Disparities in Adherence to NCCN Treatment Guidelines for High-Risk, Localized Prostate Cancer

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High-risk, localized prostate cancer

NCCN definition[1]

- ≥ cT3a or
- Grade group 4 or 5 or
- PSA ≥ 20 ng/ml
- No nodal or distant metastasis

Epidemiology

- Incidence of 17-31% of all PCa annually[2-3]
- Untreated: 10 & 15-yr PCa-specific mortality 28.8% and 35.5%, respectively[4]
- Treated: 10 & 15-yr PCa-specific mortality 8-17% and 15-35%, respectively[5-7]

[1] Mohler J, et al. NCCN Guidelines Version 4.2019 Prostate Cancer, 2019. National Comprehensive Cancer Network (NCCN).
[2] Cooperberg MR, Cowan J, Broering JM, Carroll PR. High-risk prostate cancer in the United States, 1990–2007. World J Urol 2008;26:211–8
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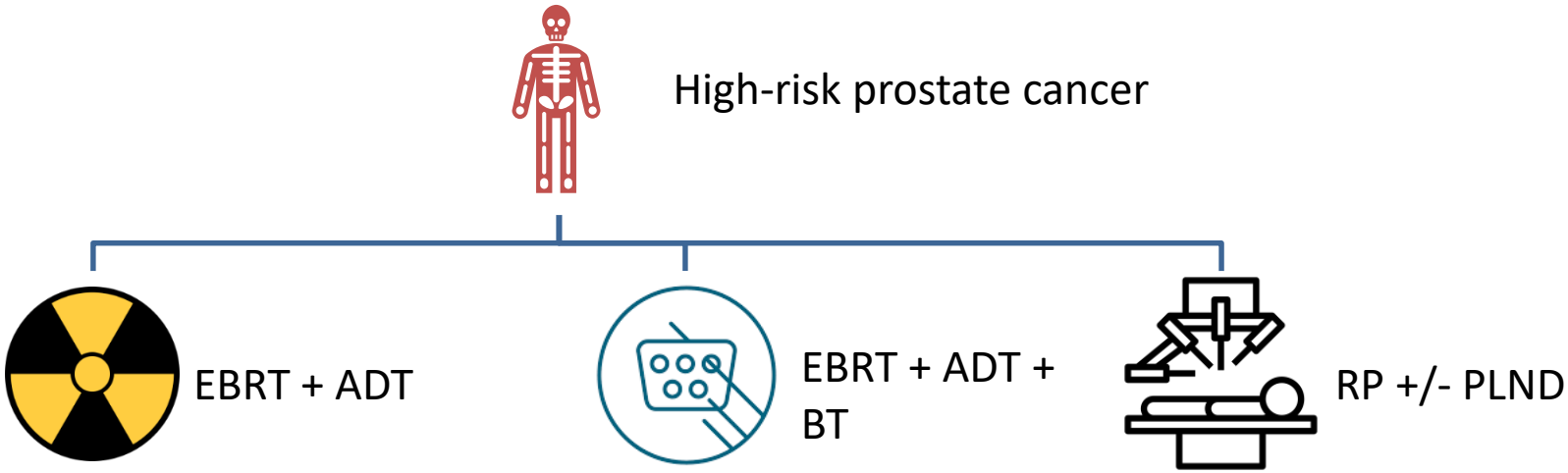
[4] Rider JR, Sandin F, Andrén O, Wiklund P, Hugosson J, Stattin P. Long-term outcomes among noncuratively treated men according to prostate cancer risk category in a nationwide, population-based study. Eur Urol 2013;63:88–96.

NCCN Recommendations



[5] Fosså SD, Wiklund F, Klepp O, et al. Ten- and 15-yr prostate cancerspecific mortality in patients with nonmetastatic locally advanced or aggressive intermediate prostate cancer, randomized to lifelong endocrine treatment alone or combined with radiotherapy: final results of the Scandinavian Prostate Cancer Group-7. Eur Urol 2016;70:684–91
[6] Mason MD, Parulekar WR, Sydes MR, et al. Final report of the intergroup randomized study of combined androgen-deprivation therapy plus radiotherapy versus androgen-deprivation therapy alone in locally advanced prostate cancer. J Clin Oncol 2015;33:2143–50
[7] Mottet N, Peneau M, Mazeron J, Molinie V, Richaud P. Addition of radiotherapy to long-term androgen deprivation in locally advanced prostate cancer: an open randomised phase 3 trial. Eur Urol 2012;62:213–9

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Objective

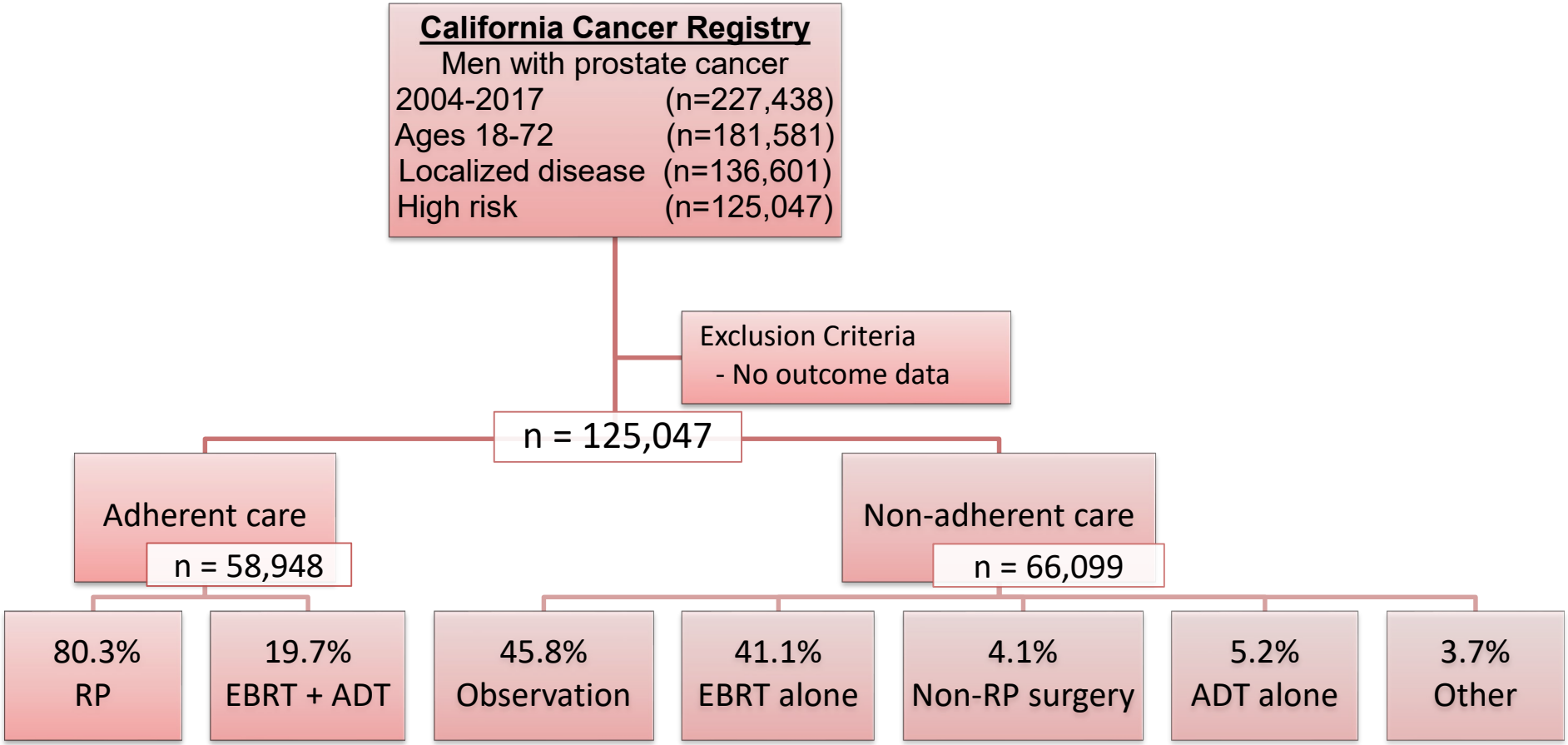
- To determine sociodemographic factors associated with adherence to National Comprehensive Cancer Network (NCCN) treatment guidelines for high risk, localized prostate cancer using the California Cancer Registry
- To analyze the relationship between adherent care and survival

Methods

California cancer registry

- State-mandated registry
- Collects data on >85% of cancer diagnosis in California each year since 1988
- Collects patient-, facility-, and tumor-level characteristics, and treatment

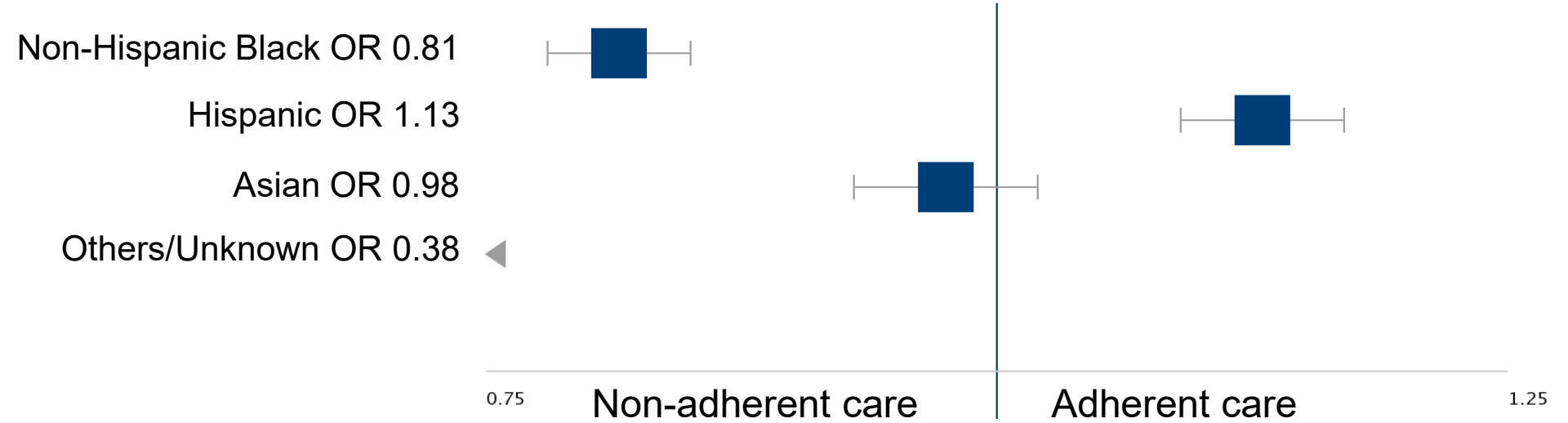
Methods


California Cancer Registry
Men with prostate cancer
2004-2017 (n=227,438)
Ages 18-72 (n=181,581)
Localized disease (n=136,601)
High risk (n=125,047)
Exclusion Criteria
- No outcome data
n = 125,047
Adherent care
n = 58,948
Non-adherent care
n = 66,099
80.3%
RP
19.7%
EBRT + ADT
45.8%
Observation
41.1%
EBRT alone
4.1%
Non-RP surgery
5.2%
ADT alone
3.7%
Other

Results – Race/Ethnicity

When compared to non-Hispanic white:

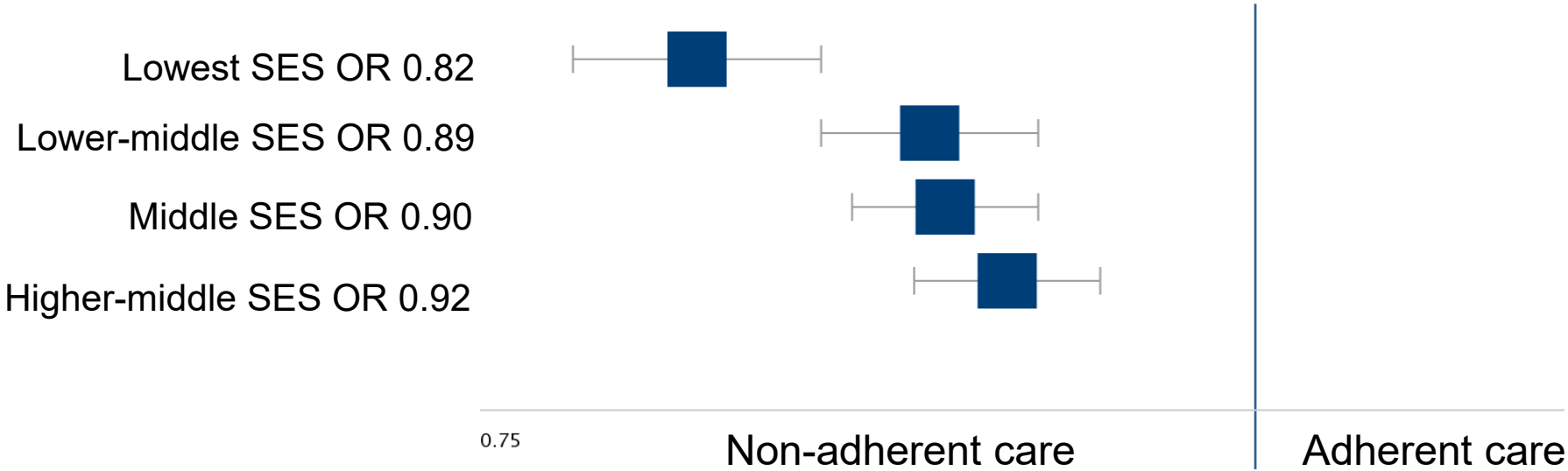
- Hispanic were **MORE LIKELY** to receive AC
- Non-Hispanic blacks **LESS LIKELY** to receive AC



Results – Socioeconomic status (SES)

When compared to highest SES:

- There is **DECREASING LIKELIHOOD** to receive AC with lower SES



Results

When compared to managed care (HMO, PPO, etc):

- Medicare (HR 1.07; 95%CI 1.07-1.11) and
- Other insurance (HR 1.29; 95%CI 1.24-1.33) were **MORE LIKELY** to receive AC

- Medicaid (HR 0.88; 95%CI 0.82-0.94) and
- Non-insured (HR 0.39; 95%CI 0.36-0.42) were **LESS LIKELY** to receive AC

When compared to single patients:

- Married (HR 1.88; 95%CI 1.83-1.93) patients were **MORE LIKELY** to receive AC

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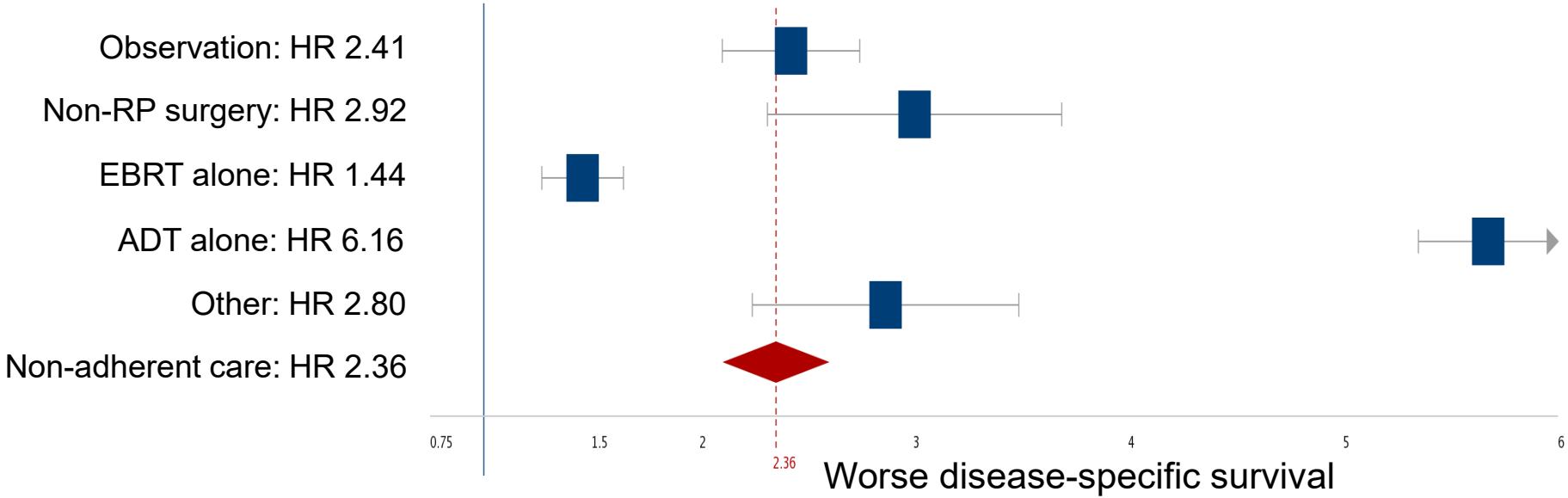
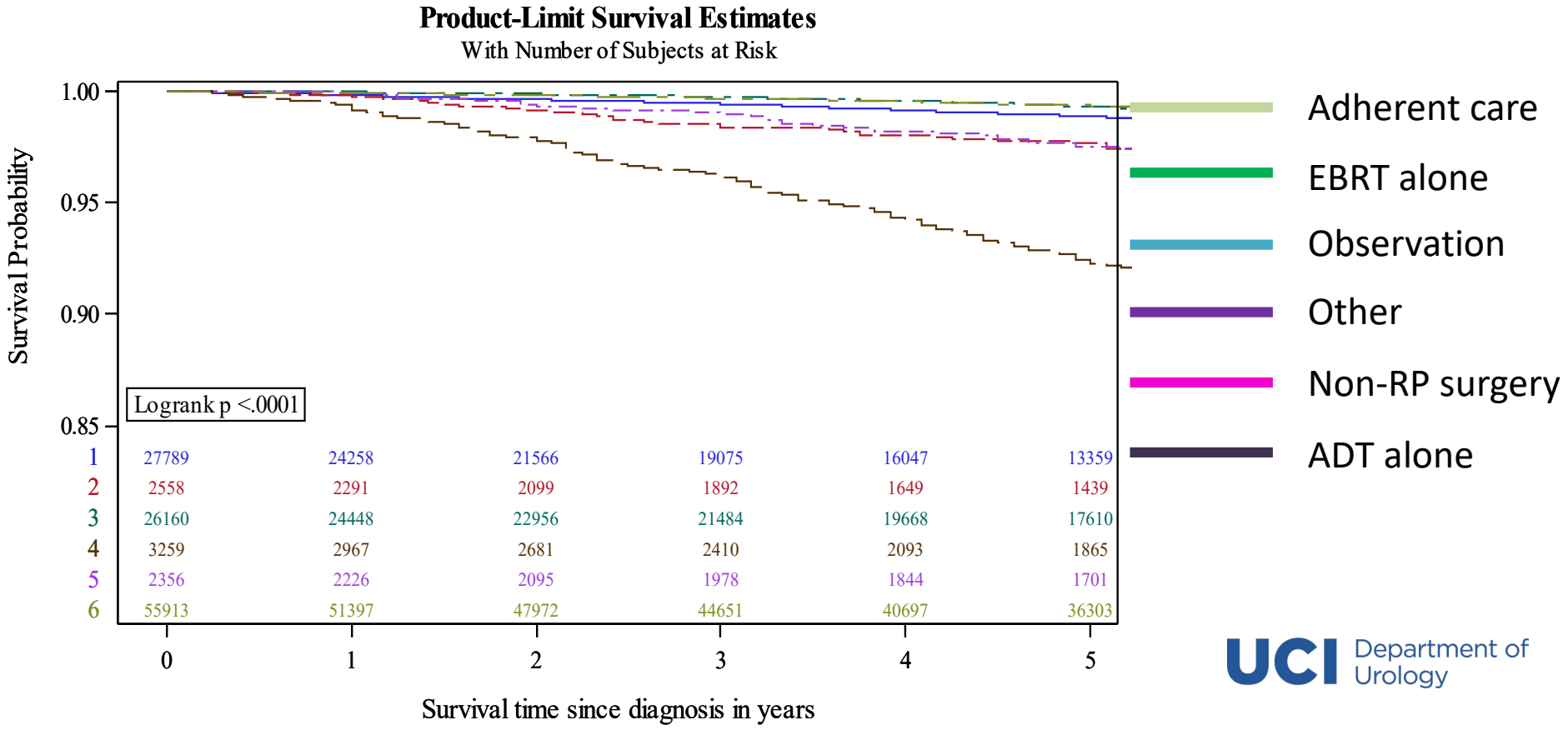
Results – Disease-specific survival

When compared to recipients of adherent care:

- Recipients of non-adherent care had WORSE DSS (HR 2.36; 95%CI 2.13 - 2.61)



Results – Disease specific survival



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Limitations

- Retrospective
- Inability to calculate life expectancy
- No comorbidity index
- Use of registry limits treatment details
- Limited geographic capture

Conclusion

Recipients of non-adherent care had worse disease-specific survival

In our study population:

- Recipients of non-adherent care were more likely to be:
  - Non-Hispanic black, Medicaid and uninsured, patients of lower socioeconomic status, and unmarried

This study helps identify key disparities in care for high-risk prostate cancer and may help to address poor outcomes in these groups