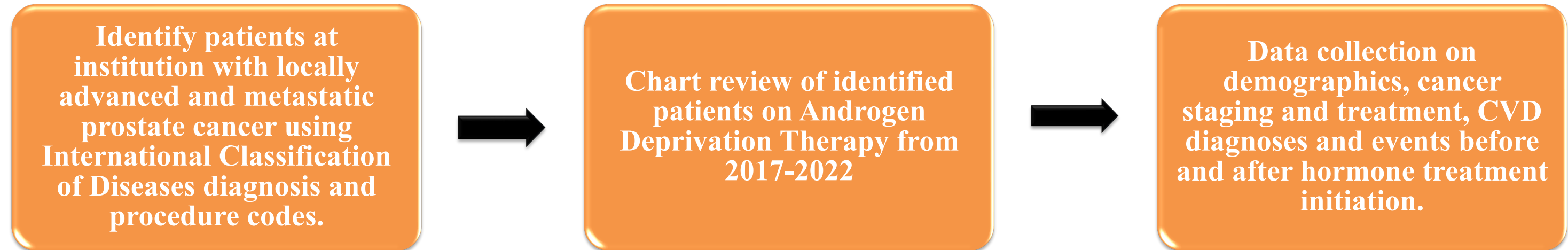


## Introduction

- Cardiovascular disease (CVD) is the leading cause of death in patients with prostate cancer.
- Androgen deprivation therapy (ADT), the mainstay treatment of advanced prostate cancer has been associated with increased cardiovascular disease mortality.
- This study sought to evaluate the relationship of race with ADT-associated cardiotoxicity.

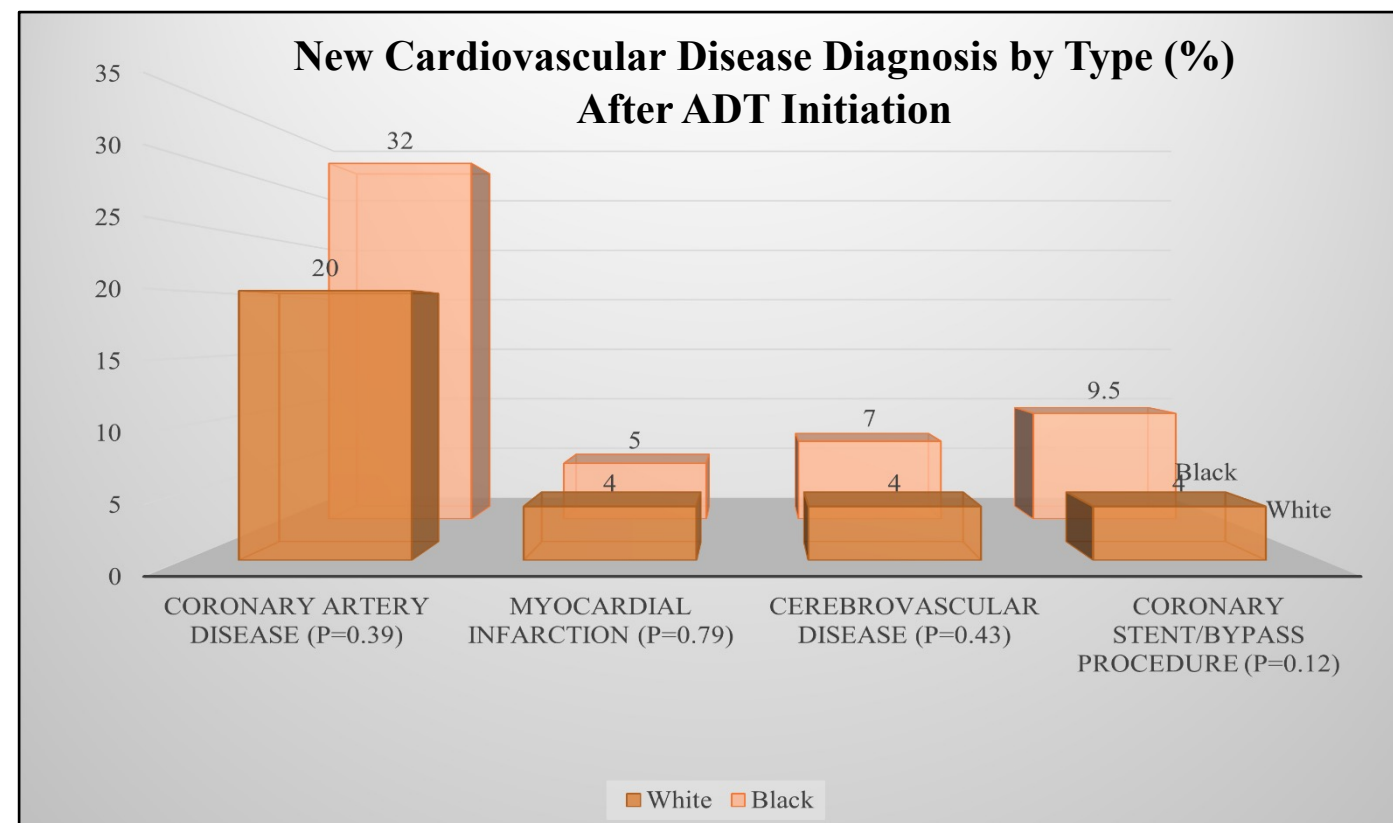
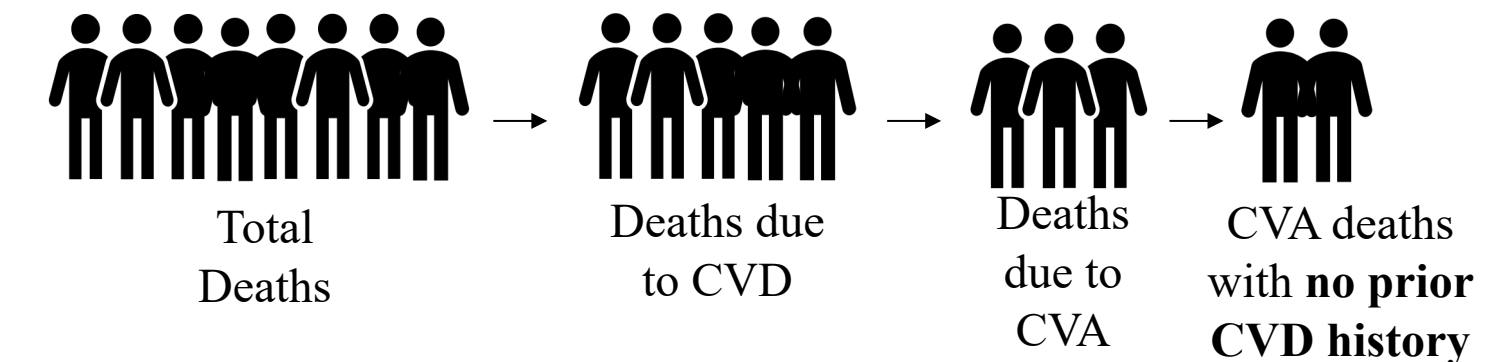
## Methods



## Results

- A total of **119** patients met inclusion criteria, including **94** black men and **25** white men.
- Median age at time of diagnosis was **68** and **63**, for black and white men, respectively.
- The groups did not differ with respect to stage at diagnosis and treatment history including radical prostatectomy, radiation, and chemotherapy as well as type of ADT administered.
- All recorded 8 deaths were in patients who identified as Black. 2 of 3 deaths caused by cerebrovascular accidents (CVA) occurred in patients with no prior CVD history.**

	White (n=25)	Black (n=94)	P-value (ANOVA)
<b>T stage at diagnosis, n (%)</b>			0.06
T2	10 (40)	19 (20)	
T3	7 (28)	22 (23)	
T4	8 (32)	53 (56)	
<b>Hx of Radical Prostatectomy</b>	5 (20)	9 (10)	0.15
<b>Hx of Radiation Therapy</b>	13 (52)	32 (34)	0.10
<b>Hx of Chemotherapy</b>	5 (20)	20 (21)	0.89
<b>ADT By Type</b>			0.29
GnRH agonist	17	62	
GnRH antagonist	8	23	
Orchiectomy	0	8	
<b>Duration of Androgen Deprivation Therapy, yrs</b>			0.38
Median (IQR)	4.0 (3-6)	5.0 (3-17)	
Mean (st dev)	7.0 (6.82)	8.37 (6.91)	
<b>Follow up</b>			0.93
Median (IQR)	4.0 (3-6)	4.7 (3-7)	
Mean (st dev)	4.6 (2.4)	4.6 (2.8)	
<b>Cardiovascular Diagnosis, n (%) Prior to ADT initiation</b>	7 (28)	33 (35)	0.50
<b>New Cardiovascular Diagnosis, n (%) (After ADT initiation)</b>	6(24)	43(45)	0.05
<b>Multiple Cardiovascular Diagnoses</b>	3 (12)	24 (26)	0.15
<b>New CV medication (after ADT initiation)</b>	3 (12)	13 (14)	0.81



## Conclusion

- This data suggests a higher incidence of cardiovascular morbidity in Black men on androgen deprivation therapy and may translate to a higher risk of cardiovascular mortality.

## References

- Dovey ZS, Nair SS, Chakravarty D, Tewari AK. Racial disparity in prostate cancer in the African American population with actionable ideas and novel immunotherapies. *Cancer Rep (Hoboken)*. 2021;4(5):e1340. doi:10.1002/cnr2.1340
- Giaquinto AN, Miller KD, Tossas KY, Winn RA, Jemal A, Siegel RL. Cancer statistics for African American/Black People 2022. *CA Cancer J Clin*. 2022;72(3):202-229. doi:10.3322/caac.21718
- Ahaghotu C, Tyler R, Sartor O. African American Participation in Oncology Clinical Trials--Focus on Prostate Cancer: Implications, Barriers, and Potential Solutions. *Clin Genitourin Cancer*. 2016;14(2):105-116. doi:10.1016/j.clgc.2015.12.003
- Melloni C, Roe MT. Androgen deprivation therapy and cardiovascular disease. *Urol Oncol*. 2020;38(2):45-52. doi:10.1016/j.urolonc.2019.02.010