

Rates of Prostate Cancer in Transgender Women at Different Stages During Gender Affirmation

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Division of Urology



Introduction

- ❑ There is an increase in the amount of transgender and non-binary people in the US.
- ❑ A study from the Netherlands showed up to a **5x decrease in risk** of prostate cancer in a cohort of 2,000 trans women on hormone therapy. In this study, there was not a no intervention comparison group.
- ❑ Given the young age of this increasing population, there is a need for better understanding of prostate cancer risk in trans women to inform screening guidelines.

Objectives

- ❑ Examine the rates of prostate cancer in trans women compared to US SEER data.

Hypothesis

- ❑ Due to Hormone Therapy and changes in physiology there may be a decreased risk of prostate cancer among transgender women

Methods

- ❑ A retrospective review was performed using the TriNetX database, which includes 110 million patients from 75+ healthcare organizations of all insurance types across the United States..
- ❑ Trans women (18+) were organized into 3 sub groups and propensity score matched to account for age and race:

NI: No Medical or Surgical Intervention

HT: Hormone Replacement Therapy

SX: Orchiectomy + HT

Results

Group	Overall	NI	HT	SX
Follow Up Time (Years)	2.25	1.85	2.66	1.6
Observed Number of Cases	39	21	16	2
Cohort Size	38,910	18,778	19,604	528
Cohort Incidence Rate (per 100,000 person years)	45	60	31	237
US. Incidence Rates (per 100,000 people per year)	113.4	113.4	113.4	113.4
Expected Cases	99.28	39.39	59.13	0.96
SIR (Standardized Incidence Ratio)	0.39	0.53	0.27	2.09
	0.28	0.33	0.15	0.20
SIR (95% CI)	0.53	0.79	0.42	5.98

Conclusion

- ❑ Overall, trans women had **2.6x decrease** risk of being diagnosed with prostate cancer compared to the cis male population.
- ❑ Similarly, Trans women on hormone therapy had a **3.7x decrease** risk of being diagnosed with prostate cancer compared to the general population.
- ❑ Decreased rates of prostate cancer in trans women, may be due to the young age of our cohort or underscreening of this population.

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Resources

1. de Nie, I., de Blok, C. J., van der Sluis, T. M., Barbé, E., Pigot, G. L., Wiepjes, C. M., ... & den Heijer, M. (2020). Prostate cancer incidence under androgen deprivation: nationwide cohort study in trans women receiving hormone treatment. The Journal of Clinical Endocrinology & Metabolism, 105(9), e3293-e3299.