSTIC SUPPLEMENTAL INFORMATION

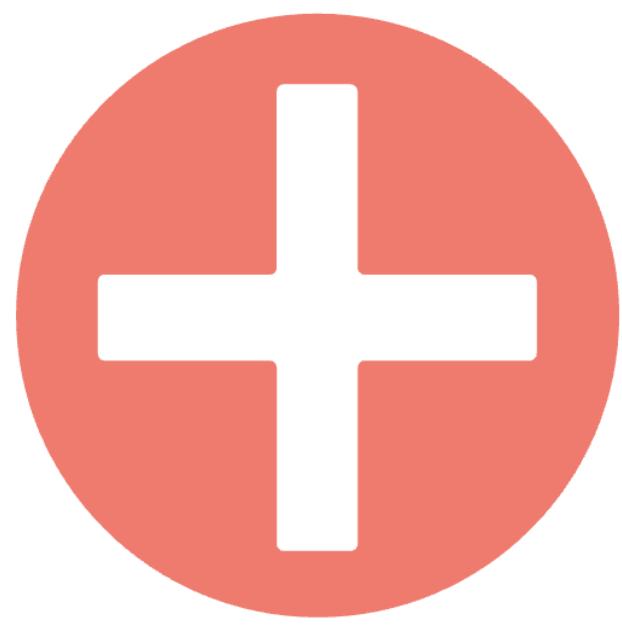
In retrospective analysis of 208 metastatic hormone-sensitive prostate cancer patients enrolled in the CHARTED trial (ECOG-ACRIN E3805) that evaluated the addition of docetaxel to standard androgen deprivation therapy¹:

- **56% (118 patients) were classified as APIC-Positive.** These patients had a significant survival benefit from adding docetaxel to hormone therapy. The 5-year survival rate improved from 16% with hormone therapy alone to 40% with the addition of docetaxel - an absolute difference of 24%. They also experienced a significant delay in developing castration resistance, with median time increasing from 0.7 years to 1.3 years.
- **44% (90 patients) were classified as APIC-Negative.** These patients showed no survival benefit from adding docetaxel to hormone therapy. In fact, their 5-year survival rate was slightly worse with docetaxel (41% vs 56% with hormone therapy alone). They also showed no improvement in time to castration resistance, suggesting they could avoid chemotherapy without compromising outcomes.

APIC Positive

ADT Alone

2.9 Years
95%CI: 2.1-4.2



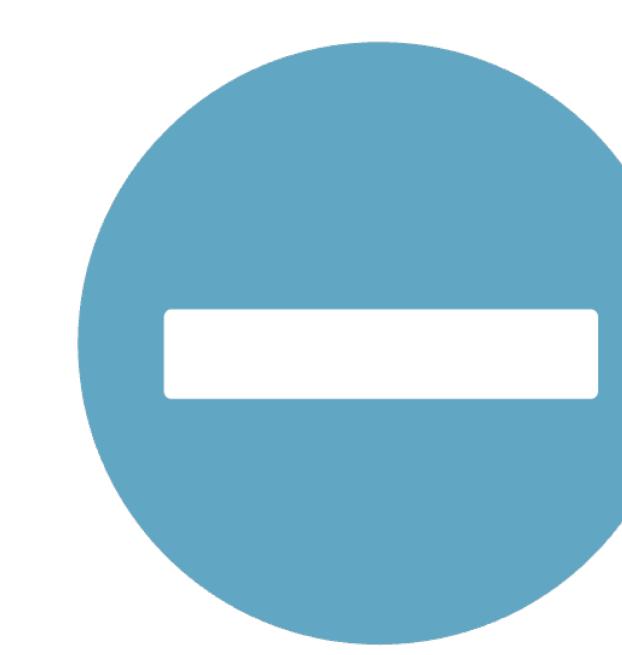
ADT + Docetaxel

4.1 Years
95%CI: 3.4-6.6

APIC
Negative

ADT Alone

5.3 Years
95%CI: 3.7-NR*



ADT + Docetaxel

4.4 Years
95%CI: 3.7-NR*

APIC v1.0 is a Level 1 automation predictive biomarker classifier validated on H&E prostate core needle biopsies scanned as Aperio SVS format at 20x magnification (0.4598 µm/pixel). Clinical validation performed on CHARTED (n=208) and NRG/RTOG 0521 (n=266) cohorts demonstrating significant treatment-biomarker interactions ($p<0.05$). Requires HistoQC artifact removal with pathologist review, and adequate staining. APIC outputs a continuous score. Known limitations include unknown performance on post-treatment biopsies and slides with insufficient tissue. Revalidation required for scanner, staining, or software changes. Research use only, not FDA approved.

Approved by: John Doe, MD. Chief Pathologist on 06/20/2025

1. Medina, Tokuyama, et. al., Computational pathology to predict docetaxel benefit in patients with metastatic hormone-sensitive prostate cancer from the CHARTED trial (ECOG-ACRIN E3805). *JCO* 43, 329-329(2025). DOI:10.1200/JCO.2025.43.5_suppl.329

*NR = Not Reached