

Aspirin Use and the Risk of Prostate Cancer Death in Men Treated with Prostatectomy or Radiotherapy

SAN FRANCISCO, CA – Experimental evidence suggests that anticoagulant medication use may keep cancer growth in check and prevent the development of metastases. However, clinical data have been limited. The CaPSURE™ research team set out to examine this question by using the information reported by men who complete the CaPSURE™ follow-up questionnaire along with the clinical information about treatment success that was provided by their doctors. CaPSURE™ participants are routinely asked to report all their prescription and non-prescription medication use. The CaPSURE™ study published its findings using participant-reported use of medications used for anticoagulant therapies. The article titled *“Aspirin Use and the Risk of Prostate Cancer Mortality in Men Treated with Prostatectomy or Radiotherapy”* appeared in the October 1, 2012 edition of the Journal of Clinical Oncology or *JCO* [1].

Purpose of the Study

To explore how the use of anticoagulant medication maybe linked with prostate cancer outcomes after a man is treated with either prostatectomy or radiation therapies.

Study Participants

The study included a sub-group of 5,955 men who were enrolled in CaPSURE and who were treated with either prostatectomy (68%), or radiotherapy (32%). The radiotherapy group included brachytherapy, external-beam radiotherapy, or a combination of the two.

The median age of men was 64 years (ages ranged from 39 to 86 years-old). Among the entire group of men, 2,175 (37%) reported using some type of

anticoagulant medication. Aspirin was the most commonly reported drug taken by 1,850 (84%) men. The median follow-up time after diagnosis was 5–years and 10 months (follow-up time ranged from 1 month to 352 months). For the 5,955 men in this study, a total of 779 (13%) of these men had died by the time this analysis was done. One-hundred and ninety-three men (25%) died of prostate cancer. The other 586 men died of other causes.

Factors Measured

The researchers examined the following:

- History of medication/s used for anticoagulant therapy. Medicines reported by men included:
 - Aspirin – any brand
 - Coumadin (warfarin)
 - Plavix (clopidogrel)
 - Lovenox or low molecular weight heparin (enoxaparin)
 - A combination of any of the above drugs
- Age
- Number of months of follow-up after diagnosis
- Gleason grade
- PSA at diagnosis
- Clinical tumor stage
- Risk category (low, intermediate, or high-risk)
- Radiotherapy treatment type
- The need for a second treatment for recurrence

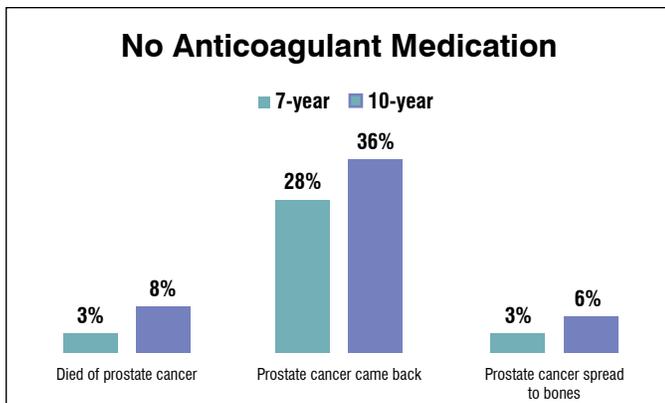
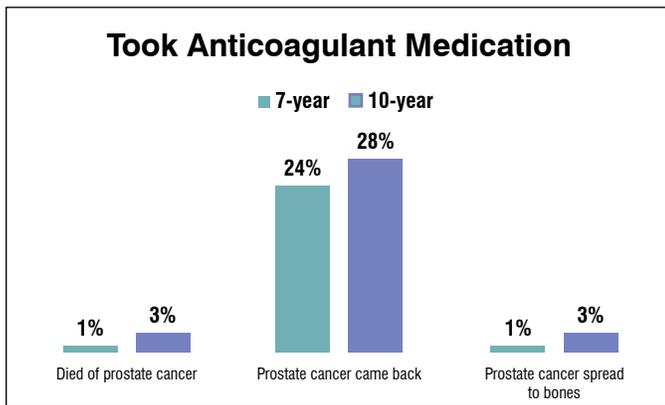
Findings

Some study findings were that men who took anticoagulant medications had significantly lower risk of:

- Dying from prostate cancer;

- Experiencing a recurrence of their prostate cancer after surgery or radiation;
- Experiencing a spread of prostate cancer into their bones (see figures below).

Men who reported using anticoagulants were compared against those who did not. Risk of death at 10–years due to prostate cancer was lower among those who used anticoagulant medications (3% versus 8%). The benefit of anticoagulant medicine use was even greater for men who had high-risk prostate cancer (4% versus 19% at 10– years). The drug aspirin had the most impact on reducing death from prostate cancer.



Study Limitations

- This was an observational study. Men who participate in CaPSURE™ may not accurately reflect all men diagnosed with prostate cancer in the United States.
- This study did not examine the impact of medicine dose or how long a man may have taken an anticoagulant medication.
- This study did not look at aspirin use prior to diagnosis with prostate cancer. Therefore, we are unable to exclude that the association noted in this study could be due to the effects of longer-term anticoagulant usage throughout life.

CONCLUSIONS

- In a large study of men with prostate cancer treated with surgery or radiation, the use of aspirin was significantly related to a lower risk of death from prostate cancer.
- A more rigorous study of medication dose, timing, and length of use would provide more in-depth understanding of these findings. Such a trial would assign men at random into one of two groups to compare the effects on men who took anticoagulant medicine versus those who do not. Such a study would help to corroborate this association and to justify any recommendations of anticoagulant medication use. For example, what dose of medicine to use and when to start using it.

ARTICLE ABSTRACT CAN BE FOUND AT

[1] Choe, K.S., Cowan, J.E., Chan, J.M., Carroll, P. R., D’Amico, A.V. and Liauw, S.L. (2012). Aspirin use and the risk of prostate cancer mortality in men treated with prostatectomy and radiotherapy. *Journal of Clinical Oncology*. 30(28): 3540--4. PubMed ID No: **22927523** (web address: <http://www.ncbi.nlm.nih.gov/pubmed/>).

ABOUT CaPSURE™ at UCSF

The Cancer of the Prostate Strategic Urologic Research Endeavor (CaPSURE™) is a prostate cancer registry that began in May of 1995. Since that time, over 14,500 men have participated in CaPSURE™. To date, 160 scientific papers have been published by CaPSURE™ on a wide variety of topics such as patient-reported quality of life after treatment, clinical outcomes after treatment, and the economics of prostate cancer care. CaPSURE™ is supported by the Department of Urology at UCSF under the leadership of Peter R. Carroll, MD, MPH.

ABOUT UCSF

UCSF is a leading university dedicated to promoting health worldwide through advanced biomedical research, graduate-level education in the life sciences and health professions, and excellence in patient care. For more information see <http://www.ucsf.edu/>.

*Thank you all
for your contributions to
CaPSURE™
Best wishes to you for a healthy
and happy 2013!*

	January 2013	February 2013	March 2013	April 2013	May 2013	June 2013
Doctor/Healthcare worker visits (# of visits, Type of doctor)						
Tests/Imaging (Type of test, # of tests)						
Medications <u>changes only</u> (Names, dates/dosage)						
Injections (Names, dates/dosage)						
Hospital/ER Visits (Name of hospital, # of days)						
Outpatient Surgeries/Procedures (Name of procedure)						

****This sheet is strictly to help you fill out our next questionnaire. Please keep for your records.****

	<i>July 2013</i>	<i>August 2013</i>	<i>September 2013</i>	<i>October 2013</i>	<i>November 2013</i>	<i>December 2013</i>
Doctor/ Healthcare worker visits (# of visits, Type of doctor)						
Tests/Imaging (Type of test, # of tests)						
Medications <u>changes only</u> (Names, dates/dosage)						
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