



# Quality of end-of-life care of patients with prostate cancer

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## INTRODUCTION

- Health resource utilization at the end-of-life in prostate cancer (PCa) may involve:
  - Drugs
  - Medical and surgical procedures
  - Emergency room visits
  - Hospitalizations
- However, it is recognized today that the majority of patients diagnosed with PCa do not die from their disease, as most tumours progress slowly and are indolent.
- Health resource use and consequently quality of care at the end-of-life, may differ among PCa patients, depending on whether they died of PCa (developed metastatic castration-resistant prostate cancer [mCRPC]), or if they died of non-PCa related causes.

## OBJECTIVES

To evaluate health resource utilization and their associated costs in PCa patients as well as quality of end-of-life care, for patients who died of PCa compared to those who died of other causes.

## METHODS

- Retrospective observational cohort selected from the Régie de l'assurance maladie du Québec (RAMQ) and MED-ECHO administrative databases
- Men who **died of PCa** (reached mCRPC) defined as:
  - Men with a PCa diagnosis who received ADT (surgical or medical castration treatment) between 2007-2016
  - Followed by a mCRPC treatment, defined as reception of any of the following:
    - Chemotherapy
    - Abiraterone
    - Bone-targeted therapy
    - Palliative radiation
- Control group: Men with a PCa diagnosis who died but did not reach mCRPC (**non-PCa death**)
  - 2 groups of controls will be further differentiated (*for planned analysis with updated database*):
    - ADT group**: PCa patients who received ADT but did not progress to mCRPC and died of other causes
    - non-ADT group**: PCa patients who did never received ADT and died of other causes

## METHODS

- Outcomes**
  - Indicators of lower quality end-of-life care markers:
    - Emergency department (ED) visits in last 30 days of life
    - Hospitalization in last 30 days of life
    - Intensive care unit (ICU) admission in last 30 days of life
    - Chemotherapy use in last 30 days of life
  - Healthcare resource use and their associated costs in the last 6 months of life (*planned analysis with updated database*):
    - Outpatient visits, ED visits, hospitalization stays, chemotherapy use, drug treatments received at community pharmacies, and other medical interventions
- Statistical analysis**
  - Descriptive statistics (*for preliminary analyses presented on poster*)
  - Multiple linear regression analysis of healthcare resource use and costs adjusted for potential confounders (*for planned analyses with updated database*)
  - Multiple logistic regression analysis of aggressive care markers adjusted for potential confounders (*for planned analyses with updated database*)

## RESULTS (from preliminary analysis)

Table 1 Cohort characteristics

	Non-PCa death n=10432	Died PCa n=1496	P-value
Age at death			
Mean (SD)	81 (7)	78 (8)	0.001
Median (IQR)	82 (77-87)	78 (73-83)	
Residency area, n (%)			
Rural	310 (20.7)	2076 (19.9)	0.458
Urban	1186 (79.3)	8356 (80.1)	
Local primary treatment, n (%)			
Radical prostatectomy	579 (5.6)	88 (5.9)	0.601
External radiation	1143 (11.0)	149 (10.0)	0.246
Brachytherapy	132 (1.3)	17 (1.1)	0.675
ADT, n (%)			
Yes	5068 (48.6)	1496 (100)	<0.001
No	5364 (51.4)	0 (0)	

Figure 1 Hospitalization in last 30 days of life

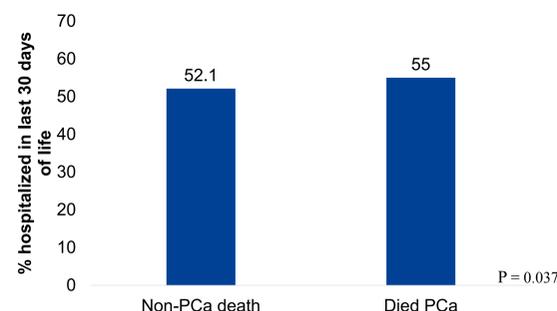


Figure 2 ICU admission in last 30 days of life

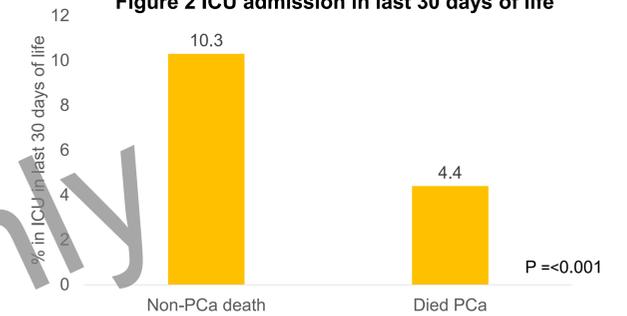


Figure 3 ED visit in last 30 days of life

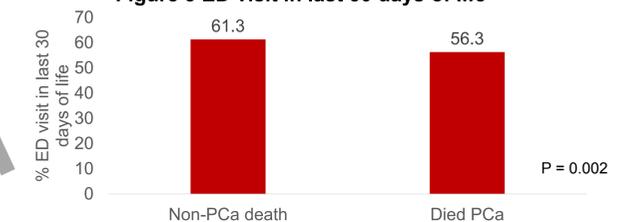
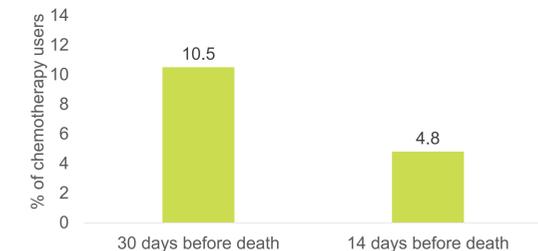


Figure 4 Chemotherapy use at end-of-life



## PATIENT IMPACT

- The results of the study could help identify deficiencies in quality of health care services at the end-of-life in men dying of PCa.
- Knowing which services patients receive before dying is useful in assessing if they are actually using resources that lead to better quality of life before death, and this could lead to solutions in improving lacking areas.

## CONCLUSION

### Takeaways from preliminary analysis:

- Overall, rates of lower quality end-of-life care indicators are similar to that found in literature
  - Some differences exist in PCa patients dying of PCa relative to those who died of other non-PCa causes
  - Chemotherapy use at the end-of-life in PCa patients is low
- Full analyses and results should be completed by next year