

# Quality Report Card



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CANCER CARE

## Targeted Cancer Therapies and Immunotherapy

In the fight against cancer, researchers continue exploring new medications and therapies to block the growth and spread of the disease. In the past several years, anti-cancer drug development has focused on targeted cancer therapies including immunotherapy. The objective of the medications is to attack the cancer at the molecular level. The new forms of medicine use information about a person's genes and proteins to prevent the growth or survival of cancer cells. Different types of targeted therapies have been approved by the Federal Drug Administration and are being used to treat skin, lung, breast, liver and brain cancers. The Licking Memorial Hematology/Oncology Department does offer targeted therapy.

Targeted cancer therapies differ from standard chemotherapy by acting on an identified target instead of all rapidly-dividing cells. The targets generally are proteins or mutated proteins that are present or more abundant in cancer cells, and are known to be involved in cell growth or survival. The medication is designed to interact with the target in a way that interferes with its ability to grow or reduces its activity. In this way, cancerous tumors are blocked from increasing in size or, in some instances, surviving. There are many different paths that can be used to interfere with the target protein including hormones, signals sent by the cancer cells, and the immune system.

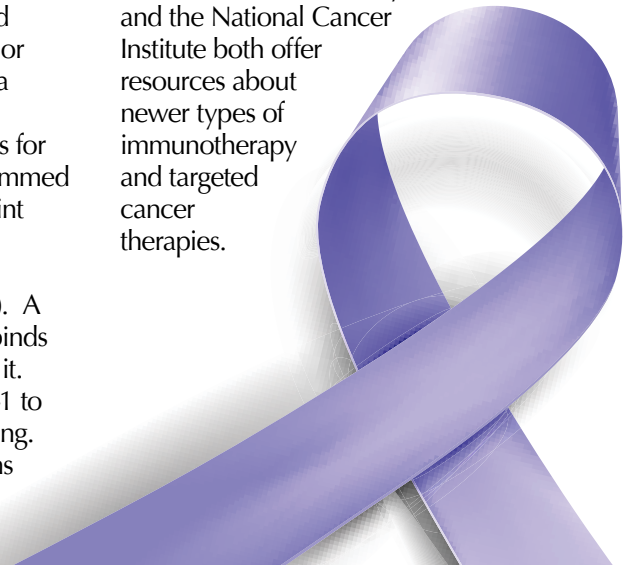
Attacking cancer by targeting the immune system is called immunotherapy. Organs, special cells and substances such as

proteins make up the immune system and are meant to protect the body from infection. When the system identifies a substance or cell that is foreign to the body, it responds by attacking and destroying the cell. Unfortunately, the immune system does not always recognize cancer as a foreign substance because the rapidly-dividing cells may not be different enough from normal cells. Cancer cells also may contain proteins that inhibit the immune system's response. In an effort to utilize the body's own defenses, immunotherapy treatment includes medications that either stimulate the immune system to search out and attack cancer cells, or boost the immune system with man-made components, such as proteins, to strengthen the attack on cancer cells.

Among the different types of immunotherapies are medications classified as immune checkpoint inhibitors. Molecules on certain immune cells, referred to as checkpoints, need to be activated or inactivated to start or stop an immune response. T cells – a type of white blood cell active in an immune response – search other cells for abnormalities. T cells use the Programmed Death Protein-1 (PD-1) as a checkpoint which stops an attack on a normal cell by binding with another protein, Programmed Death Ligand-1 (PD-L1). A ligand is a circulating molecule that binds with the receiving protein to activate it. Cancers use PD-L1, to bind with PD-1 to stop the immune system from attacking. Researchers have created medications to target the cancers that block

the binding process which allows the immune system to proceed with an attack on the cancerous cells. Medications such as Keytruda and Opdivo have been shown to be helpful in treating several types of cancer, including melanoma, lung, kidney, bladder, head and neck cancers, and Hodgkin lymphoma.

In determining if Keytruda, Opdivo or another targeted therapy should be used as treatment, physicians generally will test tumor tissue to decide if an appropriate target is present. Treatments may be restricted to patients whose tumor has a specific gene mutation. The Federal Drug Administration also sets criteria a patient must meet to be a candidate for certain medications. Over time, cancer cells can become resistant to the targeted therapies, so physicians may use them in combination with other therapies including more traditional chemotherapy drugs. The American Cancer Society and the National Cancer Institute both offer resources about newer types of immunotherapy and targeted cancer therapies.



# Patient Story – Kristin Bolman



Despite not having a family history or risk factors, Kristin Bolman received a breast cancer diagnosis in 2006 and has been bravely battling the disease since. Two and a half years ago, Kristin and her husband relocated to Ohio from California for his job. She needed to continue her treatment, but did not know where to go. “My husband’s employer connected me with Licking Memorial Hospital (LMH) and the transition was seamless,” she commented. “From the moment I walked through the doors, I felt that I was in good hands,” Kristin remarked. She was able to continue on schedule with her treatments at Licking Memorial Hematology/Oncology with D’Anna Mullins, M.D., Ph.D. “Everything happened very quickly, I was able to get an appointment right away and did not miss any treatments. Dr. Mullins is very sweet and her staff is excellent,” Kristin noted.

About six months after the move, the cancer spread to her ovaries and adrenal glands. Dr. Mullins evaluated the symptoms and treatment options, making necessary adjustments, and has managed to stabilize the cancer for the past two years. “I am very grateful to have such kind and caring people assisting me through this journey,” said Kristin. “They are thoughtful and attentive to my varying needs, even assisting in communication with my insurance company.”

Kristin has routine appointments and chemotherapy treatments every

three weeks. Each treatment lasts approximately six hours. Medication is administered prior to the chemotherapy and she often is ill and extremely tired the following week. Kristin appreciates the comforting atmosphere during her treatments. “The food is excellent and I love the warm blankets,” she commented. “You can order almost anything you want. There is a wide variety on the Café menu and the food always arrives hot.” Patients may rest comfortably in a private room or gain strength from the camaraderie of fellow cancer patients. LMH Licensed Massage Therapists are available upon request, as is the company of the Pastoral Care staff. Many patients also pass the time watching television or working on various puzzle books. Family and support individuals always are welcome.

Kristin and her husband enjoy traveling. They have five children and nine grandchildren, all who live out of state, so visiting them is important. “The staff is tremendous at working with me to coordinate my travel plans around my treatments to ensure we can see our family,” said Kristin. “That is a priority to me now more than ever. I am so grateful to be able to enjoy my grandchildren.”

As a result of Kristin’s cancer spreading to her bones, she has suffered other injuries, such as a fractured vertebrae, which subsequently crushed her ureter. Radiologist Owen Lee, M.D., and Urologist William Stallworth, M.D., both have been pivotal in providing additional care and treatment for these issues during her cancer journey. “Everyone who has cared for me has been very professional, highly skilled, and compassionate,” Kristin said.

Oncology patients are connected to palliative care by referral to Hospice of Central Ohio. Hospice nurses often make home visits and offer

consultation by phone. “The nurses have been tremendously comforting to me, managing my pain and nausea,” said Kristin. “The support system LMH provides is incredibly reassuring and I am thankful.”

Kristin enjoys reading and cooking, especially barbeque and authentic Mexican food. “One of my goals is to learn to make tamales,” she shared. “While I do not personally take advantage of the service, it is terrific that LMH also offers cancer patients consultations with a licensed nutritionist to assist with recommended dietary adjustments.”

“I cannot stress enough the importance of being diligent about receiving a screening mammogram regularly,” said Kristin. A routine mammogram caught Kristin’s breast cancer before she had any symptoms. Her diagnosis followed after the discovery of a tiny pea-sized lump. Early discovery tends to offer favorable treatment options.

Mammography procedures are available in the Women’s Imaging Center on LMH’s first floor, and also at Licking Memorial Women’s Health, located at 15 Messimer Drive in Newark. Appointments can be scheduled through a physician’s office, or by calling LMH Central Scheduling at (220) 564-4722 with a physician’s order.

Oncology is the study of the causes, development, characteristics, diagnosis and treatment of tumors. Hematology is a branch of medicine focused on the treatment of diseases of the blood and blood-forming tissues. Licking Memorial Health Systems, through a relationship with the Columbus Clinical Oncology Program (CCOP), offers a comprehensive cancer program unique for a community hospital. LMH provides major forms of cancer care, including surgery and chemotherapy.

# Cancer Care – How do we compare?

At Licking Memorial Health Systems (LMHS), we take pride in the care we provide. To monitor the quality of that care, we track specific quality measures and compare them to benchmark measures. Then, we publish them so you can draw your own conclusions regarding your healthcare choices.

1. Statistics are collected for all screening mammograms to assess the accuracy of the testing. Some parameters that are determined include the probability that any individual case of breast cancer will be identified by the mammogram and the probability of the mammogram correctly identifying patients who do not have cancer.

	LMH 2014	LMH 2015	LMH 2016	LMH Goal
Percentage of cancers correctly identified by the mammogram	95.0%	91.4%	96.9%	<b>78%<sup>(1)</sup></b>
Percentage of patients without cancer correctly identified by the mammogram	99.4%	99.2%	98.6%	<b>90%<sup>(2)</sup></b>

2. Screening mammograms are conducted to detect breast cancer before the patient has any noticeable symptoms. Breast cancer is most easily and effectively treated when it is diagnosed in its early stages. Although the results from most screening mammograms are negative – meaning no cancer was detected – for patients who are found to have breast cancer, the screening mammogram may have been life-saving technology. Licking Memorial Hospital (LMH) tracks the number of screening mammograms that have positive interpretations, meaning that the tests detected cancer that may have remained unnoticed until it was more advanced.

	LMH 2014	LMH 2015	LMH 2016	LMH Goal
Cancer detection rate with positive interpretations (per 1,000 screening mammograms)	5.6	7.3	5.4	<b>2 to 10<sup>(3)</sup></b>

3. Wait time is defined as the number of days between the completion of the first procedure and the second scheduled procedure. The amount of time between testing and procedure is significant to enabling physicians to more quickly identify and diagnose breast cancer and begin patient treatment.

	LMH 2014	LMH 2015	LMH 2016	National <sup>(5)</sup>
<b>Wait times:</b>				
Screening to diagnostic mammogram	NA	8.1 days	5.6 days	<b>7.5 days</b>
Diagnostic mammogram to needle/core biopsy	NA	15.4 days	7.2 days	<b>5.9 days</b>
Biopsy to initial breast cancer surgery	NA	NA	10 days	<b>23.4 days</b>

4. Chemotherapy drugs are toxic and could be dangerous if not prepared correctly. Therefore, LMH follows a rigorous five-step safety procedure to prevent chemotherapy errors.

	LMH 2014	LMH 2015	LMH 2016	LMH Goal
Number of chemotherapy medication errors negatively impacting patients	0	0	0	<b>0</b>

5. When a person is either diagnosed with or treated for cancer, the person is entered into the Cancer Registry. It then is the responsibility of the accredited organization to follow up with the person for the rest of his/her life on an annual basis to encourage appropriate care. Cancer Registry staff also may contact the primary care physician to ensure the health of the patient.

	LMH 2014	LMH 2015	LMH 2016	LMH Goal
Cancer Registry patients with annual follow-up	93%	93%	93%	<b>greater than 80%</b>

6. Clinical research ensures that patient care approaches the highest possible level of quality. There is no minimum requirement for how many patients are placed in cancer-related clinical trials in a community hospital cancer program; however, to provide maximum service, LMH offers access to national clinical trials to patients as a member of the Columbus Community Clinical Oncology Program.

	LMH 2014	LMH 2015	LMH 2016	LMH Goal
Newly diagnosed and/or treated patients in clinical trials	8%	11%	9%	<b>greater than 2%</b>

**7.** In an effort to prevent and promote early detection and treatment of cancer, the physician offices of Licking Memorial Health Professionals (LMHP) measure and track results of cancer screening tests for breast cancer, cervical cancer and colorectal cancer for all active patients. Active patient population is defined as patients seen within the last three years.

	LMHP 2014	LMHP 2015	LMHP 2016	LMHP Goal
LMHP active patient population that received screening tests for:				
Cervical cancer (female patients, age 21 to 65)	83%	81%	77%	<b>75%</b>
	<b>LMHP 2014</b>	<b>LMHP 2015</b>	<b>LMHP 2016</b>	<b>National<sup>(4)</sup></b>
Breast cancer (female patients, age 40 to 75)	83%	83%	81%	<b>69%</b>
	<b>LMHP 2014</b>	<b>LMHP 2015</b>	<b>LMHP 2016</b>	<b>National<sup>(4)</sup></b>
Colorectal cancer (all patients, age 50-75)	64%	64%	66%	<b>64%</b>

**Data Footnotes:**

- (1) Kolb TM, Lichy J, Newhouse JH. Comparison of the performance of screening mammography, physical examination, and breast ultrasound and evaluation of factors that influence them: an analysis of 27,825 patient evaluations. *Radiology*. 225(1):165-75, 2002.
- Oestreicher N, Lehman CD, Seger DJ, Buist DS, White E. The incremental contribution of clinical breast examination to invasive cancer detection in a mammography screening program. *AJR Am J Roentgenol*. 184(2):428-32, 2005.
- (2) Bassett LW, Hendrick RE, Bassford TL, et al, *Quality determinants of mammography: Clinical practice guidelines, No. 13*. Agency for Health Care Policy and Research Publication No. 95-0632. Rockville, MD: Agency for Health Care Policy and Research, Public Health Services, US Department of Human Services, 1994.
- (3) D’Orsi CJ, Bassett LW, Berg WA, et al, *BI-RADS: Mammography, 4th Edition in: D’Orsi CJ, Mendelson EB, Ikeda DM, et al: Breast Imaging Reporting and Data System: ACR BI-RADS – Breast Imaging Atlas*, Reston, VA, American College of Radiology, 2003.
- (4) Percentages are compiled by averaging Commercial, Medicare and Medicaid data as reported in “The State of Health Care Quality 2016,” *Healthcare Effectiveness Data and Information Set, “Measures of Care.”*
- (5) *National Quality Measures for Breast Centers (NQIBC) www.nqmbc.org database, 2016.*



**Check out our Quality Report Cards online at [www.LMHealth.org](http://www.LMHealth.org).**

# Health Tips – Financial Support Challenges

A cancer diagnosis and treatment can be costly and lead to a financial burden for the patient and their family. Health insurance, managed care, or public healthcare programs will pay most of the costs for treatments if the patient is covered; however, the individual may incur indirect costs such as co-pays for medications and clinic visits, testing, home health services and transportation. At Licking Memorial Hospital (LMH), an Oncology Navigation Team is available to help patients plan for such circumstances.

The Navigators can help find local resources including help with:

- Medication payments
- Financial needs – including mortgage, rent, and food
- Support groups
- Personal appearance needs – such as wigs or head coverings for those facing hair loss

Though it may be difficult to turn to others or to public agencies and outside groups for assistance, it is important to take steps to reduce stress caused by financial issues.



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Please take a few minutes to read this month’s report on **Cancer Care**. You’ll soon discover why Licking Memorial Hospital is measurably different ... for your health!

The Quality Report Card is a publication of the LMHS Public Relations Department. Please contact the Public Relations Department at (220) 564-1572 to receive future mailings.

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