CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
RP160674

Project Title:
Comparative Effectiveness Research on Cancer in Texas (CERCIT) 2.0

Award Mechanism:
Multi-Investigator Research Awards (Version 2)

Principal Investigator:
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Entity:
The University of Texas Medical Branch at Galveston

Lay Summary:

This application seeks a renewal of support for the multiple investigator research award entitled “Comparative Effectiveness Research on Cancer in Texas” (CERCIT), which was originally funded in 2010. The rationale for the first CERCIT was the lack of information on cancer care in Texas. The Texas Cancer Registry did not include information on screening for cancer, chemotherapy, post-treatment surveillance, or supportive care. To address this, we formed a consortium of four Texas academic institutions plus the Texas Cancer Registry. For this study, we linked information about patients with cancer diagnoses maintained in the cancer registry with information about the medical care they received in the billing records for their care in Medicare and Medicaid. We used that information to study patterns of care in the state in several dimensions: screening, diagnosis and treatment, follow-up monitoring of cancer patients after treatment, and cancer survival after diagnosis. The results were shared via more than 115 publications in peer-reviewed journals and three reports distributed to state policy makers, as well as through a website, lectures, presentations to conferences, and editorials and commentary published in newspapers and online forums concerned with cancer care. A training core has provided salary support and mentoring to junior clinical investigators.

For the renewal, we propose to adopt a patient-centered focus to the study of cancer care in Texas. We recognize that different patients respond to the same cancer treatment in different ways. There are differences among patients in regards to the goals they hope to achieve through their cancer care. Patients place different values on different outcomes of care—for example, some may prefer to emphasize greater longevity, while others emphasize greater quality of life. The kind of information we have used so far is powerful at describing major clinical outcomes of care, but cannot tell us about the individual experience of the individual patient.

In the CERCIT renewal, we wish to expand our methods to better measure individual patient characteristics and include information on patient preferences and long term outcomes as reported by the patient. Our goal is to generate evidence that will assist patients and their physicians in making choices among different options in screening, treatment and survivorship care in cancer. We will accomplish that by using interviews and surveys with patients that identify their characteristics and values, as well as their experience and satisfaction with the cancer care they received. This information will be matched with objective information about the clinical characteristics of cancer in the tumor registry database, and about the care received from administrative records from

Medicare, Medicaid, and in hospital discharge data.

We will continue to partner with the Texas Cancer Registry, and add a partnership with two research units that focus on patient outcomes: Patient Reported Outcomes, Survey and Population Research (PROSPR), an NCI-funded unit at MD Anderson, and a Patient-Centered Outcomes Research (PCOR) unit at UTMB-Health.

For the renewal, we propose to conduct four projects, each focused on one of four issues.

1) How is the new low dose CT (LDCT) lung cancer screening being used? What are the rates of screening? How are screening results, including false positive-results, handled, and with what results for health? Are doctors and their patients sharing decisions about use of the new screening technologies?

We will address these issues with two types of studies. First, we will analyze Texas Medicare charge data from 2009-2019 in order to identify the patterns of counselling and shared decision-making, and use of LDCT lung cancer screening. We can examine how these patterns vary by patient characteristics and among different doctors and diagnostic facilities. Second, we will send surveys to patients who have undergone counselling and shared decision making discussions about LDCT screening, to explore their experiences.

2) How is evidence for decision making about chemotherapy in older patients shared? Older cancer patients face difficult choices regarding chemotherapy treatment. They must decide whether or not to undergo chemotherapy. If a patient decides to receive chemotherapy, he/she may have choices between two or more types of chemotherapy regimens that offer similar benefits but may be different in their side effects. How does the choice of chemotherapy type affect the patient's ability to function? How does it impact the patient's quality of life in subsequent years?

We will evaluate outcomes of care in a sample of older patients living in the community who are diagnosed with colorectal, breast, and lung cancer and who are treated with chemotherapy. We will assess the negative effects experienced by these patients during initial chemotherapy using TCR-Medicare and SEER-Medicare data. We will also describe patient-reported outcomes among older cancer survivors by surveying breast and colorectal cancer patients 24 months after diagnosis. We will assess how those outcomes vary by use and type of chemotherapy and for patients with different social backgrounds.

3) How can we assist patients in their surgery and radiation treatment choices? Cancer patients frequently have to choose between two or more treatment strategies that have similar outcomes in terms of survival after treatment, but have different complications and side effects. Cancer doctors know little about which treatment is most likely to achieve an individual patient's desired outcome. For example, for breast cancer, patients with early disease may choose between breast conserving surgery followed by whole breast irradiation, or mastectomy followed by breast reconstruction without radiation. For some cancers of the throat and mouth, patients often need to choose between surgery or radiation therapy. Evidence comparing patient-reported outcomes in the years after either treatment is very limited.

The goal of this project is to use these two cancers as an example to learn how to collect and share evidence about the outcomes of treatment choices from the patient's point of view, to make it available to support decision-making about treatment choices that respect the patient's preferences. We will use interviews with patients to choose good survey questions about the outcomes most relevant to patients, and then conduct a survey using these questions with a large number of cancer survivors. We will use the survey findings to create a website named PROVIDE (Patient-Reported Outcome eVIDEnce calculator) targeted on cancer patients to help them make personalized treatment choices.

4) What are preferences about end-of-life care for cancer patients in Texas? Findings from our first 5 years' research showed that racial/ethnic minority patients and Medicaid enrollees dying of cancer in Texas disproportionately experienced low quality end-of-life care. We will investigate whether these differences result from differences in care preferences, the relationship of patients and doctors, information about health care

choices, and confidence in the patient's ability to make meaningful choices that will influence the outcomes of their care.

We will survey patients about their care preferences and measures of their trust in medical professionals, their health information, and their beliefs about their ability to influence the outcome of their care. We will try to find out whether care preferences in Texas are different for persons by age, race/ethnicity, gender, income, education, marital status, place of residence, religion, disability status, and by the severity of their cancer.

Finally, we will study information about patients who died from cancer to find out whether their end-of-life care reflected their preferences, and what characteristics and beliefs explained whether they received the care that they preferred.

In addition to the 4 research projects, the CERCIT will maintain 4 cores that will serve as resources for all of the research projects. The Administrative Core will provide overall leadership and direction for all the activities of CERCIT projects and cores, including coordinating and integrating their activities. The Data Management and Analysis Core performs several tasks. It will assemble the data from the Texas Cancer Registry and from Medicare\Medicaid and other sources to support the research projects and other scientists who have been authorized to use the data resource to study cancer care in Texas. It prepares information about cancer care in Texas to be shared through the CERCIT website and in publications and reports. It offers lectures and mentors for training junior clinician investigators, and consults with project investigators to address statistical questions for analysis. The Survey Core will support the design, development, and implementation of survey and qualitative research for all projects. The Training Core will enroll approximately 25 junior clinician investigators in a two-year training experience in comparative effectiveness research.

We have had a highly successful beginning, working with the Texas Cancer Registry to expand the data available to examine cancer care in Texas. We now wish to build on that by adding patient-reported outcomes. At the completion of this project, we will have generated novel, patient-centered evidence to assist patients in making decisions across the continuum of cancer care.