

Identifying and characterizing metastatic hormonesensitive 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.



• Docetaxel initiation identified in a data lake was used as a proxy for metastatic disease.

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 doxetacel initiation and PSA measurements.
- A **sub-cohort** included men with data on a prostatespecific antigen (PSA) measurements available in one of the three university hospital data lakes providing data for the study.
- 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

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All men living	with PC in	Finland	2015-201	9 (n=55 56	7)
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Excluded men who did not receive any ADT 2015–15.10.2020 $(n = 34\ 609)$

Excluded men who were not included in any of the 3 data lakes with information on PSA measurements (n=13713)

-cohort

Sub

Men with PC who received ADT 2015–15.10.2020 and were identified in data lakes having information on PSA measurements (n=7245), 35% of the above

Men with PC in data lakes who received ADT and docetaxel after it 2015–2020 (n=691), 9.5% of the above

Men with PC in 3 data lakes identified as having HSPC at docetaxel initiation 2015–2020 (n=418), 60% of the above

Excluded men identified in data lakes who did not receive docetaxel 2015–2020 (n=6418) or who received docetaxel prior to their first ADT dispensation (n=136)

Excluded men who had < 4 PSA measurements (n=27) or who became castration resistant prior to docetaxel (n=246)

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%

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)	

- (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).
- 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.

* Based on hospitalizations and outpatient visits to specialized care only

Health for life

Conclusion