Dr. Dawn Hershman

There are over 12 million cancer survivors in the UC. Cancer survivorship and understanding late effects of cancer therapy is a high priority area. The linkage of the powerful SWOG clinical trial database to Medicare claims data provides a unique opportunity to evaluate late effects of therapy, and may establish a mechanism for identifying differences in outcomes between treatment groups after the clinical trial follow-up ends. We propose to use a database that has linked patients enrolled on SWOG clinical treatment and prevention trials where detailed information on demographics, tumor details, prognostic factors, clinical factors, treatment type (intravenous, subcutaneous and oral) and dose received, short term toxicities during the treatment period, recurrence and survival outcomes are captured with Medicare claims data (based on ICD-9, HCPCS, and CPT codes) which can provide long-term follow-up with underlying illnesses, comorbid conditions, new diagnoses, subsequent treatment, hospitalizations and costs/resource utilization associated with treatment. For the specific aims of our proposal, we will use the SWOG-Medicare linked database to determine the long term cardiovascular, hematologic, gastrointestinal, renal, endocrinologic and neurologic complications of (a) patients with prostate cancer randomized to continuous vs intermittent androgen deprivation (b) patients with prostate cancer treated with and without androgen deprivation (c) patients with breast and prostate cancer treated with and without taxanes (d) patients with non-small cell lung cancer treated with and without platinum agents (e) patients with pelvic cancer treated with chemotherapy and radiation vs. radiation alone. For each of these sub-aims, we will examine how these complications vary by pre-existing co-morbidities, such as diabetes and hypertension, as well as clinical and demographic factors, and examine the relationship between short term toxicities assessed during therapy on a clinical trial, as characterized by the Common Toxicity Criteria (CTC-AE), and long-term toxicities. Using the unique and valuable linked Medicare claims database with the NCI clinical trials database of the Southwest Oncology Group, we can perform analyses that overcome limitations of previously conduced population based research that utilized the SEER-Medicare database alone. If we can better predict who is at greatest risk for late toxicity, and who is not, we can improve long term outcomes for the growing population of cancer survivors

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