Low Back Pain and Cancer: Are We Imaging in a Timely Manner?

Our purpose was to determine the timing of low back imaging in a cohort of patients with low back pain with and without histories of cancer.

Methods

Study Design and Setting
- Data were derived from the Lumbar Imaging with Reporting of Epidemiology (LIRE) study, a pragmatic, cluster randomised control trial (RCT).
- All patients in our analyses received lumbar spine imaging, but at varying times from their first visit for back pain.
- Data were collected from 4 study sites: Henry Ford Health System in Michigan; Kaiser Permanente Northern California; Kaiser Permanente Washington; and the Mayo Clinic in Minnesota and Wisconsin.

Study Sample
- Because we were interested in imaging for new presentations of back pain, we excluded patients who had International Classification of Diseases-Clinical Modification (ICD-CM) 9 and 10 diagnoses for back pain 6-12 months prior to their index back image date.
- We required the patients to have had ICD-CM-9 or ICD-CM-10 diagnosis codes for non-melanomatous skin cancer in the 6-12 months before the index back image date.

Analysis
- The main outcome variable was whether the patient received low back imaging within 2 weeks of a diagnosis of back pain.
- Demographic variables analyzed using descriptive statistics.
- Primary analysis: Logistic regression analysis, adjusted for study site, gender, race, ethnicity, calendar time, and age.

Conclusions
- Regardless of whether patients had histories of cancer, most patients received imaging within 2 weeks of their back pain diagnoses.
- Adjusting for patient demographics and calendar time, patients with cancer histories were slightly more likely to have received imaging with MRI within 2 weeks compared to patients without histories of cancer.
- Patients who were white, non-Hispanic, and older were more likely to have received imaging with x-ray within two weeks relative to patients who were non-white, Hispanic, and younger.

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