Increased Travel Distance Affects Whether Patients Receive Adjuvant Chemotherapy

ATLANTA – August 24, 2015–Patients who have to travel farther to appointments are less likely to receive adjuvant chemotherapy (given after surgery to reduce the chance of the cancer returning), regardless of whether or not they are insured, according to a new study conducted in collaboration between the American Cancer Society, American Society of Clinical Oncology (ASCO), and the American Society for Radiation Oncology (ASTRO). The study appears early online in the *Journal of Clinical Oncology*.

Guidelines recommend the use of adjuvant chemotherapy in many cancer patients after surgery. But in many cases, patients do not receive it. That's particularly true with stage III colon cancer. Studies show many patients do not receive chemotherapy within 90 days of surgery as recommended by evidence-based treatment guidelines. Why that is the case is not well-studied.

To explore what role geographic access to care plays, researchers led by Chun Chieh "Anna" Lin, Ph.D., senior epidemiologist at the American Cancer Society, Dawn Hershman, M.D., M.S. from Memorial Sloan-Kettering Cancer Center (lead ASCO researcher), and Christine Olsen, M.D., from Massachusetts General Hospital (lead ASTRO researcher) compared patients' travel distance, insurance status and an area's density of oncologists to the likelihood patients received adjuvant chemotherapy within 90 days of surgery for colon cancer. The data came from the National Cancer Data Base, a hospital-based cancer registry jointly sponsored by the American College of Surgeons and the American Cancer Society that collects data from more than 1,500 facilities, capturing about 70 percent of newly diagnosed cancer cases in the United States.

Of 34,694 patients in the study cohort, three-quarters (75.7 percent) received adjuvant chemotherapy within 90 days of surgery. Patients who traveled 50 to 249 miles were 13 percent less likely (odds ratio 0.87) than those whose travel distance was less than 12.5 miles to receive adjuvant chemotherapy. Patients who had to travel 250 miles or more were nearly two-thirds less likely (odds ratio 0.36) to receive adjuvant chemotherapy.

While density level of oncologists alone was not statistically associated with receipt of adjuvant chemotherapy, patients who had either no insurance or public (non-private) insurance and also resided in areas with low density of oncologists were 15 percent less likely to receive adjuvant chemotherapy (odds ratio 0.85).

"While it is reassuring that most patients in this study received adjuvant chemotherapy on time, the fact that patients traveling more than 50 miles were less likely to receive chemotherapy, regardless of insurance status is concerning," said Lin. "It tells us expanded insurance coverage, while important, might not fully address the barriers to patients receiving guideline-recommended treatment."

The next step, the authors say, is to perform in-depth analyses in areas that have a low number of oncologists, to help analyze how interventions to decrease geographic barriers might improve access to cancer treatment.

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