

New study shows cost effectiveness of early cancer surveillance

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New research published today in the journal *Pediatric Blood and Cancer* shows how early cancer screening and surveillance in patients with Li-Fraumeni Syndrome (LFS) results in additional years of life, and is cost effective for third-party payers.

LFS is an inherited genetic condition that greatly increases the risk of developing several [types of cancer](#). People diagnosed with LFS have a one in two chance of developing cancer by 30, and a nearly 100 percent risk of developing cancer in their lifetime, compared to the lifetime cancer risk of the average person of almost 40 percent.

The study, led by Joshua Schiffman, MD, cancer researcher at Huntsman Cancer Institute (HCI) and professor of pediatrics at the University of Utah (U of U), in collaboration with Casey Tak, Ph.D., assistant professor at the University of North Carolina Eshelman School of Pharmacy, looked at data throughout the lifetimes of patients who were diagnosed with LFS. The researchers examined the cumulative costs and [life expectancy](#) for these [high-risk patients](#), comparing those who received cancer surveillance with those who did not.

"We were able to simulate the costs and benefits of early cancer surveillance versus standard of care over a lifetime," said Schiffman. "This allowed us to gain a long-term view of the effects that undergoing, or not undergoing, cancer surveillance may have for patients with LFS."

By using a decision-analytical model, the researchers showed that LFS

patients who received early cancer surveillance extended their lifetime, but incurred higher healthcare [costs](#). With each additional year of life these patients gained, payers had an incremental medical cost of about \$17,000. This expenditure compares very favorably to commonly accepted thresholds of willingness to pay per life-year gained of \$100,000.

"This type of research has been conducted in other populations who are at high risk of cancer development, and it is nice to see this also holds true for patients with LFS," said Schiffman. "One of the biggest clinical challenges we have with early cancer screenings for our LFS patients is receiving insurance approval. Hopefully, we can use this research to show that, not only does early cancer screening save lives, but it is also cost effective for LFS patients."

The research team plans to continue to investigate and validate the cost-effectiveness of early tumor surveillance for patients with LFS, including determining actual number of dollars spent with various healthcare systems.

"Ensuring [patients](#) with LFS have good and affordable access to [cancer surveillance](#) will result in more cost-effective care for the entire healthcare system," said Tak.

Provided by Huntsman Cancer Institute

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