C-C1-01:

Incremental Health Care Resource Costs by Phase of Cancer Care: Aged Versus Non-Aged Patients

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Background/Aims: Estimates of the nation's costs of cancer care are largely based on the SEER-Medicare datalink supplemented by modeling to estimate costs for non-aged patients. The SEER-Medicare data, however, are missing data on HMO (Medicare Advantage) enrollees with cancer. To address this shortfall, this study estimated the incremental medical care resources used to diagnose and treat cancer within integrated delivery systems stratified by phases of cancer care and patient age—before and after age 65. **Methods:** This study was conducted in four large group-model HMOs: Group Health Cooperative, Henry Ford Health System, Kaiser Permanente Colorado, and Kaiser Permanente Northwest. Eligible health plan members were enrolled in one of the participating health plans for at least 30 days between January 1, 2000, and December 31, 2008 and received a cancer diagnosis, documented in the health plan's tumor registry, prior to December 31, 2008. Individuals selected as controls met enrollment criteria and had no evidence of cancer before January 1, 2009 in the tumor registry. Controls were matched by age, gender, and years of health plan eligibility on a 5:1 ratio to cancer patients. Pseudo-diagnosis dates were assigned to non-cancer patients. Four phases of cancer care were defined: Prodromal/Diagnosis Phase—12 months prior to cancer diagnosis; Treatment Phase—12 months after cancer diagnosis; Surveillance Phase—period between Treatment Phase and End-of-Life Phase; and End-of-Life Phase—12 months prior to date of death (regardless of cause of death). Utilization data were extracted for all patients and controls for 2000-2008. Utilization measures included hospitalizations, inpatient days, doctor office visits, laboratory tests, imaging procedures, and medication dispensings. Average incremental monthly utilization rates were computed for each care phase for all cancer patients and for four specific cancer sites—breast, prostate, lung, and colon/rectum. **Results:** Incremental average monthly resource-use rates were highest in the treatment and end-of-life phases, and lowest in the diagnostic and surveillance phases. The duration of the surveillance phase was shorter for cancers diagnosed at later stages. **Conclusions:** Age at diagnosis had a non-linear impact on incremental costs of cancer care.

Keywords: Costs, Cancer, Economics

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PS2-10:

Anticoagulant Treatment of Venous Thromboembolism in Cancer Patients: Preliminary Findings

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Background/Aims: Injectable low-molecular-weight heparin (LMWH) monotherapy is recommended over other anticoagulant therapies (e.g., oral warfarin + injectible anticoagulant) for venous thromboembolism (VTE) in cancer patients based on superior clinical outcomes. The aim of this retrospective study was to evaluate the extent of use of LMWH for cancer patients with incident post-cancer diagnosis VTE. **Methods:** Patients aged ≥ 21 years with stage III and IV breast, colorectal, lung, and prostate cancer diagnosed between 2000-2007 at five Cancer Research Network (CRN) sites and diagnosed with VTE within two years of cancer diagnosis who received outpatient VTE treatment were included. Patient characteristics, clinical information, pharmacy and healthcare utilization, and mortality were obtained from the CRN Virtual Data Warehouse. Patients were followed for one year after VTE diagnosis. Outcomes include the rates of initial

anticoagulant(s) treatment within seven days of VTE diagnosis, VTE recurrence, and post-treatment bleeding. Logistic regression was used to identify factors associated with LMWH choice. **Results:** Data for 662 cancer patients from three study sites were available. Patients were primarily ≥ 65 years (52%, 347/662), male (52%, 347/662), diagnosed with stage IV cancer (54%, 360/662), lung cancer (51%, 338/662), received chemotherapy prior to VTE diagnosis (64%, 425/662), and had a mean Charlson-Deyo risk score of 1.6 (± 1.5). Only 29% (195/662) of patients received LMWH monotherapy while 69% (456/662) and 2% (11/662) received warfarin + an injectible anticoagulant and injectible fondaparinux, respectively. Recurrent VTE occurred in 1.6% (3/195) vs. 3.3% (15/456) of patients who received LMWH monotherapy vs. warfarin + injectible anticoagulant, respectively ($p=0.298$). Bleeding rates were similar across treatment groups ($p=0.710$). Factors independently associated with LMWH monotherapy treatment choice include stage IV cancer, lung cancer, reception of chemotherapy, and history of VTE diagnosis prior to cancer diagnosis. **Conclusions:** Adherence to evidence-based treatment recommendations for VTE in cancer patients was low. Future studies will analyze the data from all participating sites and should evaluate rationale(s) for patient/provider preference for LMWH monotherapy.

Keywords: Venous thromboembolism, Evidence-based, Low molecular weight heparin

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PS2-30:

Provider Attitudes and Experiences Concerning Communication Breakdowns in Cancer Care

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Background: Cancer providers strive to deliver high quality care, yet provider-patient communication breakdowns can occur and may contribute to adverse events and errors. A better understanding of cancer providers' perceptions of communication breakdowns could improve patient and provider satisfaction and patient safety. This study investigated providers' attitudes and experiences of communication breakdowns in cancer care. **Methods:** We recruited cancer care physicians and nurses at Kaiser Permanente Georgia, Group Health Cooperative, and Fallon Clinic for 1-hour focus groups. Discussions centered on three topics: communication breakdowns that contribute to adverse events or medical errors, unmet patient expectations, and suggestions for improvement. Recurrent themes are currently being identified using qualitative analysis. Preliminary results are presented below. **Results:** Nine focus groups were held with 48 providers (25 MD, 20 RN/NP, 3 other). Preliminary analysis reveals that providers feel that cancer presents unique communication challenges due to the strong emotional component of the diagnosis, the potential for blame for self or others, and, given the clinical choices patients face, information overload. Communication breakdowns between providers were generally seen as common; examples included breakdowns in information sharing and uncertain responsibility for talking to patients about prognosis. Examples of provider/patient communication challenges included physicians giving either false hope or alternatively no hope, and patients sometimes not telling providers about side effects and symptoms. Unmet patient expectations were frustrating for some providers, and reflected two related areas: 1) patient expectations that providers viewed as unrealistic; and 2) patient expectations resulting from their interactions with multiple providers. Providers felt that patients sometimes hesitate to mention their concerns about communication breakdowns for fear of disrupting their care. Providers believed communication breakdowns reflected both deficits in individual communication skills and system failures. Support was high for system-based strategies for improving communication, including new patient orientation, care coordinators, and a reporting system for communication breakdowns. **Conclusions:** Cancer care