

STRUCTURED TECHNICAL ABSTRACT

Name of Applicant:

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Title of Project:

In the 7 x 7-inch space below, summarize concisely your proposed research, outlining background, objective/hypothesis, specific aims, study design, and relevance to the cancer problem. You will prepare the abstract as a separate file when you electronically submit your application. Refer to Application Instructions. If the application is funded, this Abstract will become public information. Therefore, do not include proprietary/confidential information.

Background: Over the past two decades, there have been improved treatments for prostate cancer with improved survival and mortality, but variation and disparities in treatment utilization persist. Some patients present with metastatic prostatic cancer or develop recurrent disease and consequently have a limited life expectancy. For these patients, life prolongation rather than cure and symptom palliation to maximize quality of life are the major goals. Effective treatments are available for many of these palliative settings; the extent to which disparities exist in who receives them is unknown. Previous studies in other cancers have demonstrated racial disparities in treatment of cancer-related pain and in hospice referral patterns. In this proposal, we will define racial disparities and characterize the patterns of use for three palliative care treatments common in prostate cancer. We believe that these treatments lend themselves to analysis with the SEER-Medicare linked database and will yield findings that are illustrative of the broader category of palliative care.

Objective/Hypothesis: To develop a better understanding of the extent and predictors of receipt of three proven or widely accepted palliative treatments for prostate cancer patients. We hypothesize that patient, physician and health care setting characteristics will influence receipt of palliative care services.

Specific Aims: We will determine the frequency of use as a function of race of three palliative treatments, as well as the patient, tumor, physician, and health care setting characteristics that predict their use. The three common palliative care settings that we will study are: 1) spinal cord compression due to vertebral metastases can cause paralysis and is treated with surgical decompression with or without adjuvant radiation therapy 2) ureteral obstruction due to locally-advanced disease or extrinsic compression from retroperitoneal lymphadenopathy can cause renal failure and is treated with ureteral stent or percutaneous nephrostomy placement and 3) pathologic fractures from bone metastases can cause severe pain and is treated with radiation therapy.

Study design: We will use a population-based database that has been used extensively for health services research in Oncology and with which our group has considerable experience. The SEER-Medicare database is a linkage between a national population-based tumor registry, which covers 14-25% of the U.S. population, and Medicare, which provides billing information on procedures and medical conditions on all patients 65 and older. We will use logistic regression and GEE modeling for each of the treatments under investigation to determine extent and predictors of their use.

Impact: For those patients whose cancer is incurable by modern therapies, effective interventions to relieve symptoms and maximize quality of end-of-life are available. However, these therapies may not be applied equally to all patients. The decision to use them is complex and involves factors ranging from patient preferences, beliefs, symptom tolerance and access to care to physician attitudes to the role of caretakers. To identify and help all prostate cancer patients who require palliative care to minimize their suffering, we must begin to understand the interplay of these factors. In this study, we will explore key variables, especially race, but also tumor and provider characteristics, and health care setting that can be analyzed from a large population-based administrative database and investigate their roles in three common palliative settings.

Innovation: This will be the first systematic study of racial disparities in palliative care treatment for prostate cancer patients, particularly important because of the high preponderance of African-Americans with

advanced disease. With this information, we would have the tools to design and conduct larger studies to explore the reasons for the disparities and then an intervention study to equalize the use of palliative treatments for advanced prostate cancer.