A Publication of the University of MIchigan Comprehensive Cancer Center | SUMMER 2014

thrive

When Cancer Comes Back

Living with advanced cancer and making the most of your future

COMPREHENSIVE CANCER CENTER
UNIVERSITY OF MICHIGAN HEALTH SYSTEM

On the cover:

Patient Jennifer Kelley, pictured with her daughter Christine, walks regularly in order to be strong and prepared if her cancer returns. **6**

SUMMER 2014 • CONTENTS

thrive

Published quarterly by the University of Michigan Comprehensive Cancer Center, 1500 E. Medical Center Dr., Ann Arbor, MI 48109-5944. If you do not wish to receive future issues of Thrive, please call Beth Johnson at 734-764-8311.

Max S. Wicha, M.D., director

Marcy B. Waldinger, M.H.S.A., chief administrative officer

Nicole Fawcett, manager of cancer communications

Beth Johnson, editor and senior writer

Karen Moeller, art director, MOEdesign

Chas Moeller, project management, MOEdesign

Edda Pacifico, photographer, Edda Photography

Executive Officers of the University of Michigan Health System: Michael M.E. Johns, M.D., Interim Executive Vice President for Medical Affairs; James O. Woolliscroft, M.D., Dean, U-M Medical School; Douglas Strong, Chief Executive Officer, U-M Hospitals and Health Centers; Kathleen Potempa, Dean, School of Nursing.

The Regents of the University of Michigan:
Regents of the University of Michigan: Mark J. Bernstein, Julia Donovan Darlow, Laurence B. Deitch, Shauna Ryder Diggs, Denise Ilitch, Andrea Fischer Newman, Andrew C. Richner, Katherine E. White, Mark S. Schlissel, *ex officio*.

The University of Michigan is a non-discriminatory, affirmative action employer.

For more information about the stories in Thrive or any other cancer-related information, please call the Cancer AnswerLine at 800-865-1125.

Better and Safer Cancer Care Through TECHNOLOGY

A look at recent improvements to your electronic medical record

This summer marks another phase of MiChart, the electronic health record system being implemented throughout the Comprehensive Cancer Center and the entire University of Michigan Health System. Using technology to keep track of medical records is required by the United States government and is something that all health care providers, big and small, are working toward.

The last MiChart update we wrote about in Thrive was the public face of our new information system: **MyUofMHealth.org**. We hope you've accessed our secure online portal that connects you to personalized health information. If not, it's worth checking out. You can:

- Review and print medications, immunizations, allergies and other medical history
- Receive test results and doctor opinions online
- Send secure messages to your physician's office
- Request prescription renewals

June 7 marked the start of even more improvements. One of the big changes you'll see in the Cancer Center is Barcode Medication Administration (BCMA). There are "5 rights" a health care provider checks for before giving a patient medication:

1. The right patient
2. The right medication
3. The right dosage
4. The right route (how it is given)
5. The right time

Now when you come to the Cancer Center for infusion, you'll see new scanning equipment that lets infusion providers scan a barcode on your patient wristband. This barcode contains your personal information and will confirm the details of the medication order. BCMA delivers enhanced levels of patient safety, as well as improves the quality and consistency of clinical documentation.

With BCMA, medication prep moves from a designated medication room to the patient's side, letting clinicians, patients and families play a collective role in ensuring medication safety. The barcode technology does the final check and decreases the possibility of errors. And, your medical record is automatically updated once your wristband is scanned.

The June implementation of MiChart also included new care and treatment functions for oncology patients. Your caregivers can share information electronically and improve the exchange of recommendations and research conducted by members of your care team.

MiChart signifies a major enhancement for patient care as part of the U-M Health System mission. Your oncology care team focuses on one patient—you—your medical record and your plan of care.

Be sure to check out Pharmacist's Corner on the back page of this issue for more MiChart improvements related to pharmacy. Visit mCancer.org/thrive for a look at more information on the importance of BCMA.

Understanding C

An overview of advanced cancer and living with metastatic disease

No matter your diagnosis or treatment status, every person who has been diagnosed with cancer has a common concern: what if my cancer comes back? It's a large and complicated topic, due to the wide variety of ways cancer works in the body, as well as the unpredictability of the disease.

We spoke with Anne Schott, M.D., associate professor of medical oncology at the University of Michigan Comprehensive Cancer Center, who specializes in breast cancer, to cover some of the basic questions patients ask about their cancer, the possibility of its return and what it means when cancer is metastatic.

Anne Schott, M.D.

Q: What do we mean when we say a person's cancer is recurrent?

A cancer recurrence means that a person who was thought to be cancer free has cancer again. This can be interpreted in several ways.

If the cancer returns to the same primary location, it is called a local recurrence. If the cancer is detected in surrounding lymph nodes to the original location, it is a regional recurrence. If the cancer has spread to distant parts of the body, it is called metastatic recurrence. Metastatic cancer is also called stage 4.

Cancer recurrence is treated differently depending on the specific type of cancer and the location of the recurrence.

Q: What are some of the common misconceptions patients have about the spread of cancer?

One of the biggest sources of confusion for patients comes when their cancer has spread from one location to another. For example, it is possible for breast cancer to spread to the bone. People will assume they now have bone cancer, but this is not the case. They actually have metastatic breast cancer.

Cancer is treated by cell type. Breast cancer cells respond in certain ways to certain treatments. If cancer has spread to the bone, you will still receive treatment for breast cancer.

Q: What does it mean when you have metastatic cancer?

Cancer that has spread outside of the primary site and nearby lymph nodes is metastatic. With a few exceptions, we call it stage 4. Advances in treatment allow us to manage cancer symptoms and shrink cancerous tumors, but metastatic cancer is rarely curable.

The goal for treating a spread cancer is to reduce tumor size and relieve some of the symptoms that patients experience. This allows us to prolong an individual's life and, in many cases, allows a person to live a high-quality life.

ancer Recurrence

Q: How does cancer spread?

Cancer, by its very nature, is designed to spread. Cancer develops when your body's cells go awry and begin reproducing and invading surrounding tissue in a way that nature did not intend. The cancer cells travel to different parts of the body and begin forming new tumors.

How cancer spreads varies depending on the type of cancer you have, but generally it spreads through the bloodstream or the lymph system. A point of confusion for patients is that cancer only spreads if it has already gotten to the lymph nodes. However, we know this isn't the case. An example is breast cancer that has spread to the brain. The only way this can occur is through the bloodstream.

Why cancer spreads to specific areas of the body is being researched. We believe there are signals that make certain cancers go to certain areas of the body. Perhaps we can disrupt those homing signals with future treatment to prevent metastasis.

Q: How do doctors know where a cancer has spread?

Cancer researchers have learned over time that different cancers have a tendency to spread to certain parts of the body. For example, it is most common for breast cancer to spread to the lymph nodes and bones. It can also spread to the liver, lungs or brain.

Patients will often ask: How do you know my breast cancer has spread to the brain? How do you know I don't have brain cancer instead? The answer is that primary brain cancer looks very different under a microscope than metastatic breast cancer that is in the brain.

A patient's prior cancer is always taken into account if cancer appears again. It is far more common for a cancer the patient already had to spread than it is for a patient to have a second primary diagnosis. It happens, but much less frequently.

Q: How is treatment evolving when it comes to metastatic cancer?

It is very important to know the origin and specific type of a person's cancer because this information guides treatment options. The first time a cancer spread is detected, we get a biopsy to confirm the type of cancer whenever possible. This is very important because even a single cancer type like breast cancer has many subtypes, and each is managed a little differently.

We're starting to understand that as stage 4 cancers are treated, cancer may start to behave differently over time. The reason that many metastatic cancers are not cured is because, although the cancers respond to initial therapy, they eventually become resistant. Later biopsies help us understand what is driving the resistance and give us clues on how to treat it.

Q: How long do patients wait before they know if their cancer will return?

I wish there were an easy answer, but the timeframe varies depending on the cancer and the cancer subtype. Some cancers are considered cured if they don't come back in five years. In small cell lung cancer, if it hasn't recurred in three years it is not likely to recur. But certain hormone-sensitive breast cancers can show up 20 years later as a spread cancer.

It is very specific to the kind of cancer you have, so be sure to ask your doctor.

Visit mCancer.org/thrive for the American Cancer Society's guide to advanced cancer.

When Cancer

Jennifer Kelley was unprepared for the rare diagnosis of leiomyosarcoma at age 52, especially since it was her third experience with cancer in a mere 30 months. She had the cancerous lump under her arm surgically removed and followed up with five cycles of chemotherapy as a precaution.

Her U-M oncologist, Scott Schuetze, M.D., Ph.D., is one of the leading sarcoma experts in the United States and the world. Because Kelley's cancer had spread into a lymph node, he explained the cancer was categorized as stage 4 and expected to return.

"The advice I give patients the second time around depends on the situation," he says. "If it is potentially curable, I reassure them that we will try to cure the sarcoma. The other option is to help them live as good a life as possible—with the sarcoma—for as long as possible."

"Getting the stage 4 diagnosis was a lot to deal with," says Kelley, now 56, a married mother of two adult children. "I wanted to believe I was OK and could live a long time. It created anxiety and some depression."

She agonized over thoughts of whether and when the sarcoma might return.

"Every patient who comes into the office for a check-up and scans after sarcoma cure is anxious about recurrence. I give results immediately after coming in the room, especially if everything looks fine, to relieve the anxiety," Schuetze says. "A positive attitude and trying to remain as active as possible and live as normal a life as possible go a long way towards helping during treatment for cancer or living with recurrence."

Comes Back

Living with advanced cancer and making the most of your future

Visit **mCancer.org/thrive** for more information about the Living with Advanced Cancer Therapy Group for Women. Ask your care team how you can be connected with social work support.

STRONG BODY, STRONG MIND

Kelley took his words to heart and decided to do what she could to keep her mind and body strong. She continued working at the U-M Credit Union, a job she's held for 31 years. She attended a program to study Chinese energy, which taught her to distinguish between her positive and negative imagination. Writing small goals and opening her eyes to little gifts during the day (like pretty clouds in the sky) helped her cope with the anxiety of chemotherapy.

Following treatment, she began walking as much as possible to build endurance in the event the leiomyosarcoma came back and she needed to undergo another surgery. When her cancer recurred two years later, it was removed with clear margins and had not spread.

"The important point about treating recurrence for cure is multidisciplinary involvement from the sarcoma team," Schuetze says. He explains that each patient is unique and requires different treatment if cancer comes back. Some, like Kelley, only require surgery. Other patients follow up with chemotherapy or radiation.

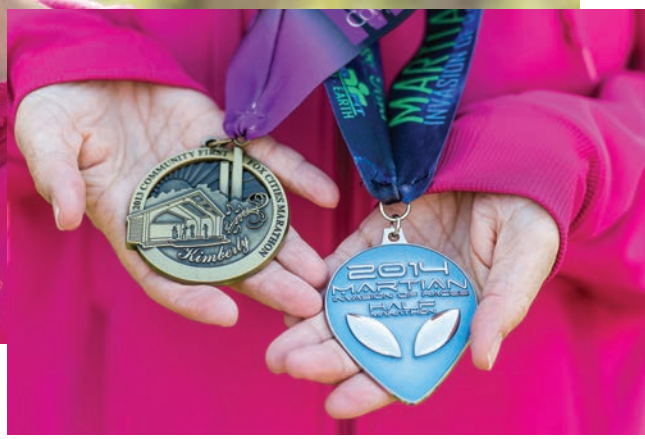
Today, Kelley has no evidence of cancer and, with one recurrence under her belt, has trained for and walked two marathons with her daughter, Christine. Last spring, they also jumped out of an airplane, something they always wanted to do. Next on her list is to zip line in Costa Rica.

"If I can make that happen, I will," Kelley says. "I'm trying to get more out of my life since I don't know how long I'll feel good."

Tips for coping with advanced cancer:

- Create a support network or attend a group
- Ask for help from friends and family
- Be educated about your disease and treatment
- Stay hopeful, remembering what you hope for might change
- Don't hesitate to seek emotional support
- Do things that matter most to you

—Jane Deering, LMSW



LIVING WITH ADVANCED CANCER

Kelley never lets go of the idea she has cancer. She does not want to let her guard down. However, as she moves forward with no evidence of disease, she is able to focus more on living and less on worrying.

"For anyone who's worrying about recurrence, I would go back to the concept of negative imagination," she says. "Try not to borrow trouble. It hasn't happened. You might have a recurrence, but you might not. I do try to be cognizant of my coping skills so I can deal with it if it happens again."

Cancer Center Social Worker Jane Deering runs the Living with Advanced Cancer Therapy Group for Women. Patients with metastatic cancer often face sadness, shock and disappointment. The biggest issue is the fear of uncertainty.

"One of the things I tell people is there is no going back to normal. We create a new normal and it can be a good normal," she says. "Part of it is having a place to express those fears, but also finding a way to limit those feelings so you can still enjoy life. It's learning how to manage the uncertainty and anxiety about the future."

Kelley attends the therapy group twice a month at the Cancer Center. Because she is free of cancer despite her stage 4 diagnosis, she feels she is a source of hope for the group. She also attends art therapy and performs guided imagery, both part of the Cancer Center's Complementary Therapies Program.

"Some metastatic cancers are treated as a chronic illness that we manage and keep under control," Deering says. "People can get to acceptance. They bring the same set of strengths they used during their initial diagnosis to new challenges of the recurrence."

Kelley joined the therapy group because she wanted to learn from other women how they were getting through their illnesses. Each session, members introduce themselves and provide updates. They often discuss and strategize the things they can and cannot control.

"I have expectations for a bright future," Kelley says. "I don't hesitate to make plans for my future. I'm not anticipating treatment. If it happens, it happens and I'll have to cope with it. I'm prepared." t

Improving YOUR cancer care experience

An update from a member of the Patient and Family Advisory Board

Sarah Tupica Berard says her father's recurrence has given her a whole new layer of experience to contribute to the Patient and Family Advisory Board.

Last summer, we wrote about Sarah Tupica Berard, who joined the Cancer Center's Patient and Family Advisory Board after her father was treated for a rare cancer in his jaw. She wanted to give back and help other patients and family members have a better care experience.

Q: What has changed since last summer in terms of your dad's health?

My dad recently completed 13 days of radiation treatment for a recurrence on his hip. He's a paramedic and a workaholic, and has decided to take some time off this summer to enjoy himself. My dad taking time for himself is a great thing. We already have barbeques set up.

Q: What is new on the Patient and Family Advisory Board?

We've been busy. I've been working on a chemotherapy information packet that helps patients know what to expect. Also, we've been working on elections and getting new members on the board to help with patient care improvements.

Q: What is on the horizon for your family?

I decided to extend my term on the board for another year. With my father's recurrence, it's such a positive and supportive place to be in the cancer arena. I am having my first child, a girl, in July and didn't want to be flooded with bad feelings during my pregnancy.

She is coming at the right time. She will bring a lot of joy to our family. My dad is excited about being a grandpa.

Visit mCancer.org/thrive to learn more about the Patient and Family Advisory Board and how you can apply to be a member.

The Right to b

One patient's story of recurrences in the midst of a rich life

If you ask Carolyn C. about her 2005 cancer diagnosis or her recurrences since that time, there's a good chance she'll bring up the "hit by the bus theory."

"Nobody is promised tomorrow," says the 51-year-old wife and mother of three sons. "People with cancer happen to be reminded of that more strongly. We can't let our fear of the bus get in the way."

Carolyn does not like to talk about her specific diagnosis. The last thing she wants is for people to worry or search for statistics.

> "Cancer isn't a forbidden word in our home, it just isn't the main topic."

"Our family views cancer as a chronic disease that needs to be managed," she says. "We talk about living with cancer. I am cancer free today and look forward to many more cancer free days. Every day is one day closer to finding a cure."

The Whitmore Lake resident has worked at the Ann Arbor Chop House for 10 years, a job she loves that accommodates her schedule as a mom and cancer patient. Her new gig as a consultant for Thirty-One Gifts is a way for her to transition out of the restaurant business, which is "for the young at heart."

Jane Deering, a social worker at the U-M Comprehensive Cancer Center, says that no matter what cancer brings, patients always have the right to be hopeful.

"It's always that balance of reality and being hopeful. Hope can mean different things to different people," Deering says. "Hope gets shifted when you're living with advanced cancer to more immediate goals."

Carolyn's children were young—only 6, 9 and 13—when she had a proactive hysterectomy to remove a lump in her abdomen. When the pathology report came back, she was shocked to learn she had cancer.

"The thought of not being able to raise my boys was what I struggled with the most. I prayed I'd be able to see them graduate from high school. Now I have set my goals on seeing them get married and holding grandbabies."

Carolyn's treatment over time has included surgery, radiation, chemotherapy and oral medication. She recommends accepting help when it's offered.

"My husband is my good luck charm and always goes with me for test results. It was wonderful to have help and prayers from friends and family. My mother went to chemo with me. My inlaws took our kids up north. All this help made a tremendous difference."

Deering adds that patients can take advantage of additional resources at the Cancer Center, such as counseling sessions with a social worker, Patient and Family Support Services, PsychOncology and support groups.

"Everybody brings to their cancer experience a set of coping strategies they've used their whole lives," she says. "Acceptance is a back and forth process and coming to terms with the losses experienced along the way. It's learning how to manage the uncertainty and anxiety about the future."

Carolyn, who has worked with Deering and also practiced guided imagery, has found ways over time to make the cancer experience less stressful. She no longer panics before scans.

"Since getting my scan results is challenging, I try to see Jane (Deering) that week to talk through my fears and purge them. Anyone recently diagnosed with cancer owes it to themselves to use these services.

"Therapy has enabled me to live a positive and joy-filled life as a cancer survivor. I can go into Jane's office and cry, scream, complain and just plain feel sorry for myself. When my session is done, I pack up my proverbial cancer box and put it on her shelf. Then I go out into the world and live a happy life—with no bus in sight."

To make an appointment with a social worker, call 877-907-0859.

e Hopeful

Carolyn C.'s tips for living with cancer:

- Exercise if you can. Walking around at work counts!
- Wear hats and big earrings if you lose your hair. Own it.
- Use humor when possible.
- At your scans, drink the prep through a straw.
- Focus on living with cancer, not the dark days.
- Empower yourself however you can, through services, therapy and help from friends.

Carolyn C. focuses on the future and her new business selling Thirty-One Gifts.

A Warm Wel

Volunteer Gretchen Elsner-Sommer uses her past experiences as a bed and breakfast owner to welcome patients to the Cancer Center.

Volunteer opportunities a

Gretchen Elsner-Sommer enjoys welcoming people, whether it is into her home in Ann Arbor, her former bed and breakfast in Illinois or the University of Michigan Comprehensive Cancer Center. At 66, this breast cancer survivor volunteers at the Cancer Center every week hoping to make at least one cancer patient's day a little brighter.

"My job is to help them feel more at ease and get them where they need to be," says Elsner-Sommer, who works as a patient guide. "I love getting people talking about something else besides what they're going through, even if it's just for a few minutes."

Elsner-Sommer decided to become a Cancer Center volunteer after her own cancer experience, which began in the late 1990s.

"I know what it's like to walk into the building and not know where the heck you're going. I can really relate to that and help patients feel more comfortable. People are so grateful to have someone smile at them who's not a doctor."

Elsner-Sommer has survived stage 1 breast cancer on two occasions. In addition to swimming and sticking to a mainly raw food diet, volunteering is part of her recovery. She said it lifts her spirits each week as she aims to give back.

"As a patient, I'd see these older women volunteers telling people where their appointments were. It was a great image before me to see them healthy and active."

In her spare time, Elsner-Sommer writes and studies genealogy. She's been gathering facts on the women in her family since she moved from Illinois to Ann Arbor in the mid-90s with her husband, David. To welcome their family, they built a guest cottage behind their home, which also houses the guest book from Elsner-Sommer's former bed and breakfast.

come

bound at the Cancer Center

Mary McCully, the program coordinator for the Cancer Center's Volunteer and Community Resources program, welcomes all volunteers and can help those who are interested determine what role is the match best for them. She suggests visiting mCancer.org/volunteer to get a sense of the wide variety of volunteer opportunities available to students, former patients, their families and community members.

"All our volunteers come to the Cancer Center for a specific orientation. As part of training, you might shadow a current volunteer in an area for several weeks to get comfortable in the role. Our volunteers typically come in one time a week for a 3-4 hour shift."

The University of Michigan Health System, including the Cancer Center, asks all volunteers to commit for six months.

"No matter what their role, our volunteers give back through the goodness of their hearts," McCully says. "I don't think they realize how much of a difference they make in a patient's day. I'm very appreciative of those in our community who volunteer their time."

For Elsner-Sommer, volunteering is "the best thing in the world." She finds strength in the patients she meets and admires their bravery.

She uses her past experiences as a bed and breakfast owner to get to know people and can easily recall multiple interactions with patients, from the woman who used to work at Marshall Field's in Chicago during World War II to the young man on crutches with the heavy backpack. She looks forward to seeing the man in the Notre Dame sweatshirt, who always comes to the Cancer Center with one of his many daughters.

"I could tell you a million stories about the people I meet," she laughs. "All you have to do is be nice to people. I get so much more out of volunteering than I give."

To stay active and healthy, Elsner-Sommer swims, journals and studies genealogy.

Volunteer opportunities at the Cancer Center include:

- The Patient Education Resource Center (PERC)
- The Courtesy Center desk
- Patient guides in the lobby
- The mobile coffee cart (offering complimentary warm beverages to waiting patients)
- The Warm Fuzzies blanket project
- And more!

Visit **mCancer.org/volunteer** to learn more.

All Cancer Center volunteers receive a special orientation and training to be comfortable in the role. No experience is needed.

Taste Test

WEB EXCLUSIVE

Visit **mCancer.org/thrive** for the answers to the questions in this story, more nutrition information and a link to a nutritional supplements chart.

Healthy eating during cancer treatment and the many varieties of nutritional supplements to try

Eating can be a major issue when you have cancer. Sometimes food doesn't taste good. Sometimes you're simply not hungry. And, sometimes food makes you feel even sicker than before you ate.

Registered dietitians at the U-M Comprehensive Cancer Center delivered a unique presentation to cancer care providers recently. In addition to offering valuable information on the importance of nutrition during cancer care, our dietitians let them taste for themselves the many different varieties of liquid nutritional supplements available to patients who don't feel much like eating.

"A lot of people eat because it tastes good and we obtain pleasure from it," says Danielle Karsies, M.S., R.D., a dietitian in the U-M Comprehensive Cancer Center Symptom Management and Supportive Care Program. "Different types of cancers have different nutritional-related complications and often eating might not be enjoyable. We aim to educate patients to think of nutrition like part of their treatment regimen, like medicine."

Common brand names of liquid nutritional supplements include Carnation Breakfast Essentials, Ensure, Boost, Replete, Breeze and more.

"I wanted to be able to provide recommendations to patients with their diets," says Elizabeth LaForge, BSN, a nurse in the urologic oncology clinic. "I learned today that you can freeze some of these supplements to taste better. Some are more like juice and not milk-based. There are a lot of options."

Some of the commonly asked nutrition questions by cancer patients are:

- What oral nutritional supplements are there?
- What do I do when I have no appetite?
- What do I do when food makes me nauseous?
- Does sugar feed cancer?
- Is organic better?

Karsies explained that patients with questions can ask their physician for a referral to see a dietitian. Patients with at least two of the symptoms below should be referred:

- Unintentional weight loss
- Eating less than 75 percent of your usual intake
- Significant nutrition-related side effects (like mouth sores or swallowing problems)
- Non-healing wound

To make an appointment for nutritional counseling, call 877-907-0859.

STUDY PROVIDES POTENTIAL TARGET FOR CUTTING OFF GROWTH OF COLON CANCER STEM CELLS

A new collaborative study found that a subset of immune cells directly target colon cancers, rather than the immune system, giving the cells the aggressive properties of cancer stem cells.

"If you want to control cancer stem cells through new therapies, then you need to understand what controls the cancer stem cells," says senior study author Weiping Zou, M.D., Ph.D., Charles B. de Nancrede Professor of surgery, immunology and biology at the University of Michigan Medical School.

Consider invasive Africanized honey bees. The worker honey bees are like the bulk majority of tumor cells while the queen bee is like the cancer stem cell. The queen bee can repopulate an entire colony but survives on royal jelly. If you remove the royal jelly, the queen bee dies and the entire colony of invasive Africanized honey bees can be removed. Th22-derived IL-22 is the royal jelly.

Th22 is a subset of a type of immune cell called T-cells. Typically, T-cells are the soldiers of the immune system, killing off tumor cells. In the case of colon cancer, the researchers found, Th22 acts as a tumor helper, actually supporting the cells in becoming able to renew—one of the hallmarks of cancer stem cells.

The researchers discovered that a related factor called DOT1L is regulated by IL-22, contributing to the cells developing stem cell properties. High levels of DOT1L in patient tumor samples were tied to shorter survival. The researchers suggest DOT1L may be a marker for colon cancer progression, and that this pathway could potentially be targeted in new colon cancer treatments.

The researchers are now looking at potential drugs that might target this process directly. No specific therapies are currently available.

Results appear online in the journal *Immunity*.

MAMMOGRAPHY HAS LED TO FEWER LATE-STAGE BREAST CANCERS, U-M STUDY FINDS

In the last 30 years, since mammography was introduced, late-stage breast cancer has decreased by 37 percent, a new study from the University of Michigan Comprehensive Cancer Center finds.

Researchers looked at early-stage and late-stage breast cancer diagnoses between 1977–1979, before mammography became popular, and compared it to diagnoses between 2007-2009. The researchers took into account a central estimated increase in breast cancer incidence of 1.3 percent per year. This is called an annual percentage change, or APC.

Think of the APC like the inflation rate: $1 from 1977 does not go as far in 2007. Just as the cost of money rises, the number of breast cancer diagnoses is increasing, independently of efforts to detect it earlier. There are many reasons, including reproductive, dietary and environmental factors.

In the current paper, published in *Cancer*, the researchers looked at the late 1970s data and projected incidence of early-stage and late-stage breast cancer in 2007–2009 based on the APC. They then compared the projected rates to actual rates.

Late-stage breast cancer incidence decreased 37 percent from the projected rate, and early-stage breast cancer incidence correspondingly increased 48 percent from 1977–1979 to 2007–2009. They also conducted similar analyses with other APC values, ranging from 0.5 percent to 2 percent. All estimates showed a substantial decrease in late-stage disease.

"When you factor in this temporal trend, our analysis shows that there has been a shift from late-stage to early-stage breast cancer over the last 30 years. This is what you would expect with a successful screening program. Not only are we detecting more early-stage cancer, but we are decreasing the number of late-stage cases that tend to be more challenging to treat and more deadly," says senior study author Mark Helvie, M.D., professor of radiology and director of breast imaging at the U-M Comprehensive Cancer Center.

Importantly, the current study also found that since mammography was introduced, there has been an overall 9 percent decrease in invasive breast cancer, when factoring in a 1.3 percent annual percentage increase. This has been offset by an increase in ductal carcinoma in situ, so-called stage 0 breast cancer, which is not invasive.

For information about clinical trials at U-M, call the Cancer AnswerLine at **800-865-1125**

PHARMACIST'S Corner

Shawna Kraft, Pharm.D.

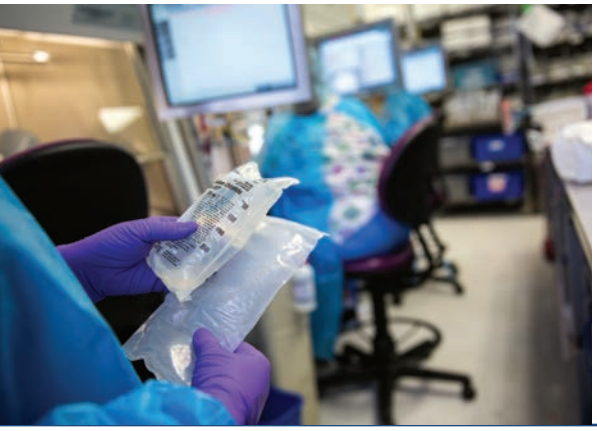
Have a question for the pharmacist? Email us at *ThriveMagazine@med.umich.edu*.

PHARMACY USE OF TECHNOLOGY TO IMPROVE PATIENT CARE

BY SHAWNA KRAFT, PHARM.D.,
U-M COMPREHENSIVE CANCER CENTER SYMPTOM MANAGEMENT AND SUPPORTIVE CARE PROGRAM

Along with the rest of the University of Michigan Health System, the infusion pharmacy at the Comprehensive Cancer Center has been using new technology to improve patient care. One new feature takes a picture of your prepared chemotherapy and links with the new barcode medication administration system to:

- Confirm correct drug selection (right drug for the right patient)
- Automate dose calculations (right dose)
- Automate dose labeling to increase efficiency for pharmacy staff (right time)
- Reduce waste



Another part of the new system includes chemotherapy orders that are now all electronic. In the past, IV chemotherapy orders were written on standardized paper order forms. Now that orders are converted to an electronic system, your IV chemotherapy orders are linked to your electronic medical record that is already in place. This means the administration of your medication is in the same place as your supporting medication information. The pharmacist can easily review your order, leading to faster turnaround time for infusion. Electronic orders also improve patient safety and reduce the possibility of medication errors.

Using technology in health care will allow the pharmacy staff to focus further on you—the patient—ensuring optimal medication preparation that is safe and efficient.

Just a Phone Call Away

Art Therapy
877-907-0859

Cancer AnswerLine
800-865-1125

Clinical Trials
800-865-1125

Fertility Counseling
877-907-0859

Financial Counseling
734-647-5120

Guided Imagery
877-326-9155

Make a Donation
734-998-6893

Music Therapy
877-907-0859

Nutrition Services
877-907-0859

Patient Education Resource Center
734-647-8626

Pharmacy
734-647-8911

Practical Assistance Center
877-907-0859

PsychOncology
877-907-0859

Social Work
800-888-9825

Skills Lab
877-907-0859

Smoking Cessation Counseling
734-998-6222

Symptom Management and Supportive Care
877-907-0859

THRIVE ONLINE

mCancer.org/thrive

Thrive doesn't end here! Visit **mCancer.org/thrive** for more. Here's what you'll find:

- Details on the Living with Advanced Cancer Therapy Group for Women
- A link to the American Cancer Society's guide to advanced cancer
- Descriptions of the many volunteer opportunities available at the Cancer Center
- More information on how to apply to be a member of the Patient and Family Advisory Board
- More information on the importance of barcode medication administration