

Identifying and characterizing metastatic hormone-sensitive prostate cancer (mHSPC) population in Finland

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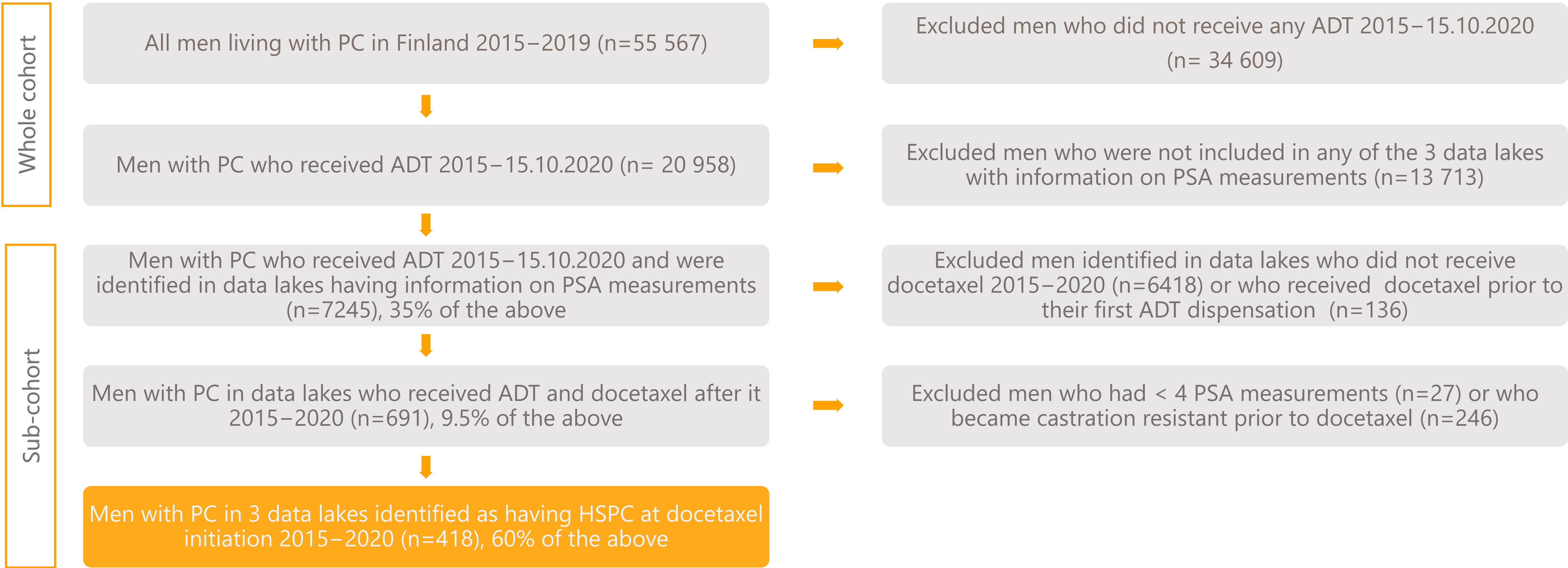
Objectives

- Despite substantial changes in the treatment landscape of mHSPS, the prevalence of mHSPC and characteristics of patients with mHSPC are poorly known.
- This study aimed to characterize men with mHSPC and to estimate the number of men with mHSPC in Finland utilizing real-world data.

Methods

- A **cohort** of all men living with PC in Finland 2015–2020 was identified from the Finnish Cancer Registry and/or the Care Register for Healthcare (**Flowchart below**).
- Among men with PC, those initiating androgen deprivation therapy (ADT) were identified from the Prescription Register. The observation period for ADT initiation ended 75 days before the data cut-off (Dec 31, 2020) to allow time for docetaxel initiation and PSA measurements.
- A **sub-cohort** included men with data on a prostate-specific antigen (PSA) measurements available in one of the three university hospital data lakes providing data for the study.
- Docetaxel initiation identified in a data lake was used as a proxy for metastatic disease.
- Hormone sensitivity was evaluated based on a PSA relapse between first ADT purchase and docetaxel initiation. Those with a relapse were excluded.
- Demographics, comorbidities and medication use were measured at ADT initiation.
- Comorbidities were identified using data on hospitalizations and outpatient visits to specialized care and public primary care (4-year lookback).
- Medication use was identified using data on reimbursed medication purchases (6-month lookback).

Flowchart of cohort formation for identification of mHSCP patients



Results

- For the 418 men identified as having mHSPC in the data lakes, median age was 69 years (Q1–Q3: 64–73).
- One fourth of them had been diagnosed with a cardiovascular disease, (**Table**).
- The most widely used cardiovascular medications were statins 27.5% (n=115), beta blockers 23.4% (n=98), angiotensin receptor blockers 17.2% (n=72), ACE inhibitors 17.0% (n=71) and calcium channel blockers 14.8% (n=62).
- Assuming that (1) docetaxel use can be used as a proxy for mPC and (2) the proportion of men with mHSPC among men using ADT is the same in all men with PC as it is in the data lakes (418/7245=9.5%), the estimated number of men with mHSPC at least in some point during the years 2015–2020 is 1200 (around 200 annually).

Conclusion

- This study illustrates how real-world data can be utilized as a tool for identifying mHSPC population.
- Cardiovascular disease, a potential contraindication for mHSPC medication, is prevalent in mHSPC population.

Comorbidities at ADT initiation	N (%)
Any cardiovascular disease*	98 (23.4)
Ischaemic heart disease	41 (9.8)
Stroke	20 (4.8)
Arrhythmia	50 (12.0)
Other cardiovascular disease	58 (13.9)
Charlson comorbidity index	
0	289 (69.1)
1-2	89 (21.3)
≥3	40 (9.6)

* Based on hospitalizations and outpatient visits to specialized care only