Incidence of Cardiovascular and Cerebrovascular Events Among Men With Prostate Cancer

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BACKGROUND
- In 2008, an estimated 186,320 new cases of prostate cancer were diagnosed in the United States.3
- More than 40% of all prostate cancer diagnosed have a 0–9% relative survival rate approaching 100%.3
- Men diagnosed with prostate cancer have increased nonfatal morbidly rates compared to men in the general population, which may be attributable to treatment effects.1

OBJECTIVES
- The study was designed to estimate the incidence of the following outcomes in patients diagnosed with prostate cancer:
  - Acute myocardial infarction (AMI)
  - Congestive heart failure (CHF)
  - Congenital heart failure (CCHF)
  - Coroventricular death
  - Sudden cardiac death (SCD)
  - Cardiovascular death
  - Cerebrovascular death

METHODS
Design
- This is a retrospective cohort study of men diagnosed with prostate cancer.

Data Source
- This study was conducted with data from the Surveillance, Epidemiology, and End Results (SEER)–Medicare linked database, which contains clinical and administrative information on individually aged 65 years and older with incident cancer from population-based cancer registries within the US, linked with comprehensive longitudinal health care utilization data from Medicare and vital records within the US, linked with comprehensive longitudinal database, which contains clinical and administrative data.2
- The following SEER-Medicare data file were used in this analysis:
  - The Patient Enrolment and Diagnosis Information File (PENIT) includes information on each patient’s month and year of birth, age, date of death (if any), underlying cause of death, sex, race, and site of residence.
  - The Medicare–Analytical Match-File (MAMF) includes all part A and part B claims, long-term hospital stays, and skilled nursing facility stays.
  - The claims file contains Medicare claims made at the time of death, two months after the time of death, and the dates of entry and exit from Medicare.

RESULTS
Characteristics of Patients With Prostate Cancer in the SEER-Medicare Database
- Table 1 outlines the characteristics of the cohort of 71,838 men who had prostate cancer.
- 63% were in Stage 1 at the time of prostate cancer diagnosis.
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Study Outcomes
- The following outcomes were identified at any time following the diagnosis of prostate cancer. Events definitions were based on algorithms from published studies.6
- The positive predictive values reported in these studies ranged from 89% to 95%.1,3

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- Fig. 1 shows the identification of the study cohort.
- Fig. 2 is a time line of the study.
- Fig. 3 and 4 demonstrate the overall incidence of cardiovascular and cerebrovascular events during the study period.

CONCLUSIONS
- Incidence rates were calculated on the basis of person-years at risk, and no deaths were excluded from the analysis.

LIMITATIONS
- Study sample is limited to persons aged 65 years and older in the US.
- Data are not covered by Medicare, including Medicare-eligible beneficiaries and long-term care, are unavailable.
- Cardiovascular events are defined from claims data and death and certicate data but were not validated.

- There is an inability to ascertain from claims important cardiovascular risk factors such as diabetes and obesity.

REFERENCES
4. Ferring Pharmaceuticals provided funding for this analysis.

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