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ONCOLOGY ISSUES

This publication is a benefit of membership
Association of Community Cancer Centers

July | August 2018

THERE MUST
BE A BETTER
WAY!

An Inpatient
and Outpatient
Nursing Collaborative
Improves the
Patient Experience



ACCC
Association of Community Cancer Centers



ACCC 45TH ANNUAL MEETING & CANCER CENTER BUSINESS SUMMIT

March 13–15, 2019

Renaissance Washington, DC Downtown Hotel

CALL FOR BUSINESS CASE STUDIES

The **Association of Community Cancer Centers (ACCC)** and **Cancer Center Business Summit** invite individuals to submit business case studies for presentation at the ACCC 45th Annual Meeting & Cancer Center Business Summit (AMCCBS), March 13 – 15, 2019, in Washington, D.C.

AMCCBS offers a platform for presenters to showcase solutions, initiate provocative discussions, present relevant information, and share creative strategies to address the many challenges facing business leaders, healthcare executives, and cancer care providers who strive to stay ahead of the curve in today's evolving healthcare environment.

Preference will be given to presentations that are evidence-based, data-driven, and demonstrate measurable outcomes. Case studies should include effective, replicable practices that aim to improve quality, reduce costs, streamline operations, and/or enhance the coordination of patient-centered care.

SUBMISSION DEADLINE IS MONDAY, SEPTEMBER 10, 2018

ACCC-CANCER.ORG/AMCCBS-SUBMISSIONS

Submissions will be accepted for podium (oral) presentations as well as poster presentations, and may be considered for either format at the discretion of an AMCCBS Task Force. Oral presentations will be presented on March 14 or March 15, and posters will be displayed on both days.

SUBMISSION DETAILS

- There is no limit to the number of submissions by one author or group
- Submission of a business case study implies a commitment to attend and present at AMCCBS
- Notification of acceptance will be received by October 1, 2018
- Accepted presenters will receive complimentary registration for AMCCBS, one-night lodging, and travel reimbursement
- ACCC will only reimburse one presenter per submission. Additional presenters must pay their own expenses

QUESTIONS? Please contact Monique J. Marino, ACCC Senior Manager, Publications and Content, at mmarino@acc-cancer.org.

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Association of Community Cancer Centers

ONCOLOGY ISSUES

The Official Journal of the
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Jennie R. Crews, MD, MMM, FACP

Executive Director

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FROM THE EDITOR

Information Overload?

BY JENNIE R. CREWS, MD, MMM, FACP



We in the health-care

field are living in the era of information explosion. (Fun fact: the number of articles published to PubMed in the past year was 1,278,412!)

This information overload is even more evident in the field of oncology, which requires rapid dissemination of research results and the need to incorporate new treatments and technologies into our care repertoire as quickly as possible to ensure that our patients have access to cutting-edge treatments. With this rapidly increasing deluge of information, we are challenged to keep ourselves and our patients from drowning in data. The promise of computer learning to help manage big data is on the horizon, but for today, we must rely on other strategies and tactics to educate ourselves and our patients. Thankfully, solutions exist to help:

- Easy access to online resources offer “just in time” learning. ACCC has a host of online resources, including its Financial Advocacy Boot Camp, a dynamic online curriculum to address the growing issue of financial toxicity (acc-cancer.org/FANBootCamp), and Immuno-Oncology Fundamentals eLearning Modules, an online, on-demand program to improve your knowledge of the ongoing developments in cancer immunotherapies with effective practice solutions (acc-cancer.org/IOFundamentals).
- Evidence-based guidelines and clinical pathways are available to help us standardize cancer treatment.
- Widespread adoption of personal technology devices and portals puts information at patients’ fingertips and provides a convenient platform for patients to share information about their condition to us. These and other forms of telehealth allow providers to communicate with each other and with patients over vast distances and outside of standard office hours.
- Finally, more traditional forms of education such as live CME, in-services, and

face-to-face patient education remain important tools in the arsenal of a busy cancer care provider.

At the Seattle Cancer Care Alliance, we use both traditional and nontraditional strategies to deliver education to oncology providers and patients. The Alliance sponsors large seminars that attract professionals from across the nation. We also reach out to community cancer programs through our Affiliate Network to provide shadowing opportunities, provider CME, and online webinars for nursing CE.

The Seattle Cancer Care Alliance has also developed its own clinical pathways and is innovating to bring patients Caresi, a smartphone app and web-based tool that allows patients to receive information, record symptoms, and communicate with their healthcare team.

In this edition of *Oncology Issues*, you can read how two cancer programs creatively tackled the information explosion to the benefit of providers and patients alike. In “An Inpatient and Outpatient Nursing Collaborative Improves the Patient Experience,” Christine Shike tells the story of how concerns about patient education, patient hand-off, and the discharge process brought nurses together to standardize patient information and education and improve the knowledge and skills of nursing staff. In a second article, “Tailoring Education for the Oncology Patient,” Kristin Shea Donahue and Anne Marie Fraley Rainey share how feedback from patients and families at their cancer program was key to improving and growing patient education across multiple platforms and using a variety of evidence-based education methods.

Though information overload is a reality for all of us in the oncology community, we can choose to be a part of the solution. If your cancer program or practice has developed an innovative, effective way to manage data, train staff, and educate patients, share your successes—and the challenges behind those successes—by writing an article for *Oncology Issues*, presenting at the 2019 ACCC National Meeting and Cancer Center Business Summit, or posting to ACCC’s online discussion forum, ACCCExchange. Together we can work to turn our information overload into an information smorgasbord.

Small Things Create Big Change

BY TOM GALLO



In May 2018 the National Academy of Medicine's Action Collaborative on Clinician Well-Being and Resilience hosted its second public meeting focused on "Establishing Clinician Well-Being

as a National Priority" in Washington, D.C. The packed agenda for this one-day meeting included discussions on the effects of loneliness on clinician well-being, strategies to enhance human connection and a sense of community in the workplace, the healing power of art, and updates from the collaborative's working groups. Key takeaways from this multidisciplinary meeting included:

- **The problem isn't how many people we're interacting with but the depth of the interactions.** In this e-everything era, improving the quality of our interactions is imperative, said Vivek Murthy, MD, MBA, 19th Surgeon General of the United States. He shared a simple step he introduced to staff meetings when he served as Surgeon General—ask one person at each week's meeting to share for five minutes a picture or an interest outside of work. As health-care leaders, Dr. Murthy said that it is our directive to **create short, simple opportunities to get to know each other.**
- **We must make vulnerability and imperfection okay.** Another gem from Dr. Murthy, who said that this sea change to medicine's culture of perfection can only come with institutional buy-in. Before this can happen, Margaret King, Professor of Organizational Behavior at Yale School of Management, said that the medical field must first **rethink tenure, promotion tracks, RVUs, and other performance measures.** Instead of rewarding clinicians for the number of patients they see in a day, she went on, **develop a way to reward clinicians for the quality of their patient interactions.**
- **Care becomes depersonalized in an environment where clinicians are interacting more with keyboards than their patients.** This key message came

during a panel of the Action Collaborative's five Working Groups. The panel went on to brainstorm solutions to this challenge, such as **streamlining E&M requirements so that clinicians only do what is important and are not spending professional time on low-value activities.** The Working Group panel agreed that the culture of perfection can sometimes be toxic in healthcare and stressed the importance of **challenging norms, cultivating compassion, and enhancing empathy.**

- In a panel on creating a diverse and inclusive environment, April Bigelow, PhD, ANP-BC, AGPCNP-BC, Clinical Associate Professor at the University of Michigan, shared these pithy—but powerful—takeaways: **small things create big change** and **culture eats strategy for breakfast.** (Later, during a session on redesigning workflow to improve clinician well-being, one panelist added to this takeaway, saying **infrastructure eats strategy for dinner.**)

Session recordings are available on the Collaborative website:

nam.edu/initiatives/clinician-resilience-and-well-being, where you can also read ACCC's commitment statement to this National Academy of Medicine initiative.

These takeaways helped inform our work at the June 27 ACCC Institute for the Future of Oncology where thought leaders, experts, and ACCC members came together to look at the issue of multidisciplinary team well-being and resiliency with an oncology-specific lens. We will share with you key takeaways, tools, and resources developed as a result of the 2018 ACCC Institute's discussion.

As I wrap up this column, I want to echo Bigelow's comments: Small things *do* create big change. To get you started, turn to the special "Fast Facts" on pages 4–7 in this issue. Though the topic of clinician well-being and resiliency is complex and multifactorial, I urge you to use this four-page infographic to jumpstart conversations at your cancer program or practice. Working together and leveraging the combined expertise of the ACCC membership, it is my hope that we can bring about change that is too big to be consumed by either culture or infrastructure. 📺

Coming in Your 2018 ONCOLOGY ISSUES

- ▶ Improving Cancer Screening and Treatment Through a Focused Prostate Evaluation Program
- ▶ Development and Implementation of a Supportive Oncodermatology Clinic
- ▶ A Comprehensive, Lifelong Management Program for Hereditary and Other High-Risk Patients
- ▶ Wheels Up: Bringing Lung Cancer Education and Screening to Rural Patients
- ▶ Removing Barriers in Cancer Detection: Getting LDCT Lung Cancer Screening to Work Within a Network
- ▶ Development and Implementation of an HIV Oncology Program
- ▶ Improving the Care of Pediatric Radiation Oncology Patients
- ▶ Community-Based Psychological First Aid
- ▶ Safe Essential Oil Practice in Cancer Centers
- ▶ Tools to Improve Fertility Preservation Discussions for Adolescent and Young Adult Male Oncology Patients
- ▶ Enhancing Radiation Therapy Patient's QOL Through Fatigue-Centered Psychoeducation
- ▶ A Model Colon Cancer Awareness Screening Event
- ▶ The SCOOP Program: Introducing Supportive Care and Enhanced Navigation into the Curative Treatment of Cancer

Sessions at the ACCC 35th National Oncology Conference, Oct. 17-19, 2018 Phoenix, Arizona

Creating a Resilient, Results-Driven Oncology Team

Vicki Hess, author and Principal, Employee Engagement Solutions, LLC

Learn how to become a “Chief Paradise Officer” at your cancer program or oncology practice by taking five steps to improve your resiliency, energy, and results. Author of four books, including *SHIFT to Professional Paradise*, Vicki will inspire you to action by sharing high impact, easy to implement ideas that transform the way you work. As a cancer survivor she also brings the patient perspective into her programs and presentations.

From Ideas to Innovation

Dale Dauten, author and syndicated newspaper columnist

Become a skilled experimenter as part of creating a culture of innovation at your cancer program or practice. Key principles covered in this interactive and engaging session include:

- Ideas are the easy part. The harder part is learning how to create an engine of creativity.
- Start in the middle. In the journey from ideas to innovation, experiments are the driver of progress. Starting in the middle is the art of turning thoughts into things by creating clever testing opportunities.
- People hate to change, but love to experiment. To sell the idea of making a change, you must get consensus that the idea is certain to work. To sell an experiment, you merely need to convince someone that it might work.

Culture as a Strategic Imperative

Julie Kennedy Oehlert, DNP, RN Chief Experience Officer, Vidant Health

In addition to patient experience, the Quadruple Aim now includes clinician experience and well-being, as well as environmental experience, or what Vidant Health calls the “Big E” of experience. This interactive presentation starts with thinking about culture and how it is defined. For many, disrupting current culture may be the first step on your “Big E” journey. Explore how to un-silo patient experience and team engagement and create a culture where everyone’s experience matters. Learn innovations in data analytics. Hear how strategic planning, goal setting, leadership development, and human resource practices can help you achieve successful outcomes in team engagement and patient experience. Return to your program or practice with a strategic framework and holistic, inclusive interventions that focus on partnership.

Register today at acc-cancer.org/oncologyconference.

fast facts

Key Findings from the National Physician Burnout & Depression Report



- **42%** of U.S. physicians report feeling burned out, depressed (**15%**), or both (**14%**).
- **33%** said burnout makes them “easily exasperated with patients.”
- **32%** said it makes them “engage less with patients.”
- Top contributors to burnout: too many bureaucratic tasks (**56%**) and too many hours spent at work (**39%**).
- About **1/3** suggested more money and a more manageable work schedule to help reduce stress.
- More female physicians reported burnout (**48%**) than their male counterparts (**38%**).

Source. 2018 Medscape National Physician Burnout & Depression Report. medscape.com.

3 Signs of Clinician Burnout

- Depersonalization
- Exhaustion
- Reduced personal accomplishment

Source. ASCO Connection. An Introduction to Recognizing and Managing Professional Burnout. connection.asco.org/tec/lifestyle/introduction-recognizing-and-managing-professional-burnout.



BUILDING A RESILIENT ONCOLOGY TEAM: ISSUES

Alarming Statistics from the National Academy of Medicine

- **400** physicians die by suicide each year, a rate more than **2** times that of the general population.
- Physician rates of depression remain high at **39%**.
- **24%** of ICU nurses tested positive for symptoms of post-traumatic stress disorder.
- Prevalence of emotional exhaustion among primary care nurses is **23** to **31%**.

Source: National Academy of Medicine. Action Collaborative on Clinician Well-Being and Resilience. nam.edu/ClinicianWellBeing



Paperwork—and Hours Spent on EHRs—Continue to Pile Up

- **38%** of surveyed physicians report spending **10** to **19** hours weekly on paperwork and administration.
- **32%** report they spend more than **20** hours a week on these tasks.
- Physicians identified the most challenging aspect of their job as “having too many rules and regulations” (**27%**).
- Other challenges include “having to work with an EHR” (**13%**) and “difficulties getting fair reimbursement” (**12%**).

Source: Medscape 2018 Physician Compensation Report. medscape.com/2018-compensation.


What’s Keeping Our Leaders Up at Night?


- Concerns about building a culture of accountability and transparency (**60%**).
- Navigating the transformation from volume to value. **40%** said reducing costs is a major challenge and **70%** reported just beginning or having moderate experience with adopting new payment models and reducing costs.
- Managing data collection and reporting (**60%**).
- Inspiring change among people who are increasingly burned out.


Source: Lorch T. What’s Keeping Quality Leaders Up at Night? ihi.org/communities/blogs/what-s-keeping-quality-leaders-up-at-night-





more online Resources

 **Clinician Well-Being Knowledge Hub**
NETWORK | The National Academy of Medicine's Action Collaborative on Clinician Well-Being and Resilience, a network of more than 60 organizations committed to reversing trends in clinician burnout, has developed a robust online repository of tools and resources to improve baseline understanding of challenges to clinician well-being; raise the visibility of clinician stress and burnout; and elevate evidence-based, multidisciplinary solutions that will improve patient care by caring for the caregiver. nam.edu/clinicianwellbeing.

 **IHI Framework for Improving Joy in Work**
INFO | With burnout and staff turnover in healthcare continuing to rise at alarming rates, this white paper describes four steps leaders can take to improve joy in work; a framework with nine critical components for ensuring a joyful, engaged workforce; key change ideas; and measurement and assessment tools. ihi.org/resources/Pages/IHIWhitePapers/Framework-Improving-Joy-in-Work.aspx.

 **AACN Standards for Establishing and Sustaining Healthy Work Environments: A Journey to Excellence**
STANDARDS | In response to mounting evidence that unhealthy work environments contribute to medical errors, ineffective delivery of care, and conflict and stress among healthcare professionals, these standards identify and help address systemic behaviors that can result in unsafe conditions and obstruct the ability of individuals and organizations to achieve excellence. aacn.org/wd/hwe/docs/hwestandards.pdf.

 **Self-Healing Through Reflection: A Workbook for Nurses**
WORKBOOK | Nurses put themselves in the front lines of healthcare, acting as a bridge between the patient and the rest of the healthcare team. As a result, stress becomes a part of their daily lives. This workbook offers information, exercises, and tools for self-reflection to better help nurses cope with the stressors that invade their personal and professional lives, so they can provide themselves with the same level of care as they do their patients. ons.org/store/books/self-healing-through-reflection-workbook-nurses.

 **Stanford Medicine WellMD Center**
RESOURCES | Resources include monthly newsletters; curated, peer-reviewed publications based on research done at Stanford and from members and partners of the Physician Wellness Committee and the WellMD Center; and strategies to help clinicians maintain well-being through exercise, mindfulness, and creating a work life balance, and more.

fast facts



4 Steps to Help You Move from Burnout to Joy

- 1. Know what works.** What matters to you? What brings job satisfaction? What creates pride in the organization? What does it look like when we're at our best?
- 2. Identify issues.** What specific things get in the way of attaining what matters most to staff? What wears down the energy and morale of staff? What are the pebbles in their shoes?
- 3. Demonstrate that joy in work is a shared responsibility.** Leaders cannot hand over primary responsibility for joy in work to their HR department and expect staff to believe it's an organizational priority.
- 4. Make improvements.** Design changes to test and then assess whether these changes are leading to improvement. Co-designing these tests with staff from the start can increase their engagement in meaningful improvement.

Source: Feeley D. Joy in Work: More Than the Absence of Burnout. ihi.org/communities/blogs/joy-in-work-more-than-the-absence-of-burnout.

6 Essential Standards for a Healthy Work Environment

1. Skilled communication
2. True collaboration
3. Effective decision making
4. Appropriate staffing
5. Meaningful recognition
6. Authentic leadership



Source: AACN Standards for Establishing and Sustaining Healthy Work Environments. aacn.org/wd/hwe/docs/hwestandards.pdf.

BUILDING A RESILIENT ONCOLOGY TEAM: SOLUTIONS

Mindfulness Tips

- **Don't rush to answer the phone.** First ring, take a breath. Second ring, decide to listen fully to whomever is calling. On the third, answer it.
- **Feeling stressed? Try a smile—even if it's forced at first.** Studies show the act of smiling affects our brains and will bring more happiness.
- **Eat one meal alone where you focus only on your food.** No distractions. Fully tune into the tastes and flavors.
- **When walking, feel your feet on the ground.** Stop, take a breath, and notice your surroundings. Be exactly where you are.
- **When you are with a colleague be fully present and listen.** Don't interrupt. Let them talk without needing to fix or solve anything. Give them your full attention.
- **Sit quietly and notice your breathing.** Feel the breath move in and out of your abdomen, chest, or nose. Don't try to control it. When your mind starts to wander, bring your attention back to your breath.

Source. Be Mindful: 'Tis the Season to Be Mellow. UCLA Magazine. magazine.ucla.edu/exclusives/tis-the-season-to-be-mellow.



9 Organizational Strategies to Promote Clinician Well-Being

1. Acknowledge and assess the problem
2. Harness the power of leadership
3. Develop and implement targeted interventions
4. Cultivate community at work
5. Use rewards and incentives wisely
6. Align values and strengthen culture
7. Promote flexibility and work-life integration
8. Provide resources to promote resilience and self-care
9. Facilitate and fund organizational science



Experiencing Burnout? There's an App for That

- **Virtual Hope Box** (t2health.dcoe.mil/apps/virtual-hope-box) helps with emotional regulation and general coping during times of stress. Choose your coping skill: distraction, inspiration, or relaxation. Create customized coping skills reminder cards.
- **Breathe 2 Relax** (t2health.dcoe.mil/apps/breathe2relax) offers breathing exercises to help calm anxiety and stress. Select your preferred background music and visual scene.
- **MoodTracker** (t2health.dcoe.mil/apps/t2-mood-tracker) helps track stress, anxiety, depression, or general well-being. Share this information with your doctor or therapist to help identify patterns and triggers.
- **Study** (itunes.apple.com/gb/app/study/id528999600?mt=8) has comforting, soothing sounds of nature and bird songs to promote body relaxation while helping your mind stay alert, improving cognition and productivity.
- **Provider Resilience** (t2health.dcoe.mil/apps/provider-resilience) helps track burnout and compassion fatigue with tools, information, videos, and inspirational cards. Identify activities that can help or hurt your ability to manage burnout and compassion fatigue. A vacation clock shows how long since you last took time off. Track all the app's different factors to get an overall resilience rating you can monitor.

Source. Sugeno S. 7 Great Apps for Stress, Burnout, and Trauma. amysugenocounseling.com/7-great-apps-for-stress-burnout-and-trauma-one-for-parents-too.



ISSUES

Back to CAP?

BY LEAH RALPH



In May, President Trump announced the administration's plan to tackle rising drug costs through a four-pronged policy approach outlined in *American Patients First: The Trump Administration Blueprint to Lower Drug Prices and Reduce Out-of-Pocket Costs*. Despite the blueprint's lack of policy detail, two specific proposals appear to be bubbling to the top of the White House's agenda. Both could mean big changes to the acquisition and delivery of Part B drugs: Department of Health and Human Services Secretary Alex Azar has expressed strong interest in revitalizing Medicare's Competitive Acquisition Program (CAP) and introducing negotiation into Part B drug pricing.

CAP Recap

Created by the 2003 Medicare Modernization Act, CAP is a voluntary program that was active from 2006 through 2008 and intended as an alternative to the buy-and-bill system that providers currently employ to acquire Part B drugs. CAP allowed Medicare to select third-party drug vendors through a competitive bidding process. Physician practices that chose to participate in CAP would then acquire needed Part B drugs through those vendors. After the drug was administered, the physician would submit a claim for the drug administration but not for the drug itself. Thus, CAP participation would remove the need for physician practices to purchase and bill for drugs. Due to unforeseen challenges with the program, CMS shuttered the program in 2008, postponing further implementation

but leaving the door open for reinstatement "at a later date."

Bring the CAP Back?

In reviving CAP, the goal remains the same: to move away from the current buy-and-bill framework and, according to the administration, alleviate the financial risk that providers take in purchasing drugs. Underpinning this resuscitation of CAP is the belief that the program will also stimulate opportunities for federal savings to the extent that the vendor-bid prices may be less than 106 percent of average sales price, the current reimbursement rate for Part B drugs.


Though some providers may welcome an opportunity to get out of the business of drug acquisition, many point out that the current 6 percent margin helps keep offices running, covering nonreimbursed overhead costs like drug storage, administrative processes like collecting cost-sharing from patients, and hiring nurse navigators to monitor complex patients. None of these activities are reimbursed under the current system and all are services that will still need to be provided under a CAP-like distribution model. Further, many providers note that rather than streamlining the drug distribution channel, CAP will likely create *additional* administrative hurdles. Many practices have said that they would have to hire additional staff to manage drug intake and navigate the new CAP process.

In addition to these financial concerns, the 2006 version of CAP faced other significant challenges, including delays

getting the drug to the patient, low provider and vendor enrollment (only one vendor contracted with Medicare, undermining the concept of competition in "competitive acquisition program"), and, as CMS noted in a postmortem report, while the program was active, CAP actually resulted in increasing the government's drug costs by 3 percent.

For any new iteration of the Competitive Acquisition Program to work, the Department of Health and Human Services will have to make significant changes, and the agency is seeking guidance from provider, patient, and pharmaceutical groups in the coming months.

Infusing Negotiation into Part B Drug Pricing

In addition to a modernized version of CAP, the administration is expressing strong interest in moving certain drugs from the Part B benefit into Part D, thereby introducing negotiation for these drugs. Operationally, the Part B and D Medicare benefits are vastly different. Notably, Part D, also known as the Medicare prescription drug benefit, is a voluntary option for Medicare beneficiaries that helps them to obtain self-administered drugs through a premium-based drug insurance plan. Unlike Part B, Medicare Part D does not allow for supplemental coverage. Additionally, early analysis shows that patient out-of-pocket costs would be higher under Part D, and it's unclear that moving drugs from the Part B to Part D benefit would save the government money. 

Leah Ralph is ACCC Director of Health Policy.

compliance

Coding Complementary and Alternative Medicine

BY CINDY PARMAN, CPC, CPC-H, RCC

Cancer patients are typically treated with approaches ranging from surgery and radiotherapy to chemotherapy or immunotherapy. However, millions of patients every year seek additional options from a menu of complementary and alternative medicine (CAM).¹ According to a January 2018 article in *JAMA Oncology*,¹ patients may feel that conventional healthcare too often leaves physicians with little time and attention to commit to all of the areas in which patients require support. In contrast, practitioners specializing in complementary and alternative medicine schedule dedicated intervals focused on the patient's priorities.

People have used complementary and alternative medicine for thousands of years in pursuit of health and well-being.² However, because rigorous clinical trials for CAM therapies have not been completed, the safety and effectiveness of these treatments remain uncertain. For example, there is limited information relating to the correct dose and toxicity of some natural remedies or to interactions of natural products with prescription medications.

The National Center for Complementary and Integrative Health, a division of the National Institutes of Health, is the federal government's leading agency for scientific research on the diverse medical and healthcare systems, practices, and products that are not generally considered part of conventional medicine. According to the National Cancer Institute (NCI), complementary and alternative medicine is the term for medical products and practices that are not

part of standard medical care.³ The NCI provides the following additional definitions:

- **Standard medical care** is medicine that is practiced by licensed and/or registered health professionals. Some standard medical care practitioners are also practitioners of CAM.
- **Alternative medicine** is treatment used instead of standard medical treatment.
- **Complementary medicine** includes treatments that are used along with standard medical treatments but are not considered to be standard of practice.
- **Integrative medicine** is a total approach to medical care that combines standard medicine with CAM practices that are demonstrated to be safe and effective. This approach treats the patient's mind, body, and spirit.

The Office of Cancer Complementary and Alternative Medicine is a division of the NCI in the Division of Cancer Treatment and Diagnosis. This office is responsible for NCI's research agenda in complementary and alternative medicine as it relates to cancer prevention, diagnosis, treatment, and symptom management.⁴ There are several different types of CAM that include but may not be limited to the following:

1. **Biologically based practices.** Substances that are found in nature and used for diet or nutrition. Examples include herbal products, vitamins, creams, ointments, Di Bella cancer therapy, bioidentical compounded hormone therapy, Greek cancer cure, Kelly's nutritional–metabolic

therapy, Livingston-Wheeler therapy, Reiki cancer treatment, and dietary supplements.

2. **Energy medicine.** Techniques that involve the use of energy fields. Examples include Reiki, shiatsu, therapeutic touch, moxibustion, pulsed fields, magnetic fields, electromagnetic, and/or alternating current or direct current fields.
3. **Manipulative and body-based practices.** Manual techniques that are used to manipulate or move one or more parts of the body. Examples include various massage techniques, exercise programs, oriental massage, Swedish massage, acupuncture, acupressure, Pilates, myotherapy, craniosacral therapy, neural therapy, hippotherapy, yoga, and/or reflexology.
4. **Mind–body medicine.** Techniques designed to enhance the mind's capacity to affect bodily function and symptoms. Examples include biofeedback, hypnotherapy, meditation, relaxation therapy, prayer, mental healing, Gerson therapy, spiritual healing, aromatherapy, light and color therapy, and/or therapies that use creative outlets such as art, music, or dance.
5. **Whole medicine systems.** Medicine based on theory and practice. Examples include homeopathy, naturopathy, balneotherapy, and traditional Indian medicine such as Ayurveda.

Many of these treatments are profiled in *The Journal of Alternative and Complementary Medicine*, a peer-reviewed journal providing scientific research for the evaluation and

integration of complementary and alternative medicine into mainstream medical practice. Journal coverage includes botanical medicine, acupuncture and traditional Chinese medicine, mind–body medicine, nutrition and dietary supplements, integrative health, yoga, Ayurveda, naturopathy, homeopathy, tai chi, qi gong, massage therapy, energy medicine, neurostimulation, integrative biophysics, and comparative effectiveness.

Insurance Coverage

According to the American Cancer Society, insurance companies will generally not cover treatments that have not been proven to be helpful for the illness or symptoms experienced by the patient.⁵ As with many other services, it will probably be necessary to review the individual insurer’s policy. For example, HealthNet states, “The Plan considers complementary and alternative medicine to NOT be medically necessary, except as specified in the member’s benefit document.”⁶ The Aetna policy provides the following coverage information⁷:

Aetna considers alternative medicine interventions medically necessary if they are supported by adequate evidence of safety and effectiveness in the peer-reviewed published medical literature.

According to its Complementary and Alternative Medicine policy, Aetna considers acupuncture, biofeedback, electrical stimulation, and chiropractic services to be

“medically necessary for properly selected members, subject to applicable benefit plan limitations and exclusions.” In addition, this policy lists over two pages of alternative medicine interventions that are considered experimental and/or investigational. This payer notes that the efficacy of alternative medicine therapies is generally unproven, with some shown to be ineffective or even harmful.

United Healthcare publishes a Coverage Summary, which states, “Complementary and alternative medicine is not a covered benefit,” although some members may be eligible for acupuncture reimbursement.⁸

BlueCross BlueShield of Tennessee has also published CAM policy that states that these alternative and complementary treatments are considered to be investigational.⁹ Due primarily to the lack of insurance coverage, Americans spend approximately \$33 billion dollars annually out of pocket for CAM treatments and products.


Cancer programs generally utilize CPT® procedure coding, International Classification of Diseases, Tenth Revision, Clinical Modification diagnosis coding, and Healthcare Common Procedure Coding System Level II service and supply codes for charge capture and billing purposes (see Table 1, page 11 and Table 2, page 12). Due to the limited availability of codes for CAM, some services performed can be internally tracked but do not have nationally recognized billing codes.

In addition to the code sets recognized for insurance billing, there are ABC Codes that describe healthcare interventions not included in other code sets (Table 3, page 12). These codes were developed by Alternative Link Incorporated in 1996, and in 2003 the Secretary of the U.S. Department of Health and Human Services approved a two-year program of commercial use and evaluation. In September 2006 the U.S. Department of Health and Human Services denied further use of ABC codes because they were not named a standard, designated code

set under the Health Insurance Portability and Accountability Act.

ABC codes fill in the missing gaps found in traditional code sets and can be used in practice management, medical record keeping, and other administrative activities.¹⁰ It is important to recognize that though these codes may not contribute to reimbursement, they are valuable for tracking time and work effort, generating reports for individual staff member productivity and overall management of patient and work flow.

There are nearly 4,200 ABC codes that describe approximately 1.4 billion episodes of alternative medicine, including herbal medicine, massage therapy, naturopathy, chiropractic, Ayurvedic medicine, homeopathy, nursing care, and midwifery.¹¹ Each ABC code consists of a string of five alphabetic characters organized in a hierarchical structure that groups similar products, remedies, treatments, and supplies together. This five-character code is followed by a two-character code that identifies the type of practitioner who performed the service defined by the procedure code. For example, the two-character code would identify practitioners such as acupuncturists, naturopaths, reflexologists, and other individuals who deliver complementary and alternative medicine.

It is unlikely that all complementary and alternative medicine practices will have an equal impact on cancer care. According to the NCI, cancer patients who are using or considering using complementary or alternative therapy should talk to their healthcare professional. It is generally helpful if the attending physician writes a prescription for the alternative or complementary therapy; then, if there is no insurance coverage, the patient may be able to use medical savings plan dollars for the procedure or treatment. In addition, some healthcare plans require preauthorization to ensure that the patient’s diagnosis meets requirements when coverage is available. 

Cindy Parman, CPC, CPC-H, RCC, is a principal at Coding Strategies, Inc., in Powder Springs, Ga.



Table 1. CPT Procedure Codes for Complementary Medical Procedures

CODE	DESCRIPTOR
90875	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (e.g., insight oriented, behavior modifying or supporting psychotherapy); 30 minutes
90876	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (e.g., insight oriented, behavior modifying or supporting psychotherapy); 45 minutes
90880	Hypnotherapy
90901	Biofeedback training by any modality
96900	Actinotherapy (ultraviolet light)
96902	Microscopic examination of hairs plucked or clipped by the examiner (excluding hair collected by the patient) to determine telogen and anagen counts or structural hair shaft abnormality
97014	Application of a modality to one or more areas; electrical stimulation (unattended)
97124	Therapeutic procedure, one or more areas, each 15 minutes: massage, including effleurage, petrissage, and/or tapotement (stroking, compression, percussion)
97140	Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), one or more regions, each 15 minutes
97810	Acupuncture, one or more needles; without electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97811	Acupuncture, one or more needles; without electrical stimulation, each additional 15 minutes of personal one-on-one contact with patient, with reinsertion of needle(s)
97813	Acupuncture, one or more needles; with electrical stimulation, initial 15 minutes of personal one-on-one contact with the patient
97814	Acupuncture, one or more needles; with electrical stimulation, each additional 15 minutes of personal one-on-one contact with the patient, with reinsertion of needle(s)
98940	Chiropractic manipulative treatment; spinal, one to two regions
98941	Chiropractic manipulative treatment; spinal, three to four regions
98942	Chiropractic manipulative treatment; spinal, five regions
98943	Chiropractic manipulative treatment; extraspinal, one or more regions

Table 2. Healthcare Common Procedure Coding System Level II Codes to Report and/or Track CAM Services Performed

CODE	DESCRIPTOR
G0176	Activity therapy such as music, dance, art, or play therapies not for recreation, relate to care and treatment of patient's disabling mental health problems, per session (45 minutes or more)
G0283	Electrical stimulation (unattended), to one or more areas for indication(s) other than wound care, as part of a therapy plan of care
M0075	Cellular therapy (the practice of injecting humans with foreign proteins)
P2031	Hair analysis (excluding arsenic)
S8930	Electrical stimulation of auricular acupuncture points; each 15 minutes of personal one-on-one contact with patient
S8940	Equestrian/hippotherapy, per session
S9449	Weight management classes, nonphysician provider, per session
S9451	Exercise classes, nonphysician provider, per session
S9454	Stress management classes, nonphysician provider, per session
T2036	Therapeutic camping, overnight, waiver; each session
T2037	Therapeutic camping, day, waiver; each session

Table 3. Example of ABC Codes That Add Information to an Existing Procedure Code Descriptor

MEDICAL CODE	DESCRIPTION	ABC CODE	DESCRIPTION
97124	Therapeutic massage	CBBBC	Zero balancing™, 30 minutes
97124	Therapeutic massage	CBEAB	Craniosacral therapy, 15 minutes
97124	Therapeutic massage	CBEAC	Connective tissue massage, 15 minutes

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spotlight

Community Cancer Center Roseburg, Oregon



With a population of 107,000, Douglas County, Oregon, is a rural area with high poverty and a high obesity rate. The county also has a high rate of tobacco use and lung cancer incidence; about 20 percent of adults in the county smoke, and 10 percent use smokeless tobacco, doubling and tripling the national rates, respectively. With a quarter of the population aged 65 or over, Douglas County has the third worst health outcomes in Oregon.

Nearly 40 years ago, a prominent community member in Roseburg, located in Douglas County, was diagnosed with cancer and had no option but to drive over an hour north to Eugene for radiation therapy. This firsthand experience with the burden of travel to receive cancer care raised the business community's awareness of the need to establish radiation services in Douglas County close to home. This prompted the creation of the Community Cancer Foundation and, through a capital campaign, funds were raised for a

10,000-square-foot building equipped with radiation oncology services called the Community Cancer Center.

By 2009 the program had outgrown its space and wanted to co-locate other supportive and medical services. The community came through again, raising more \$2.5 million for a new 44,000-square-foot building.

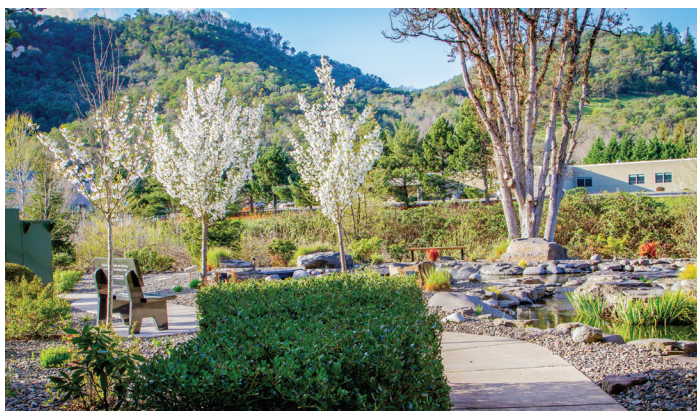
An Independent Nonprofit

Located on the grounds of Mercy Medical Center, the independent Community Cancer Center is a registered nonprofit that owns the three-story building. On the first floor, radiation oncology services are provided through a medical services agreement with Roseburg Radiation Oncology, a practice that employs three radiation oncologists. The cancer center's staff of 24, including two medical physicists, two medical dosimetrists, and five radiation therapists, works with Roseburg Radiation Oncology to operate the radiation equipment.

The second floor houses two outside nonprofit organizations, Camp Millennium and Douglas County Cancer Services, which are staffed almost entirely by volunteers and provide cancer patients with access and referrals to supportive services free of charge. The second floor also houses a Mercy Medical laboratory, which provides easier use for patients requiring laboratory services.

The third floor of the building is leased to Steelhead Oncology, a medical oncology practice that provides chemotherapy and hematology services. All programs come together to provide co-located comprehensive cancer services to patients, according to Tammy Turner, BBA, RT(R)(T), Community Cancer Center executive director. The programs work collaboratively to care for patients, and nearly all referrals to the cancer center come from their immediate community.

Community Cancer Center has a 50-year ground lease with Mercy Medical Center. As Turner explains, "Mercy Medical owns the



land, we own the building.” The two entities have a no-compete clause, meaning that Mercy Medical does not offer any oncology services.

Advanced Radiation Services

In the face of its geographic and demographic challenges, the Community Cancer Center is able to deliver quality care while also servicing a high volume of patients. The cancer center sees between 30 and 40 patients a day on their treatment machines, with the top treatment sites being breast, prostate, and lung. Community Cancer Center has two linear accelerators, and to bolster the success of its oncology services, the cancer center includes nutrition services from a registered dietitian for every patient on treatment.

“Time is of the essence when you’re treating patients on the table with radiation therapy,” says Turner. For Community Cancer Center, time played a huge factor in its decision to purchase a TrueBeam linear accelerator in 2015, which reduced treatment times from between 10 and 30 minutes to less than 5 minutes. The machine allowed the center to incorporate stereotactic body radiation therapy through RapidArc, which has grown their stereotactic body radiation therapy services by 50 percent in the last year. As treatment continues to advance, Community Cancer Center has kept up with the demands for greater expertise by adding an additional medical physicist to their staff.

The cancer center’s accelerated partial breast irradiation program has been highly successful as well, reducing a month-long treatment to just five days. Collaborating with local surgeons, Community Cancer

Center can target treatment of early stage breast cancer patients while minimizing damage to healthy tissue. The cancer center was named a Center of Excellence in accelerated partial breast irradiation for its efforts.

Says Turner, “Being a nonprofit and such a small organization and being able to provide this advanced technology in our community is a huge success.”

Community Support and Outreach


Community Cancer Center has a robust outreach and supportive services program that complements its oncology services. Managed by Angelia Freeman, BSBA, these programs recruit community volunteers who share the same passion for quality cancer care and healthy lifestyle changes.

To educate Douglas County on the dangers of smoking and to curb its high lung cancer rates, the cancer center’s Nicotine Awareness and Tobacco Education (N.A.T.E.) program goes to local schools and engages with students aged between 11 and 14 to discuss the risks of nicotine and how tobacco products are marketed to target youth. Some of those students then participate in the N.A.T.E. Jr. program, visiting fellow children aged 6 to 10 in a peer-to-peer coaching environment and sharing the N.A.T.E. message. Though the goal was to reach only 20 children in 2016–2017, the program ended up reaching 614 children in its first year.

Tobacco cessation classes are also offered at Community Cancer Center and are led by volunteers. Twice a year, the cancer center offers the American Cancer Society’s

eight-week-long FreshStart program to smokers looking to quit; the center runs its own cessation classes once a week year-round. Cancer support groups are offered four times per month and encompass all cancer types. Sessions are designed as an interactive experience to bolster self-advocacy skills and are divided into three segments: testimonial, education and advocacy, and survivorship skills.

Community Cancer Center has a volunteer-led transportation program for patients who do not have the ability to travel to and from radiation appointments. The cancer center is also a participant in the newly launched Step It Up! Survivors program, an evidence-based exercise program made possible by a grant from the Knight Cancer Institute. Community Cancer Center has established eight walking sites throughout Douglas County for the free program, which seeks to fight obesity, foster social support for patients, and get the community involved.

As a cancer center founded by community, it’s fitting that community remains a central focus of its operations. 

Select Support Services

- Smoking cessation classes
- Look Good, Feel Better
- Support groups
- Nutrition services

Number of new analytic cases seen in 2017: 430



tools



Approved Drugs

- Helsinn (helsinn.com) announced that the U.S. Food and Drug Administration (FDA) has approved the intravenous formulation of **Akynzeo® (netupitant/palonosetron)** for patients experiencing chemotherapy-induced nausea and vomiting. The FDA has approved Akynzeo IV in combination with dexamethasone in adults for the prevention of acute and delayed nausea and vomiting associated with initial and repeat courses of highly emetogenic cancer chemotherapy.
- Eli Lilly and Company (lilly.com) announced that the FDA has granted approval for a new indication for **Alimta® (pemetrexed for injection) in combination with carboplatin and Keytruda® (pembrolizumab)** for the initial treatment of patients with metastatic nonsquamous non-small cell lung cancer (NSCLC), irrespective of PD-L1 expression status.
- The FDA has approved Janssen Pharmaceutical Companies of Johnson & Johnson's (janssen.com) **Darzalex® (daratumumab) in combination with Velcade® (bortezomib), melphalan, and prednisone (VMP)** for the treatment of patients with newly diagnosed multiple myeloma who are ineligible for autologous stem cell transplant.
- Mylan N.V. (mylan.com) and Biocon Ltd. (biocon.com) announced that the FDA has approved **Fulphila™ (pegfilgrastim-jmbd)**, a biosimilar to Neulasta® (pegfilgrastim). Fulphila has been approved to reduce the duration of febrile neutropenia in patients treated with chemotherapy in certain types of cancer.
- The FDA has approved Novartis's (novartis.com) **Kymriah® (tisagenlecleucel) suspension for intravenous infusion** for the treatment of adult patients with relapsed or refractory large B-cell lymphoma after two or more lines of systemic therapy including diffuse large B-cell lymphoma (DLBCL), high-grade B-cell lymphoma, and DLBCL arising from follicular lymphoma. Kymriah is not indicated for the treatment of patients with primary central nervous system lymphoma.
- Bristol-Myers Squibb Company (bms.com) announced that the FDA has approved **Opdivo® (nivolumab) 3 mg/kg plus Yervoy® (ipilimumab) 1 mg/kg** (injections for intravenous use) as the first immuno-oncology combination therapy for previously untreated patients with intermediate- and poor-risk advanced renal cell carcinoma.
- The FDA has approved Pfizer, Inc.'s (pfizer.com) **Retacrit® (epoetin alfa-epbx)**, a biosimilar to Epogen® and Procrit® (epoetin alfa), for the treatment of anemia due to chronic kidney disease in patients on dialysis and not on dialysis, use of zidovudine in patients with HIV infection, and the effects of concomitant myelosuppressive chemotherapy. It is also approved for the reduction of allogeneic red blood cell transfusions in patients undergoing elective, noncardiac, nonvascular surgery.
- Clovis Oncology's (clovisoncology.com) **Rubraca® (rucaparib)**, a poly ADP-ribose polymerase inhibitor, has received FDA approval for the maintenance treatment of patients with recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who are in a complete or partial response to platinum-based chemotherapy.
- The FDA has approved **Tafinlar® (dabrafenib) in combination with Mekinist® (trametinib)** (Novartis Pharmaceuticals Corporation, novartis.com) for the treatment of anaplastic thyroid cancer that cannot be removed by surgery or has spread to other parts of the body and has a type of abnormal gene, BRAF V600E (BRAF V600E mutation positive).
- AstraZeneca (astrazeneca.com) announced that the FDA has approved **Tagrisso® (osimertinib)** for the first-line treatment of patients with metastatic NSCLC whose tumors have epidermal growth factor receptor (EGFR) mutations (exon 19 deletions or exon 21 L858R mutations), as detected by an FDA-approved test.
- The FDA has approved **Tavalisse™ (fostamatinib disodium hexahydrate tablets)** (Rigel Pharmaceuticals, Inc., rigel.com) for the treatment of thrombocytopenia in adult patients with chronic immune thrombocytopenia who have had an insufficient response to a previous treatment.
- Sun Pharmaceutical Industries Ltd. (sunpharma.com) and Churchill Pharmaceuticals, LLC (churchillpharma.com) announced that the FDA has approved **Yonsa® (abiraterone acetate)**, a novel formulation in combination with methylprednisolone, for the treatment of patients with metastatic castration-resistant prostate cancer.

This was updated with a correction July 19, 2018.

Drugs in the News

- BioAtla, LLC (bioatla.com) announced that FDA has cleared the investigational new drug application (NDA) for **BA3021 (CAB-ROR2-ADC)** in patients with solid tumors.
- Calithera Biosciences, Inc. (calithera.com) announced that the FDA has granted fast track designation to **CB-839 in combination with cabozantinib** for the treatment of patients with metastatic renal cell carcinoma who have received one or two prior lines of therapy, including at least one vascular endothelial growth factor tyrosine kinase inhibitor or the combination of nivolumab and ipilimumab.
- The FDA has accepted for priority review the biologics license application (BLA) for **cemiplimab (REGN2810)** (Regeneron Pharmaceuticals, Inc., regeneron.com; Sanofi, sanofi.com) for the treatment of patients with metastatic cutaneous squamous cell carcinoma or patients with locally advanced cutaneous squamous cell carcinoma who are not candidates for surgery.
- Amneal Pharmaceuticals, Inc. (amneal.com) has received FDA approval on its abbreviated NDA for **cyclophosphamide for injection USP**, the company's AP-rated therapeutic equivalent to Cytoxan.®
- The FDA has accepted Pfizer Inc.'s (pfizer.com) NDA and granted priority review for **dacomitinib**, a pan-human EGFR tyrosine kinase inhibitor, for the first-line treatment of patients with locally advanced or metastatic NSCLC with EGFR-activating mutations.
- Debiopharm International SA (debiopharm.com) announced that the FDA has granted fast track designation to **Debio 1347**, an FGFR 1-3 inhibitor, for the treatment of patients with unresectable or metastatic tumors with a specific FGFR gene alteration.
- The FDA has granted priority review to the NDA from Verastem Inc. (verastem.com)

for its lead product candidate, **Duvelisib**, a first-in-class oral dual inhibitor of phosphoinositide 3-kinase-delta and phosphoinositide 3-kinase-gamma. Verastem is seeking full approval for this drug for the treatment of relapsed or refractory chronic lymphocytic leukemia/ small lymphocytic lymphoma and accelerated approval for the treatment of relapsed or refractory follicular lymphoma.

- Curis, Inc. (curis.com) announced that the FDA has granted fast track designation for the development of **fimepinostat (formerly CUDC-907)** in adult patients with relapsed or refractory diffuse large B-cell lymphoma after two or more lines of systemic therapy.
- Astellas Pharma, Inc. (astellas.com) announced that the company has submitted an NDA to the FDA for marketing approval of **gilteritinib** for the treatment of adult patients with FLT3 mutation-positive (FLT3mut+) relapsed or refractory acute myeloid leukemia.
- The FDA has accepted for review a supplemental BLA from Merck (merck.com) for **Keytruda® (pembrolizumab)**. The application seeks approval for Keytruda in combination with Alimta® (pemetrexed) and platinum chemotherapy (carboplatin or cisplatin) as a first-line treatment for patients with metastatic NSCLC.
- Loxo Oncology, Inc. (loxooncology.com) announced that FDA has accepted the company's NDA and granted priority review for **larotrectinib** for the treatment of adult and pediatric patients with locally advanced or metastatic solid tumors harboring an NTRK gene fusion.
- The FDA has granted orphan drug designation to Lin BioScience (linbioscience.com) for its targeted therapy **LBS-007** to treat acute lymphoblastic leukemia.
- Karyopharm Therapeutics Inc. (karyopharm.com) announced that the FDA has granted fast track designation to the company's oral selective inhibitor of


nuclear export compound **selinexor** for the treatment of patients with multiple myeloma who have received at least three prior lines of therapy.

- The FDA has granted priority review to a supplemental BLA for **Tecentriq® (atezolizumab)** (Genentech, gene.com) to be used **in combination with Avastin® (bevacizumab), carboplatin, and paclitaxel** for the first-line treatment of patients with metastatic nonsquamous NSCLC.
- Taiwan Liposome Company, Ltd. (tlcbio.com) announced the submission of an investigational new drug application with the FDA to initiate a Phase I/II, open label, dose-escalation clinical trial of **TLC178**, a NanoX™ liposomal formulation of the anticancer drug vinorelbine, in pediatric rhabdomyosarcoma patients.

Approved Devices

- Agfa (agfahealthcare.com) announced that it has received FDA 510(k) clearance for its **DR 800 multipurpose imaging system**. The device offers one solution for radiography, fluoroscopy, and advanced clinical applications.
- The FDA has granted 510(k) clearance to Exact Imaging (exactimaging.com) for its **FusionVu™ application on the ExactVu micro-ultrasound system**. FusionVu allows urologists to perform either cognitive fusion via Cognitive Assist™ or micro-ultrasound/MR fusion on the ExactVu high-resolution platform.

Genetic Tests and Assays in the News

- Cancer Genetics, Inc. (cancergenetics.com) announced that it has received 510(k) clearance from the FDA for its **Tissue of Origin (TOO®) test**, a microarray-based gene expression test that analyzes a tumor's genomic information to help identify its origin, which is valuable in classifying metastatic, poorly differentiated, or undifferentiated cancers. 

THERE MUST
BE A BETTER
WAY!



An Inpatient and Outpatient Nursing Collaborative Improves the Patient Experience

SwedishAmerican Health System is a division of UW Health of Madison, Wisconsin. SwedishAmerican Hospital is a 333-bed acute care facility located in Rockford, Ill., serving a population of approximately 300,000. In 2012, SwedishAmerican Regional Cancer Center opened its doors, providing outpatient radiation and chemotherapy treatment in a state-of-the-art facility that serves north central Illinois, south central Wisconsin, and the surrounding regions. The new Regional Cancer Center merged two medical oncology practices, bringing eight medical oncology and two radiation oncology providers together into one location. Along with the opportunity for SwedishAmerican Regional Cancer Center to offer new oncology services to our community came great responsibility to deliver excellent quality care.

A Sea Change in Care Setting

In the United States today, most cancer care is provided in the outpatient setting. SwedishAmerican Regional Cancer Center provides only about 20 percent of cancer care and less than 10 percent of chemotherapy administration in the inpatient setting. Despite this shift toward cancer care in the outpatient setting, as healthcare professionals we need to understand and continuously advocate for quality patient care by not losing focus on the importance of inpatient oncology—even when it occurs infrequently.

In fiscal year 2012, SwedishAmerican Regional Cancer Center began looking at ways to incorporate the American Society of Clinical Oncology Quality Oncology Practice Initiative (QOPI) data into its newly formed patient care model. It soon found that though QOPI works well for the outpatient oncology setting, it does not translate as well to the inpatient setting. Using QOPI standards in clinical decision making, the Regional Cancer Center

At SwedishAmerican, inpatient education was driven by the discharge process and the information needed for discharge. Though our discharge planners would say that the discharge process begins on the day of admission, no one could clearly identify what information was given to oncology inpatients before or after diagnosis.

documented strong performance in its annual quality report within the outpatient setting, but it was unable to quantify performance in inpatient oncology.

At SwedishAmerican, we saw this challenge as an opportunity. How could we measure and build our inpatient oncology department to provide high-quality, patient-centered care from a highly competent and a highly skilled nursing staff? How could we keep our nursing and support staff competent and skilled in chemotherapy administration when chemotherapy is given so infrequently? How should leadership prepare and respond for attrition and burnout of our inpatient nursing and support staff when oncology is only part of what we do? And most of all, did our patients see inpatient and outpatient care as two parts of one larger team or as two separate entities?

Identifying Issues and Areas for Improvement

In 2015 I began working at the Regional Cancer Center as the medical oncology supervisor. As part of my responsibilities, I represented nursing on the Continuous Quality Improvement Committee. This committee team helped me to understand QOPI measures and how our team could work together to improve quality measures as a health system. From a departmental perspective, nurses from both the inpatient and outpatient settings shared several concerns with the quality of education provided to oncology patients, including the following:

Lack of Patient Education Resources for Inpatient Nursing Staff. During a time when information is the most meaningful for our cancer patients—often at first diagnosis—inpatient nurses lacked access to appropriate educational resources. At SwedishAmerican, inpatient education was driven by the discharge process and the information needed for discharge. Though our discharge planners would say that the discharge process begins on the day of admission, no one could clearly identify what information was given to oncology inpatients before or after diagnosis. Although we had star performers in our system who went above and beyond to assist in any way they could, patient education was not standardized or quantifiable. Therefore, compliance in measuring education was nonexistent, which our Continuous Quality Improvement scorecard confirmed.

At this point in the care continuum, when patients and families needed information, inpatient nurses scrambled to assemble a packet of information printed from the Internet or from materials found on someone's desk or in a filing cabinet. These well-intentioned attempts to provide patients with information took nurses away from the bedside when minutes were precious. Nursing staff felt strongly that having a source of meaningful, easy-to-understand information for patients at the time of diagnosis was very important. Though some patients would use the information right away, others might prefer to review the information later, but they would have everything in one place.

No Hand-off Process from the Inpatient to the Outpatient Setting. Lacking a connection to these newly diagnosed patients, outpatient nurses often did not know when these patients would be coming for their outpatient treatment. Without a clear handoff process, our outpatient nurses felt that they were sometimes scrambling to prepare patients at the last minute—in terms of both patient education and required prior authorization. Although our chemo coordinators prepared each day for next-day chemotherapy patients, despite everyone's best efforts, patients sometimes fell through the cracks.

Inconsistent Predischarge Resources for Patients. In addition to the lack of patient education available in the inpatient setting, outpatient nurses reported that patients were not always given all of the resources needed prior to discharge. Nursing staff understood that patients needed to stay as healthy as possible

prior to their next treatment, but the process was not there to ensure that this was occurring. All nurses agreed that patients needed to have a basic understanding of why it was important to stay hydrated and combat nausea and vomiting with an antiemetic, yet patients were frequently discharged without any oncology prescriptions in hand. Patients needed to know how to use pain medication appropriately or why a prescription for a simple antibiotic is necessary when their white blood cell counts were low.

Bottom line: We needed to establish processes and improve communication between inpatient and outpatient nursing.

Another challenge identified in the discharge process was that at times inexperienced nurses were working with the hospitalists or primary care physicians responsible for oncology patient discharges.

Establishing the Oncology Collaboration Committee

SwedishAmerican Hospital and the Regional Cancer Center became a Magnet-designated facility in 2015, bringing with it a strong, nursing-led structure of shared governance. With a focus on this new shared governance, management from the inpatient and outpatient oncology departments formed the first Oncology Collaboration Committee with representation of nursing staff from both settings. As drivers for quality, this team used a foundation of American Society of Clinical Oncology and Oncology Nursing Society guidelines, as well as Press Ganey scores for measurements of care delivery and patient education. The Oncology Collaboration Committee had two initial goals:

1. To standardize patient information and education across the continuum of care, regardless of entry point.
2. To ensure that nursing staff along the oncology care continuum had an adequate foundation of knowledge and skills to deliver safe, patient-centered, high-quality care.

Breaking Down Communication Barriers

The Oncology Collaboration Committee identified two transition issues with the potential to make a big impact. The first was identified by our outpatient physician assistant. During her new oncology patient appointments, which were set aside for patient education, she found that new patients lacked medication resources after discharge from the inpatient unit. She confirmed that our

newly diagnosed oncology patients who had been recently hospitalized were not discharged with pain, antiemetic, or antibiotic prescriptions. During a discussion at our new monthly Oncology Collaboration Committee meeting, inpatient nurses quickly identified the issue. All inpatient discharges are the responsibility of the hospitalist or the primary care physician—not the specialty physicians. The hospitalists were unfamiliar with the small details and potential needs of oncology patients prior to their first outpatient appointment. Another challenge identified in the discharge process was that at times inexperienced nurses were working with the hospitalists or primary care physicians responsible for oncology patient discharges.

After a brief discussion, the committee arrived at a simple solution: laminated reminders on computers in the nursing station. These helped ensure that inpatient nurses obtained prescriptions for an antiemetics, pain medication, or antibiotics when patients' white blood cell counts were low prior to discharge, providing relief for patients prior to their first appointment at the outpatient clinic. This simple yet effective tool has greatly improved care coordination for our oncology patients. Additionally, the Oncology Collaboration Committee identified a need for better education for patients and inpatient nurses. The committee worked with the inpatient management team to provide necessary education for staff, ensuring that patients not only received their prescriptions but also understood when to take them. The next step was to provide instructions to patients regarding when they should notify their oncologist of potential issues.

The second challenge the committee tackled was the transition from inpatient to outpatient care and what that looked like from the patient's perspective. We clearly had logistical issues because the outpatient clinic and the hospital are 8 miles away from each other, but the bigger concern was how to overcome communication issues. The hospital and the outpatient clinic use different electronic health records, making communication a challenge. The hospital was slated to move to the same electronic health record as the outpatient clinic but not until the summer of 2018. For a variety of reasons, our clinic providers did not have an easily identifiable way to "report out" to nurses any new patient consults that occurred after hours or on weekends and holidays. Additionally, with staff turnover from shift to shift, inpatient nurses did not have an easy way to communicate with outpatient nurses.

To address these transition challenges, the Oncology Collaboration Committee developed the Situation, Background, Assessment, and Recommendation (SBAR) Tool (Figure 1, right). The committee decided that the inpatient nurse would fill out the SBAR tool after the patient's last inpatient chemotherapy treatment, signifying the transition to the outpatient setting. The SBAR form needed to be brief enough to ensure compliance from the inpatient nurse but long enough to include vital information needed by outpatient nurses. The committee settled on information such as chemotherapy consent, the date chemo education was completed, the patient's tolerance to chemotherapy, and an open-ended question for the inpatient nurse to share additional relevant

Figure 1. Chemo Collaboration Project: Chemo SBAR Tool

Patient: _____
DOB: _____
Was this patient's first treatment? (Circle) YES / NO
Do you have a chemo consent? (Circle) YES / NO
Who did their chemo teach? _____
Did patient receive binder? (Circle) YES / NO
Type of treatment given: _____
Number of treatments given inpatient: _____
How did patient tolerate treatment: _____
Symptom management: _____
Prescriptions nurse is sending home with patient: _____
Any other significant information: _____ _____
Fax SBAR and Chemo Consent to Attention of Dr. _____
Nurse _____

information. At the bottom of the form are clear instructions that completed forms should be faxed directly to the outpatient clinic nurse's station for evaluation.

This simple yet highly effective tool has helped tremendously to bridge care across the continuum. In addition to basic patient information and treatment scheduling, we could now communicate how the patient tolerated treatment. If inpatient nurses believed that special considerations or accommodations should be shared, those items could be included on the SBAR. With this tool in place, inpatient nurses could now "hand off" their patients knowing that both patient and nurse concerns would be addressed; outpatient nurses gained respect for the care their patients received on the inpatient unit. This small victory gave us momentum to tackle the additional challenges ahead.

Improving Patient and Staff Education

The Oncology Collaboration Committee focused next on our goal of improving education for oncology patients and nursing staff. For oncology patients, the committee was challenged with providing standardized, customizable, easy-to-understand education. Prior to these efforts, outpatient oncology education consisted of a purchased information packet that was not specific to patient diagnosis or to our organization. As stated previously, on the inpatient unit, oncology patients received only the standard hospital discharge information and whatever information the discharge nurse had time to print out for them.

As the committee identified additional concerns, the team felt strongly that standardizing oncology and chemotherapy administration education for nursing should be a high priority. At that time, chemotherapy education for staff was not standardized or developed by the hospital or clinical education teams. Instead, this education was occurring as a “passed-down” form of orientation that left many potential education gaps and exposure to staff attrition. Additionally, the annual skills for inpatient nursing and support staff did not include oncology or chemotherapy updates or competencies. For these reasons, the team expanded the target to not only standardize but also to improve staff education. By investing in our staff, the Oncology Collaboration Committee felt confident that we could provide sustainability to the entire program. Committee members were all familiar with the health system’s current practice of printing and reviewing the After-Visit Summary and the Inpatient Discharge Summary with patients. The Oncology Collaboration Committee brought these forms (and the process for how they are filled out and how information is provided to patients) to the Regional Cancer Center’s Patient and Family Advisory Council, a group of patients and/or family members of former patients dedicated to improving the oncology patient experience.

This group’s unanimous recommendation: refine our patient education and make it more meaningful and understandable. As examples, several members of the advisory council shared valuable information that had been provided to them, such as beautiful brochures that were never used because they did not understand the content or significance or did not understand how to prioritize the information. Council members also explained how overwhelmed they had been by the volume of information they received and how they were unsure how to organize it. With these recommendations in mind, the Oncology Collaboration Committee identified three opportunities for improvement:

1. Create one source of patient education for inpatient and outpatient settings by consolidating information.
2. Standardize nursing staff education that overlapped into both inpatient and outpatient settings.
3. Identify educational opportunities that could be accomplished by inpatient and outpatient nurses in partnership, including new staff orientation and annual skills and competencies.

By focusing on these three goals, the Oncology Collaboration Committee envisioned a delivery of seamless care for the oncology

patient across the continuum that would be sustainable over time and adaptable to ever-present changes.

Developing a Patient Education Binder

Our first step to standardize and consolidate patient education was to develop an oncology patient education binder, representing all departments and including information on nutrition, symptom management, a section for keeping labs organized, and a personal journal section for jotting down notes for the provider or personal reflections. The Patient and Family Advisory Council advised us to keep the standard oncology binder simple. We decided to start the binder with generic information that any oncology patient would need, such as commonly used telephone numbers and a glossary of oncology terms. We also included a triage section with information on when a patient needed to be seen immediately by the provider, when he or she should call to notify the provider of an issue, and when he or she could wait until his or her next provider visit to discuss. Next, additional material specific to the patient’s diagnosis would be included in the binder.

Our team reviewed those areas that we felt represented the “minimum” or “basic” understanding of oncology care for a new patient. We decided that all binders would include information from both the inpatient and outpatient perspectives, because our patients often experience care in both settings. For the section on Symptom Management, we included common information about reactions or concerns specific to a patient’s condition, allowing for additional materials as needed. As holistic caregivers who treat mind, body, and soul, our binder also provides information on how to optimize physical health postdiagnosis with simple exercises such as meditation and relaxation. In the process, we focused on balancing information for immediate and future use; for example, including information on exercise for when patients are feeling well and on energy conservation for when they are not. Because concurrent therapy is not used for all diagnoses, we chose not to include information on radiation therapy in the basic oncology binder. More in-depth information can be added by radiation oncology staff, tailored to the patient’s diagnosis and treatment plan.

The Oncology Collaboration Committee reached out to each department for information to add to the binder and reviewed all submissions to keep the material simple and appropriate for all diagnoses. Looking back, we would recommend that your team develop these guidelines in the beginning; starting this project with all departments simultaneously was an opportunity to build strong communications that we missed.

The final version of the patient education binder was presented to the Patient and Family Advisory Committee and received an enthusiastic “thumbs-up.” We initially piloted the binder to 10 patients and were able to follow up with 9 of them. All 9 patients found the binder easy to understand and helpful to their care. Based on those findings, the patient education binder went into production and was assembled by volunteers at the cancer center.

Standardizing Staff Education, Reducing Attrition

Oncology Collaboration Committee staff were often asked to be preceptors or to sit on committees that developed education for current staff and new staff orientation. The first issue our team identified was that the current method of educating new staff in the inpatient setting left us at great risk of staff attrition. As nurses left our organization, fewer nurses were being prepared for inpatient oncology care. In addition, the team was not certain that all areas of education were being met. In other words, inpatient nurses were left to wait for the hospitalization of oncology patients to gain skills from treating them.

Thus, we prioritized standardizing our approach to educate our inpatient nurses. The outpatient clinic was realizing great success with onboarding new nursing staff by leveraging our affiliate partnership at the UW Carbone Cancer Center in Madison, Wisconsin. The UW Carbone Cancer Center offered a three-day chemotherapy administration course four times a year that included a competency exam and a mock chemotherapy administration practicum. As a UW affiliate, this course is available to our inpatient and outpatient clinic nurses at no cost, resulting in a strong foundation for nurses new to chemotherapy administration. The committee decided that oncology education for both inpatient and outpatient nursing staff should begin with this course.

After nurses successfully completed the course, observation and return demonstration of chemotherapy administration would be conducted at the outpatient Regional Cancer Center. This process allows inpatient nurses an opportunity to immediately follow up on their education and complete their competency. As part of the process, nurses complete a check-off sheet to ensure that all information was understood and a proper return demonstration was completed.


At the same time, inpatient nurses complete a tour of the outpatient cancer center to gain a better understanding of the care process from the oncology patient's perspective. This visit gives inpatient nurses an opportunity to meet outpatient clinic nurses, helping to build ties as we work together. The experience prepares nurses to assist patients in understanding changes that happen when moving from the inpatient to the outpatient care setting, as well as what remains the same regardless of where care is delivered. Our experience is like a bedside nurse giving a nurse-to-nurse report when one goes off duty. This improved communication allows nurses the opportunity to praise nursing staff in both care settings. "Don't worry, Mr. Jones, you will be in excellent hands at the Regional Cancer Center. You will meet Kate, Kristin, and many of the other nurses, and I know they will take great care of you." These types of conversations are a great comfort to patients as they transition into the next phase of their care journey.

Looking Ahead

Eighteen months after establishing the Oncology Collaboration Committee, we have seen improvement on our Continuous Quality Improvement scorecard. We now provide consistent patient education through the oncology education binder and quantify the education provided to our inpatient oncology patients. Through implementation of the SBAR tool, we are now able to track our inpatients, providing a hand-off process for patients moving from the inpatient setting to the outpatient clinic setting. We have also sent more inpatient nurses to UW Health in Madison for training and to the Regional Cancer Center for follow-up training. The cancer center has seen a progressive climb in its Press Ganey scores, especially regarding how patients feel about their oncology education.

Nurses must act as bridges—building strong, healthy, collaborative teams that work together in delivering excellent patient-centered care.

As the Oncology Collaboration Committee looks to next steps, we will seek to widen our scope to all care areas that oncology patients may encounter. We are actively working with several areas and departments within our health system, such as interventional radiology, pharmacy, and surgery. We want the patient education binder to encompass every touchpoint in the hospital, as well as the outpatient clinic, to help patients understand their purpose. In staff education, we want to ensure that chemo handling is safe and up to date in all hospital departments.

Leadership needs to be diligent in hiring inpatient nurses who are interested in becoming part of a core group of oncology nurses, supporting nursing staff obtaining certification and providing guidance to the entire team. Nurses must be excellent collaborators across all care settings and departments. We need to first help others understand how we are connected by our patients and why good communication is imperative to high-quality, patient-centered care. We need ongoing evaluation of the effectiveness of our communication to be strong patient advocates. Developing new quality improvement processes on our own care islands will not work. Nurses must act as bridges—building strong, healthy, collaborative teams that work together in delivering excellent patient-centered care. 

Christine Shike, RN, BSN, is manager of inpatient medical oncology, SwedishAmerican Hospital, Rockford, Ill.

Patient Care Connect





Lay navigators improve quality and reduce cost of care

Patient navigation is emerging as a significant patient care coordination and support resource to cancer patients. Navigation is recognized as an essential patient care service by the Centers for Medicare & Medicaid Services, the Commission on Cancer, the National Accreditation Program for Breast Centers, the Academy of Oncology Nurse & Patient Navigators, and other national organizations who see its potential to significantly improve patient outcomes and reduce unnecessary services.

The University of Alabama at Birmingham implemented a comprehensive patient care coordination program, Patient Care Connect, along with 11 community cancer center associate sites in Alabama, Georgia, Florida, Mississippi, and Tennessee. This article integrates prior Patient Care Connect program findings, focusing on the key learning points and critical success factors gained from our experience building this program. Organizations desiring to build or enhance a patient navigation program will gain a better understanding of what the University of Alabama at Birmingham has discovered to be the most important factors in serving cancer patients through navigation services.

Background

Cancer patients often have a long and difficult treatment journey with many possible complications along the way. According to the National Comprehensive Cancer Network, approximately one-third of cancer patients experience “significant distress,” which can impact not only how the patient copes with the disease but also his or her strength and ability to fight the disease and to follow the recommended course of treatment.¹

Though the concept of patient navigation is not new, the use of lay navigation teams across the continuum of a cancer journey is a novel approach to care coordination. Integrating lay navigators into the healthcare team empowers the clinical team to work at a higher level within the scope of their training.

In July 2012 the University of Alabama at Birmingham Comprehensive Cancer Center was awarded a \$15 million, three-year grant from the Center for Medicare and Medicaid Innovation to expand and enhance the cancer center’s well-established, non-clinical patient navigation program and to extend it to the 11 associate sites in the University of Alabama at Birmingham Health System Cancer Community Network. The goals of the Patient Care Connect cancer patient navigation program are to proactively identify potential treatment complications, barriers to appropriate and timely patient care, and other causes of patient distress as early as possible and to avoid unnecessary duplication of services,

prevent complications from treatment side effects, and minimize unnecessary costs to both the patient and the healthcare system.

The Need for Lay Navigation

Though the concept of patient navigation is not new, the use of lay navigation teams across the continuum of a cancer journey is a novel approach to care coordination. Integrating lay navigators into the healthcare team empowers the clinical team to work at a higher level within the scope of their training. These navigation teams are beginning to serve as a surrogate patient-centered oncology medical home model, which can provide a way to empower patients to more effectively manage their treatment and survivorship experience. Navigation teams also provide a foundation for disparate provider groups to join forces and provide a more integrated care delivery program, which will be attractive to insurance networks, accountable care organizations, and other value-based contracting entities in the future.

Most studies on disparity in cancer highlight that race and ethnicity are the leading variables contributing to a lack of early diagnosis and quality treatment. Statistics such as those generated by the National Cancer Institute demonstrate that minorities, specifically African Americans, have a higher rate of cancer diagnosis and a lower survival rate than other ethnicities.² Hershman et al. found that increased personal wealth was also associated with lower mortality, lower prevalence of chronic medical conditions, improved functional status, and reduced healthcare utilization and was correlated with racial differences in overall health.³

Due to such disparity, much research has been done to rectify this imbalance. Hendren et al. conducted a study to determine what factors led to newly diagnosed cancer patients needing more assistance from healthcare workers, a measure known as Navigation Time: “In univariate analysis, log Navigation Time was associated with race/ethnicity, education, income, employment, insurance type, health literacy, marital status, language, and comorbidity.”⁴ The most common barriers to care that were identified for all races include but are not limited to medical communication, a lack of social support, and medical insurance/financial concerns, with minorities experiencing these barriers at a greater rate.⁴ Not only do minorities experience more barriers but they experience a more significant impact on care from those barriers and thus experience an increased need for Navigation Time.

The positive impact of the patient navigator role is quickly being seen and felt within the cancer treatment field, and an increasing number of organizations are adopting the initiative to better serve and treat patients. According to Braun et al., “A cancer patient navigator is an individual trained to help identify and resolve real and perceived barriers to care, enabling patients to adhere to care recommendations and thus improve their cancer outcomes.”⁵ Patient navigators have specifically been effective in helping poor, vulnerable, and underserved patients maneuver through the many barriers to care they encounter.⁵ A study conducted by Donelan et al. on the follow-up of patients with abnor-

mal mammograms demonstrated that patients who received navigation through the care process were significantly more likely to “definitely” understand what to expect in the follow-up appointment, receive appointment reminders, and feel welcomed.⁶ A similar but more comprehensive study was conducted by Ferrante et al. in 2008 and focused on the effect that patient navigation had on urban minority women who received abnormal results from a mammogram.⁷ The study tested the impact that patient navigation had on specific metrics such as improving timeliness to diagnosis, decreasing anxiety, and increasing satisfaction. The women who experienced patient navigation intervention had shorter wait times for diagnostic resolution by almost 18 days, and after 60 days only 6 percent of the patient navigation group was without a final diagnosis versus 22 percent in the control group.⁷ When looking at anxiety, there was almost no difference in the baseline anxiety scores between the two groups; however, “after diagnosis, the mean anxiety index was lower in the intervention group (30.2) than in the control group (42.8; $p < .001$). Likewise, the change in anxiety index from baseline to follow-up was statistically different among the groups (decrease of 8.0 in intervention vs. increase of 5.8 in control; $p < .001$). In addition, the mean satisfaction score was higher in the intervention group (4.3) than in the control group (2.9; $p < .001$).”⁷

Racial and ethnic disparities are well documented in the diagnosis and mortality of colorectal cancer.⁸ Research was conducted to determine the impact that patient navigation would have on a group of minority men and women over the age of 50 and who “had not had a fecal occult blood test within the past year, a sigmoidoscopy or barium enema within the past 3 to 5 years, or a colonoscopy within the past 10 years.”⁸ Similar to the other studies previously discussed, the patient navigation intervention group had a higher rate of compliance with physician recommended care and testing, demonstrating that patient navigation is successful in guiding minority patients through the barriers that can block or delay diagnosis and treatment.

Though efforts in healthcare reform to provide better access and availability to affordable healthcare are making an impact, more patient-centered help is needed. Nonclinical patient navigation is an innovative, proven, and effective initiative that helps cancer patients of all racial and socioeconomic types better manage the complex, emotional, and stressful journey of cancer treatment. Patient navigation provides patients with support, empowerment, understanding, and options to allow for better quality of care with the ultimate goal of healing.

The Patient Care Connect Program

The conceptual model behind the Patient Care Connect program is empowerment around improved health. Patients are empowered to become more engaged in shared decision making and self-managing many aspects of their care. Patient navigators are empowered to directly help patients overcome the nonclinical barriers to appropriate care. Clinical teams are empowered to work at higher levels within the scope of their professional training. The combined effects are better patient outcomes, more efficient care, and fewer unnecessary resources.

The Patient Care Connect navigation teams consist of a nurse leader surrounded by well-trained nonclinical (“lay”) navigators. The lay navigator concept is based on more than 15 years of prior experience at the University of Alabama at Birmingham using community health advisors in a variety of community screening, low-income resource support, clinical trial navigation, and nurse navigation programs. The navigation teams typically have one to five nonclinical employees, depending upon the number of Medicare beneficiaries being served by each site. The Patient Care Connect program pairs a lay navigator with a new patient with the goals of empowering patients and helping them to:

- Overcome barriers to care.
- Make the most appropriate and informed choices for their treatment.
- Avoid the use of the emergency room.
- Reduce the use of unnecessary or repetitive services.
- Proactively consider and plan for advanced stages of disease progression.
- Maximize the appropriate use of healthcare resources.

These navigators follow patients through the entire continuum of their cancer journey.

The core workflow for the patient navigation team is centered on patient acuity stratification, continuous patient need assessment, and the proactive identification of significant barriers to improved patient outcomes. Over the course of the grant-funded program, Patient Care Connect served a regional population of approximately 31,000 Medicare beneficiaries. Because navigation teams are a limited resource, the program identified patients at the greatest need and/or risk of potential problems or barriers to care. All patients at the University of Alabama at Birmingham are eligible for support from our patient navigation team, but we proactively work with the highest need patients and prioritize the workload using a need-based triage process. To do this, patients are regularly administered a standardized distress assessment survey tool modeled after the National Comprehensive Cancer Network Distress Thermometer.¹ In addition, the navigators routinely searched through hospital census reports and other data to identify patients who had an unplanned visit to the emergency room or an unplanned admission to the hospital.

Approximately one-third of the patient population was triaged into active navigation services by the lay navigation teams. Patients who met the triage inclusion criteria for active navigation support were screened at least once per month, with more frequent contact based on patient needs. Those who did not meet the triage inclusion criteria were monitored in an “inactive” status mode. Patients in active status were proactively monitored and contacted at least monthly based on patient-reported distress, with those patients reporting higher levels of distress or identified as having higher acuity conditions being contacted more frequently.⁹ Patients who reported low distress or who did not appear to have high-acuity conditions were contacted at least quarterly.⁹ On average, patient navigators were assigned 152 patients per quarter, 91 of whom were identified as high acuity, and completed an average of 275 patient contacts per quarter.⁹ Approximately 62 percent of these

patient contacts were in a face-to-face setting.⁹

Navigators use the distress assessment tool to identify and prioritize the work for each patient. Clinical barriers are escalated up to the appropriate clinical resource, because lay navigators are not permitted to address clinical issues that would normally require a nurse’s intervention. In 34 percent of the identified distress issues, patients requested help from the navigator to address their specific concerns.¹⁰ Working directly with patients face to face and over the phone, navigators help identify possible solutions to overcoming nonclinical barriers to care by referring patients to the correct resource. In 92 percent of the cases, navigators were able to resolve these concerns to the patient’s satisfaction.¹⁰ Navigators cultivate and maintain relationships with a network of resources that may be able to provide appropriate assistance to the patients, including financial counselors, social workers, community resources, support groups, local charities, and advocacy groups. Navigators also have access to a limited pool of financial and community resources like transportation vouchers, discounted housing, and free food. Patient navigation is a limited resource but, when deployed correctly, it has been proven to significantly reduce unnecessary utilization and improve patient satisfaction.¹¹

Beyond the continuous assessment of patient distress and barriers to care, the navigation team spends a large portion of their time identifying and coordinating various support resources for patients.

Together with our associate sites, the University of Alabama at Birmingham designed and developed all of the care protocols and pathways for the program, including a significantly enhanced distress assessment tool that forms the basis of the navigator’s patient interview and assessment process. (Elements in this distress assessment tool are outlined in Figure 1, page 28.) Navigators receive extensive training on the continuum of cancer diagnosis, treatment, and survivorship, as well as training related to common geriatric health issues and complicated comorbid conditions. We also developed a custom software program to track all patient encounters. The software:

- Tracks levels of patient distress.
- Creates work lists as barriers are identified.
- Assists with referrals to other care providers.
- Provides follow-up intervention reminders.
- Serves as a team communication tool.

Note that many barriers to care such as pain or fatigue are common and may be continuous throughout the patient’s treatment journey. Navigators may document pain as a common problem,

but when the patient indicates that he or she needs help controlling the pain, it becomes a barrier that the navigator works to resolve until the patient is later assessed and reports that the pain is being appropriately managed and is no longer an uncontrolled barrier.

Following the formal distress assessment, navigators continuously assess their patients' needs in their ongoing work with their patients. These ongoing assessments are mostly partial distress assessments based on the identified barriers that the navigator is working on. These partial assessments are referred to as informal distress assessments. The continuous use and documentation of these informal assessments is at the core of the navigators' workflow. The Patient Care Connect program does not consider an identified barrier as having been addressed to the patient's satisfaction until the patient acknowledges in a documented formal or informal distress assessment that the issue has been satisfactorily handled.

Beyond the continuous assessment of patient distress and barriers to care, the navigation team spends a large portion of their time identifying and coordinating various support resources for patients. The navigators are constantly working on developing a broad network of internal and external resources to help patients with some of the more common barriers, including the need for:

- Disease-related information.
- Transportation to and from treatment.
- Temporary housing.
- Introductions to community support groups.
- Assistance with practical needs, because many patients live alone.

Navigators are also trained to help patients begin to think proactively about potential decisions they may face in the future. The Patient Care Connect navigators receive basic training in the Respecting Choices program, an evidence-based model of advance care planning aimed at identifying and honoring an individual's goals and values for current and future healthcare needs.¹² During distress assessments and patient interviews, navigators identify patient goals and values and encourage them to consider advance directives, open communication with family members and significant others about their wishes and other proactive planning issues.

Though navigators do many things for their patients, they also encourage the patients to identify barriers themselves and empower them to handle the situation independently. For example, if a patient identifies uncontrolled pain as a problem, rather than calling the nurse for the patient, the navigator may give the patient the nurse's name and phone number, tell him or her to call the nurse directly, and follow up in 30 minutes to make sure that the patient followed through. Over time, patients learn how to handle these situations proactively on their own and begin to need the navigator's coaching less and less. Of course, for patients who are not able to manage these tasks on their own, the navigators will assist them as much as is needed.

As important as it is to know what successful patient navigation teams do, it is even more important to understand what activities

(continued on page 30)

Figure 1. Elements in the Distress Assessment Tool

Date Administered: _____	By: _____
Patient Name: _____	MR# _____
Overall Level of Distress: 1-2-3-4-5-6-7-8-9-10	
PHYSICAL PROBLEMS:	
___ Balance/Walking/Mobility	
___ Bathing/Dressing	
___ Body Sores	
___ Breathing	
___ Changes in Urination	
___ Constipation	
___ Controlling Bowel Movement	
___ Controlling Urination	
___ Diarrhea	
___ Dizziness	
___ Eating	
___ Fatigue	
___ Feeding Self	
___ Fever	
___ Getting Around (inside home)	
___ Getting Around (outside home)	
___ Hearing	
___ Indigestion	
___ Mouth Sores	
___ Loss of Appetite	
___ Moving In/Out of Chair or Bed	
___ Nausea/Vomiting	
___ Nose Dry/Congested	
___ Opening Medication Bottles	
___ Pain	
___ Sexual Problems	
___ Skin Dry/Itchy	
___ Sleep/Insomnia	
___ Substance Abuse	
___ Swallowing	
___ Swollen Arms/Legs	
___ Talking	

(Figure 1 continued on next page)

Figure 1. Elements in the Distress Assessment Tool (continued)

PHYSICAL PROBLEMS:	EMOTIONAL PROBLEMS
___Tingling Hands/Feet	___Adjusting to Changes in Appearance
___Toileting	___Adjusting to My Illness
___Vision	___Boredom
___Weight Change	___Concentration
___Writing	___Coping with Grief and Loss
PRACTICAL PROBLEMS:	___Emotional Control
___Ability to Use Phone	___Fear(s)
___Child Care	___Feeling Depressed or “Blue”
___Cooking	___Feeling Hopeless
___Getting Groceries/Shopping	___Guilt
___Housekeeping	___Intrusions
___Housing	___Isolation/Feeling Alone
___Insurance/Financial	___Loss of Interest in Usual Activities
___Manage Finances	___Managing Stress
___Transportation	___Nervous/Anxiety
___Work	___Role Changes
INFORMATION CONCERNS:	___Sadness
___Alternative Therapy Choices	___Self-esteem
___Diagnosis/Disease	___Worry
___Diagnostic Results	FAMILY PROBLEMS: Dealing with:
___Diet/Nutrition	___Children
___End of Life Issues	___Family Support
___Hospice	___Friends
___Home Health	___Partner
___Legal Issues	OTHER:
___Maintaining Fitness/Exercise	___Ability to Read/Write
___Performing Medical Procedures	___Cultural/Religious Needs
___Prognosis	___Citizenship
___Scheduling	___Lack of Social Support
___Survivorship	___Language Barrier
___Side Effects/Treatment(s)	___Post-op Care
___Side Effects/Medication(s)	SPIRITUAL/RELIGIOUS CONCERNS:
___Supportive Care	___Lack of Comfort, Strength or Hope from Spiritual Beliefs
___Treatment(s)	___Facing My Mortality
___Treatment Decisions	___Lack of Support from Spiritual/Religious Group
	___Loss of Faith
	___Trust in God
	___Loss of Sense of Purpose
	___Meaning of Life
	___Relating to God

(continued from page 28)

they do not do. Appropriate boundaries around the scope of a patient navigator's practice keep the entire clinical team working together most efficiently. At the University of Alabama at Birmingham, the navigators do not:

- Make any kind of clinical decisions or clinical recommendations about a patient's care.
- Replace nurses, social workers, or other clinical personnel.
- Steer patients away from appropriate care or toward inappropriate care.
- Inappropriately promote specific services, physicians, or facilities.
- Interfere with standard patient care activities.

Documented Results

Medicare provided comprehensive claims data on the beneficiaries enrolled in the Patient Care Connect program. In a retrospective matched study conducted by the University of Alabama at Birmingham, the pre-enrollment costs per beneficiary per quarter for beneficiaries who triaged into active navigation started higher but declined faster than the matched comparison group by \$781.29 more per quarter per navigated beneficiary ($p < .001$), for an estimated \$19 million decline per year across the network, ultimately becoming lower than the nonnavigated beneficiaries after six quarters.¹¹ Inpatient and outpatient costs had the largest between-group quarterly declines, at \$294 and \$275, respectively, per beneficiary.¹¹ The greatest mean quarterly cost declines were observed for inpatient costs, which decreased by \$522 and \$198, respectively, per quarter per beneficiary for navigated and matched comparison groups.¹¹ Quarterly reductions per beneficiary were also observed for outpatient costs (\$473 for the navigated group and \$194 for the matched comparison group) and physician visit (carrier) costs (\$339 for the navigated group and \$129 for the matched comparison group), and hospice costs increased (\$39 for the navigated group and \$36 for the matched comparison group) for navigated beneficiaries.¹¹

With a cost decline of \$781.29 more per beneficiary per quarter than among the nonnavigated beneficiaries, we projected a \$475,024 reduction in cost annually for a navigator managing 152 beneficiaries throughout the year.¹¹ For a navigator with an annual salary investment of \$48,448 (salary and fringe benefits), we estimated a return on investment of 10:1.¹¹

We observed decreases in emergency department visits by 6.0 percent more per quarter among the navigated group than the matched comparison group (internal rate of return [IRR] = 0.94; 95% confidence interval [CI], 0.92–0.96; $p < .001$). Hospitalizations declined by 7.9 percent more per quarter (IRR = 0.92; 95% CI, 0.90–0.94; $p < .001$), and intensive care unit admissions were reduced by 10.6 percent more per quarter (IRR = 0.90; 95% CI, 0.86–0.94; $p < .00111$; see Figure 2, page 31). These findings were supported in an independent study conducted by Medicare that specifically evaluated patients at the end of life.¹³

Lessons Learned

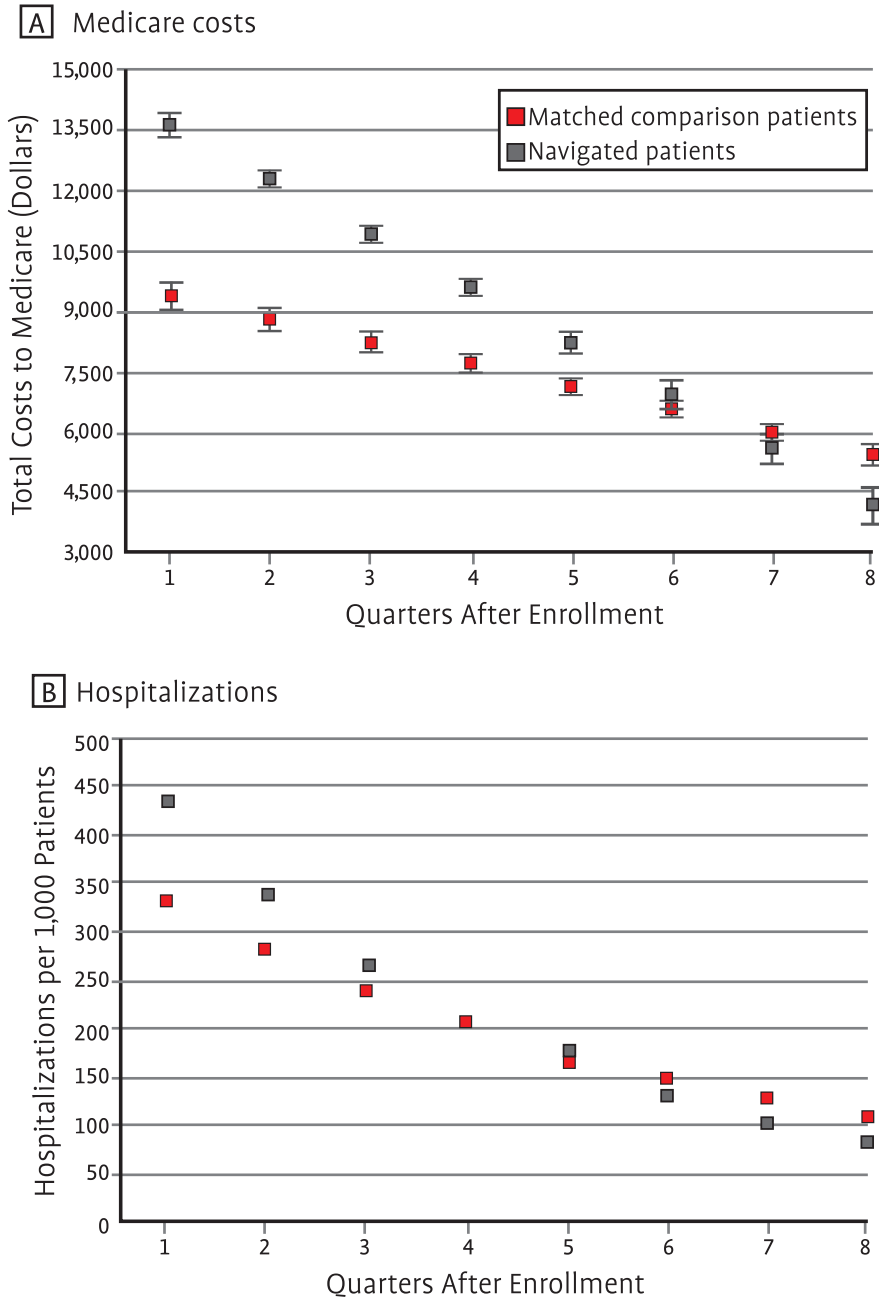
Over the more than 20 years that the University of Alabama at Birmingham has been using nonclinical patient navigators to assist patients with overcoming the barriers to their care, we have learned many valuable lessons about how to make a navigation

program successful. Through the Patient Care Connect program, Medicare has provided us with comprehensive claims data that have substantially enhanced our understanding and measurement of the key elements needed to support maximum effectiveness. Here are the top lessons learned from our experience:

1. **Clear and Compelling Objectives.** The most important factor for building a successful navigation program is to have clear and compelling objectives with clearly defined and tangible metrics for measuring program results. Clearly defined objectives keep everyone focused on specific goals. For Patient Care Connect, the compelling objectives are to reduce emergency room visits, unplanned inpatient stays, use of the intensive care unit, and chemotherapy in the last two weeks of life, as well as to increase the appropriate use of hospice care. These are all measurable outcomes that provide a clear picture of program results.
2. **Organizational Buy-in with Leadership from a Respected Clinical Champion.** Patient navigation can look like just another non-revenue-generating expense item on the budget. Without strong organizational buy-in and empowered physician leadership, the program will be weak and ineffective. When budgets become tight, weak programs are eliminated.
3. **Clear Clinical Team Role Definitions.** There is more than enough work for every member of the patient care team to do. Properly defined staff roles, especially for lay navigators, nurses, and social workers, are needed to drive patient engagement to the correct staff level. Unclear staff roles will lead to duplication of effort, arguments over turf, and gaps in patient care coordination. Additionally, a unified conceptual model that promotes interdisciplinary team engagement, strengthens role definitions, and helps to prevent scope creep will support a healthy program.
4. **Clearly Defined Navigator Competencies.** Clearly defined competencies for navigator recruitment, training, and ongoing development will provide a strong foundation for the navigation team's effectiveness. Team hiring is also strongly encouraged, because it will help to build team unity and minimize the hiring of the wrong skill sets. Table 1, page 33, outlines Patient Care Connect's lay navigation competency levels.
5. **Proactive Patient Engagement.** The use of a clearly defined triage process for proactively identifying the highest risk and highest need patient population will greatly enhance the focus and productivity of this valuable and limited resource.
6. **Continuous Patient Assessment.** The core of the Patient Care Connect program is having a structured process for continuously assessing and measuring patient needs.
7. **Easy to Use Navigation Tools.** Efficient navigation work is not possible without a well-structured, automated tool set with predictive analytics designed to support the navigation team. Navigators simply cannot be effective working from Excel spreadsheets or paper files. Automated tools need comprehensive data reporting that provides predictive ana-

(continued on page 33)

Figure 2. Model-Estimated Medicare Costs and Health Care Use After Enrollment for Navigated Patients and Pseudo-Enrollment for Matched Comparison Patients¹¹

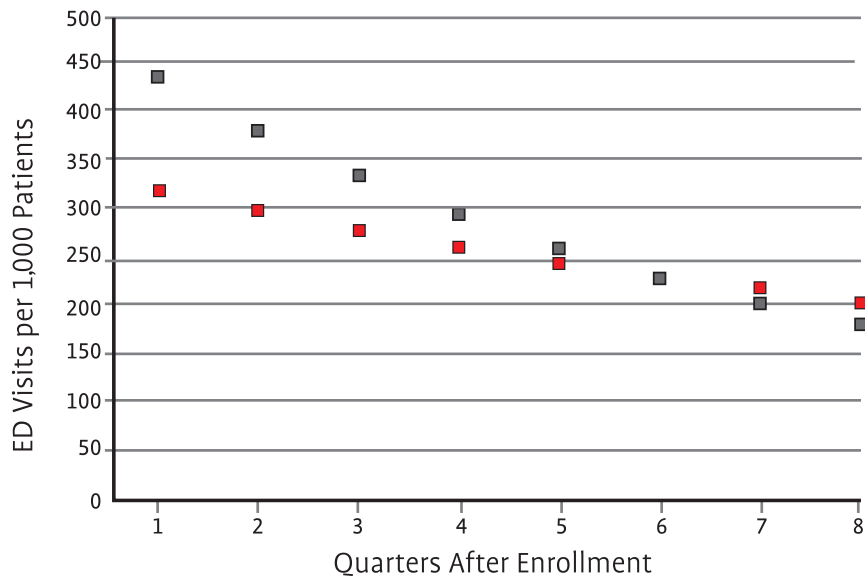


ED = emergency department; ICU = intensive care unit

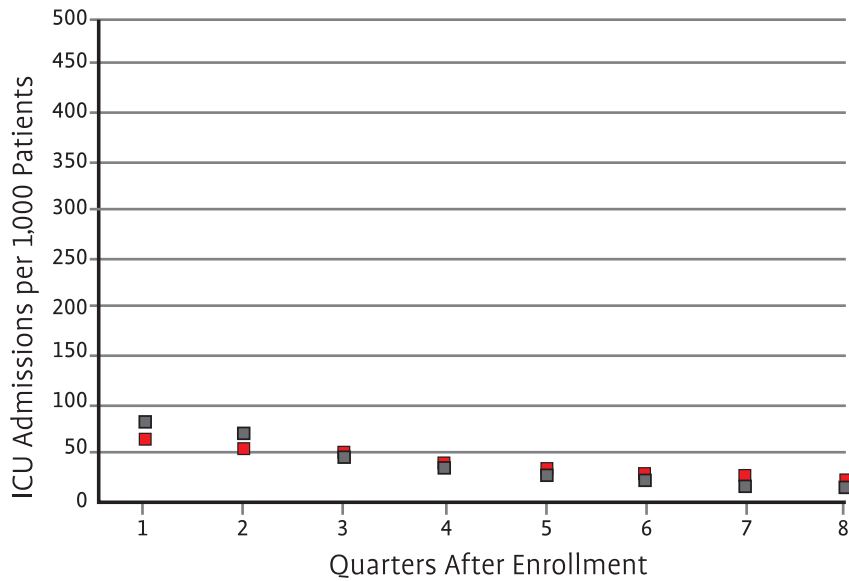
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Figure 2. Model-Estimated Medicare Costs and Health Care Use After Enrollment for Navigated Patients and Pseudo-Enrollment for Matched Comparison Patients (continued)

C ED visits



D ICU admissions



ED = emergency department; ICU = intensive care unit


Table 1. Patient Care Connect: Lay Navigation Competency Levels

1	Novice: Beginner with no experience. Rule-governed behavior is limited and inflexible. Rules are context free, independent of specific cases, and applied universally. When an unexpected situation occurs, will get stuck.
2	Advanced Beginner: Demonstrates small degree of acceptable performance. May have gained enough prior experience in actual situations to recognize recurring meaningful components. Beginning to move from relying too heavily on the fixed rules. Can accomplish simpler tasks on own without supervision but has difficulty with identifying and eliminating problems.
3	Competent: Characterized by a sense of mastery and the ability to cope and manage as situations arise. Understands a situational component within the context of an environment. Able to identify and eliminate problems. Beginning to solve unique problems. Lacks the speed and flexibility of the proficient level. More aware of long-term goals. Gains perspective from planning own actions based on conscious, abstract, and analytical thinking and helps to achieve greater efficiency and organization. Able to complete work independently to an acceptable standard but may lack refinement.
4	Proficient: Perceives and understands situations as whole parts. More holistic understanding improves decision making. Learns from experiences and knows what to expect in certain situations and how to modify plans. Can achieve a high standard routinely.
5	Expert: No longer relies on principles, rules, or guidelines to connect situations and determine actions. Performance is now fluid, flexible, and highly proficient. High standard of decision making based on high level of critical thinking skills. Achieves excellence with ease. Easily integrates new information into catalogue of experiences. Able to determine relevant and irrelevant information.

(continued from page 30)

lytics and enhances the ability of the team to self-evaluate personal and program effectiveness.

8. Internal Awareness and Communication. It is critical that the entire organization be aware of the goals of the patient navigation team, what the organizational expectations are, how the lay navigators fit into the patient care team, and how this function adds value to the institution’s goals.

Cancer patient navigation is a valuable resource that, when assigned correctly to the highest need patients, has the potential to significantly improve patient outcomes while reducing unnecessary utilization. The study and findings conducted by the University of Alabama at Birmingham in their Patient Care Connect lay patient navigation program serve as encouraging evidence that these types of programs should be implemented in every healthcare organization across the nation.¹¹ 

Warren Smedley, MSHA, MSHQS, is service line director, Cancer & GI Services, and Gabrielle B. Rocque, MD, is assistant professor at the University of Alabama at Birmingham Comprehensive Cancer Center, Birmingham, Ala.

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A Perfect Fit:

Mentoring Experienced RNs to Meet Oncology Clinic Demand

The ongoing balancing act of staffing and retention is one of the most challenging issues in healthcare today. In specialty areas such as oncology, staffing presents an even more difficult challenge. Finding qualified individuals with the right experience to fill open positions can be a taxing, time-consuming task. As a result, cancer programs may find themselves dealing with lengthy vacancies, which can cause strains on a growing clinic and lead to an unhappy environment for nurses *and* patients. When Loma Linda University Cancer Center encountered this understaffing dilemma, chemotherapy-skilled, oncology-experienced (CS-OE) registered nurses (RNs) in our cancer center began facing increased workloads, which put them at risk for potential burnout, increased the possibility of errors, and resulted in longer wait times for patients.

As applicants for open RN positions at the cancer center were screened, many emphasized their goal to work in an outpatient oncology setting but also expressed disappointment in not being able to find an organization willing to bear the costs associated

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The increase in vacancy length raised concerns from the program leadership team about being able to provide services to our growing patient population.

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with obtaining an education in oncology nursing. After encountering this sentiment a number of times and being unable to hire CS-OE RNs, we began to consider how we could “grow our own” CS-OE RNs.

We first looked at our job vacancies. Through our analysis, we found that the number of days an RN job posting remained vacant increased by 16 percent between 2011 and 2013 (see Figure 1, below). A variety of reasons accounted for the turnover during this period—retirement, pregnancy, relocation—with no identifiable trend. The increase in vacancy length raised concerns from the program leadership team about being able to provide services to our growing patient population. Additionally, providers complained about the impact in terms of limiting appointments and the capacity to start patient treatment within a designated time frame—problems created by a shortage of CS-OE RNs.

Our second step was to look at the types of services in demand. Each treatment appointment is scheduled according to an acuity scale ranging from 1 to 6 (see Figure 2, page 37). Level 1 appointments require 30 minutes or less to complete; for example, an injection or central line blood draw. At the other end of the scale, level 6 appointments include procedures taking up to six hours, such as a blood transfusion or a multi-agent chemotherapy regimen with pre- and posthydration. Over a one-year period, we noted that 40 percent of all appointments on any given day were of a level 1 acuity. Additional analysis of the appointment types revealed that 15 percent of level 1 patients had central intravenous (IV) access lines, which require an RN license to manage them.

Our first attempt to fill open positions was to hire licensed vocational nurses (LVNs). Job descriptions were developed and

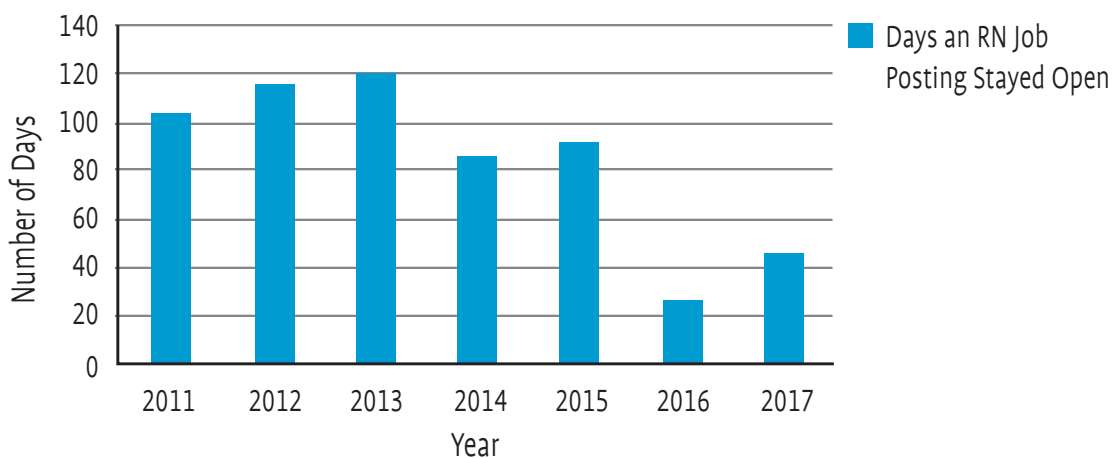
the scope of practice was reviewed because LVNs had not previously been used in the clinic. In the short time that these LVN positions were posted, two qualified LVNs were hired. However, these positions only filled a partial need, because LVNs with an IV certification are limited to peripheral supportive IV treatments. We were still facing provider and patient complaints about the need to provide additional capacity for chemotherapy/biotherapy appointments, which brought us back to our original goal to grow our own CS-OE RNs. Leadership decided that the best way to meet this goal was through the development of a nurse mentoring program.

Mentoring Program Objectives

With the need to expand capacity for an increased number of chemotherapy/biotherapy appointments, we reviewed our goal. If our overarching goal was to grow our own CS-OE RNs, what were our other objectives? Below are the four objectives we established with the intention of guiding our mentoring program:

Promoting the Specialty of Oncology. Often the revelation that one is an oncology nurse is met with the response: “Wow, that must be hard!” It can be difficult to understand why someone would want to work with cancer patients. If the general nursing population sees oncology nursing as “hard,” it may contribute to the challenges in filling a staff position. As mentioned earlier, in speaking with RN applicants, we heard nurses express the desire to work in the oncology specialty if given the opportunity and proper training. Providing this opportunity would mean the challenge of training non-oncology-experienced RNs.

Figure 1. Number of Days RN Job Postings Stayed Open



Capitalize on the Capacity of Experienced RNs to Provide Basic Supportive Care. Level 1 appointments were partially provided by LVN staff; however, additional appointment capacity was needed for patients with central IV access lines. To jumpstart the training process for non-oncology-experienced RNs, we selected RNs with the experience and skills to manage central IV lines. This type of nursing care does not require an RN to be CS-OE.

Create a Pathway for Experienced Non-oncology RNs to Attain Oncology Nursing Society (ONS) Chemotherapy/Biotherapy Provider Cards. In speaking with RN applicants who had attained the ONS CPC card, they described the difficulty of attaining the card without hands-on experience. By assigning cancer patients needing supportive treatment (blood transfusions and hydrations) to non-oncology-experienced RNs, we created a pathway to provide experience for these new-to-oncology nurses while freeing up CS-OE RNs to administer the chemotherapy/biotherapy.

Retain Chemotherapy RNs. Over the next 20 years, it is estimated that the United States will have 400,000 fewer RNs than will be needed.¹ If Loma Linda University Cancer Center is unable to retain chemotherapy RNs, the consequences for patients and the cancer center may include an increase in cost and a decrease in quality of care. In addition to providing a pathway to gain and develop the skill of administering chemotherapy and biotherapy, our mentoring program offers the opportunity for promotion to a Clinical Nurse C (indicating an advancement in knowledge from competent to proficient). We see our oncology nurse mentoring program as a proactive response to competition for scarce resources.

Meeting the Objectives

We worked with our recruitment department to identify RNs with a minimum of one year of clinical experience. By recruiting from an applicant pool that already had developed basic nursing skills—for example, assessments, interventions, problem solving—we could focus the training on oncology and not have to start from scratch, as with a newly graduated RN. Once potential applicants are selected, they are scheduled for an interview using the behavioral interviewing approach.

Behavioral interviewing is a selection process utilized at Loma Linda University Health to help us hire staff who live our core values of compassion, integrity, teamwork, excellence, and wholeness. The approach is based on the belief that past performance is the best predictor of future behavior. In a behavioral interview, we select a set of key attributes (skills) and values needed for the position and ask questions to determine whether the applicant has the selected key attributes and values. The applicant then describes stories that bring to life the skill sets required for the position. Questions are directed at how the applicant responded (behaved) in a specific situation, instead of asking how he or she would behave.² The interviewers include the hiring manager, a human resource (HR) representative, and a peer. Each person meets with the applicant to ask the selected questions independently. The three interviewers take 30 minutes each to elicit behavioral situations the applicant has experienced. For example, the hiring manager may ask a question such as, “Tell me about your most difficult day at work.” Applicants’ descriptions of their selected situations would reveal what they would classify as “difficult,” their ability to problem solve, how they utilized their resources, and what experience they gained from the situation.

Figure 2. Appointment Types (Level 1 to Level 6)



The HR representative may ask: “Tell me about a scheduling conflict you had.” Applicants responses would reveal how they manage time and work as a team member. The peer interviewer may ask: “Tell me about a time when you were on a team that did not work well together.” Again, this would give insight into what RN applicants have experienced in an ill-fitting team and how they handled the situation. This extensive interview process lasts about one and one-half hours.

Our experience with having a peer involved in the interview process has been positive. Throughout the interview, the peer is judging whether or not he or she would want the applicant as a coworker. Often RN applicants are more at ease with the peer interviewer and may reveal information they would not provide to the hiring manager or the HR representative. The recommendation to hire or not to hire is a consensus decision by the interviewing team.

The Mentoring Program

Phase One. After the RN is selected for the mentoring program, the first phase is a two-month general orientation to the hospital and the oncology department. Classroom lectures include general hospital policies and routines, general nursing policies, and electronic health record classes. Self-study modules include courses such as fire safety and corporate compliance, a cancer fundamentals course, and departmental introduction. Once the basic courses are completed, the RN enters a preceptored practicum. The RN is introduced to the daily routines and responsibilities, and skills are validated on the department orientation checklist (see Figure 3, page 39).

Phase Two. Upon successful department orientation completion, the new RN employee begins phase two of the training. This includes taking on daily patient assignments to manage supportive care treatment appointments such as blood transfusions, hydrations, and central line blood draws. During this phase, the RN is exposed to a variety of patients with varying cancer diagnoses and the need for supportive care treatments. Additionally, the RN becomes familiar with the cancer treatment protocols and begins to link side effects and complications to the medications the patient received. Although the mentee RN is assigned to a daily group of patients, his or her mentor is readily available as a resource for questions that may come up during the RN’s shift. Throughout this phase, the new RN meets regularly with the mentor, RN manager, and clinical educator to review and understand the rationale for supportive care treatments. This phase may last from four to 10 months, based on the RN’s progress as assessed and evaluated by the RN manager and the clinical educator.

Phase Three. The third phase is the joint decision to attain the Oncology Nursing Society Chemotherapy/Biotherapy Provider Card (ONS CPC). Because of the regular review meetings occurring during phase two, the third phase is a relatively short. The new-to-oncology RN has now been a Loma Linda University Cancer Center employee for approximately one year. The RN enrolls in the ONS Chemotherapy/Biotherapy course and, upon completion, attains the ONS CPC.

Phase Four. Once the ONS CPC is attained, the RN begins phase four. Designed to add more daily experience and build confidence, this phase lasts four months. In this phase, the RN is placed again on a focused assignment to gain independence administering chemotherapy/biotherapy competently.

Early in the development of this program, we learned that setting a defined time frame prevented an RN who may be hesitant to take on this high-risk skill from steadily progressing through the learning process. The RN works directly with the mentor for consistent support, demonstrating knowledge and skills so that the mentor can document competency. This would include the safe handling of the chemo drug, managing complications that go along with a patient receiving the drug, and scheduling treatment according to the prescribed cycle. This is documented on a second orientation checklist for administering chemotherapy/biotherapy (see Figure 4, page 40).

Phase Five. This final phase is optional but highly encouraged. Phase five is the promotion to Clinical Nurse C status, indicating an advancement in knowledge from competent to proficient. While working to attain Clinical Nurse C status, the nurse develops refined expertise and becomes highly proficient in his or her specialty. The nurse not only integrates the oncology standards learned in the ONS Chemotherapy/Biotherapy course into daily practice but serves as a role model and preceptor to his or her colleagues. As the nurse strives to attain the “C” status, he or she continues to learn, grow, and develop professionally. This growth ensures the highest quality of care for patients and their families.

The organizational requirement for Clinical Nurse C status requires a portfolio including a verbal commitment to proceed with the application, peer reviews, coworker reviews, and proof of required points. For example, required points may include advanced degrees, continuing education units, quality improvement courses and/or participation, awards, publications, committee memberships, and advanced skills. The length of this phase varies depending on how long it takes an applicant to acquire the necessary points.

Mentor Selection

The mentors for our program are selected through a defined process. The mentor is a more experienced oncology RN who is not only a competent, self-motivated staff member but can also provide supervised orientation and training. First, a mentor may express interest as a professional or departmental goal set during his or her annual performance appraisal. A mentor may also be encouraged to enter the mentoring selection process based on observations by the RN manager or clinical educator. Oncology nurses selected to serve as mentors attend a formal training session offered by the hospital’s Staff Development Department. This one-day workshop is created for the healthcare provider who assists in the orientation and assimilation of staff and students to the work environment. The content provides participants with a general understanding of the preceptor’s role and the preceptor process. This interactive workshop includes elements of the preceptor as a role model, educator, facilitator, and evaluator.

Figure 3. Excerpt from the Department Orientation Checklist

Method of Instruction Key: P = Policy/Protocol/Practice E = Education Session WC = Written Competency C = Clinical Practice D = Demonstration	Method of Evaluation Key: O = Observation (clinical setting) RD = Return Demonstration T = Written Test V = Verbal Review/Discussion	Method of Instruction (Use Instruction Key)	Evaluation Method (Use Evaluation Key)	Date	Initials
INFECTION CONTROL					
ENVIRONMENTAL HEALTH & SAFETY					
Demonstrate use of standard precautions/personal protective equipment					
Discuss actions in the event of needle stick					
Discuss what to do if injured at work					
Discuss use of eyewash station and review location					
Discuss staying home when sick to prevent patient and team member exposure					
Demonstrate use of PPE for chemotherapy handling					
Demonstrate understanding of use of chemotherapy spill kit and spill clean up					
Discuss handling of IV/oral chemotherapy waste					
Discuss handling of patients with infections/communicable diseases in the outpatient/clinic setting including cleaning techniques					
Discuss how to contact housekeeping					
Discuss disposal of waste per policy					
Discuss cleaning of equipment					
Review AM/PM checklist (infusion)					
Demonstrate use of appropriate hand washing technique					
Discuss policy of "No children under the age of 18 allowed in the waiting room or patient care areas."					
DEPARTMENT EMERGENCIES					
Discuss types of emergencies possible in the cancer center					
Discuss your role in fire safety					
Discuss your role in a disaster					
Discuss your role in handling a violent encounter					

After successful completion of the workshop, the guidelines for our mentoring program are reviewed with the mentor. This includes daily communication with the RN manager for a focused assignment based on the needs identified in the orientation checklists.

Mentoring Program Results

Since the program began in 2014, we have accepted a total of 18 applicants for the oncology nursing mentoring program. Nine of

these applicants were new employees to Loma Linda University Medical Center; the other nine were internal transfers from inpatient hospital departments.

Attainment of the ONS CPC is representative of the quality of the training provided to RNs as part of the mentoring program. All 10 of the RNs who opted to pursue the ONS CPC have attained their goal. The average amount of time to attain the CPC was seven months from the date of hire (see Figure 5, page 41).

Figure 4. Excerpt from the Orientation Checklist for Administering Chemotherapy/Biotherapy

Method of Instruction Key: P = Policy/Protocol/Practice E = Education Session WC = Written Competency C = Clinical Practice D = Demonstration	Method of Evaluation Key: O = Observation (clinical setting) RD = Return Demonstration T = Written Test V = Verbal Review/Discussion	Method of Instruction (Use Instruction Key)	Evaluation Method (Use Evaluation Key)	Date	Initials
CHEMOTHERAPY/BIOOTHERAPY ADMINISTRATION					
Observed demonstrating administration of chemotherapy/biotherapy following all double-checks and correct techniques including:					
• Compares original order to delivered drug (checks with pharmacist or RN)					
• Verifies patient identification with two identifiers					
• Confirms informed consent on chart before administering first treatment					
• Confirms/obtains nursing consent to treat					
• Verifies adequacy of venous access and appropriate IV site selection					
• Verifies pump settings					
• Verifies line IV line connected to patient					
Confirm patient has had treatment education					
Demonstrate nursing double checks/signing before chemotherapy administration					
Demonstrate calculation of weight for possible dose adjustment					
Demonstrate correct usage of protective gear					
Use of standing orders for hypersensitivity reaction					

One of the greatest successes from our mentoring project is the number of nurses we have been able to retain. Ninety percent of the RNs (nine of 10) who attained the ONS CPC have remained as employees within Loma Linda Cancer Center. Although not all RNs who have been in, or are currently going through, the mentoring program attempted to attain the ONS CPC, there is a centerwide retention rate of 72 percent (13 of 18). Of the nurses who have not attained the ONS CPC, four have left the organization, three are on track to attempt the ONS CPC, and one transferred to a nurse navigator position within Loma Linda University Cancer Center prior to attempting the ONS CPC (see Figure 6, page 41).

One unexpected outcome we identified is the relationship between the development of critical thinking through our mentoring program and the critical thinking RNs felt they developed while working in intensive care. There are seven RNs who worked in an intensive care unit setting prior to accepting a position at Loma Linda University Cancer Center. Among these nurses, the most common reason for wanting to work in oncology was the

need for greater patient interaction. One might assume that the need for patient interaction would mean working in an acute care inpatient department. However, upon graduating from the mentoring program, nurses with an intensive care unit background have expressed professional satisfaction as an oncology nurse at the same level as a critical care RN. This was attributed to involvement in administering and monitoring patients undergoing cancer treatment.

Not only has there been greater retention within the oncology nursing department, but there has also been a positive effect on mentors. In interviews, RN mentors have expressed an increase in professional satisfaction and an enjoyment of the opportunity to expand their role through the mentoring program.


A high RN turnover rate is an expensive problem. Encouraging career development, growth, and specialization is a strategy to retain nurses. Professional satisfaction can be gained through mentoring, for both the mentee and the mentor. Given the opportunity, nurses are eager to specialize in oncology. 

Figure 5. Average Time in Months to Attain CPC

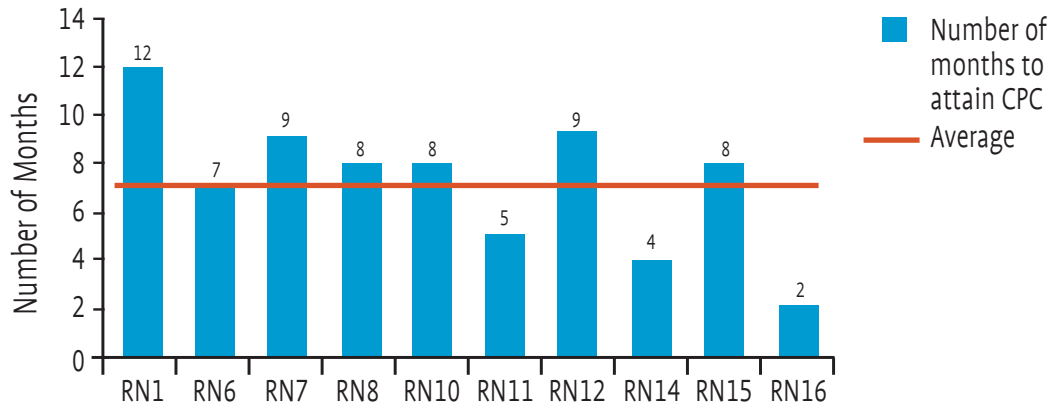
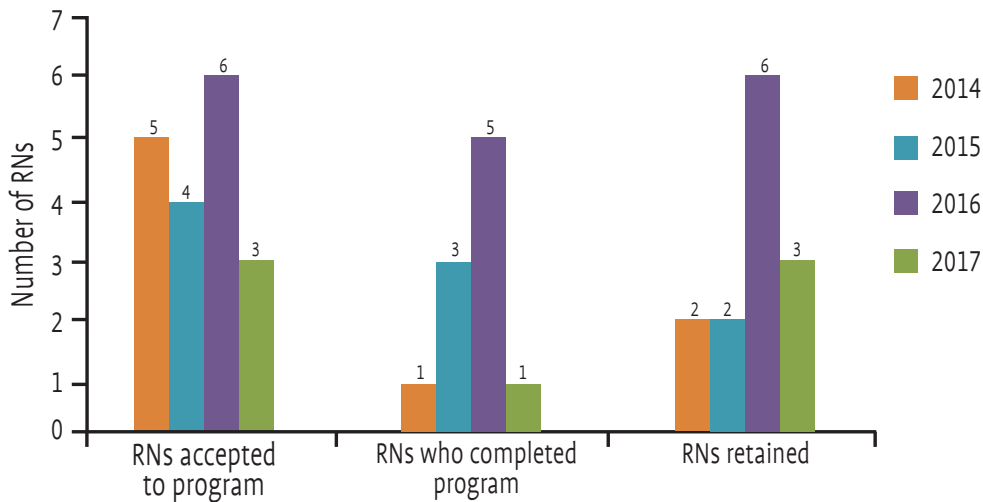


Figure 6. Program Retention by Year



Lexine Thall, MN, RN-BC, AOCN, is director of Patient Care and Kristina Chase, BSN, RN, OCN, is manager of Patient Care at Loma Linda University Cancer Center, Loma Linda University Medical Center, Loma Linda, Calif.

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Our Program At-a-Glance

Loma Linda University Health is a nonprofit religious corporation and is the umbrella organization for Loma Linda University Cancer Center, located in Loma Linda, California. Our mission is to continue the teaching and healing ministry of Jesus Christ “To Make Man Whole” through healing the whole person—body, mind, and spirit. LLUCC provides patient-focused, world-class care, provided by highly respected specialists in a convenient and accessible environment. Our commitment to caring for the whole patient ensures the entire cancer treatment process is individualized and focused on treating each patient’s physical, emotional, and spiritual needs.





Beyond the Classroom:

Students Improve Access to Supportive Care Services

The oncology social work program at Penn Medicine Virtua Cancer Program, Voorhees, N.J., is composed of two licensed social workers who provide a myriad of services across three campuses. Though social work responsibilities vary among cancer programs across the country, our social workers are tasked with the responsibility of meeting all new radiation patients regardless of disease site. Oncology social workers follow these patients from diagnosis into survivorship with no predetermined date for concluding social work contact. We believe that it is important to keep the lines of communication open with patients because many issues with survivorship present later in life. Our oncology social workers provide five free counseling sessions to patients on an individual, couple, or family basis.

Across care settings and a range of responsibilities, shared goals exist among oncology social workers; for example, the provision of emotional support to patients and families coping with a diagnosis of cancer. Oncology social workers may also help patients:

- Navigate insurance coverage.
- Apply for health insurance and social security benefits.

When we began analyzing our data, we found that our oncology social workers were missing a large majority of patients who did not trigger for follow-up. For example, our conversations with patients would often reveal issues not disclosed in the distress screen.

- Research and apply to grant programs sponsored by local organizations that provide financial assistance to patients diagnosed with cancer actively undergoing treatment.
- Facilitate support groups and/or educational offerings.
- Make referrals to transportation and other needed community services.

At Penn Medicine Virtua Cancer Program, we can provide all of the above services, in addition to the five free counseling sessions mentioned above.

Oncology social work receives referrals through very specific avenues. Typically, nurse navigators are the first point of contact, engaging with patients at time of diagnosis or surgery. Nurse navigators identify patient needs and make referrals to appropriate resources, which often generate a referral to social work. Physicians, nurses, system partners, family members, or patients can also directly refer to social work services.

Our oncology social workers see all patients—regardless of disease site—and the survivorship care continuum does not have a standard termination date, because issues related to cancer survivorship can present throughout the patient’s life span.

In 2016 Virtua Cancer Program saw approximately 2,400 analytic cases across three campuses. Our two full-time (FTE) social workers were challenged to meet this high patient demand, and it soon became clear that improvements were needed.

Identifying Programmatic Gaps

Our first step was to identify gaps within the social work program, allowing us to conceptualize areas that could be improved. Next, the cancer registry department conducted a retrospective chart review and found that social work was interacting with only one-quarter (about 25 percent) of all oncology patients diagnosed at our facility (see Table 1, page 45). Further research attributed this low patient volume to three factors: (1) issues related to distress screening, (2) limited staff, and (3) the referral system. The first driver behind our volume of patient encounters concerned follow-up criteria for the NCCN Distress Thermometer that was being distributed to all patients receiving radiation treatment at three locations (see Table 2, page 45). Traditionally we had been assessing only patients who indicated a score of 4 or higher on the distress thermometer. According to the NCCN, 0–3 is considered no/low distress, 4–6 is considered moderate stress, and 7–10 is considered high distress. Oncology social workers followed up with patients who scored a 4–6 within five business days and patients who scored a 7 or higher within 24 to 48 hours.

When we began analyzing our data, we found that our oncology social workers were missing a large majority of patients who did not trigger for follow-up. For example, our conversations with patients would often reveal issues not disclosed in the distress screen.

Additionally, our follow-up criteria created impediments to responding in a timely manner. For instance, if a patient who scored a 6 on the NCCN Distress Thermometer but also indicated transportation concerns, our follow-up criteria allowed five business days for follow-up. In these five days, however, patients were beginning treatment and in need of transportation sooner than called for by our follow-up criteria. It was becoming nearly impossible for our social workers to adequately address concerns and schedule rides through community providers.

This scenario was not uncommon, and issues were not always confined to transportation. Follow-up criteria for the NCCN Distress Thermometer were creating delays for concerns related to mental health services, nutrition, and ambulating safely in the home. For patients whose distress screen did not trigger for follow-up, these concerns were sometimes never addressed.

The second reason for the gap in patient encounters was attributed to limited staffing. Historically, two FTE oncology social workers covered three locations. Our oncology social workers see all patients—regardless of disease site—and the survivorship care continuum does not have a standard termination date, because issues related to cancer survivorship can present throughout the patient’s life span. Based on these criteria, our capacity to provide support services to a vast patient population was limited.

Lastly, the stratified referral system we work within brought its own challenges. Our patients are seen at private medical oncology practices, so we are dependent on these practices to support our social work program. In other words, because our oncology social workers are not stationed in these private practices, we rely on staff and physicians to identify patient needs during initial consults, infusion visits, or follow-ups. Because these staff are not typically trained in providing mental health services—or identifying the emotional needs of patients undergoing cancer treatment or posttreatment—needs often went unnoticed until an oncology social worker could intervene or identify a concern. Typically, this intervention would not occur until the patient was seen by radiation or surgical oncology, because social work support is built into the treatment plan for these disciplines. So, for example, if staff in these private medical oncology practices were not assessing for biopsychosocial needs or patients did not feel comfortable voicing concerns, such as fears of recurrence, the burdens of caring for an elderly parent, or difficulty discussing their diagnosis with a young child, needs would go unaddressed and unmet.

The retrospective chart review provided interesting findings concerning our stage IV cancer diagnoses population and how our program was currently addressing these patients’ needs. The total number of cases seen by social work was 19 percent. We considered this a low volume based on the needs commonly presented by this late-stage population, such as the importance of creating a living will, facilitating conversations among patients and their providers and family members, and the need for increased support as patients face advanced disease, end-of-life care decisions, and more.

Table 1. Retrospective Chart Review of Oncology Social Worker Visits

Total number of patients	348
Top five primary sites	<ul style="list-style-type: none"> • Lung 125 (36%) • Liver/pancreas 43 (12%) • Colorectal 34 (10%) • Breast 27 (8%) • Gynecology 22 (6%)
Total number of patients nurse navigated	44 (13%)
Total number of patients palliated during first course of treatment (any surgical procedure, radiation therapy procedure, and/or systemic treatment provided and indicated as palliative treatment by the physician)	107 (31%)
Total number of cases seen by social worker	66 (19%)
Total number of cases receiving no treatment	96 (28%)
Total number of cases expired within one year of diagnosis	196 (56%)
Total number of cases with advanced directive	145 (42%)

Table 2. NCCN Thermometer Follow-up Criteria

NCCN Follow-up Criteria		
Distress score	Distress Level	Follow-up Criteria
0 to 3	Low	Five business days
4 to 6	Moderate	Five business days
≥7	Severe	4–48 hours

In short, we were confronting a compelling need to offer social work services to more patients without hiring additional staff. Our challenge was to find an alternative method that did not add a cost burden to the organization and yet allowed us to preserve the high quality of social work care offered.

Developing and Implementing a Student Program

Developing a student program to help fill these gaps in care was a plausible option, but it would require our social work program to change. Until now, oncology social workers at our cancer center functioned more as outpatient therapists. They had little to no involvement in the multidisciplinary cancer care team and did not assist in combating patient barriers to treatment. Around 2013, cancer program leadership made staffing changes, which allowed our oncology social workers to transition the program into a more collaborative model. During this transition period, Rutgers, the State University of New Jersey, reached out to Penn Medicine Virtua Cancer Program to request that our institution become a field placement site for social work students. During this transitional period while major changes were underway, our social workers did not believe that the timing was appropriate; however, in 2015, after a few years of stability and with the support of management, our oncology social workers decided to move ahead with mentoring students at our cancer center.

Based on the clinical nature of oncology social work and the demands of working in a healthcare facility, we decided that Virtua would only consider second year Master’s in Social Work Students or Advanced Standing students for the cancer program.

Once the decision to proctor students was made, the assistant vice president of the Oncology Service Line suggested that we invite representatives from Rutgers to our cancer center where they would have the ability to meet with oncology social workers, learn about the Penn Medicine and Virtua Cancer program and its services, and understand what we hoped to offer students placed at our program. The result of that meeting: Rutgers field liaisons expressed a strong appreciation of our program and what we could offer students and understood our need to have high-caliber students who would align with the mission of our program. The field liaisons asked us for an outline detailing what students could expect at placement. They would then use this tool to both match and guide potential students in determining whether they were an appropriate fit for our social work program.

It is important to note that there are different types of student field placements. The type of placement will inevitably determine the hours students provide a week, along with the start and finish of their field placement. We were fortunate to have advanced standing students who would start their placement in the early summer compared to traditional students who start at the end of summer. Most students provide 22.5 hours a week over the course of nine months.

Student Selection and Training

Advanced standing students are students with a Bachelor's in Social Work, allowing them to complete their Masters degree in one year. Traditional MSW students are those with a variety of Bachelors degrees and typically complete their Masters in Social Work degree in 2 years. Based on the clinical nature of oncology social work and the demands of working in a healthcare facility, we decided that Virtua would only consider second year Master's in Social Work Students or Advanced Standing students for the cancer program. As mentioned earlier, when establishing a field placement agreement with Rutgers, we were asked to develop a document that clearly explained the placement, duties, and caliber of student needed to excel at Virtua. This information meant that students clearly understood expectations, prior to their interview. The interview process consists of meeting the students and introducing them to the social work staff along with our director to ensure the right fit.

By having students meet with all patients, patients were able to express needs in conversation that may not necessarily have come out during distress screening.

Once students begin their placement, training consists of various field exposure and clinical tasks. Students receive weekly hour-long individual and/or group supervision to allow them to discuss their learning, share case examples, and process recordings, along with short-term and long-term professional goals. Supervision is paramount to the students' abilities to recognize internal and external perceptions that are occurring as they work with patients undergoing significant life changes. This requires great skill on behalf of the supervisor, to guide students and allow them to gain confidence as a clinician as they prepare to graduate and become professionals in the field. Additionally, the supervisor must uphold the policies and procedures of the program, acting as both a mentor and, at times, disciplinarian while students gain responsibility and becomes a member of the care team. Though the students provide valuable assistance with workload and daily tasks, there is a considerable amount of time involved in acting as a supervisor, balancing caseloads and work demands while also overseeing multiple students, which must be considered when preparing to oversee students.

Delineating Student Roles

It is vital to provide an overview of the student's roles and responsibilities at the field placement to better understand how the students directly addressed our identified gaps in care. These responsibilities include meeting with all new patients starting radiation treatment to discuss support services, providing supportive counseling, offering meditation to patients in the infusion rooms, facilitating support groups, offering support and advanced care planning resources to patients in the palliative care clinic, and other tasks as needed (see Table 3, page 47).

As we initiated our student program, oncology social workers began seeing all patients in radiation—regardless of distress screening score. With the initiation of our student program, the decision was made that we were now able to meet with all patients and thus able to restructure our follow-up criteria. This change increased our patient encounters by 133 percent in that first year alone and allowed for proactive support of patient needs. By having students meet with all patients, patients were able to express needs in conversation that may not necessarily have come out during distress screening. Once trained on the resources, and after having sufficient shadowing experience, students began meeting with patients individually, clearly stating their role and purpose as a student upon initial introduction. Students meet with patients on the day of their CT simulation, the planning session for their radiation treatment, reviewing the distress screen in a private room and connecting the patient to support resources as needed. If for any reason a patient did not wish to meet with a student, he or she would be given access to the student's supervisor that day or within the week, though this was rare.

Students began providing meditation in the infusion centers and became an active presence in our private medical oncology practices. During Ms. Bernhardt's previous master's in social work field placement experience, she was able to provide meditation to patients in the infusion rooms and found this a meaningful way to build rapport with the patient while also offering a means for the patient to relax. Meditation has been shown to decrease stress and anxiety when provided to patients undergoing infusions. Because of this experience, students were introduced to the various meditation techniques, including guided imagery, body scans, and others. Once students felt comfortable, they would meet with patients in the infusion rooms, reading meditative scripts selected based on patient preference. Patients began asking students to return to facilitate meditation throughout their treatment based on the relief it provided them on the initial visit.

Each student facilitates a monthly support group as well. Previously, our community lacked face-to-face lung and colorectal support groups. With the addition of our students, we were able to add these support groups at two of our clinic locations that are facilitated by the student.

After a few months of placement experience, students began meeting with patients individually for supportive counseling sessions. In doing so, we were able to decrease the wait time that had previously existed based on limited social worker availability. This allowed for greater access to individual, couple, or family counseling sessions with little to no wait time.

Table 3. Roles and Responsibilities of Student Interns

Year	Number of Students	Roles and Responsibilities
2016	Two advanced standing master's in social work students	<ul style="list-style-type: none"> • Meet with all new radiation oncology patients • Provide meditation in the infusion centers • Offer social work support to patients in the palliative care "Lifecare" clinic • Document all patient engagements • Meet with patients for supportive counseling • Assist with grant funding • Community referral and resource procurement • Facilitate site-specific monthly cancer support groups
2017	Two advanced standing master's in social work students One master's in social work student with certificate in health and aging	
2018	Two advanced standing master's in social work students One master's in social work student with certificate in health and aging One art therapy student ^a	

^aArt therapy is a mental health profession in which clients, facilitated by the art therapist, use art media, the creative process, and the resulting artwork to explore their feelings, reconcile emotional conflicts, foster self-awareness, manage behavior and addictions, develop social skills, improve reality orientation, reduce anxiety, and increase self-esteem.

Bottom line: the student program allowed our social work team to address gaps in care and expand services at no additional cost to the healthcare system.

Key Takeaways

For cancer programs looking to implement a similar student program, our oncology social workers offer three takeaways. First is the importance of building community partnerships and a local social work network. The partnership with the Rutgers Social Work Program created leverage for Virtua Health System and Rutgers to consider future student collaborations, such as integration of art and music into the oncology program. In addition, this collaboration aligned with the 1996 National Association of Social Workers Code of Ethics, which states that “social workers should contribute time and professional expertise to activities that promote respect for the value, integrity, and competence of the social work profession. These activities may include teaching, research, consultation, service, legislative testimony, presentations in the community, and participation in their professional organizations.”¹ The partnership created a win-win situation for both the students and their oncology social worker supervisors. Specifically, our oncology social workers gained a deeper understanding of themselves as professionals and as leaders while simultaneously providing mentorship and career development to students.

The second takeaway is the cost savings the student program brought to the Virtua Healthcare System by adding to the work-



force and increasing services at no additional cost (Table 4, right). Prior to the student program, our 2.0 FTE budgeted oncology social workers had 284 patient encounters annually. The first year of the student program recognized a gain of 1.1 social work FTEs, resulting in 664 patient encounters—a growth of 133 percent from the previous year. In the third year of the program, the students added 1.65 social work FTEs, allowing for even more patient encounters.

To implement and find success with a student program at your institution, your social work staff must be onboard and willing to take on the added responsibility that comes with mentoring a student.

The third and final takeaway is the correlation between increased social work encounters and increased volume and revenue into the ancillary departments that support the oncology program. These departments include physical therapy, outpatient nutrition counseling, and palliative care (see Table 5, right). Visits to these three departments ranged from an increase of 16 percent to an increase of 47 percent after implementation of the student program. In the second year of the student program, the cancer center offered new ancillary services—acupuncture and oncology nutrition counseling—in three of our radiation treatment facilities. Thirty-six months into the student program, total revenue from these ancillary services increased by 55 percent. (Note: Palliative care revenue is not reflected here because the program is a partner of Virtua Healthcare System and is not owned by the system.)

Replicating a Student Program

Having discussed the benefits of developing a student program, including revenue generated and the increase in patient encounters, we find it essential to share the knowledge and growth we have experienced. To replicate a similar student program, we offer these key considerations:

- Determine the available resources offered by cancer institutions within your community. Are your services commensurate to those being offered by other programs in your marketplace?
- Develop and conduct a needs assessment. This provides invaluable data about your services, your patients, and your community, revealing gaps in care that may exist. Without a clear understanding of these gaps, it is nearly impossible to devise strategies that will better meet patient needs. Understanding these needs allows you to ask the right questions to bridge existing gaps. For our social work program our question was, “Could we bridge gaps in care with a student program?” Our answer was a resounding “Yes!”


Table 4. Social Work Encounters

Staffing	2015
Two FTE oncology social workers	284 Patient encounters
Staffing	2016
Two FTE oncology social workers	664 Patient encounters
Two master's in social work students (1.1 FTEs)	
Staffing	2017
Two FTE oncology social workers	1,705 Patient encounters (160% increase from 2016)
Two master's in social work students (1.1 FTEs)	
Staffing	2018 Projection
Two FTE oncology social workers	413 Patient encounters (January to March 2018)
Three master's in social work students	1,650 Projected patient encounters
One art therapy student	

Table 5. Patient Encounters at Ancillary Services

Ancillary Service	2015	2016	Percentage Increase
Physical therapy	137	201	+47%
Nutrition	32	56	+75%
LifeCare (palliative care)	183	213	+16%

- Create community partnerships. This works best when there is a shared vision among the institutions involved. Develop relationships that allow stakeholders to determine whether there are mutual interests that will further the goals of each organization.

To implement and find success with a student program at your institution, your social work staff must be onboard and willing to take on the added responsibility that comes with mentoring a student. Having embarked on this journey with the social work students, our oncology social workers believe that the potential for expanding the program is unlimited. We have had the privilege of working with a student who was accepted into a Health and Aging Fellowship. Her enthusiasm for this patient population and her school project requirement has resulted in a complete overhaul of our palliative care program. This project will have lasting value in our organization long after the internship ends. Having had this positive outcome, our social workers are very interested in partnering with other students who have a specialty focus that could further enhance our program. Our oncology social workers remain eager to mentor additional students, allowing them to experience the sacred space that is shared between a patient and an oncology social worker when dealing with this life-altering diagnosis. 

Bridget Legrazie, APN, is director of Support Services and Brie Bernhardt, MSW, LSW, and Lisa Rosenberry, MS, MSW, LCSW, OSW-C, are oncology social workers at Penn Medicine Virtua Cancer Program, Voorhees, N.J.

Reference

1. National Association of Social Workers. Code of ethics. Available online at: socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English. Last accessed March 28, 2018.

Our Program At-a-Glance

The Penn Medicine Virtua Cancer Program provides a wide range of comprehensive cancer care in southern New Jersey across three counties (Burlington, Camden, and Gloucester). The program sees approximately 2,400 analytic cancer cases annually, with breast, colorectal, and lung cancer being the primary sites. State-of-the-art medical care is provided by radiation oncology, surgical oncology, and medical oncology. The program also offers a variety of oncology support services to patients from the time of diagnosis into survivorship and end-of-life care. Services available include:

- Oncology social work
- Nurse navigation
- Genetic counseling services
- Fitness
- Rehabilitation services
- Nutrition
- Integrative therapies
- A palliative care and hospice program
- Case management
- Survivorship programs.

The Oncology Services Department includes 5.0 FTE nurse navigators, 2.0 FTE oncology social workers, and 2.5 FTE cancer genetic counselors.

Tailoring Education for the Oncology Patient



Since 1985, Clearview Cancer Institute has served hematology and oncology patients in our community of north Alabama. Clearview Cancer Institute is a private, physician-owned community practice with three full-service locations. Two of these locations are in Huntsville, and one is in Decatur. We have three satellite clinics in Athens, Madison, and Scottsboro that are available for patient office visits on select days of the week. Our practice is home to 14 physicians and 17 mid-level providers.

Clearview is fully committed to quality, patient-centered care for *all* patients. The mission statement for Clearview is as follows: “Clearview is committed to providing cutting-edge quality, compassionate, comprehensive care.” It is our belief that education is at the center of providing high-quality patient care. We strive daily to ensure that patients have excellent education so that they can make informed decisions about their care as they travel through the cancer journey.

A Unique Patient Population

Because of our geographic locations, we serve a varied patient population. Huntsville itself is nicknamed “Rocket City,” and many individuals hold advanced degrees and work as rocket scientists for the National Aeronautics and Space Administration or other government agencies. Our home county of Madison is the second most educated county in Alabama.¹ Conversely, the state as a whole has a lower than average high school graduation rate,² and it is currently estimated that between 15 and 25 percent of Alabamians are functionally illiterate.³

Residents of at least 20 counties in Alabama are represented in our patient population. Furthermore, of these 20 counties, 17 were designated in 2015 as primary care physician shortage areas by the Alabama Department of Public Health, and 15 of these counties were considered medically underserved areas. Therefore, poor access to healthcare providers and healthcare facilities is the reality for many of our patients. Additionally, many of our patients travel substantial distances to our facilities and/or satellite locations. Finally, from 2001 to 2010, Alabama has experienced a 145 percent growth in its Hispanic population,⁴ resulting in significant language barriers.

Education plays a vital role in the patient’s cancer journey. It is our role as healthcare professionals to ensure that our patients are well informed about their disease and treatments so that they can make the best possible decisions for themselves and their families.

The Adult Learner

In addition to a differentiated patient population in terms of education, access to care, and cultural differences, Clearview Cancer Institute has multiple avenues with which we communicate and disseminate information to our patients. Education can be delivered through live classes and one-on-one teaching, which includes verbal instruction, visual instruction, and written instruction. Education may also be provided via phone, secure email, and written documents, among other methods.

We know that learning styles are constantly evolving with changes in technology and information delivery. Each generation also brings with its own preferences in effective learning formats. Studies have demonstrated that the use of multiple teaching methods is beneficial to patients. One analysis revealed that almost 67 percent of patients had better outcomes when receiving multiple forms of patient education than those who received routine care only.⁵

At Clearview Cancer Institute, we believe that providing multiple formats for educating our patients is the best practice to ensure that patients receive the education they need in the format that best suits their needs. So how do we help our patients learn? A prevalent adult learning theory of andragogy comes from Malcolm S. Knowles. Knowles et al. proposed that for adult learning to be effective, the following items are essential to recognize⁶:



The infusion suite boasts views of a pond and floral landscaping for patients to enjoy during their treatments.

- Adults want to know why they should learn something.
- Adults need to take responsibility for learning skills.
- Adults bring personal experiences as a resource to learning.
- Adults are ready to learn when there is a real-life situation or need.
- Adults are task-oriented or problem-centered learners.
- Adults are responsive to internal and external motivators.

This further enforces the idea that adult learners are often internally motivated.⁷ It has also been demonstrated that about 70 percent of adult learning is considered to be self-directed, meaning that the individual is taking the initiative to learn without help from someone else. This may include an informal learning process in which patients may seek out external content and/or resources to determine needs, problems, goals, and outcomes.⁸

Additionally, when patients are well informed about their disease and treatment options, patients have been shown to have an increased sense of control. They are more involved with their care and have reduced psychosocial distress. These patients are also more likely to adhere to their treatments.⁹

Education plays a vital role in the patient's cancer journey. It is our role as healthcare professionals to ensure that our patients are well informed about their disease and treatments so that they can make the best possible decisions for themselves and their families. Additionally, as healthcare professionals, we need to be open to altering and/or personalizing teaching styles to keep up with patient needs and preferences.

The Journey Ahead

Each of the factors discussed thus far heavily impact Clearview Cancer Institute's patient education efforts. Over the years, we have experienced many failures and successes in developing

education that meets our patients' needs. Verbal education through one-on-one interaction with physicians and nurses was the initial primary form of education conducted at Clearview. Handouts were printed for patients and given to them during the one-on-one session. Physicians would give an overview of the disease and treatment options, and patients would get more in-depth education from nurses on the specific medications they would receive.

This verbal education continues at Clearview today, but modifications have been made to cater to the ever-changing needs of the patient population. Materials can now be printed in multiple languages. Spanish interpreters are available on-site. An interpreter phone line is also used to communicate when a patient speaks another language. These improvements ensure that no matter what language patients speak, they will receive the education they need. Language should never be a barrier in preventing high-quality education and care for a patient.

The establishment of Clearview Cancer Institute's survivorship program, *Journey Ahead*, brought about more changes in how education is conducted. The survivorship program is targeted toward all newly diagnosed cancer patients. Each patient is given a binder with information about what to expect before, during, and following treatment. Information in the binder includes side effect management education, financial resources, and support group information, among others. These binders are given to patients at their first treatment appointment. Patients are instructed to bring their binders back during each office visit so that they can add to the binder and take notes. Printed materials that have been tailored specifically for the patient have been shown to improve patient recall better than generalized materials¹⁰; therefore, *Journey Ahead* binders can be tailored to include disease-specific and treatment-specific education for the patient. The binders have

divided sections for patients to add their pathology report, labs, and imaging reports.

The *Journey Ahead* binder is meant to be an educational resource for patients and their caregivers. Patients can easily reference their binder to help them navigate their way through their cancer journey. Because patients will interact with many different healthcare professionals throughout their cancer journey, the binder also serves as a tool for patients to take back to their other providers to keep them in the loop and educated about their care. It is important that communication is seamless and that everyone one is on the same page so that the patient can receive the best possible care.

Using printed materials to educate patients has created many challenges. Finding materials that are informative and written in easy-to-read terms can be difficult. The use of illustrations within written materials has shown to be a useful teaching strategy, especially for those with a low literacy level.¹¹ The education department at Clearview Cancer Institute is constantly striving to ensure that materials are up to date and patient friendly. The goal is to provide consistent education to all patients no matter what member of the cancer care team is providing the education. Standardized education materials are made available to all Clearview staff so that the materials given to patients are consistent.

Education materials are kept in an electronic format and then printed out for patients while they are in the clinic. The education materials can also be sent electronically to patients through email. Having the materials stored electronically for staff helps combat the need for storage space. Though there are many great resources offered in hard copy, Clearview has found that long-term storage is a problem and that materials get pushed in closets never to be seen or used. By having electronic educational materials, staff can access information easily and print as needed. The majority of our educational materials are available at the push of a button.

Live Educational Classes

Clearview Cancer Institute started these educational classes to educate multiple patients at one time. Classes covered broad cancer topics such as side effect management, nutrition, psychosocial needs, and financial issues. Classes were initially offered during the day, but with an increase in the number of people working through treatment or returning to work quickly following treatment, educational classes were added in the evenings to accommodate patients' schedules.

Our "Chemo and You" course is designed specifically for patients who have not yet started treatment or those who are very early in their treatment cycles. The course is meant to complement the education that infusion nurses teach patients during their first chemotherapy infusion and is offered weekly at the same time of day. To increase the number of patients attending the class, it is built into the patient's chemo regimen and is added to the patient's schedule. Though the class is not mandatory, it is highly encouraged.

We have noticed that those patients who attend the "Chemo and You" course prior to the start of chemotherapy report a better understanding of their treatment. The infusion nurses have

also noticed an increase in patient knowledge when doing their chemotherapy teaching prior to the start of the patient's treatment.

Though attendance has continued to be positive for the "Chemo and You" course, this has not been the case for other live, in-person classes. Like many institutions, attendance at live, in-person classes has continued to dwindle. The day of the week or time a class was offered seemed irrelevant; attendance just was not what it had been in previous years.

Getting the entire healthcare team involved in promoting patient education has helped to inform patients and family members about our new educational offerings. It truly does take a village to ensure that patients and their families have access to quality cancer education.

Through patient feedback and team discussion, we discovered that patients trying to work through treatment or returning to work immediately following treatment simply did not have the time or resources to attend a live class. Their lives were busy, and they needed to get back to or keep up with their "normal" routine. We know and recognize that time, family reactions, situational obstacles, and special individual obstacles can all be barriers to education.⁷ These findings did not mean that patients did not want or need the information presented in the classes; patients just were not able to effectively fit it into their daily lives.

So, how do we reach patients who no longer have the necessary resources—whether time, money, or another factor—to come to one of our facilities for a class? How else can we disseminate information we feel is important for our patients to have?

A Technological Springboard for Patient Education

Some research supports the idea that web-based instruction and classroom instruction are equally satisfying and beneficial to learners.¹² Additionally, it is estimated that 87 percent of Americans regularly access the Internet.¹³ More than two-thirds of Americans have smartphones with Internet access. Of these, 62 percent of users report using their smartphone to acquire information about a health condition.¹⁴ These findings coupled with the knowledge that individuals will seek out external content and resources for educational purposes helped us identify how our practice could better serve our patients. Specifically, we needed to better leverage online and electronic platforms.

Though this solution appears to be an obvious one, it was no easy task to accomplish. The first step was an overhaul of our practice website to even be able to provide online educational

opportunities. This work required hiring a professional web designer to work with us to restructure our website, making it easier to navigate and able to host multiple videos. We also wanted our website to be more interactive for patients and family members who would be using it. This process took several months to accomplish, and maintenance of the site is ongoing.

In addition to adding virtual classes, we wanted to provide the same e-learning opportunities to patients in our offices. Clearview Cancer Institute works closely with Russel Hill Cancer Foundation on patient assistance and special patient projects. Through a fundraising event supporting Russel Hill Cancer Foundation, we secured the funding necessary to place iPads at each infusion chair in all our facilities. These iPads are loaded with reading content and videos, allowing patients to access educational offerings while having their chemotherapy treatment.

The next step we took was to determine which classes we wanted to offer virtually. At first, we believed that recording the live classes would be the easiest, most efficient, and most cost-effective option, but we soon realized that many live classes did not translate well on screen. There was too much background noise and too many distractions in the videos. We needed to create separate recordings of classes for our patients to view. We settled on creating scripted PowerPoint presentations for the educational classes.

Because there was no direct interaction with class participants, we realized that the audio had to be dynamic in nature so that the speaker holds the interest of the virtual audience. This realization and the production process initially slowed the release of videos for patients, so we chose to focus on two of our most needed and most popular educational offerings: “Chemo and You” and a “Strong Lungs, Strong Life” smoking cessation course.

Both classes are broken down into multiple video sections so that patients can play small sections of the class at a time. Viewers only need 5 to 10 minutes to watch each segment, and it can be done in the infusion room or in the comfort of their own home when it is convenient for them. These classes are available to be referenced multiple times by patients. This repeatability has been helpful for patients when questions arise. They are no longer forced to call the office for common questions. This e-learning also allows family members to be involved in the educational process.

The “Chemo and You” course is broken down into five sections:

1. General Chemotherapy and Side Effect Management
2. Gastrointestinal Side Effect Management
3. Intimacy Issues
4. Interpreting Lab Results
5. Management of Neuropathy.

The information presented in the videos is the same information presented during the live class. The educational material in this course also mirrors the material provided in the *Journey Ahead* survivorship binder. We believe that continually providing consistent, streamlined information to patients gives them the tools they need to manage their cancer diagnosis.

The “Strong Lungs, Strong Life” smoking cessation course is broken down into seven weekly sections. Participants are asked to watch one presentation per week. The course has weekly “homework” assignments that help them prepare for their “quit” date. Participants are not expected to have quit smoking prior to the start of the course but should use the class as a guide to help them quit by the end of the course. Participants can contact staff while they are taking the online course for support and guidance. By offering the online course, participants can quit smoking when the time is right for them instead of having to wait until a live course is offered.

A New Direction for Patient Education

The success of our videos and patient education courses has been exciting, and feedback from patients and staff has been positive. We continually monitor our website to find out how many hits we have on each educational video. Because of the positive responses, we are working diligently to expand our e-learning opportunities. We also know that informing patients and spreading the word about our online educational offerings can be challenging. We continually strive to promote our e-learning opportunities, working closely with the marketing director. Getting the entire healthcare team involved in promoting patient education has helped to inform patients and family members about our new educational offerings. It truly does take a village to ensure that patients and their families have access to quality cancer education.

Clearview Cancer Institute is also looking to improve our patients’ fitness. Through the YMCA, we offer a 12-week exercise program to our patients free of charge. This activity gets patients moving and combats some of the symptoms they may be experiencing. Though we are proud to be able to offer it to our patients, we have noticed that many people were not taking advantage of the program. Some of the reasons people cited for not using the program included embarrassment and intimidation, the gym’s inconvenient location, and a lack of time in the day to get to the gym. In light of this information, we decided to offer an online exercise video. This short, 10-minute video features chair exercises that can be performed in the home. By offering an e-exercise activity, we were able to alleviate some of the barriers our patients faced in becoming healthier and physically fit. This exercise video is now one of the more popular online videos offered.

As a growing practice, we also noted that some of our new patients were confused about practice locations, what to expect at an appointment, and other general concerns. Because we had success with the “Chemo and You” and smoking cessation classes, we determined that online education may be beneficial for our new patients as well. We contracted with an external company to create videos for each service location that would be promoted at the time of referral. Once a patient is referred to Clearview Cancer Institute, he or she is contacted via telephone by the scheduling department. Patients with Internet access are directed our website to complete new patient paperwork and view the video for their referral location. This e-learning opportunity has helped immensely with completion of new patient paperwork in

Our physicians and advance practice providers take the time to address patient needs at the chair side.



a timely manner, as well as alleviation of first-day jitters for our new patients.

Our newest venture into the virtual education world has been Facebook Live. With Facebook Live, Clearview Cancer Institute has held live speaker programs while a virtual audience joins us in real time. This option has helped expand the number of people we can reach at one time. It has also allowed our virtual audience to ask questions to the speaker—something that was lacking in our previous online courses. Though we are still in the early stages of using this technology to broadcast educational events, we believe that it has been quite successful. We have had great feedback from the audience, both in person and from virtual participants. Those individuals who could not make it to the clinic due to conflict, including work schedules, transportation issues, and illness, can now participate just as easily as those in the live audience. It is our goal that all live educational presentations held at Clearview will also be offered via Facebook Live.

Planning for the Future

To continue meeting the needs of our unique patient population, we have enlisted the help of some of our patients and their family members to create an advisory committee. This new committee, the Patient Family Advocacy Committee, will provide insight into the resources and educational programs that patients and families want to see. This valuable information will help us tailor our educational programs accordingly. Patients and their families are our top priority, and we want to make sure that we are meeting their needs.

As we look to the future, we have several goals that we would like to achieve in expanding our educational offerings and improving our educational programs:

- **Translated education materials.** Due to the increase in patients speaking languages other than English, we are making it a priority to continue translating currently used education tools,

whether print or electronic media, into other prominent languages in our area. As discussed, we already have some information available, but this is an area for growth that would make a significant impact on our patients and their families.

- **Additional educational videos.** Because of the success with educational videos online, at chairside, and on Facebook Live, we are working to expand course offerings. Classes that we would like to add to our education library include a nutrition class, an oral chemotherapy class, and a class on financial management during the cancer journey.
- **Continued dissemination of printed and written educational materials.** Many of our patients still enjoy and benefit from receiving a paper copy of home care instructions and lab or imaging results, among others. We will continue the use of our *Journey Ahead* binders in addition to paper copies of information to patients as needed and requested.
- **Continued offering of live, in-person classes.** Because the “Chemo and You” class is built into treatment regimens in our electronic health record and scheduled for each patient, we have had higher attendance rates. This class will continue to be offered as a live educational opportunity at regular intervals. In addition, if the need presents itself through the Patient Family Advocacy Council or other patient feedback avenues, we will hold additional live education events on a regular or as-needed basis.
- **Special interest education events.** As we continue to expand our support groups and support services, we have come to realize that there are special and specific education needs. Through partnering with specialized groups and service lines, as well as our marketing team, we want to continue offering programs that meet these patients’ specific needs such as support groups and targeted education for growing patient populations like young adult and head and neck cancer patients and survivors.



Built in 2006, CCI was designed to meet all patient needs by offering comprehensive cancer care under one roof.

Closing Thoughts

There is no one-size-fits-all approach to patient education. Different approaches are successful in different circumstances. By using multiple teaching and education methods, we can provide our patients and their families the best chance for success. Clearview Cancer Institute is committed to allowing our educational offerings to grow and change to meet patient needs. Feedback from patients and families will be key to building and producing successful educational events and resources moving forward. Every member of the cancer care team will also be needed to help improve the education provided to our patients. There is no doubt that advances in technology and social media will also play an increasingly larger role in how we educate patients in the future. Change is a part of life, and we continue to evolve. 🗨️

Kristin Shea Donahue, MSN, RN, OCN, is director of Educational Services and Anne Marie Fraley Rainey, MSN, RN, CHC, is compliance and quality control officer at Clearview Cancer Institute, Huntsville, Ala.

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TESTING AND
TREATING ALK+
NON-SMALL CELL
LUNG CANCER



The anaplastic lymphoma kinase (ALK) gene rearrangement is a genetic alteration that may lead to the development of lung cancer in certain individuals.¹ Over the last decade, advances in molecular diagnostics and treatments for lung cancer have led to the development of multiple targeted therapies for patients with non-small cell lung cancer (NSCLC). Patients with ALK+ NSCLC may be appropriate candidates for such targeted therapy, but this lung cancer subtype is rare. Only approximately 5 percent of patients with lung adenocarcinoma are ALK+, so molecular biomarker testing is a critical step to identifying those patients who may be appropriate for targeted therapy.²

Testing and Treating ALK+ Non-Small Cell Lung Cancer Education Project

ACCC launched the “Testing and Treating ALK+ Non-Small Cell Lung Cancer” project in 2016 to support community-based cancer programs and practices in the use of precision medicine and molecular testing in caring for patients with ALK+ NSCLC. The project’s primary goal is to provide examples of effective practices for utilizing appropriate molecular testing when treating patients with ALK+ NSCLC. In 2016 this project explored barriers and issues related to testing and treating patients with ALK+ NSCLC through an environmental scan that was also informed by the insights of the project’s expert Advisory Committee (a summary of the scan is available on the ACCC website at: acc-cancer.org/projects/alk-positive-lung-cancer/overview). In 2017 ACCC conducted focus groups to further understanding of the landscape of testing and treating patients with ALK+ NSCLC. In 2018 ACCC performed site visits at five ACCC member programs to explore how they are effectively diagnosing and managing patients with ALK+ NSCLC:

1. The Center for Cancer Prevention and Treatment at St. Joseph Hospital, Orange, Calif.
2. Cone Health Cancer Center, Greensboro, N.C.
3. Tennessee Oncology in Nashville, Tenn.
4. Baptist Cancer Center in Memphis, Tenn.
5. Sanford Cancer Center in Sioux Falls, S.D.

Major Themes

Through this project, ACCC discovered several key issues related to testing and treating patients with ALK+ NSCLC:

- **Molecular testing.** There are many ways to perform molecular testing on lung cancer biopsy samples. While many cancer programs are using a series of single-gene tests for EGFR, ALK, and ROS1, others may be using next-generation sequencing to perform broad genomic profiling, even when samples are small. Many centers are also testing for the PD-L1 biomarker. In 2018 the College of American Pathologists (CAP), the International Association for the Study of Lung Cancer (IASLC), and the Association for Molecular Pathology (AMP) released updated molecular testing guidelines that provide additional guidance regarding optimal testing samples and methods.³
- **Evolving treatment guidelines.** The first ALK inhibitor was approved in 2011 and subsequent agents were approved between 2014 and 2017 (see Table 1, page 60). Currently, three ALK inhibitors are approved for first-line therapy and three are approved for second-line therapy. All the agents are listed in the National Comprehensive Cancer Network (NCCN) Guidelines for NSCLC (Version 3.2018).⁴ ACCC member programs participating in this project reported that they had been using crizotinib in the first-line setting until 2017. Then, they switched to using alectinib in the first-line setting after

Table 1. ALK Inhibitors

GENERIC NAME	BRAND NAME	FIRST-LINE THERAPY FOR ALK+ NSCLC	SECOND-LINE THERAPY FOR ALK+ NSCLC
crizotinib	Xalkori®	FDA approval 2011	
ceritinib	Zykadia®	FDA approval 2017	FDA approval 2014
alectinib	Alecensa®	FDA approval 2017	FDA approval 2015
brigatinib	Alunbrig®		FDA approval 2017
lorlatinib			FDA breakthrough therapy designation 2017

hearing the results from the J-ALEX study.⁵ There seemed to be no established consensus on how ALK inhibitors should be sequenced in the second-line setting. Given that tumors treated with ALK inhibitors may acquire additional mutations, disease progression remains an ongoing challenge in patients with ALK+ NSCLC.⁶

- **Low patient volume and limited clinical experience.** On average, medical oncologists in the community may only treat one to three patients with ALK+ NSCLC each year. Due to this low patient volume, these providers often have limited experience using different ALK inhibitors. Some of the ACCC member programs participating in this project reported that they have dedicated medical oncologists who focus their practice on the management of lung cancer and who also lead their institutional thoracic oncology program.
- **Treatment monitoring.** Through this program, ACCC heard about several different ways to educate and monitor patients who are started on oral ALK inhibitors. Some cancer programs have their own oncology pharmacist educate and follow patients, others primarily rely on their nurses for these responsibilities. Other cancer centers use a dual-team approach where the oncology nurse and pharmacist both educate the patient and reinforce key messages at different times.

The Center for Cancer Prevention and Treatment at St. Joseph Hospital in Orange, California

The Center for Cancer Prevention and Treatment at St. Joseph Hospital is a member of St. Joseph Health, an integrated Catholic healthcare delivery system. In 2016 Providence Health & Services merged with St. Joseph Health to form Providence

St. Joseph Health. Annual newly diagnosed lung cancer patients: 150+.

The Center for Cancer Prevention and Treatment at St. Joseph Hospital in Orange, Calif., has a dedicated multidisciplinary thoracic oncology team, led by Program director John Maurice, MD. The team meets weekly to review and discuss all newly diagnosed lung cancer patients. While there are three private medical oncology groups that manage patients with lung cancer at St. Joseph’s, the multidisciplinary thoracic oncology team establishes institutional processes and procedures to ensure a uniform approach to patient care.

Prioritizing Molecular Testing in Lung Cancer

The thoracic oncology team has been working for several years to optimize molecular testing processes to ensure that patients are receiving the right tests in a timely fashion. Patients with advanced NSCLC receive EGFR, ALK, ROS1, and PD-L1 testing, and results are usually available within 10 business days. Occasionally, next-generation sequencing may be ordered if patients are being considered for clinical trials, but St Joseph’s does not have a formal policy governing the use of next-generation sequencing testing for patients with lung cancer. Since lung needle biopsies are mostly performed by radiologists using core biopsy needles, their pathologists almost always obtain adequate tissue for molecular testing. Most recently, the thoracic oncology team began evaluating a revised lung cancer molecular testing order form. This new form requires medical oncologists to select and prioritize specific molecular tests so that pathology can assess how to allocate small biopsy samples for testing.

Molecular Tumor Board

Given recent advances in cancer genetics and genomics, St. Joseph's cancer care team launched a new molecular tumor board program in 2018. This program is led by Cancer Genetics Program Manager Sandra Brown, MS, LCGC. (The Cancer Genetics Program provides cancer risk assessment, genetic counseling, and plans to assist in early detection, prevention and improved cancer management.) With this new molecular tumor board program, the goal is to discuss specific patient cases, review the latest scientific and clinical evidence, and educate members of the broader cancer care team about the practical utility of genomic and genetic testing to inform treatment decisions in patients with cancer. The cancer care team has reviewed patients with ALK+ NSCLC and identified several topics that could be discussed pertaining to molecular testing interpretation and clinical trial matching. In the first year, the team plans to hold quarterly meetings with all the members of the cancer care team. In the second year, their intent is to incorporate molecular tumor board discussions into all site-specific cancer programs.

Active Clinical Research

St. Joseph's has a very active clinical research program led by Lavinia Dobrea, RN, MS, OCN. The Thoracic Oncology Program navigator, Enza Nguyen, RN, MS, ANP-BC, works closely with the research team to identify patients with ALK+ NSCLC who may be eligible for clinical trials. The research team uses a visual tool to facilitate the process of identifying patients with NSCLC for clinical trials. View this tool online at acc-cancer.org/projects/alk-positive-lung-cancer/overview.

Cone Health Cancer Center in Greensboro, North Carolina

Cone Health is an integrated not-for-profit network of health care providers serving patients in North Carolina. Cone Health Cancer Center provides comprehensive cancer care at five locations. Annual newly diagnosed lung cancer patients: 450+.

Cone Health Cancer Center at Wesley Long in Greensboro, North Carolina, is the main location for lung cancer care. Within the Cone Health medical oncology group of 18 medical oncologists, Mohamed Mohamed, MD, primarily focuses his practice on lung cancer and leads the thoracic cancer program across the entire Cone Health system. Under his leadership, Cone Health has established organizational policies to guide the clinical care of patients with advanced lung cancer. Cone Health launched an oncology clinical pathway program in July 2017 that is integrated with its electronic health record (EHR). The pathway program allows providers to review and evaluate their use of ALK inhibitors in both the first-line and second-line settings.

Initiating Molecular Testing Early

The thoracic multidisciplinary team meets weekly to discuss every newly diagnosed patient who is presented by pathology. By discussing patients before they are seen by a medical oncologist, the team can evaluate whether biopsy samples are adequate for molecular testing and start the ordering process. Since it may take up to 14 days to receive next-generation sequencing test results, the team initiates the process as early as possible. A thoracic cancer nurse navigator, Dana Herndon, RN, follows up with pathology to confirm that tests have been ordered and to review the status of pending test results. Direct access to the testing portal allows the nurse navigator to immediately see when results are available and share this information with the treating oncologist. The multidisciplinary approach of discussing patients before they are seen has also allowed the team to identify instances where the biopsies appear to be inadequate for molecular testing. In those circumstances, the team discusses the feasibility of performing a second biopsy vs. ordering a liquid biopsy test (circulating tumor DNA).

Oral Chemotherapy Navigation

Cone Health has a specialty pharmacy and a dedicated oncology pharmacist, Jesse Mack, PharmD, BCPS, BCOP, who serves as an oral chemotherapy navigator. This pharmacist navigator meets directly with the patient to provide comprehensive patient education and assists with the necessary paperwork to facilitate patient access to medications. The navigator also makes follow-up phone calls to ensure that the patient has received the medication, to assess for side effects, and to track treatment adherence. If patients are hospitalized at a Cone Health hospital, the inpatient team notifies the oral chemotherapy navigator and reviews a set of established hold criteria parameters to assess whether the patient should continue receiving the oral oncolytic agent while hospitalized.

Studying Molecular Testing Accuracy

The thoracic oncology team at Cone Health has researched the accuracy of different molecular testing methods. In the past, they had utilized several molecular testing companies and had noted some discordance in results. This led the team to participate in a research study that revealed how next-generation sequencing testing may discover more positive mutations than are identified by standard molecular testing methods.⁷ This type of rigorous research enabled the thoracic oncology team to gain trust and approval from their administration to support the broader use of next-generation sequencing testing for patients with advanced lung cancer.

Tennessee Oncology in Nashville, Tennessee

Tennessee Oncology, established in 1976, is an independent group with multiple locations throughout the state. With 80 medical

oncology providers, Tennessee Oncology treats 14,000 new cancers each year. Annual newly diagnosed lung cancer patients: 1,000+

Tennessee Oncology Nashville-Centennial Clinic is one of the largest of the 20-plus practice locations throughout the state. In 1993 Tennessee Oncology initiated the first community-based cancer research program in Tennessee offering clinical trials, including phase I research studies, outside of an academic setting. In 2004, the research program was officially named the Sarah Cannon Research Institute. The institute's mission was to make clinical trials accessible to patients close to their home communities, thus eliminating the need for extensive travel to and from academic centers. In 2012, Sarah Cannon Research Institute became the Cancer Institute of HCA Healthcare.

As the clinical management of ALK+ NSCLC continues to evolve, ACCC remains committed to providing practical insights that can inform the application of precision medicine.

Robust Clinical Research

Tennessee Oncology and Sarah Cannon remain closely integrated and share the same building and clinical spaces. Patients have convenient access to a wide range of clinical research opportunities, including phase I clinical trials. Patients with ALK+ NSCLC who are treated at Tennessee Oncology may enroll in a clinical trial and receive lorlatinib, an ALK inhibitor that received breakthrough therapy designation by the FDA in 2017. Tennessee Oncology physicians Melissa L. Johnson, MD, and Todd Bauer, MD, among others, have been studying this agent for several years and have presented their phase I/II research findings at recent ASCO conferences.⁸

Multidisciplinary Treatment Plans

Tennessee Oncology Nashville-Centennial Clinic is located next to Tristar Centennial Medical Center. Every week, clinicians participate in site-specific tumor boards where they discuss molecular test results, review clinical evidence, and collaborate to personalize treatment plans for patients. Some of their discussions pertaining to ALK+ NSCLC have led to different treatment approaches by the Tennessee Oncology radiation oncologists, including James Gray, MD. After discussing how the presence of an ALK mutation may confer better long-term prognosis if patients are treated with effective targeted agents, this information is

altering how radiation oncologists treat patients with ALK+ NSCLC who have brain metastases. Instead of using whole-brain radiotherapy, radiation oncologists now try to use stereotactic radiosurgery to better preserve long-term cognitive function in patients with ALK+ NSCLC.

Investing in Technology to Improve Care

In 2017 Tennessee Oncology made the investment to switch to a more robust oncology-focused EHR and implemented clinical pathways across the entire organization. That same year, Sarah Cannon acquired Genospace, a company that provides molecular pathology reporting, analytics, clinical trial matching, patient portals, and other cloud-based services. The investment in technology reflects the belief that these platforms will enable their oncology providers to deliver more consistent care across all their locations, as well as help their team identify eligible patients for clinical trials.

Baptist Cancer Center in Memphis, Tennessee

Baptist Memorial Health Care created the Baptist Cancer Center, an integrated cancer program serving patients living in north Mississippi, west Tennessee, and eastern Arkansas. Annual newly diagnosed lung cancer patients: 1,000+.

The Baptist Cancer Center in Memphis, Tennessee, is the main campus that offers cancer treatment, research, support services, community education, and genetic counseling and testing. Out of a 28-medical oncologist provider group, 1 clinician primarily focuses his practice on the management of lung cancer. He also serves as the director of the Baptist Cancer Center Multidisciplinary Thoracic Oncology Program. His team oversees lung cancer screening and provides nurse navigation for patients with lung cancer. To maximize the molecular testing yield from small biopsy samples, Baptist Cancer Center sends most lung cancer biopsies for next-generation sequencing testing and it usually receives results within 10 business days. In 2015 the cancer center's pathology department worked with radiology and pulmonology to develop specific criteria to help ensure that needle biopsy samples were adequate for molecular testing.

Patient Education Led by Nurse/Pharmacist Team

To optimize patient education and care coordination, the thoracic oncology team uses a comprehensive approach that is co-led by an oncology nurse and an oncology pharmacist at the Baptist Cancer Center specialty pharmacy. The oncology nurse begins the patient education process by reviewing the items outlined in the treatment consent form. The patient learns about the ALK inhibitor, the medication's side effects, safe handling instructions, etc. The next day, the patient typically receives a follow-up phone call from the oncology pharmacist who reinforces key messages about medication adherence and toxicity management. The

nurse/pharmacist team routinely prints and distributes patient educational materials provided by the Bonnie J. Addario Lung Cancer Foundation and the drug manufacturer websites. Patients are instructed to call the clinic nurse directly if they experience side effects and they are followed closely by the nurse/pharmacist team who have access to the same EHR to coordinate care.

Processing Orders for ALK Inhibitors

When the medical oncology providers enter an order for an ALK inhibitor, the Baptist Specialty Pharmacy receives and reviews every order. The specialty pharmacy is staffed by an oncology pharmacist, a pharmacy technician, and a rotating PGY2 pharmacy resident. The oncology pharmacist will check for drug-drug interactions, fill out the required prior authorization paperwork, and identify potential patient assistance programs that may reduce the cost of treatment. When required, the Baptist Specialty Pharmacy sends prescriptions to other in-network specialty pharmacies based on the patient's health insurance.

Overcoming Health Disparities

Baptist Cancer Center is one of the National Cancer Institute (NCI) Community Oncology Research Program (NCORP) sites focusing on minority and underserved patients. The cancer center also has a dedicated thoracic clinical research team that actively recruits patients for these studies. In 2016 the Baptist Cancer Center thoracic research team published their findings on coordinating and delivering care in a National Cancer Institute and American Society of Clinical Oncology (NCI-ASCO) "Teams in Cancer Care Delivery" project that used team science principles to improve lung cancer care delivery.⁹

Sanford Cancer Center in Sioux Falls, South Dakota

Sanford Health is an integrated health system headquartered in the Dakotas. It is the largest rural, not-for-profit healthcare system in the nation with 45 hospitals and 289 clinics in 9 states and 3 countries. Annual newly diagnosed lung cancer patients: 200+.

Sanford Cancer Center in Sioux Falls, South Dakota, the southern regional referral hub of Sanford Health, is staffed with a team of more than 50 physicians and advanced practice providers. At its weekly multidisciplinary tumor boards, members of the cancer team present and discuss every newly diagnosed patient. Sanford also holds separate molecular tumor boards twice each week to review and discuss the results of broad genomic profiling (next-generation sequencing) tests performed on patients with advanced cancers. Sanford uses videoconferencing to engage and educate Sanford Health oncology providers who are located across the region in their molecular tumor boards.

Standardizing Molecular Testing Processes

At Sanford, ALK testing is performed in-house by their team of pathologists. Some lung cancer biopsies are also sent out for next-generation sequencing testing to identify patients who may be eligible for clinical trials. The oncology nurses work closely with the medical oncologists to submit the molecular testing orders and to follow-up with the pathology team to obtain timely results that can inform care decisions. Over the years, the team has gained significant experience working with multiple next-generation sequencing testing vendors and they are currently in the process of standardizing their processes for next-generation sequencing testing in advanced NSCLC.

Sequencing ALK Inhibitors


The team at Sanford has built electronic order sets and treatment plans for each ALK inhibitor. Their medical oncologists typically start patients who have advanced ALK+ NSCLC on either alectinib or crizotinib in the first-line setting. If patients begin to progress on treatment, they may then be switched from alectinib to ceritinib or vice versa. The Sanford specialty pharmacy processes all the orders for ALK inhibitors, handles prior authorization requirements, and provides extensive patient education and counseling to ensure that patients fully understand the importance of proper medication adherence. Medication monitoring is accomplished through a combination of face-to-face visits and phone calls. The specialty pharmacy team is also tasked with finding applicable patient assistance programs to ensure that patients always have access to the therapies they need.

Leveraging Telemedicine to Improve Access

In the southern part of South Dakota, many patients live in rural areas and may have limited access to cancer providers. Sanford has been leveraging telemedicine for the past three years to bridge these gaps, and the team in Sioux Falls currently remotely treats and manages patients in partnership with eight different telemedicine sites throughout the region. These sites include hospitals and clinics that have the equipment and staff to provide cancer therapies including infusion services. Some patients with ALK+ NSCLC who are treated with oral oncolytic agents may start their initial treatment in Sioux Falls but then receive ongoing monitoring at a clinic sites equipped for telemedicine closer to their home. Sanford also provides genetic counseling services using video technology and is in the process of expanding access to oncology palliative care services via telemedicine.

Closing Thoughts

As the clinical management of ALK+ NSCLC continues to evolve, ACCC remains committed to providing practical insights that can inform the application of precision medicine. Molecular testing processes are an ongoing topic of discussion at many cancer

programs. Clinicians recognize that next-generation sequencing may be appealing because it provides multiple results from a single biopsy sample.¹⁰ However, the turnaround time for getting next-generation sequencing testing results may be longer, and the oncology community needs more clarification on how the Centers for Medicare & Medicaid Services will be reimbursing for this type of testing in patients with advanced cancers. The use of liquid biopsy (circulating tumor DNA) is a growing option when patients are unable to undergo a repeat biopsy.¹¹ However, clinicians also recognize that a negative liquid biopsy result may necessitate molecular testing on tissue samples. ACCC thanks members of the project advisory committee and all the staff who provided valuable insights during the site visit discussions. More information about this project can be found on the ACCC website at: accc-cancer.org/projects/alk-positive-lung-cancer/overview. 

A CMS Update on Next Generation Sequencing (NGS)

On March 16, 2018, the Centers for Medicare & Medicaid Services (CMS) announced its final National Coverage Determination (NCD) for diagnostic laboratory tests using NGS for patients with advanced cancer. According to the CMS press release:

“CMS finalized a National Coverage Determination that covers diagnostic laboratory tests using Next Generation Sequencing (NGS) for patients with advanced cancer (i.e., recurrent, metastatic, relapsed, refractory, or stages III or IV cancer). CMS believes when these tests are used as a companion diagnostic to identify patients with certain genetic mutations that may benefit from U.S. Food and Drug Administration (FDA)-approved treatments, these tests can assist patients and their oncologists in making more informed treatment decisions. Additionally, when a known cancer mutation cannot be matched to a treatment then results from the diagnostic lab test using NGS can help determine a patient’s candidacy for cancer clinical trials... this final decision expanded coverage to patients with relapsed, refractory or stage III cancers. The final decision also extends coverage to repeat testing when the patient has a new primary diagnosis of cancer.”

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ACCC Welcomes its Newest Members

Baylor Scott & White Cancer Center

Auburn Hills, Mich.

Delegate Rep: Karin Starick

Website: karmanos.org

McLaren Hospital Flint (Karmanos Cancer Institute System)

Flint, Mich.

Delegate Rep: Christopher Boyce

Website: karmanos.org/?id=703&sid=1

West Cancer Center

Germantown, Tenn.

Delegate Rep: Erich Mounce

Website: westcancercenter.org

A Reminder from ACCC's Bylaws Committee

December 1, 2018, is the deadline for submission of any proposed amendments to the ACCC Bylaws. Proposed recommendations should be sent to Betsy Spruill at bspruill@acc-cancer.org. ACCC's Bylaws are available online at: acc-cancer.org/about/pdf/Bylaws-2016.pdf.

Save the Date! ACCC Oncology Reimbursement Meetings

Schaumburg, Illinois

September 21, 2018

7:50 AM to 3:40 PM (Central Daylight Time)

Dearborn, Michigan

November 13, 2018

7:50 AM to 3:40 PM (Eastern Standard Time)

Dallas, Texas

December 13, 2018

7:50 AM to 3:40 PM (Central Standard Time)

All members of the cancer care team who deal with oncology business and reimbursement will benefit from this meeting. Gain a comprehensive perspective in just one day of sessions:

- Review the latest trends in oncology coding and billing based on the 2018 Medicare Final Rules.
- Assess financial strategies to track and improve the financial health of your cancer program.
- Gain insight to upcoming coding and reimbursement challenges related to financial counseling, compliance, and authorizations in medical and radiation oncology.
- Identify opportunities to improve the financial navigation services at your cancer program.
- Investigate the impact of federal health policies on your cancer program.

Free to ACCC members; non-members are invited to attend at the low registration rate of \$149. Register at: acc-cancer.org/ReimbursementMeeting.

The Trauma of Cancer Caring for the mind and the body

BY KELLY GROSKLAGS, LICSW, BCD



I have worked with oncology patients in some capacity for 25 years, but hearing “posttraumatic stress disorder” (PTSD) and “cancer” in the same sentence is a relatively new concept for most. A recent study in the journal *Cancer* found that 20 percent of patients who felt significant psychological distress following their cancer diagnosis felt the same way six months after diagnosis.¹ As a practicing oncology psychotherapist, I am glad that the trauma of cancer has received more attention in recent years.

PTSD and Cancer Patients

We often attribute PTSD to someone who has been in a horrible accident, served in a war, or suffered some other physical trauma, but I see many of my oncology patients present with the anxiety, fear, and hopelessness triggered by a traumatic event. Hearing the words “you have cancer,” not to mention going through cancer treatment and the feeling of loss surrounding it, is traumatic, and when patients hear their diagnosis called a “trauma,” they can feel validated. Some of the more common symptoms of cancer patients with PTSD include:

- Reliving their diagnosis in flashbacks or nightmares.
- Avoiding conversations that may bring up their diagnosis.
- Feeling guilty, shameful, or emotionally numb.
- Feeling restless, jittery, or hypervigilant.

Hypervigilance, a state of increased awareness accompanied by behavior aimed at preventing perceived danger, is one of the most common symptoms of PTSD that cancer patients can present with. People who are hypervigilant are very sensitive to changes in their environment and sometimes have difficulty regulating their emotions. As members of the cancer care team encourage patients to constantly monitor their bodies for any potential side effects of treatment and ask about new symptoms with each new appointment, it becomes difficult for patients to maintain their perspective, triggering additional anxiety and worry. Patients may assume that even a very small change is cancer related. It is not uncommon for patients to become very anxious about recurrence even *before* the initial occurrence is completely treated.

What Providers Can Do

When working with oncology patients, it is important to monitor for PTSD symptoms that present after active treatment has completed. Losing the structure of treatment and the safety net of their medical team allows patients more time to reflect on the reality of what has transpired. With this in mind, providers should ask patients regularly how they feel, assess their sleep routine, and consider whether anti-anxiety medication is appropriate. All cancer program staff who interact with patients

have the ability to recognize struggling patients, but members of the cancer care team who deliver patient care directly should be trained to recognize symptoms of PTSD. Practices and cancer programs with survivorship care may be best equipped to identify symptoms of ill mental health.


One of the best actions that we as providers can take for both cancer patients and their caregivers is to educate them about the mental health implications of a cancer diagnosis and ask them to self-assess for the symptoms described above. Patients may feel ashamed for having a strong reaction to their diagnosis, but they should *feel what they feel*. We should encourage cancer patients to be gentle and patient with themselves and allow others to help; remember, it’s our job to meet patients where they are and connect them to supportive services.

To bring my private practice to a larger audience, with a team of consultants including nurses, physicians, spiritual care providers, and marketing professionals, I developed “Conversations with Kelly,” a public space for cancer patients to gather and discuss their diagnosis and healing process, as well as for anyone dealing with grief or trauma. Though we are headquartered in Minneapolis, we travel across the country to discuss a wide variety of topics, including hope, gratitude, grief, purpose, and death. When I write about cancer and trauma on our Facebook page, the engage-



ment we get from readers is tremendous. To feel like you belong somewhere can help to diminish anxiety.

If your cancer patient is exhibiting symptoms of PTSD, be sure to refer them to appropriate resources for psychosocial support for patients with cancer. If you are treating a patient with these symptoms and he or she is already seeing a therapist, ask for a release to be signed so that treatment can be approached collaboratively and address the mind as well as the body.

People tend to worry about the future when it comes to cancer, but in counseling, it's important to remind people that the now is what can be influenced. Remember, even if a patient cannot be cured of his or her cancer, together we can help him or her heal. 

Kelly Grosklags, LICSW, BCD, is a fellow at the American Academy of Grief Counseling. She is the author of A Comforted Heart, an oncology psychotherapist's perspective on finding meaning and hope during illness and loss, and

hosts "Conversations with Kelly," a quarterly public forum with cancer patients and trauma survivors. Her private psychotherapy practice is located in Minneapolis, Minn.

Photo courtesy of George Byron Griffiths Photography.

Reference

1. Chan CMH, Ng CG, Taib NA, et al. Course and predictors of post-traumatic stress disorder in a cohort of psychologically distressed patients with cancer: a 4-year follow-up study. *Cancer*. 2018;124:406-416.

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The **Association of Community Cancer Centers (ACCC)** is the leading advocacy and education organization for the multidisciplinary cancer care team. ACCC is a powerful network of 24,000 cancer care professionals from 2,100 hospitals and practices nationwide. ACCC is recognized as the premier provider of resources for the entire oncology care team. For more information, visit the ACCC website at acc-cancer.org or call 301.984.9496. Follow us on Facebook, Twitter, and LinkedIn, and read our blog, ACCCBuzz.

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