The US Oncology Network–Milliman study shows that evidence-based guidelines could reduce costs in colon cancer patients receiving chemotherapy by more than $50,000 while maintaining quality outcomes

Second study conducted by The US Oncology Network that concludes high-quality care could reduce costs is published in the peer-reviewed Journal of Oncology Practice

The Woodlands, Texas (Oct. 13, 2011) — A study conducted by The US Oncology Network and Milliman finds that colon cancer treatment that is consistent with evidence-based guidelines (specifically Level I Pathways) has significantly lower cost while demonstrating outcomes similar to those in published literature. The study shows mean per patient cost differences of more than 30 percent, $53,000 for the treatment of adjuvant colon cancer and $60,000 for the treatment of metastatic colon cancer. The study, which compared patients whose care followed physician-developed Level I Pathways evidence-based guidelines (also known as ‘on pathway’) to other patients (‘off pathway’), was published in a special joint peer-reviewed issue of the Journal of Oncology Practice (JOP) and the American Journal of Managed Care (AJMC).

The study titled “Pathways, Outcomes, and Costs in Colon Cancer: Retrospective Evaluations in Two Distinct Databases,” is the second study conducted by The US Oncology Network affiliated investigators and published in the JOP supporting the validity of Level I Pathways, which are evidence-based treatment guidelines developed by physicians in The US Oncology Network. The US Oncology Network and Aetna published a study last year suggesting that adherence to Level I Pathways in treating non-small cell lung cancer (NSCLC) is a cost-effective strategy. That study showed outpatient cost savings of 35 percent while demonstrating equivalent health outcomes.

“This is exciting news for patients, providers and payers. Once again, a study has indicated that the use of Level I Pathways could reduce costs significantly without sacrificing outcomes or compromising the survival of the patient,” said Russell Hoverman, M.D. with Texas Oncology, an affiliate of The US Oncology Network, and principal investigator in the colon cancer study. “We have now shown for both lung and colon cancer that on-pathway treatment decisions are more cost effective and have similar results to off-pathway.”

Level I Pathways use high-level evidence to evaluate efficacy, toxicity, and cost when recommending treatments for the majority of patients. For this most recent study, consultants based in Milliman’s New York office analyzed claims data for colon cancer patients, providing key cost comparisons, while iKnowMed EHR System was used to compare outcomes for patients treated on-pathway with those treated off-pathway.

Study results suggest that the on-pathway treatment of patients with colon cancer costs less, and the use of these pathways demonstrated clinical outcomes consistent with published outcomes. In particular, the study supports the idea that using Level I Pathways in patients with colon cancer results in lower costs for chemotherapy and overall cancer care and may result in fewer hospitalizations for patients.

“These are significant results,” said Roy Beveridge, M.D., co-author of the study and chief medical officer, The US Oncology Network, McKesson Specialty Health. “The US Oncology Network physicians have been dedicated to developing evidence-based Level I Pathways in order to better
provide high-quality, cost-effective cancer care. Being able to demonstrate once again that evidence-based treatment could save patients and the nation’s health care system millions of dollars while producing equally effective, if not better, results is exciting and encouraging.”

The US Oncology Network is one of the nation’s foremost cancer treatment and research networks in association with more than 1,000 physicians who work in communities across the United States. Physician-led Level I Pathways ensures the consistent delivery of value-driven, evidence-based treatment, to drive quality care for patients diagnosed with the most common cancers. The underlying goal of Level I Pathways is to delineate treatment options that maximize survival benefit, minimize toxicities, and provide cost-savings advantages that benefit both the patient and the payer.

According to the Centers for Disease Control and Prevention (CDC), of the cancers that affect both men and women, colorectal cancer is the second leading cause of cancer-related deaths in the United States. Colon cancer is also one of the most commonly diagnosed cancers in the U.S., making colon cancer the third most common cancer in men and women.1

**STUDY METHODS**

**Patients and Methods**

- Two independent studies of separate databases were performed.
- The first study used clinical records from an electronic health record (EHR) database to evaluate survival according to pathway status in patients with colon cancer.
- Disease free survival in patients receiving adjuvant treatment and overall survival in patients receiving first-line therapy for metastatic disease was calculated using the Kaplan Meier method.
- The second study used claims data from a national administrative claims database to examine direct medical costs including the cost of chemotherapy and of chemotherapy-related hospitalizations according to pathway status as surmised from treatment patterns observed in the claims data.

**Cost and Use Analysis**

- Allowed amounts (before cost sharing) from Thompson Reuters MarketScan database were tabulated during the chemotherapy period, which was from the date of the first chemotherapy to the last chemotherapy plus 30 days or until December 31, 2007, whichever came first, with a maximum of 18 months of total observation.
- Total patient care costs and chemotherapy costs, including oral and infused products, were tabulated.
- In addition, chemotherapy-related hospital admissions during the chemotherapy period were tabulated. These were defined by the presence on the claim of a likely chemotherapy-related adverse effect as the primary diagnosis or the primary designation of a cancer diagnosis with one of the secondary diagnoses as a chemotherapy-related adverse effect.
- Statistical significance was calculated by using the Wilcoxon rank sum test.

**RESULTS**
• Overall costs from the national claims database, including total cost per case and chemotherapy costs, were lower for patients that appear to be treated according to Level I Pathways (on-pathway) compared with other patients.

• Use of pathways was also associated with a shorter duration of therapy and lower rate of chemotherapy-related hospital admissions.

• Survival for patients on-pathway in the EHR database was comparable with those in the published literature.

For a full copy of the study, visit the newsroom at www.usoncology.com.

About The US Oncology Network
The US Oncology Network is one of the nation’s largest networks of community-based oncology physicians dedicated to advancing cancer care in America. Like-minded physicians are united through The Network around a common vision of expanding patient access to high-quality, integrated cancer care in communities throughout the nation. Leveraging healthcare information technology, shared best practices, refined evidence-based medicine guidelines, and quality measurements, physicians affiliated with The US Oncology Network are committed to advancing the quality, safety, and science of cancer care to improve patient outcomes. The US Oncology Network is supported by McKesson Specialty Health, a division of McKesson Corporation focused on empowering a vibrant and sustainable community patient care delivery system to advance the science, technology and quality of care. For more information, visit www.usoncology.com.

About Milliman
Milliman is among the world’s largest independent actuarial and consulting firms. Founded in 1947 as Milliman & Robertson, the company currently has 53 offices in key locations worldwide. Milliman employs over 2,600 people. The firm has consulting practices in healthcare, employee benefits, property & casualty insurance, life insurance and financial services. Milliman serves the full spectrum of business, financial, government, union, education and nonprofit organizations. For further information, visit www.milliman.com.

Media Contact:
Claire Crye
(281) 863-6783
Claire.Crye@McKesson.com

# # #

1 Centers for Disease Control and Prevention – website -
http://www.cdc.gov/cancer/colorectal/basic_info/facts.htm