ONCOLOGY ISSUES

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Vol. 36 | No. 5 | 2021

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DEPARTMENTS

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ONCOLOGY ISSUES
The Official Journal of the
Association of Community Cancer Centers

Oncology Issues serves the multidisciplinary specialty of oncology care and cancer program management.

Oncology Issues (ISSN: 1046-3356) is published bimonthly for a total of 6 issues per year by Taylor & Francis Group, LLC, 530 Walnut Street, Suite 850, Philadelphia, PA 19106, on behalf of the Association of Community Cancer Centers (ACCC), 1801 Research Blvd, Suite 400, Rockville, MD 20850-3184, USA. US Postmaster: Please send address changes to *Oncology Issues*, c/o The Sheridan Press, PO Box 465, Hanover, PA 17331.

FROM THE EDITOR

A Focus on Our Staff

BY SIBEL BLAU, MD

As we enter an era of "rebound" from a harsh, bleak year of COVID-19, most of us have mixed feelings of excitement, hope, fatigue, sadness, and confusion. This amalgam of conflicting emotions is only compounded by economic challenges in every aspect of our lives. Moreover, the pandemic and resultant public health emergency transformed the way we practice medicine.

As oncologists, we have done our best to care for our patients safely since the onset of COVID-19. This required a huge amount of time and resources to develop and put into practice a wide range of new safety measures. Many oncology practices and cancer programs are now experiencing severe staffing shortages, placing undue burden on existing staff and clinicians. To improve staff retention, teams are being assembled to tackle issues from mundane technical work to strategies for improving employee satisfaction to processes to create and keep a safe work environment. The question of how to pay for these changes and improvements remains a major issue.

At Northwest Medical Specialties, we, too, face challenges from staff stress and exhaustion. To address and overcome these challenges, our management team has made it a priority to bolster the resiliency of our staff. So, what are we doing?

At the start of the public health emergency, our practice implemented a COVID-19 Hardship Fund to help staff. Support came from paid time off donated by staff and financial contributions from managers and clinicians. Today this fund is still available to all staff.

With the understanding that communication is key, we instituted weekly "pod" meetings so that team members can openly talk about issues or ask questions—with an end goal of identifying solutions to those problems or answers to those questions. These meetings improved communication and allowed staff to get to know each other better. We instituted weekly departmental manager meetings to increase transparency and ensure that all staff receive clear communication about practice changes. This increased awareness from our management team is translating into staff feeling increased appreciation and respect. Our medical director also hosts a monthly town hall. All of these internal communication efforts help our staff to understand and align with our organization's vision and goals.

We are looking to bolster resiliency in other ways as well. For example, even though staff are extremely busy, we hold intentional training opportunities aimed at improving staff confidence on specific topics and workflows. Other staff take online courses.

To try to balance work schedules and allow more quality time at the office, our staff are often cross-trained and encouraged to cover work for each other. Instituting flexible work schedules and remote work opportunities for non-patient-facing positions has also improved practice morale.

Our management team needs support as well, and our practice provides advance leadership training with a focus on ways to support and interact with direct reports.

Several years ago, our social work team developed a mental health program for patients, and we are now branching this out to include staff. Since the start of the pandemic, social work has sent regular wellness reminders to staff, including information on mental health awareness. As we know, a focus on mental health is key to helping our staff and clinicians recover from the stress and heavy workload they have carried for more than a year now.

If there is a silver lining from this global pandemic, it is that the experience shed light on the innovation and creativity of the oncology workforce. We all learned ways to survive and to pivot into practice transformation that allowed us to continue providing life-saving care to our patients. The cancer community must continue to work together, share our best practices—what works and what does not work—and remember to take moments to breathe and engage in mindfulness to improve our resiliency and help us continue this difficult journey. OI

Compassionate Healthcare

BY KRISTA NELSON, MSW, LCSW, OSW-C, FAOSW

How do we define compassionate healthcare? Compassion means, "to suffer together." Compassion is often defined as the feeling you get when you are confronted with others' suffering and feel motivated to alleviate or lesson that suffering.

In oncology, we often have long-term relationships with our patients and, therefore, when their cancer progresses or takes the patient's life, we experience suffering. This emotion is on top of everything that goes on outside the clinic or hospital walls—like a global pandemic!

It is the nature of those who work in cancer care. We sit daily with our patients who are suffering, acknowledging the emotion and then trying to alleviate it in some way. Many times, being present, allowing the grief, and letting our patients know they aren't alone is the only "treatment" we have.

So, what sustains us? How do we do this every day?

Oncology Issues recently interviewed Dr. Leigh Weiss, who has taught compassion courses at the Stanford School of Medicine, the U.S. Department of Veterans Affairs, the Boston Center for Refugee Health and Human Rights, and the Alzheimer's Association, among others. On pages 52-56, Dr. Weiss shares her thoughts about a compassionate leadership model that I found thought-provoking.

One point that resonated with me was her call out to recognize opportunities to work on creating more compassionate interactions. To me, this type of mindfulness or attention is exactly what Dr. Victor Frankl, an Austrian neurologist, psychiatrist, philosopher, author, and Holocaust survivor, is talking about in one of his most famous quotes.

> *Between the stimulus and response there is a space.*
> *In that space is our power to choose our response.*
> *In our response lies our growth and our freedom.*

We can use this space for outward reflection and to help us find meaning in suffering. We can also use this space to choose compassion for ourselves when we have made a mistake or when we are experiencing challenges.

Self-compassion, as defined by Dr. Kristin Neff, an associate professor of Educational Psychology at the University of Texas at Austin and author of the books *Self-Compassion: The Proven Power of Being Kind to Yourself* and *Fierce Self-Compassion: How Women Can Harness Kindness to Speak Up, Claim Their Power and Thrive*, is treating yourself with kindness and understanding, acknowledging your feelings in a non-judgmental way, and recognizing that everyone struggles sometimes.

I'd like to pause here and ask you to reflect on a question: How would it be to show the same compassion for yourself that you show for the people you care for daily at your cancer program or practice? And let's not forget that the compassion—and care—we provide encompasses family members and many others who support patients with cancer.

Though this concept seems simple, in the context of our current reality—having to do more with fewer resources, a mass exodus of exhausted and burned-out cancer care team members from the healthcare workforce, ongoing racial inequity, and, yes, a global pandemic—compassion may sometimes be too much of a reach.

But it is a reach worth taking. We must continue to talk about race and what we can do to improve equity, inclusion, and diversity. We must continue to openly share our distress, exhaustion, and other difficult feelings. We must continue to do the best we can each day. But perhaps most importantly, we must continue to collaborate, listen to each other, and be understanding of our colleagues so that we can continue to show our patients and their loved ones the compassion and care our field is known for. OI

Coming in Your 2021 *ONCOLOGY ISSUES*

- Integrating Spiritual Care in the Outpatient Oncology Setting
- Use of Pharmacy Informatics to Standardize Pharmacist Review of Oral Oncolytic Medications for Hospitalized Patients
- An Investigation of Self-Determined Work Motivation Among Young Adult Central Nervous System Cancer Survivors
- Mixed-Method Study Examining Initial Interactions of Oncology Patients with Multidisciplinary Cancer Care
- A Virtual Integrative Oncology Program Supports Patients with Cancer Throughout the Treatment Continuum
- Auricular Acupuncture for the Treatment of Cancer-Related Pain
- Implementation of a Nurse Practitioner Fellowship Within an Academic Medical Center
- A Model for Integrating APPs in a Radiation Oncology Satellite Clinic
- Spotlight on the Sutter Institute for Advancing Health Equity
- An Oncology Nurse Residency Program Improves Knowledge of Delirium in Older Patients with Cancer
- An APP-Physician Model Improves Risk Stratification and Palliative Care
- Remote Monitoring of Patients with Cancer During COVID-19
- Developing a Cancer Care and Community Paramedicine Partnership

more online @ accc-cancer.org

BLOG

Cancer Care's Road to Recovery from the Global Pandemic

Debra Patt, MD, PhD, MBA, FASCO, executive vice president, Public Policy and Strategic Initiatives at Texas Oncology, talks to ACCCBuzz about how delays in cancer screening and treatment during COVID-19 are translating into cancer mortality. But the news is not all bad. Dr. Patt shares some silver linings, including how innovative approaches adopted as a result of the global pandemic have the potential to reduce disparities in cancer care. Read the full interview at accc-cancer.org/acccbuzz. Then make plans to attend the ACCC 38th National Oncology Conference, Oct. 20-22, in Austin, Texas, where Dr. Patt will deliver the luncheon keynote. Register today at accc-cancer.org/NOC.

WEBINAR

Billing and Coding Fundamentals for Leaders in Oncology

This webinar addresses high-level information related to coding and billing basics for oncology services. Learn how coding and billing varies by the setting where the services are performed, the geographic location of those services, and payer policies. This session focuses on common terminology related to coding and billing for oncology outpatient services, how these terms apply to the various care delivery settings, and resources related to this information. Register and listen today at accc-cancer.org/billing-coding-fundamentals-webinar.

RESOURCE

Biomarker Testing Implementation Roadmap for NSCLC

This online learning tool helps multidisciplinary cancer care teams obtain the knowledge they need to implement, expand, and sustain biomarker testing for patients with advanced NSCLC. The Roadmap offers users information about how to lay the groundwork for biomarker testing, train and prepare their care teams to offer testing, implement the testing, and evaluate ongoing progress. For example, in the Roadmap's "Lay the Groundwork" section, learn the basics of biomarker testing, assess your institution's buy-in, and act by conducting an organizational readiness assessment. accc-cancer.org/nsclc-roadmap.

PODCAST

CANCER BUZZ Podcast Highlights the Role APs Can Play in Research

In this episode, Christa Braun-Inglis, MS, APRN, FNP-BC, AONP, nurse practitioner and clinical researcher at the University of Hawai'i Cancer Center in Honolulu, Hawaii, explores how oncology advanced practitioners (APs) can play a greater role in clinical research and, according to a recent national study, have a strong interest in doing so. Hear how APs can leverage their deep role in day-to-day cancer care decisions to improve diversity in clinical trials by bringing their experience to trial design and the accrual process. Find this podcast and two others that share key themes and findings from a virtual summit co-hosted by ACCC and Harborside that helped define the role of APs in equitable cancer care delivery at accc-cancer.org/podcast.

fast

Got Trust?

- Nearly **1** in **3** physicians (**30%**) say their trust in the U.S. healthcare system and healthcare organization leadership decreased since COVID-19; only **18%** report increased trust.
- Physicians report high levels of trust for other physicians (**94%** trust doctors within their practice; **85%** trust doctors outside of their practice) and nurses (**89%**).
- Only **2/3** of physicians (**66%**) trust healthcare organization leaders and executives.
- During the pandemic, physicians report increased trust for fellow physicians (**41%**) and for nurses (**37%**).
- From the patient perspective, older adults (**90%**), white people (**82%**), and high-income individuals (**89%**) say they trust their doctors.
- Among people who report lower trust in their doctors, **25%** say their doctor spends too little time with them and **14%** say their doctor does not know or listen to them.
- Yet patients trust clinicians—doctors (**84%**) and nurses (**85%**)—more than the U.S. healthcare system (**64%**).
- About **1** in **3** patients (**32%**) say their trust in the healthcare system decreased during the pandemic, compared to **11%** whose trust increased.
- Nearly all physicians (**90%**) believe patients can easily schedule appointments, but nearly **1** in **4** patients (**24%**) disagree.
- Almost all physicians (**98%**) say that spending an appropriate amount of time with patients is important, but only **77%** of patients think their doctor spends an appropriate amount of time with them.

Source. Building Trust: An Initiative of the American Board of Internal Medicine Foundation. buildingtrust.org.

facts

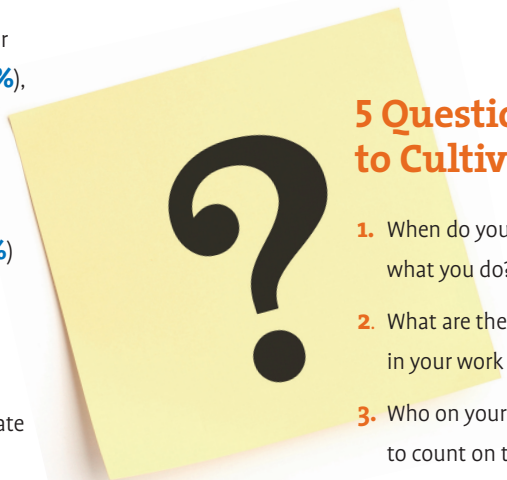
How is Medical Debt Impacting Our Finances?

- **60%** of Americans have been in debt due to medical bills. **37%** owe medical debt, and **23%** have had medical debt in the past. On average, these individuals owe between **$5K** to **$10K**.
- Top drivers of medical debt are often unpredictable, unavoidable procedures, like ER visits (**39%**), doctor or specialist visits (**28%**), surgery (**26%**), childbirth (**22%**), and dental care (**20%**).
- **72%** of those who have medical debt said it prevents them from achieving key milestones. **34%** said it prevents them from saving for retirement. **1** in **5** (**19%**) said it's preventing them from buying a home, and **10%** said it prevents them from having kids.
- **3** in **4** people who have had medical debt tried to negotiate their bill. Nearly all of those who did negotiate (**93%**) had their bill reduced or dropped altogether.

Source. Lending Tree. lendingtree.com/personal/medical-debt-survey.

One study reported a 60% reduction in new oncology trials globally during the first wave of the COVID-19 pandemic (January 2020 to May 2020).

Source. Lamont EB, et al. Trends in oncology clinical trials launched before and during the COVID-19 pandemic. JAMA Netw Open. 2021;4(1):e2036353. doi:10.1001/jamanetworkopen.2020.36353.



5 Questions Bosses Ask to Cultivate Commitment

1. When do you feel most proud of what you do?
2. What are the challenges you face in your work that I don't see?
3. Who on your team have you come to count on the most?
4. What do you need from me that you aren't getting?
5. If you were to leave this job, what would be the reason?

Source. Joe Mull & Associates. joemull.com. #bossbetter.

Black women are almost 1.5 times more likely to receive longer breast cancer radiotherapy regimens than White women, resulting in increased pain, financial hardship, emotional stress, and higher mortality.

Source. Emerson MA, et al. Breast cancer treatment delays by socioeconomic and health care access latent classes in Black and White women. Cancer. 2020;126(22):4957-4966.

How Reimbursement Impacts Supportive Cancer Care Services

BY KRISTIN MARIE FERGUSON, DNP, RN, OCN

ACCC members across all different disciplines, including dietitians, social workers, pharmacists, nurse navigators, financial navigators, genetic counselors, and more, often share with me the same phrase, "I'm the only [insert discipline here] in my clinic." Many times, these staff are supporting a large patient volume in key care coordination and educational areas, such as nutrition, financial advocacy, side effect management, and genetic counseling.

Being the only staff member providing certain services in a clinic location brings challenges. For example, it limits the individual's ability to participate in hospital or practice meetings where these team members can share their experiences, communicate patient needs, and attend continuing education events to maintain their license and update their learning. It can also have a negative impact on resiliency, morale, and workload. These clinicians worry when they take time off for their own medical appointments or vacations. They know that they will return to a large volume of patient referrals and an immense amount of work because no one else could assist patients in their absence.

Showing the value and measuring quality metrics for many supportive cancer care services is challenging. These challenges are one of the reasons that many supportive care services are not reimbursed under our current fee-for-service payment methodology. As the United States healthcare system moves to value-based and bundled payments under alternative payment models, it is now more important than ever for cancer programs and practices to quantitatively and qualitatively measure to show the value these services bring to patients—not only to ensure adequate reimbursement but to justify increasing full-time employees in key roles, like those listed above.

Several bills were introduced to Congress this year advocating for reimbursement increases for different disciplines and roles, including:

- The Access to Genetic Counselor Services Act (H.R. 2144/S.1450)
- The Medical Nutrition Therapy Act of 2021 (H.R. 3108/S.1536)
- The Improving Access to Mental Health Act (S.870/H.R. 2035)
- The Pharmacy and Medically Underserved Areas of Enhancement Act (H.R. 2759/S.1362).

Elizabeth Fowler, JD, PhD, director for the Center for Medicare & Medicaid Innovation (The Innovation Center), recently commented that in the push toward a more value-based healthcare system, The Innovation Center is considering additional mandatory alternative payment models. This means that cancer programs and practices will need to focus in on how quality metrics are created, what services impact patient outcomes, and how supportive care services can improve these outcomes. Oftentimes, staffing shortages in supportive care services increase physician and advanced practice provider (APP) workload as these clinicians take on additional tasks, such as completing patient paperwork, offering financial assistance, and educating patients about nutrition or genetic counseling. Having additional, highly trained staff members who can effectively deliver on these types of supportive care services improves patient satisfaction and frees up physicians and APPs to see more patients, reducing wait times.

In terms of achieving health equity, data reflect the need for higher levels of supportive care services for historically marginalized patient populations to help reduce—or even prevent—negative outcomes, such as financial toxicity, malnutrition, and/or untreated anxiety or depression.

In her 2021-2022 ACCC President's Theme, Krista Nelson, MSW, LCSW, OSW-C, FAOSW, calls out the need to focus on health equity and social justice, to offer high-reach, high-impact supportive care services and innovative care delivery models that demonstrate measurable value, and to strengthen a culture that supports resiliency as an essential for practice. Ensuring that patients with cancer have access to high-quality supportive care services and measuring the impact of these services are essential to providing high-quality care. Ensuring that supportive care staff have the resources and time to reach all patients in need is essential to maintaining a resilient workforce that can provide these high-quality services.

Are you a program manager or administrator looking to "Make the Case" for hiring additional supportive care staff? ACCC has developed several business case studies to help at: accc-cancer.org/hiring-new-staff. In the next 12 months, ACCC plans to add two additional business case studies for oncology social workers and oncology pharmacists. OI

Kristin Ferguson, DNP, RN, OCN, is the former senior director, Cancer Care Delivery & Health Policy, Association of Community Cancer Centers, Rockville, Md.

Highlights from the CY 2022 MPFS and HOPPS Proposed Rules

BY TERI BEDARD, BA, RT(R)(T), CPC

Over the past few months there has been a flurry of activity from the Centers for Medicare & Medicaid Services (CMS), Health and Human Services (HHS), and Health Resources and Services Administration (HRSA), including the release of the CMS calendar year (CY) 2022 proposed rules for the Medicare Physician Fee Schedule (MPFS) and Hospital Outpatient Prospective Payment System (HOPPS), extension of the public health emergency by HHS through Oct. 18, 2021, and HRSA notification of post-payment reporting as part of the Provider Relief Fund (PRF). Below is a summary of how these notifications may impact oncology.

MPFS Proposed Changes

On July 13, 2021, CMS issued the proposed MPFS rule for CY 2022.[1] Comments must be submitted to CMS by 5:00 PM EST on Sept. 15, 2021.

Payment Rates

For CY 2022, CMS is reversing the 3.75 percent increase outlined as part of the Consolidated Appropriations Act of 2021, which reversed the 10.2 percent cut finalized to the conversion factor for CY 2022. Removing this and using a conversion factor of 33.6319, CMS applied a budget neutrality factor of −0.14 percent. This results in a proposed conversion factor of $33.5848, which is slightly lower than the conversion factor for CY 2020.

Table 1, page 8, outlines the combined impact of the proposed relative value unit (RVU) changes for CY 2022 by specialty. The RVU cuts specific to the practice expense values are due to the adjustment of labor values and the final year of the four-year supply and equipment updates. According to CMS, stakeholders requested updated labor values to correspond with updated supply and equipment values. Clinical labor rates were last updated in CY 2002, and the agency is proposing to update the values for CY 2022 using CY 2019 survey data from the Bureau of Labor and Statistics and other supplementary data when these data are not available. Note: an increase in labor values is indicated for all of the labor types reviewed by CMS and because the values are maintained in a budget-neutral manner, increases for one specialty or one code (or code set) are possible only because it was taken or adjusted from another specialty or code (or code set).

Specifically, for some specialties, like family practice, the labor has a higher-than-average share of the direct costs, whereas for other specialties, such as radiation oncology, the labor has a lower-than-average share of the direct costs. Specialties with a higher share of labor costs are proposed to receive increased payments for their services, whereas specialties that have lower direct costs associated to clinical labor will see decreases in payment for their services.

CMS reviewed the anticipated impact that these labor value changes would have on various specialties and the payment for their services. The agency indicated that when updates to payment methodology result in significant shifts in payments, it does consider the possibility and impact of phasing in the changes. Typically, this phase-in is done over a four-year transition, similar to when the supply and equipment value changes were implemented in CY 2019 and spread over a four-year timeline. However, CMS is concerned that a phased-in transition would result in the need to use outdated clinical labor pricing for the time the transition is taking place because each year would use partial new values and older values to calculate payment. CMS estimates that the effect of the labor pricing update alone is as follows:

- Radiation oncology: −4 percent
- Hematology/oncology: −2 percent.

Changes to E/M Services: Split (or Shared) Visits

CMS indicated that when the American Medical Association adopted new guidelines for outpatient and office setting evaluation and management (E/M) visits, CMS also adopted these changes. In the months since implementation, the agency indicated a need to clarify or adjust previous guidelines to align more fully with the updates.

Specific to split (or shared) visits, CMS indicated that these guidelines do not address:

- Who to bill when the visit (and services) are performed by different practitioners.
- Whether a substantive portion must be performed by the billing practitioner.
- Whether practitioners must be in same group.
- The setting where the split (or shared) visits may be furnished to be billed.

CMS is proposing to define a split (or shared) visit as an E/M visit performed (split or

Table 1. CY 2022 PFS Estimated Impact on Total Allowed Charges by Specialty

(A) SPECIALTY	(B) ALLOWED CHARGES (MIL)	(C) IMPACT OF WORK RVU CHANGES	(D) IMPACT OF PRACTICE EXPENSE RVU CHANGES	(E) IMPACT OF MP RVU CHANGES	(F) COMBINED IMPACT*
Hematology/ oncology	$1,737	0%	-2%	0%	-2%
Radiation oncology and radiation therapy	$1,660	0%	–5%	0%	–5%

The decrease in the conversion factor does result in a decrease in many specialties and their proposed impact; however, CMS has also applied additional decreases to many of the practice expense values, which reflect a deeper cut to certain specialties, such as interventional radiology, radiation oncology, vascular surgery, and oral/maxillofacial surgery.

*Column F may not equal the sum of columns C, D, and E due to rounding.

shared) by both a physician and non-physician practitioner (NPP) who are in the same group in accordance with applicable laws and regulations. The visit is provided in a facility setting in which payment for services furnished incident to is prohibited. In the non-facility setting, when the physician and NPP each perform components of the visit, it can be billed under the physician if the incident-to criteria are met. The services are provided in accordance with applicable laws and regulations; specifically, either the physician or NPP could bill the payer directly for the visit in the facility setting, rather than bill as a split (or shared) visit. CMS is also proposing to allow for split (or shared) visits to be billed for both new and established E/M patient visits.

CMS is clarifying that only the physician or NPP who performs the substantive portion of the split (or shared visit) can bill for the visit. CMS is defining "substantive portion" to mean more than half of the total time spent by the physician or NPP performing the visit. Due to the need to determine the amount of time spent by each clinician, CMS is recommending that documentation of time be included in the patient note, even if the medical decision-making method is selected to code the visit. In addition, the clinician who performs the substantive portion of the visit should be the one to sign and date the patient note, but documentation should include the names and credentials of both clinicians. Once the total times between the physician and NPP are added together, the clinician with the majority of the time will bill the visit based on the total time documented. CMS has also proposed that prolonged services can be billed in addition to the visit when the time-based method is used with the total time between the two clinicians.

The agency is proposing a list of services that would count toward the total time for determining the substantive portion, including:

- Preparing to see the patient (for example, review of tests)
- Obtaining and/or reviewing separately obtained history
- Performing a medically appropriate examination and/or evaluation
- Counseling and educating the patient, family, and/or caregiver
- Ordering medications, tests, or procedures
- Referring and communicating with other healthcare professionals (when not separately reported)
- Documenting clinical information in the electronic or other health record
- Independently interpreting results (not separately reported)
- Communicating results to the patient, family, and/or caregiver
- Care coordination (not separately reported).

CMS identified items that would *not* count toward time spent in a visit:

- Performance of other services that are reported separately
- Travel
- Teaching that is general and not limited to discussion that is required for the management of a specific patient.

CMS is also proposing to create a modifier for billing purposes to identify a visit as a split (or shared) visit. This will allow Medicare to collect data on the frequency and quality of visits provided in part by NPPs but paid to physicians for the full rate.

If the physician and NPP are not in the same group, they would each be expected to bill independently based on the full E/M criteria for the work provided. If neither practitioner meets the criteria to bill a visit, modifier 52 for reduced services cannot be applied to the E/M visit codes. In this scenario, neither professional would be able to bill for the visit.

Payment for the Services of Teaching Physicians

Stakeholders requested guidance on how time spent by residents should be counted when selecting the appropriate E/M office visit level. Section 1842(b) of the Social Security Act specifies, "In the case of physicians' services furnished to a patient in a hospital with a teaching program, the Secretary shall not provide payment for such services unless the physician renders sufficient personal and identifiable physicians' services to the patient to exercise full, personal control over the management of the portion of the case for which payment is sought. Regulations regarding MPFS payment for teaching physician services."

CMS is proposing that when total time is used to determine the appropriate E/M office visit level, only the time the teaching physician was present can be included. Because Medicare already makes payment for the program's share of the resident's involvement, the agency does not feel that it would be appropriate to count the resident time toward the total time. Only the time of the teaching physician would count.

HOPPS Proposed Changes

On July 19, 2021, CMS issued the proposed rules for HOPPS for CY 2022.[2] Comments must be submitted to CMS by 5:00 PM EST on Sept. 17, 2021.

Payment Rates

Because of the COVID-19 public health emergency (PHE) and pandemic, CMS is proposing to use CY 2019 claims data for rate setting rather than CY 2020 claims date due to the significant impact in utilization of services. Based on this, CMS is proposing a 2.3 percent increase to the outpatient department fee schedule.

Payments of Drugs, Biologicals, and Radiopharmaceuticals

CMS is proposing to continue the payment policy to pay for drugs purchased under the 340B Drug Program at the average sales price (ASP) –22.5 percent. The agency is proposing to continue to exempt rural sole community hospitals, children's hospitals, and prospective payment system-exempt cancer hospitals from this policy.

Due to the proposal to use CY 2019 claims data for rate setting, CMS is proposing to extend, for up to four quarters, an equitable adjustment for 27 drugs and biologicals and one device, which would expire pass-through status at various quarters in CY 2022 and extend pricing through the end of CY 2022.

The agency is proposing to continue the ASP+6 percent payment policy for all drugs, biologicals, and therapeutic radiopharmaceuticals granted pass-through status and update the list on a quarterly basis.

CMS is proposing to continue the packaging threshold for drug administration at less than or equal to $130; this is the same threshold from CYs 2020 and 2021. CMS is proposing to make drug packaging determination on a drug-specific basis rather than on a Healthcare Common Procedure Coding System (HCPCS) code-specific basis for HCPCS codes that describe the same drug with different dosages.

The agency is proposing to continue the payment policy for biosimilar biologicals, with pass-through status eligibility made for the biosimilar biological product and not the reference product. CMS is proposing to continue paying for biosimilar biologicals purchased under the 340B Drug Program at ASP–22.5 percent of the biosimilar biological, not the reference product, which is a continuation of the CY 2021 policy.

CMS is proposing to continue to establish payment rates for blood and blood products using its blood-specific cost-to-charge ratio methodology, which has been the standard since CY 2005.

COVID-19 Waivers and Extensions

CMS is seeking comments on several waivers and extensions as part of the COVID-19 PHE. Specifically, the agency is looking for feedback on whether certain provisions, which were waived or extended during the COVID-19 PHE, should continue for a limited period of time or permanently, including:

- Hospital staff furnishing services remotely to beneficiaries in their homes through use of communications technology.
- Providers furnishing services in which the direct supervision requirement for cardiac rehabilitation, intensive cardiac rehabilitation, and pulmonary rehabilitation services was met by the supervising practitioner being available through audio and video real-time communications technology.
- The need for specific coding and payment to remain available under HOPPS for specimen collection for COVID-19.

RO Payment Model

Below is a summary of the changes CMS is proposing to the Radiation Oncology (RO) Model. For additional information and resources, visit the RO Model website at: innovation.cms.gov/innovation-models/radiation-oncology-model. CMS is proposing a new timeline for the RO Model to extend five years, beginning Jan. 1, 2022, and running through Dec. 31, 2026—pending no legal or additional congressional intervention. The agency also indicated that no new episodes of care could begin after Oct. 3, 2026, to allow for treatment completion prior to the scheduled end date on Dec. 31, 2016.

RO Model participants will be selected using randomly selected core-based statistical areas. CMS is proposing that organizations that are part of the Pennsylvania Rural Health Model will only be excluded from the RO Model for the time they are participating in the Pennsylvania Model. Once a hospital outpatient department is no longer participating in the Pennsylvania Model and if they are in a selected core-based statistical area (or ZIP code), they will be expected to participate in the RO Model.

CMS is proposing to remove any incentive for RO Model participants who change their taxpayer identification number (TIN) or CMS certification number (CCN) to become eligible for the low-volume opt-out. To do this, CMS is proposing that an entity would not be eligible to opt out if its legacy TIN or legacy CCN was used to bill Medicare for 20 or more episodes or RO episodes, as applicable, of radiation therapy services in the two years prior to the corresponding performance year in a selected core-based statistical area. The agency is proposing that it would include episodes and RO episodes associated with a model participant's current CCN or TIN, as well as any attributed to the participant's legacy CCN(s) or TIN(s).

CMS is proposing a change to the number of cancer types included in the RO Model. Initially 16 cancer types were finalized, but after consideration and stakeholder feedback, the agency is proposing to remove liver diagnosis from these cancer types. CMS indicated that liver cancer and the radiation therapy services used to treat it are evolving and varied. Various randomized trials do not include radiation therapy as a first-line therapy. CMS is proposing to only include 15 cancer types.

CMS is also proposing to remove brachytherapy services from the list of included radiation therapy services as part of the RO Model. This proposal is due to stakeholder feedback indicating that because of the bundled payments, there could be decreased utilization where combined external beam and brachytherapy would be clinically indicated, specifically for cervical and prostate cancers. There is belief that the bundling will ultimately result in the disincentive to refer patients to another radiation oncologist for treatment when the RO Model participant does not or cannot deliver brachytherapy services themselves.

CMS is also seeking comments on whether intraoperative radiotherapy should be included in the RO Model. CMS received stakeholder feedback requesting that this service be added. However, because it is only performed in the hospital setting, it is not setting agnostic, and it is limited to certain cancer types, CMS has concerns about its inclusion.

Table 2, right, lists the HCPCS codes assigned per cancer type as well as the national base rates proposed to begin Jan. 1, 2022. Rates are based on a weighted calculation from three years of claims data prior to the performance year.

CMS expects the RO Model to meet the criteria to be an advanced APM (alternative payment model) and merit-based incentive payment system APM in performance year 1, beginning Jan. 1, 2022. Final CMS determinations of advanced APMs and merit-based incentive payment system APMs for the 2022 performance period will be announced via the Quality Payment Program website at: qpp.cms.gov/.

HRSA Provider Relief Fund

On June 11, 2021, HHS sent a notice to HRSA Provider Relief Fund recipients to inform them about the data elements they are required to report in the post-payment reporting process.[3] As part of the Coronavirus Aid, Relief, and Economic Security (CARES)

(Continued on page 12)

Table 2. HCPCS Codes Assigned Per Cancer Type and National Base Rates

RO MODEL-SPECIFIC CODES	PROFESSION OR TECHNICAL	INCLUDED CANCER TYPE	NATIONAL BASE RATE
M1072	Professional	Anal cancer	$3,104.11
M1073	Technical	Anal cancer	$16,800.83
M1074	Professional	Bladder cancer	$2,787.24
M1075	Technical	Bladder cancer	$13,556.06
M1076	Professional	Bone metastases	$1,446.41
M1077	Technical	Bone metastases	$6,194.22
M1078	Professional	Brain metastases	$1,651.56
M1079	Technical	Brain metastases	$9,879.40
M1080	Professional	Breast cancer	$2,059.59
M1081	Technical	Breast cancer	$10,001.84
M1082	Professional	CNS tumor	$2,558.46
M1083	Technical	CNS tumor	$14,762.37
M1084	Professional	Cervical cancer	$3,037.12
M1085	Technical	Cervical cancer	$13,560.15
M1086	Professional	Colorectal cancer	$2,508.30
M1087	Technical	Colorectal cancer	$12,200.62
M1088	Professional	Head and neck cancer	$3,107.95
M1089	Technical	Head and neck cancer	$17,497.16
M1094	Professional	Lung cancer	$2,231.40
M1095	Technical	Lung cancer	$12,142.39
M1096	Professional	Lymphoma	$1,724.07
M1097	Technical	Lymphoma	$7,951.09
M1098	Professional	Pancreatic cancer	$2,480.83
M1099	Technical	Pancreatic cancer	$13,636.95
M1100	Professional	Prostate cancer	$3,378.09
M1101	Technical	Prostate cancer	$20,415.97
M1102	Professional	Upper GI cancer	$2,666.79
M1103	Technical	Upper GI cancer	$14,622.66
M1104	Professional	Uterine cancer	$2,737.11
M1105	Technical	Uterine cancer	$14,156.20

National base rates are proposed to begin Jan. 1, 2022; rates are based on a weighted calculation from three years of claims data prior to the performance year. CNS = central nervous system; GI = gastrointestinal.

Table 3. Summary of PRF Reporting Requirements

	PAYMENT RECEIVED PERIOD (PAYMENTS EXCEEDING $10,000 IN AGGREGATE RECEIVED)	DEADLINE TO USE FUNDS	REPORTING TIME PERIOD
Period 1	April 10, 2020-June 30, 2020	June 30, 2021	July 1, 2021-Sept. 30, 2021
Period 2	July 1, 2020-Dec. 31, 2020	Dec. 31, 2021	Jan. 1, 2022-March 31, 2022
Period 3	Jan. 1, 2021-June 30, 2021	June 30, 2022	July 1, 2022-Sept. 30, 2022
Period 4	July 1, 2021-Dec. 31, 2021	Dec. 31, 2022	Jan. 1, 2023-March 31, 2023

(Continued from page 10)

Act and the Paycheck Protection Program and Health Care Enhancement Act, monies were allocated to be distributed to healthcare providers as part of the Provider Relief Fund.

If determined eligible, qualified providers of healthcare services and support could receive relief payments for healthcare-related expenses for lost revenue due to COVID-19. These payments do not need to be paid back, but if recipients received one or more payments exceeding $10,000 in the aggregate during a payment receipt period, they must submit reporting requirements as agreed to in the terms and conditions of the specific funding.[4] Because each distribution has its own terms and conditions, providers must review the distribution they received to understand any specifics related to their agreement. Table 3, above, outlines the four different periods of payments received, the deadline to use the funds, and the reporting time period. Healthcare providers must report how they used the funds received if they reach the threshold amount. Reporting is submitted in consolidated reports per the normal basis of accounting. Per the notice, data are reported in the following order:

1. Interest earned on PRF payment(s)
2. Other assistance received
3. Skilled nursing facility and nursing home infection control distribution payments use (if applicable)
4. General and other targeted distribution payments
5. Net unreimbursed expenses attributable to coronavirus
6. Lost revenue reimbursement.

Healthcare providers who received between $10,001 and $499,999 in aggregated relief payments during each payment receipt period are required to report on two categories of data: 1) general and administrative expenses and 2) healthcare-related expenses. Those receiving $500,000 or more are required to provide more detail in the two categories, including mortgage and rent, fringe benefits, utilities, supplies and equipment purchased, information technology, and other healthcare-related expenses.

The use of the Provider Relief Fund is specific to costs incurred to prevent, prepare for, and respond to COVID-19. Providers are expected to ensure that documentation is present and supports how the funds received were used. According to the HHS website, the burden of proof is on the provider to ensure that the documentation supports how the monies were used and that monies were used as intended as part of the terms and conditions to which the provider agreed when receiving the funds.[5] The HHS HRSA Provider Relief Fund Portal is active and open for reporting at: prfreporting.hrsa.gov/s. If providers are not already registered, they can do so at the portal link. Several resources are available on the portal, which can be accessed without logging in:

- Portal FAQs: prfreporting.hrsa.gov/HRSA_FileRender?name=PortalFAQs
- Registration User Guide: prfreporting.hrsa.gov/HRSA_FileRender?name=RegistrationUserGuide
- Reporting User Guide: prfreporting.hrsa.gov/HRSA_FileRender?name=ReportingUserGuide
- Portal Worksheets: prfreporting.hrsa.gov/HRSA_FileRender?name=PortalWorksheets.

As oncology providers continue to work through 2021, it is not too early to begin preparing for 2022. The many waivers and extensions exercised for the past nearly two years are now coming due in different ways, and it will be interesting to see how all of this will play out as the impact for some may be more burdensome than it is for others. OI

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tools

Approved Drugs

- On June 16, the U.S. Food and Drug Administration (FDA) approved **Ayvakit™ (avapritinib)** (Blueprint Medicines, blueprintmedicines.com) for adult patients with advanced systemic mastocytosis (SM), including patients with aggressive SM, SM with an associated hematological neoplasm, and mast cell leukemia.
- On July 9, the FDA approved **Darzalex Faspro™ (daratumumab and hyaluronidase-fihj)** (Janssen Biotech, Inc., janssen.com) in combination with pomalidomide and dexamethasone for adult patients with multiple myeloma who have received at least one prior line of therapy, including lenalidomide and a proteasome inhibitor.
- On July 6, the FDA approved an expanded label for **Keytruda® (pembrolizumab)** (Merck, merck.com) as a monotherapy for the treatment of patients with locally advanced cutaneous squamous cell carcinoma that is not curable by surgery or radiation. On July 21, the FDA approved Keytruda in combination with Lenvima® (lenvatinib) (Eisai, us.eisai.com) for patients with advanced endometrial carcinoma that is not microsatellite instability-high or mismatch repair deficient, who have disease progression following prior systemic therapy in any setting, and who are not candidates for curative surgery or radiation. On July 26, the FDA approved Keytruda for high-risk, early-stage triple-negative breast cancer in combination with chemotherapy as neoadjuvant treatment and then continued as a single agent as adjuvant treatment after surgery.
- On July 9, the FDA approved **Padcev® (enfortumab vedotin-ejfv)** (Astellas Pharma, Inc., astellas.com) for adult patients with locally advanced or metastatic urothelial cancer who have previously received a programmed death receptor 1 or programmed death ligand 1 inhibitor and platinum-containing chemotherapy or patients who are ineligible for cisplatin-containing chemotherapy and have previously received one or more prior lines of therapy.
- On July 16, the FDA approved **Rezurock™ (belumosudil)** (Kadmon Pharmaceuticals, LLC, kadmon.com) for adult and pediatric patients 12 years and older with chronic graft-versus-host disease after failure of at least two prior lines of systemic therapy.
- On July 1, the FDA approved **Rylaze™ (asparaginase erwinia chrysanthemi (recombinant)-rywn)** (Jazz Pharmaceuticals, jazzpharma.com) as a component of a chemotherapy regimen to treat acute lymphoblastic leukemia and lymphoblastic lymphoma in adult and pediatric patients who are allergic to the Escherichia coli-derived asparaginase products commonly used for treatment.

Drugs in the News

- Bayer (bayer.com/en/) announced the submission of a supplemental new drug application (NDA) to the FDA seeking approval of the investigational combination of the anti-cancer treatments **Aliqopa® (copanlisib)** and **rituximab**. The submission is for the treatment of patients with relapsed indolent B-cell non-Hodgkin's lymphoma and is outside the FDA accelerated approved indication for the treatment of adult patients with relapsed follicular lymphoma who have received at least two prior systemic therapies.
- Allogene Therapeutics, Inc. (allogene.com) announced that the FDA granted fast track designation to **ALLO-605** for the treatment of relapsed or refractory multiple myeloma.
- Ascentage Pharma (ascentagepharma.com) announced that the FDA granted an orphan drug designation to **alrizomadlin (APG-115)** for the treatment of stage IIB to IV melanoma.
- Agenus Inc. (agenusbio.com) announced that the FDA accepted its biologics license application for **balstilimab (AGEN2034)** for the treatment of recurrent or metastatic cervical cancer with disease progression on or after chemotherapy.
- Exelixis (exelixis.com) announced that the FDA accepted its supplemental NDA for **Cabometyx® (cabozantinib)** as a treatment for patients 12 years and older with differentiated thyroid cancer who have progressed following prior therapy and are radioactive iodine refractory (if radioactive iodine is appropriate).
- G1 Therapeutics, Inc. (g1therapeutics.com) announced that the FDA granted fast track designation to **Cosela™ (trilaciclib)** for use in combination with chemotherapy for the treatment of locally advanced or metastatic triple-negative breast cancer.
- CNS Pharmaceuticals Inc. (cnspharma.com) announced that the FDA granted

fast track designation to **berubicin** for the treatment of patients with recurrent glioblastoma multiforme.

- Erytech Pharma (erytech.com) announced that the FDA granted fast track designation to **eryaspase** for the treatment of patients with acute lymphocytic leukemia who have developed hypersensitivity reactions to *Escherichia coli*-derived pegylated asparaginase.
- Aadi Bioscience, Inc. (aadibio.com) announced that the FDA accepted its NDA and granted priority review to **Fyarro™ (sirolimus albumin-bound nanoparticles for injectable suspension, nab-sirolimus ABI-009)** for the treatment of advanced malignant perivascular epithelioid cell tumors.
- Alkermes plc (alkermes.com) announced that the FDA granted fast track designation to **nemvaleukin alfa (nemvaleukin)** for the treatment of mucosal melanoma.
- Puma Biotechnology, Inc. (pumabiotechnology.com) announced that the FDA approved a labeling supplement to the U.S. prescribing information for **Nerlynx® (neratinib)** in human epidermal growth factor receptor 2-positive early stage and metastatic breast cancer.
- Fidia Farmaceutici (fidiapharma.com/en/) announced that the FDA granted orphan drug designation to **Oncofid®-P** for the treatment of malignant mesothelioma.
- InnoCare Pharma (innocarepharma.com) announced that the FDA granted breakthrough therapy designation to **orelabrutinib** for the treatment of relapsed or refractory mantle cell lymphoma.
- Fennec Pharmaceuticals Inc. (fennecpharma.com) announced that the FDA accepted for filing the resubmission of its NDA for **Pedmark™ (a formulation of sodium thiosulfate)** for the prevention of ototoxicity induced by cisplatin chemotherapy in patients one month to less than 18 years of age with localized non-metastatic solid tumors.
- Incyte (incyte.com) announced that the FDA extended the review period for the supplemental NDA for **Jakafi® (ruxolitinib)** for the treatment of adult and pediatric patients 12 years and older with steroid-refractory chronic graft-versus-host disease.
- Hutchmed Limited (hutch-med.com) announced that the FDA accepted its filing of the NDA for **surufatinib** for the treatment of pancreatic and extrapancreatic neuroendocrine tumors.
- Roche (roche.com) announced that the FDA accepted the supplemental biologics license application and granted priority review for **Tecentriq® (atezolizumab)** as adjuvant treatment following surgery and platinum-based chemotherapy for people with non-small cell lung cancer (NSCLC) whose tumors express programmed death ligand 1 greater than or equal to one percent, as determined by an FDA-approved test.
- Transcenta Holding Limited (transcenta.com) announced that the FDA granted orphan drug designation to **TST001** for the treatment of patients with gastric cancer or gastroesophageal junction.
- Roche (roche.com) announced that **Venclexta® (venetoclax)** in combination with azacitidine has been granted breakthrough therapy designation by the FDA for the treatment of adult patients with previously untreated intermediate-, high-, and very high-risk myelodysplastic syndromes based on the revised International Prognostic Scoring System.
- Novartis (novartis.com) announced that the FDA granted breakthrough therapy designation to **177Lu-PSMA-617** for the treatment of metastatic castration-resistant prostate cancer.

Devices and Assays in the News

- Foundation Medicine, Inc. (foundationmedicine.com) announced that it received approval from the FDA for **FoundationOne®CDx** to be used as a companion diagnostic for Alunbrig® (brigatinib), which is currently FDA approved for the treatment of adult patients with anaplastic lymphoma kinase-positive metastatic NSCLC as detected by an FDA-approved test. Foundation Medicine, Inc., also announced that it received approval from the FDA for **FoundationOne Liquid CDx** to be used as a companion diagnostic to aid in identifying patients with MET exon 14 skipping in metastatic NSCLC for whom treatment with Tabrecta® (capmatinib) may be appropriate.
- The FDA cleared under 510(k) designation for clinical lab use the **NYU Langone Genome Profiling of Actionable Cancer Targets (PACT)** (New York University Langone Health and Laura and Isaac Perlmutter Cancer Center, nyulangone.org and nyulangone.org/locations/perlmutter-cancer-center) to guide treatment decisions for patients who have received a cancer diagnosis.
- The FDA cleared the **OncoMate™ MSI Dx Analysis System (OncoMate™ MSI)** (Promega, promega.com) as an *in vitro* diagnostic medical device to determine microsatellite instability status in colorectal cancer tumors.
- AnchorDx (anchordx.com) was awarded breakthrough device designation by the FDA for **UriFind**, an early detection test for bladder cancer based on urine DNA methylation detection.

FDA Approves Diagnostic Agent for Lymphatic Mapping in Patients with Solid Tumors

- On June 10, Cardinal Health (cardinalhealth.com/en.html) announced that the FDA approved **Lymphoseek® (technetium Tc99m tilmanocept)**, a radioactive diagnostic agent for accurate and precise lymph node identification in pediatric patients with melanoma, rhabdomyosarcoma, or other types of solid tumors. OI

spotlight

Maryland Oncology Hematology

Clinic location in Annapolis, Md.

Maryland Oncology Hematology is one of the largest independent oncology practices in Maryland, serving patients in the state and the metro Washington, D.C., area. With 14 physician-owned locations, Maryland Oncology Hematology provides its communities value-based and integrated cancer care close to home through its dedicated staff and membership in the US Oncology Network.

A State-Wide Structure

Maryland Oncology Hematology joined the US Oncology Network in 2003. The US Oncology Network allows the practice to collaborate with more than 1,380 independent physicians on patients' treatment and care plans.

"Through the US Oncology Network, independent doctors come together to form a community of shared expertise and resources dedicated to advancing local cancer care and delivery for better patient outcomes," says Mark Lamplugh Jr., head of marketing and growth at Maryland Oncology Hematology. "We support each other through the network. For example, if they are doing something new in Texas that enhances the patient experience, we will talk about it, share resources, and do the same for our patients here."

All 14 locations of Maryland Oncology Hematology are owned by the physicians who work in the stand-alone facilities. The practice employs both its physicians and non-clinical staff and offers management services, so patients' treatments are top of mind for the physicians. The practice executive team consists of Lamplugh; the director of practice operations, Naycherie Alvira; the director of clinical operations, Jenny Elrod; the controller, Victor Coker-Appiah; and the newly hired executive director, Robert Davis. This team oversees every practice location and their operation. The practice has established a corporate headquarters to house its billing, research, human resources, finance, managed care, and marketing teams who provide support for all clinic sites.

Each location within Maryland Oncology Hematology is intentionally designed with patients in mind to offer the best experience possible during their cancer care, including ease of access to a facility, free parking, and well-thought-out design to create a welcoming environment. This structure is what sets the private practice apart from its larger hospital-based competitors.

A Suite of Services

Patients are referred to Maryland Oncology Hematology by their primary care provider or other healthcare professional and visit the location closest to their home. Patients can see the physician they prefer, even if it means traveling to a farther location. Medical oncology and hematology services are provided at each clinic by a team made up of approximately 40 medical oncologists and several nurse practitioners, physician assistants, registered nurses, coordinators, schedulers, practice administrators, and medical assistants. The department structure and number of staff vary by location due to patient volumes and practice needs. For example, the Laurel, Md., and Lanham, Md., clinics are only open two days a week. Staff from the Brandywine, Md., and Silver Spring, Md., locations offer their expertise and services in these two clinics.

Most Maryland Oncology Hematology infusion suites are semi-private, with private rooms available for those who wish to be alone during treatment. Televisions, magazines, and books are available for patients as they receive their infusions. The practice also offers a dedicated pharmacy in each location that is typically connected directly to the clinic suite. The in-house pharmacies provide patients their medical oncology and hematology infusions as well as any other prescriptions that need to be filled. These pharmacies are dedicated to helping patients get the lowest cost for their medications; therefore, they can often offer patients a discounted rate. Pharmacy staff include 18 infusion technicians across 6 divisions, medically integrated dispensing technicians, and 3 pharmacists.

In November 2020, Maryland Oncology Hematology added radiation oncology to its service line. The practice now provides radiation oncology in partnership with Adventist Healthcare at White Oak Cancer Center in Silver Spring, Md. Radiation oncology is located on the first floor of the new cancer center, which sits as a stand-alone facility next to the main hospital. This department is staffed by a radiation oncologist who serves as the practice's radiation oncology medical director, an OCN-certified nurse, a physicist, a dosimetrist, and a supporting clinical team.

Maryland Oncology Hematology now offers IGRT, IMRT, and SBRT using a Varian TrueBeam.®

The practice also offers patients breast and colorectal surgical oncology services, which are available at the White Oak Cancer Center and Aquilino Cancer Center in Rockville, Md. The Aquilino Cancer Center is also operated in partnership with Adventist Healthcare. As the practice continues to grow, it is looking to expand its surgical oncology offerings to include thoracic oncology in the future.

Meeting Patients' Needs

Patients complete a screening tool at every appointment that allows staff to identify and address any patient needs. Maryland Oncology Hematology offers weekly support groups, counseling, transportation support, financial assistance, intimacy and fertility services, and nutrition. The practice also connects patients to available community resources. Patients may be referred or can self-refer to these free supportive care services.

As a member of the US Oncology Network, Maryland Oncology Hematology screens patients for research and clinical trial opportunities. New patients are screened for participation in an available clinical trial prior to starting treatment. If a patient is following a treatment plan and no longer receiving clinical benefit, they will be rescreened for clinical trial participation if it can be considered as a treatment option.

"The [US Oncology] Network gives us the opportunity of getting involved with the larger trials since we are a smaller community-based practice," Lamplugh explains. "Patients often go to a larger institution because they think they're getting the latest and greatest, but they can also get that same care with us, close to home."

Physicians, tumor board participants, and next-generation sequencing portals can also refer patients to an available clinical trial for which they qualify.

Physicians, nurses, clinical research coordinators, and data coordinators make up the staff of Maryland Oncology Hematology's research team. Through the US Oncology Network, the practice offers Phase I to IV oncology clinical trials with more than 40 currently open for enrollment.

COVID-19 and Care Delivery

Maryland Oncology Hematology has faced new challenges to delivering quality cancer care during the ongoing COVID-19 pandemic, including maintaining cancer screenings and experiencing a higher incidence of breast cancer. Due to COVID-19 social distancing requirements and stay-at-home orders, the practice saw fewer patients receive cancer screenings. The practice is now reaching out to its local communities to help patients feel safe resuming their regular screenings.

To address the high incidence in breast cancer brought about by recent COVID-19 restrictions, Maryland Oncology Hematology implemented a new breast cancer program that emphasizes the need for increased outreach, screening, and supportive care services for patients. A dedicated nurse navigator is being hired to follow all patients in the program to help them navigate their care from referral to treatment and survivorship.

Maryland Oncology Hematology staff take pride in the patient-centered services it offers, allowing the practice to compete with the large academic centers in the state. "I am proud of the patient care that we provide," says Lamplugh. "We had more than 12 nurses nominated for *Care Magazine*'s oncology nurse of the year contest. That is more than any other cancer program in the country, and I think that right there is something to be proud of because all those nominations were done by our patients." OI

Clinic location in Rockville, Md.

Maryland Oncology Hematology corporate headquarters in Calverton, Md.

Clinic location in Columbia, Md.

Clinic location in Bethesda, Md.

Demonstrating Measurable Value: Distress Screening

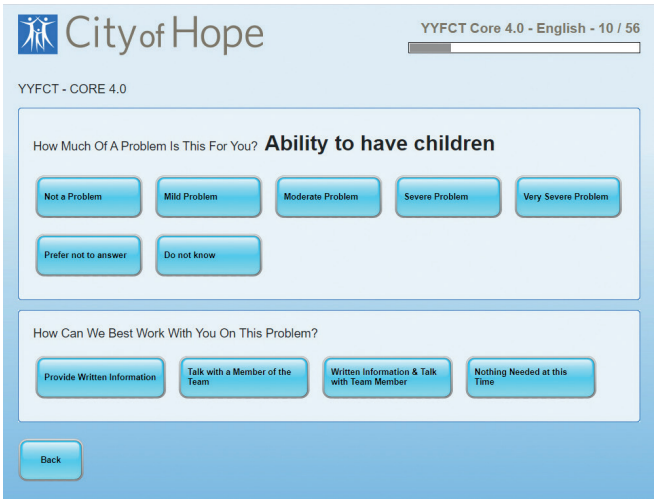
BY AMANDA PATTON, MA

A digital tool connects patients to critical supportive care services

ACCC President Krista Nelson, MSW, LCSW, OSW-C, FAOSW, chose to highlight "Real-World Lessons from COVID-19: Driving Oncology Care Forward" as her 2021-2022 President's Theme. The focus is on three critical lessons learned that alert the oncology community of urgent and emerging needs fueled by the ongoing effects of the pandemic. One of these learnings is that "the escalating need for high reach, high impact psychosocial and supportive care services require innovative care delivery models that demonstrate measurable value to the oncology ecosystem."

Since 2015 the Commission on Cancer (CoC) has required a systematic protocol for psychosocial distress screening and referral as a condition for cancer program accreditation. In 2020 the CoC released new accreditation standards with the publication of *Optimal Resources for Cancer Care: 2020 Standards*, which were updated in Feb. 2021. Standard 5.2 Psychosocial Distress Screening requires that cancer programs "implement a policy and procedure for psychosocial distress screening for cancer patients."[1] The standard states that the screening process should identify "psychological, social, financial, and behavioral issues that may interfere with a patient's treatment plan and adversely affect treatment outcomes."[1] When patients are identified as having distress, the cancer program should have appropriate resources available either in-house or by referral. The standard calls for patients to be screened at least once during their first course of treatment, and the program's cancer committee has leeway to determine the screening mode. Effectively integrating distress screening into practice continues to be a challenge for some cancer programs.

Karen Clark, MS, manager, Supportive Care Programs. Photo courtesy of City of Hope.



The City of Hope digital screening tool, *SupportScreen*.

In 2007 City of Hope, a comprehensive cancer center near Los Angeles, first implemented its digital touch-screen screening tool. *Oncology Issues* recently talked with Karen Clark, MS, manager of Supportive Care Programs, City of Hope, about the process, how the tool is currently integrated into the electronic health record (EHR), and next steps. Led by City of Hope's Matthew J. Loscalzo, LCSW, FAPOS, executive director, People & Enterprise Transformation; emeritus professor, Supportive Care Medicine; professor, Population Sciences; Clark and a multidisciplinary team pioneered the development of this digital distress screening tool for patients with cancer that encompasses biopsychosocial domains.

OI. How did you become interested in Supportive Care in oncology?

Clark. In 2004, I was introduced to the Science of Caring when I met Matthew Loscalzo. We were working at the Moores Cancer Center at UCSD [University of California San Diego] at the time. I was inspired by the thought that I could make a difference in patients' and families' lives when they are going through one of the most difficult times. If meaning and growth can be gained through difficult times, I truly believe this is the best outcome. Life can be very hard, so it is important to have as many tools as possible to be able to cope in the best way possible.

My role at City of Hope is manager of Supportive Care Programs. I also lead research operations for this department. I work with a team to build supportive care medicine programs and teach others across the country how to build supportive care programs to enhance the quality of life of patients and their families.

OI. Can you briefly describe the development of the City of Hope digital screening tool, *SupportScreen*?

Clark. With a multidisciplinary team, patient and family feedback, and IT support, Matthew and I led the development of *SupportScreen*,[2] an automated touch-screen system that identifies, summarizes, and triages patient biopsychosocial problems in real time. It can facilitate patient, physician, and specialist communication through an electronic interface built to be user-friendly and compatible with most standard patient software systems. *SupportScreen* also provides customized reports for clinical, educational, and research purposes. The content of *SupportScreen* is, "You, Your Family, and City of Hope are a Team," which has also been validated at City of Hope.[3]

OI. How long has the electronic version been in use and how have cultural considerations been taken into account?

Clark. *SupportScreen* has been in use at City of Hope since 2007. Today, screening is only offered electronically and is available in English, Spanish, and traditional Chinese (i.e., one of the two forms of written Chinese). In the translation process, Sharon Baik, PhD, assistant professor in the Department of Supportive Care Medicine, one of our new research faculty members, is working on developing culturally tailored technology to improve quality of life in Latinx gynecology patients.

OI. Can you walk us through how *SupportScreen* works?

Clark. The digital screening tool is integrated with our Epic system, which creates an alert; so the biopsychosocial screening is built into the standard of care at City of Hope. Patients are screened at their first or second visit. When patients check in to the clinic, they are handed an iPad. They have a specific 15-minute appointment designated to psychosocial screening. In this way, we ensure that the screening process does not disrupt the clinic. We need to make sure that clinical flow is efficient and running smoothly and that patients get in to see their doctor on time. We have the distress screening as a protected time so that patients can focus on completing the *SupportScreen*. This allows us to proactively identify problem areas or patient distress upfront and then automatically connect patients to resources. *SupportScreen* is pre-programmed so that all the triage happens in real time based on the patient's response. The system can generate five possible outputs: 1) summary report for the physician (printed and/or electronic); 2) tailored educational information in print for patients; 3) personalized resources for patients; 4) criteria-driven referrals to professionals and community-based resources; and 5) individual patient responses recorded into a database for analysis.

So whether it is a referral to one of their primary healthcare team members or the patient wants written information—or maybe they want both—the system will create personalized emails

that go out to some of our other supportive care services, such as nutrition, rehabilitation, and financial counselors, and will link the patient to those providers, depending on the specific expressed need.

One output is an email that is generated and sent to the primary healthcare team—physician, nurse, and social worker. We also have a copy of that summary report going into the EHR. Anyone who is caring for that patient can go into the EHR and see what is being done in terms of supportive care follow-up and what issues were flagged. So, for example, the physician can see what social work is working on for the patient. Everyone on the team has a nice picture of the coordinated care.

OI. How often are patients screened using the touch-screen tool?

Clark. Currently patients are screened once at the first or second visit to their medical oncologist or surgeon. However, we would like to rescreen patients at 30 days or greater and at other critical treatment points. At present, however, *SupportScreen* does not have the capability to automatically flag patients for rescreening at these time points.

OI. Is *SupportScreen* integrated with the patient portal?

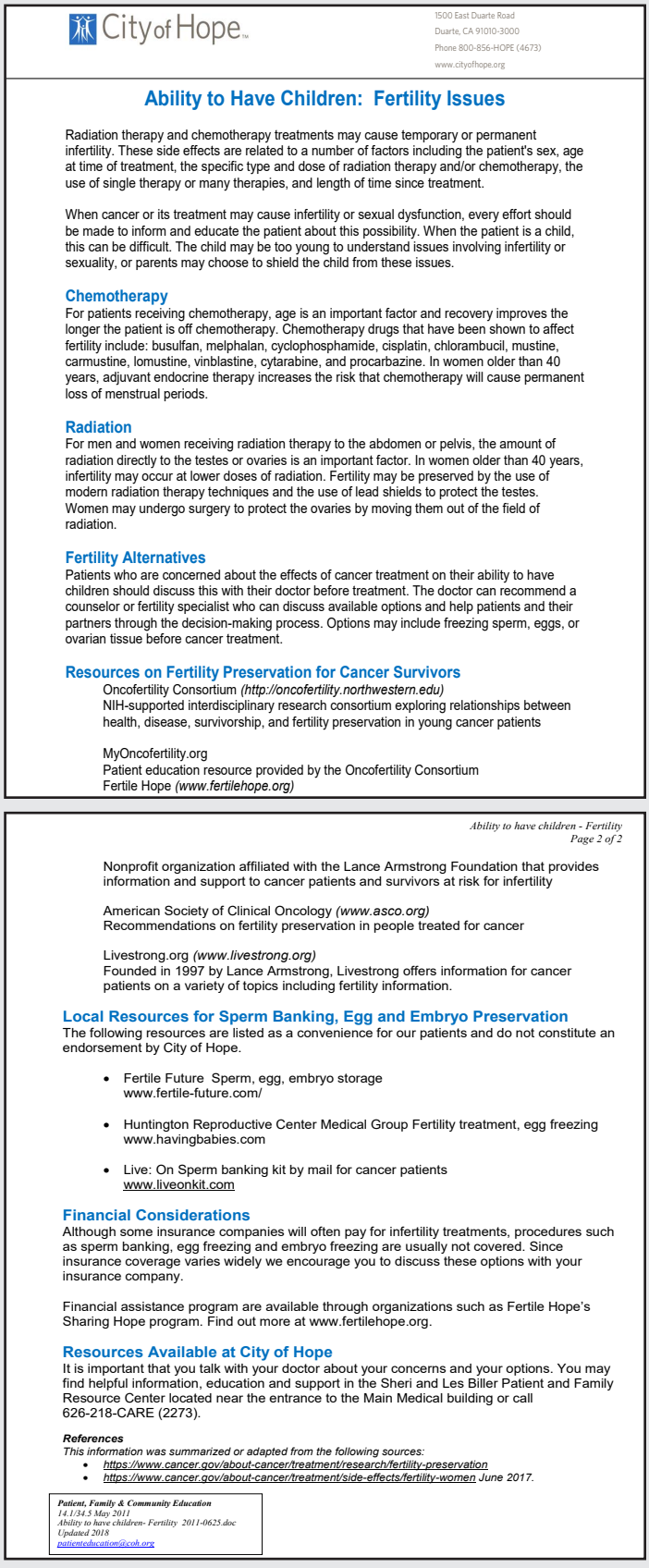
Clark. Not yet. The patient portal has not yet had huge adoption overall, so we did not want to be dependent on it for this screening. But there is an option for patients to go into the portal and complete the screen before their appointment.

OI. Can you explain what happens, for example, when patients indicate that fertility is a problem?

Clark. This [concern] is built into the screening process. An item on *SupportScreen* asks patients to indicate how much the ability to have children is a problem for them (i.e., on a scale from *not at all* to *very severe*). Then, patients are asked, "How can we best work with you on this problem?" They have the following response choices: nothing at this time, written information, talk with a member of the team, and both. If patients rate the problem as moderate to very severe or if they indicate that they want to talk with a member of the team, it triggers a referral to their physician. In addition, print materials are offered if patients need more information.

OI. What other types of screening are employed to elicit concerns about sexual functioning and potential for infertility?

Clark. Through the Women's Center, patients with breast cancer are screened during survivorship to identify concerns related to survivorship post-treatment. In addition, in the adolescent and young adult population there is a bigger concern that is identified through our screening.[4]



City of Hope

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Phone 800-856-HOPE (4673)
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Ability to Have Children: Fertility Issues

Radiation therapy and chemotherapy treatments may cause temporary or permanent infertility. These side effects are related to a number of factors including the patient's sex, age at time of treatment, the specific type and dose of radiation therapy and/or chemotherapy, the use of single therapy or many therapies, and length of time since treatment.

When cancer or its treatment may cause infertility or sexual dysfunction, every effort should be made to inform and educate the patient about this possibility. When the patient is a child, this can be difficult. The child may be too young to understand issues involving infertility or sexuality, or parents may choose to shield the child from these issues.

Chemotherapy

For patients receiving chemotherapy, age is an important factor and recovery improves the longer the patient is off chemotherapy. Chemotherapy drugs that have been shown to affect fertility include: busulfan, melphalan, cyclophosphamide, cisplatin, chlorambucil, mustine, carmustine, lomustine, vinblastine, cytarabine, and procarbazine. In women older than 40 years, adjuvant endocrine therapy increases the risk that chemotherapy will cause permanent loss of menstrual periods.

Radiation

For men and women receiving radiation therapy to the abdomen or pelvis, the amount of radiation directly to the testes or ovaries is an important factor. In women older than 40 years, infertility may occur at lower doses of radiation. Fertility may be preserved by the use of modern radiation therapy techniques and the use of lead shields to protect the testes. Women may undergo surgery to protect the ovaries by moving them out of the field of radiation.

Fertility Alternatives

Patients who are concerned about the effects of cancer treatment on their ability to have children should discuss this with their doctor before treatment. The doctor can recommend a counselor or fertility specialist who can discuss available options and help patients and their partners through the decision-making process. Options may include freezing sperm, eggs, or ovarian tissue before cancer treatment.

Resources on Fertility Preservation for Cancer Survivors

Oncofertility Consortium *(http://oncofertility.northwestern.edu)*
NIH-supported interdisciplinary research consortium exploring relationships between health, disease, survivorship, and fertility preservation in young cancer patients

MyOncofertility.org
Patient education resource provided by the Oncofertility Consortium
Fertile Hope *(www.fertilehope.org)*

Nonprofit organization affiliated with the Lance Armstrong Foundation that provides information and support to cancer patients and survivors at risk for infertility

American Society of Clinical Oncology *(www.asco.org)*
Recommendations on fertility preservation in people treated for cancer

Livestrong.org *(www.livestrong.org)*
Founded in 1997 by Lance Armstrong, Livestrong offers information for cancer patients on a variety of topics including fertility information.

Local Resources for Sperm Banking, Egg and Embryo Preservation

The following resources are listed as a convenience for our patients and do not constitute an endorsement by City of Hope.

- Fertile Future Sperm, egg, embryo storage
  www.fertile-future.com/
- Huntington Reproductive Center Medical Group Fertility treatment, egg freezing
  www.havingbabies.com
- Live: On Sperm banking kit by mail for cancer patients
  www.liveonkit.com

Financial Considerations

Although some insurance companies will often pay for infertility treatments, procedures such as sperm banking, egg freezing and embryo freezing are usually not covered. Since insurance coverage varies widely we encourage you to discuss these options with your insurance company.

Financial assistance program are available through organizations such as Fertile Hope's Sharing Hope program. Find out more at www.fertilehope.org.

Resources Available at City of Hope

It is important that you talk with your doctor about your concerns and your options. You may find helpful information, education and support in the Sheri and Les Biller Patient and Family Resource Center located near the entrance to the Main Medical building or call 626-218-CARE (2273).

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This information was summarized or adapted from the following sources:

- *https://www.cancer.gov/about-cancer/treatment/research/fertility-preservation*
- *https://www.cancer.gov/about-cancer/treatment/side-effects/fertility-women June 2017.*

Patient, Family & Community Education
14.1/34.5 May 2011
Ability to have children- Fertility 2011-0625.doc
Updated 2018
patienteducation@coh.org

City of Hope Fertility and Cancer Patient Education Sheet.

The digital screening tool is integrated with our Epic system, which creates an alert; so the biopsychosocial screening is built into the standard of care at City of Hope.

OI. Who handles these discussions?

Clark. The patient's medical oncologist.

OI. Are patients triaged to resources available at the main City of Hope campus, in the community, or both?

Clark. Both. We have a community resources coordinator who works with patients and families to connect them with community resources.

OI. Because the patient's experience and course of treatment often evolve over time, with new treatments raising new concerns—how is that addressed?

Clark. Screening links the patients with resources at their initial visit; however, they [patients] should be rescreened at 30 days or greater and at pivotal points in their treatment. We also have social workers who are available to patients over the course of their treatment to address their needs over time.

OI. For example, a patient on active treatment is seeing an advanced practitioner and suddenly mentions some areas of psychosocial distress. How is that handled?

Clark. It depends on the issue. If it is more psychological, patients would be referred back to social work or psychology. If it is more practical—for example, patients need help figuring out their financial options—then a financial counselor or social worker would be pulled in. There are a lot of different options depending on the root of the problem.

OI. From previous studies, low socio-economic status is associated with patients' levels of biopsychosocial distress.[5] Onco-fertility treatments can be costly, especially for women. Is there discussion and support for concerns about affording this treatment?

Clark. Yes, please see the resource on page 21. We also have financial counselors and social workers to help link patients with additional financial resources.

OI. Is fertility an ongoing area of research for City of Hope?

Clark. Yes, through survivorship planning. Our newest faculty member, Dr. Sharon Baik, is developing culturally specific, tailored psychosocial interventions for Latinx gynecology patients, which will include fertility issues.

OI. What kind of feedback have you had on the digital screening tool?

Clark. One benefit to this screening process is that responses tend to be more honest. It brings these issues to mind just by asking: Is this a problem for you? How can we best help you with this? It may be that it is not a problem but the patient still would like information on the issue, and at least we are able to provide that upfront. We provide a lot of different ways for patients to let us know. For example, sometimes patients are screened early on and some problem is flagged. Now patients are in the system and a social worker or one of the other healthcare team members is following up with them. They [clinicians or other staff] can do a check-in and follow-up verbally, not via a formal assessment or screening, which is what we would ideally like. That is our goal. Currently, we are limited in that the [interface] does not allow for a systematic way to identify patients for re-screening at a specific time interval. And we do not have the manpower to manually track all those patients and flag them in the system.

OI. Any learnings and/or practical resources or strategies you can share with cancer programs and practices that are less well-resourced than City of Hope?

Clark. Use the resources you have. In other words, do not wait for the resources but leverage what you have. Create a resource inventory and screen for the problems you can do something about. Automation is very helpful to link patients to community resources and education to save staff resources.[6] OI

Amanda Patton, MA, is a freelance healthcare writer. She worked as a senior writer and editor for the Association of Community Cancer Centers for more than 15 years.

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2020 IMPACT REPORT

Association of Community Cancer Centers

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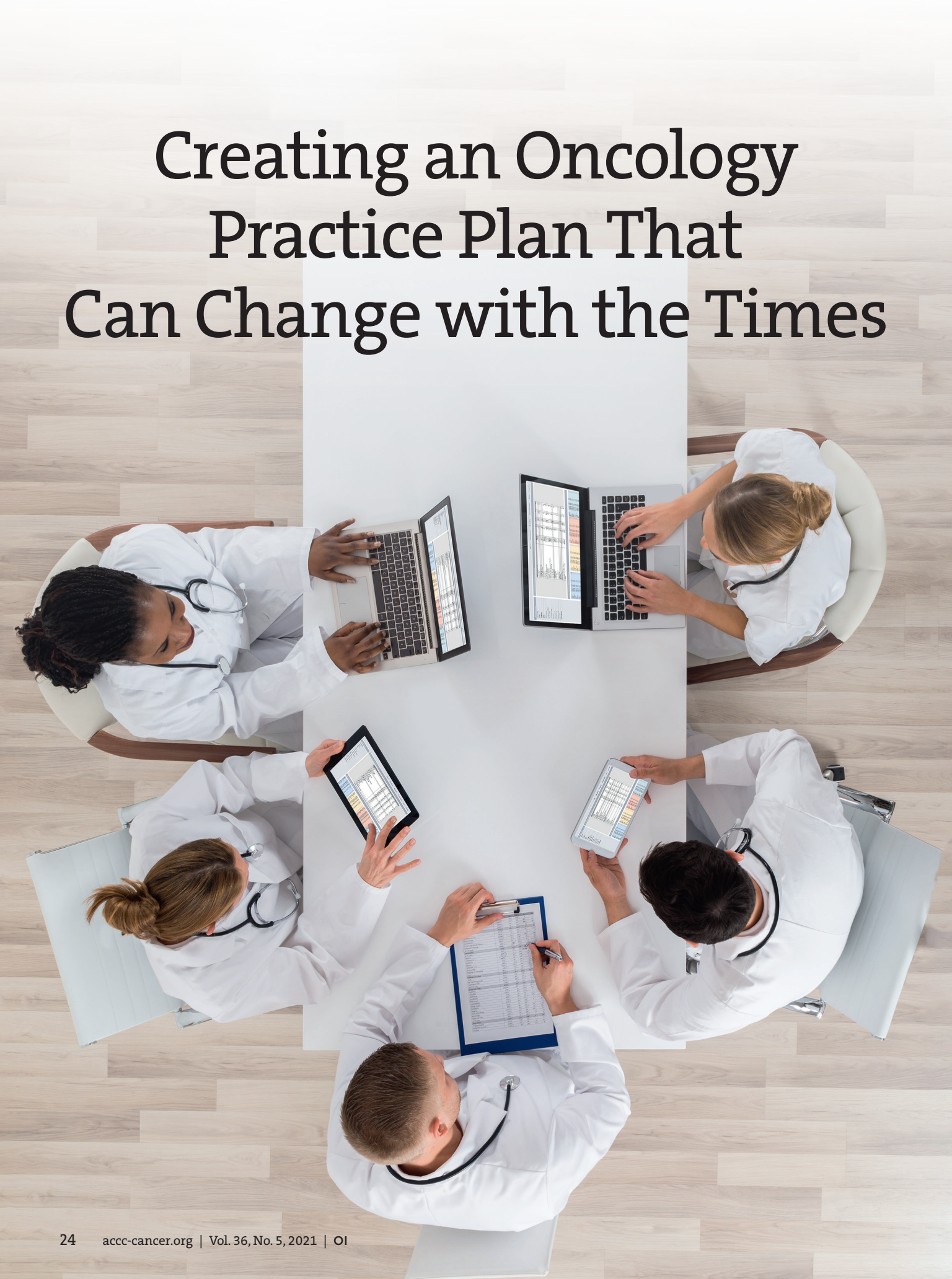
Creating an Oncology Practice Plan That Can Change with the Times



BY JAMES L. WEESE, MD, FACS; AMY J. BOCK, RN, MBA, BSN, OCN; JACOB C. FRICK, MD; FEDERICO A. SANCHEZ, MD; MARIJA BJEGOVICH-WEIDMAN, RN, MSN, BSN, CCAP; E. STUART ARNETT, MBA; AND COREY J. SHAMAH, MD

In Brief

Medical oncologist workflows have changed dramatically in view of precision medicine, new therapeutic agents, and sub-specialization in oncology. Relative value unit (RVU)-based practice plans lack financial incentive for cooperation and sharing of knowledge and patients, which is required for current best practices in cancer care. To improve cooperation and sharing, Aurora Health Care formed a Practice Plan Development Committee of medical oncologists, service line leadership, finance leadership, and a practice plan consultant. The committee established goals that would enhance collaboration, modify physician behavior to meet the needs of the group, allow payment for non-RVU-generating activities, create a more equitable distribution of expertise, facilitate intra-group consultation, and create more evenly developed compensation. A plan was developed to reward non-RVU-generating activities that benefited the cancer program and medical group. This plan included the creation of a pool where a percentage of compensation, above a threshold, was established and equally divided at the end of the calendar year. Citizenship criteria were established to benefit the health system, medical group, and individuals and demonstrably modified behavior. All members of the medical group (physician practice) agreed to move to the new model. It has resulted in continuous improvement of defined goals with reduced variation in income, increased clinical trial volume by 400 percent, and increased sub-specialization within the medical oncology group.

In 2014 Aurora Health Care's 15 hospitals and many sites of care comprised the largest healthcare system in Wisconsin. Its sites covered approximately 60 percent of the state's population, extending along Wisconsin's eastern border, from Green Bay, in the north, and south to the Wisconsin-Illinois state line. Aurora was formed by combining multiple hospitals into a system and within medical oncology, blending multiple groups of private medical oncologists into an employed-physician model. As a result, 36 medical oncologists, practicing at 21 sites in groups that ranged in size between 1 and 8, were paid according to 14 variations of 9 individual practice plans. Additionally, there were different RVU payment rates, limited system consistency of practice, multiple local tumor boards, and minimal communication in what seemed like a loose confederation rather than a vertically integrated program. With many of the original medical group contracts moving toward expiration in 2014, we felt that the window of opportunity was optimal to convert individual sites into a functionally cohesive and interactive group using financial goals and rewards to encourage behavioral changes.

Creating a Practice Plan Development Committee

We first obtained approval from medical group leadership to evaluate the potential to develop a practice plan specific to medical oncology. Next, a committee was formed comprising representatives from service line leadership, medical group financial leadership, and multiple legacy medical oncology groups, including a mix of both high and low earners and producers, as well as an external practice plan consultant. At initial committee meetings, goals for the development of a new practice plan were evaluated and set. The consultant conducted interviews with approximately half of the medical oncology group members to identify their

concerns about existing oncology practice plans and desires for the future integrated plan. Simultaneously, oncology service line leadership worked to create a new consolidated vision for the medical oncology group.

Securing Funding and Essential Infrastructure

Oncology service line leadership was also working to create a cohesive program that could standardize evidence-based care, create subspecialty expertise within the group, enhance disease-specific video conferences and improve physician participation, and increase the number of patients participating in clinical trials. A decision was made to incorporate evidence-based pathways into the electronic health record. Grants from the state of Wisconsin and Aurora Health Care were obtained to provide video-conferencing to and from all clinic sites, including high-definition videoconferencing capabilities from the desktops of each medical oncologist, surgical oncologist, and radiation oncologist. A National Cancer Institute Community Oncology Research Program grant was obtained to increase the number of clinical trials that could be offered at each site. Additionally, each medical oncologist was required to declare a primary and secondary disease interest, so they could also provide internal consultation throughout the system.

To facilitate these goals, all system outpatient offices and hospitals moved to Epic as their electronic health record. In addition, the service line selected Via Oncology pathways (now known as ClinicalPath), which are evidence-based clinical decision-making tools that require staging of patients and answering patient-specific questions (e.g., tumor markers, etc.) in order to generate a set of treatment options ranked first by clinical trial availability and then by treatment efficacy, toxicity, and cost. The pathways are evidence based and evaluated quarterly by national disease-specific committees co-chaired by representatives from both academic and community health institutions. Medical oncologists were required to attend at least half of the conferences that focused on one of their two designated subspecialty interests. These conferences were attended by medical and radiation oncologists, surgeons, surgical oncologists, radiologists, pathologists, tumor registrars, genetic counselors, nurses, navigators, and clinical trials nurses. Conference discussions usually centered on workup and management issues. This was in keeping with the multidisciplinary model being used for most cancer programs.[1]

The approaching expiration of many initial contracts and their inherent guarantees provided both an incentive and degree of urgency to move toward a more cohesive practice plan model.

Identifying Problems with Existing Practice Plans

Interviews with individual medical oncologists raised several consistent themes surrounding their dissatisfaction with existing practice plans, which included:

- RVU payment models perpetuated an "eat what you kill" mentality, regardless of quality
- A medical record that was unforgiving and difficult to negotiate
- Increasing demands for uncompensated tasks
- Very limited concern and attention to work/life balance
- An overall feeling of disengagement
- No incentive to work as a cohesive group
- Widely inconsistent pay rates resulting from RVU evaluations conducted during four different time periods
- Significant inequality of income across medical oncology practice groups.

Establishing Goals for the New Practice Plan

To address the identified problems and add components that medical oncologists had expressed in their interviews would increase satisfaction, service line leadership helped establish these goals for the new practice plan:

- Declaration of subspecialty interests by each oncologist to ensure that medical expertise was available in all disease states within the system. (There was general agreement by all involved that oncology is a field that is too vast and rapidly changing for individual physicians to maintain expertise across all cancers.)
- Standardization of the compensation model throughout the system using the same RVUs per service and payment per RVU
- A mechanism to compensate individuals for activities that did not generate RVUs
- A mechanism to reward individuals who performed activities that benefited the program in general (e.g., writing peer-reviewed papers, serving on national committees, giving lectures to local groups and national societies, etc.)
- A value-based care practice plan
- Protection for individuals who would take the largest potential loss to their income during any transition period, including a payment floor
- Elimination of silos that had been created among different markets
- Encouragement of positive behavioral change, such as attending conferences, referring patients to other members within the group and to clinical trials, participating in multidisciplinary clinics, and creating standardized approaches to disease.

Next, the committee held monthly meetings to discuss potential practice models that would accomplish these goals. Medical group leadership directed that a new practice plan could be adopted if 90 percent of the medical oncologists agreed to transition from their existing payment model and minimal change was made to the total current payroll amount. To promote reliable and consistent communication while new practice models were being considered, quarterly meetings were held with the remaining medical oncologists.

Standardized Compensation and Incentivization for Achieving Goals

Salaries in our employed medical group started at the 50th percentile of the average of three compensation and productivity surveys: Medical Group Management Association, SullivanCotter, and American Medical Group Association.[2-4] Compensation per RVU was also determined by the three-survey average. In addition, because most of the medical oncologists had transitioned to Aurora hospital-based clinics from a private practice setting where

they could bill for chemotherapy, it was proposed that the number of RVUs (relative value units = assigned value of any given medical service) performed would need to be increased by 15 percent to compensate for the loss of chemotherapy revenue.

The consultant suggested that use of an incentive pool would best facilitate compensation standardization across the group. To encourage at least a base level of activity, the new plan would require a minimum number (3,500) of RVU production to join the incentive pool. Once that threshold was crossed, various percentages of the average would be deposited into the pool. After extensive discussion, it was decided that 20 percent of the average was appropriate, initially, and the percentage could increase over time. In cases where productivity was greater than the 90th percentile of the three-survey average, 40 percent of production beyond the 90th percentile would go into the pool. At the end of each year, the pool total would be equally divided and distributed among all pool contributors.

The committee anticipated that the incentive pool model would also facilitate and expedite the achievement of several other practice plan goals: medical oncologist sub-specialization because the pool would allow internal patient referrals to members with different subspecialty expertise without concern for significant loss of revenue; reduction of the "eat what you kill" mentality; growth of patient caseloads for physician recruits through new patient transfers; support for physicians practicing in less desirable or less active markets; and physician encouragement to attain threshold earnings.

Promoting Physician Citizenship

Medical oncology leadership also reflected on plan components that would promote physician engagement in service line program and healthcare system initiatives. They proposed a set of five citizenship criteria to gain physician collaboration and commitment in areas that would benefit both the program and the system:

- Criterion 1. The option to 1) enter at least 70 percent of new patients into multidisciplinary disease-specific clinics or conferences, ClinicalPath, or Study Share (a McKesson product for conference presentation) or 2) arrange a consult between the patient and a physician with the appropriate primary or secondary subspecialty concentration either in person or at a disease-specific conference.
- Criterion 2. Achieve a minimum of 24 hours of documented participation in multidisciplinary care conferences per year.
- Criterion 3. Documented attendance for at least 50 percent of the disease-specific conferences that the physician chose as their primary or secondary subspecialty.
- Criterion 4. Reach a minimum total of 300 patients who have been considered for inclusion in a National Cancer Institute-approved clinical trial and referred to the clinical trials group for screening.
- Criterion 5. Pursue other citizenship activities approved by medical oncology leadership as eligible for payment per instance, subject to overall cap. Qualifying citizenship activities include publications, speaking engagements, membership on national organization committees or presentations at national meetings, and participation in a quality of care review committee or an approved strategic program development team.

Service line leadership decided that 5 percent of the mean three-survey average salary could be used to compensate those who met citizenship criteria 1 through 4, and 2.5 percent of the median survey average could be used to compensate those who met criteria 5. The plan was designed to allow a change in the criteria and percentages on a yearly basis, with approval of the medical group compensation committee. In addition, physicians were also paid an hourly rate for attending conferences, which took time away from RVU production, and multidisciplinary disease-specific clinics, previously perceived in the system to be an inefficient use of time.

Adopting the New Plan and Ensuring Fair Compensation

After numerous meetings and discussions, all medical oncologists agreed to move to the new practice plan, which was instituted on Jan. 1, 2016. Due to the inconsistencies among existing legacy practice plans, the committee realized that it needed to address compensation discrepancies that would result following the initiation of the new plan (i.e., some oncologists' incomes would increase while others decreased). Therefore, the committee decided to offer a three-year period of protection for physicians whose income fell by a measurable amount. Of the medical oncologists who were employed on Jan. 1, 2016, twenty-eight physicians (78 percent) earned incomes that remained neutral or increased following implementation of the new plan's elements. For the eight physicians (22 percent) whose incomes declined, they received a "bonus" of 75 percent of their overall loss in income at the end of the first year, 50 percent "bonus" at the end of the second year, and 25 percent "bonus" at the end of the third year. The payment protection plan stopped beyond three years.

The practice plan, as outlined above, is now in its fifth year of function. Standardization of RVUs, the 15 percent increase in compensation (as a replacement for chemotherapy added income) for working in hospital-based clinics, and rewarding physicians for non-RVU generating activities all contributed to the achievement of practice plan goals. Moreover, physician engagement in the citizenship initiatives not only benefitted the patients, program, and ultimately the healthcare system but also led to modification of behaviors and greater physician satisfaction overall.

Long-Term Benefits: Compensation Equivalence and Physician Citizenship Improvements

Compensation adjustments were tracked for those physicians who were employed when the new practice plan was adopted. By the fourth year following adoption, 46 percent of the physicians experienced an increase in compensation, 42 percent encountered a decrease greater than 1 percent, 4 percent had a decrease that was less than 1 percent, and 8 percent experienced other changes related to their position since year one, such as taking on percentages of their position assigned to salaried status.

Adjustments were also made for individuals who held less than a 1.0 full-time equivalent status. For these physicians, the RVU requirement was prorated to allow them to join the incentive pool, and at the end of the year they received the appropriate percentage of a full pool participant payment. However, if part-time physicians generated over 3,500 RVUs, they received the full pool payment.

Physician qualification of citizenship criteria improved following plan adoption and remained consistent. In 2018, 100 percent of physicians met criteria 1 and 4, 36 physicians (92 percent) met criteria 2 and 3, and 17 physicians (44 percent) participated in criteria 5, with 4 physicians (24 percent) of those physicians receiving the maximum dollars allowed. Today, the oncology service line enjoys the highest physician engagement scores of all 10 service lines represented within the medical group.

Once consistency of the new patterns of behavior was demonstrated over a three-year period, the citizenship criteria were modified, with the approval of the medical group compensation committee. In 2019, the criteria were changed to further improve desired behaviors and physician engagement.

- Criterion 1 now requires 80 percent (up from 70 percent) of new patients to receive a multidisciplinary evaluation through multidisciplinary disease-specific clinics or conferences, ClinicalPath, or Study Share.
- Criterion 2 raised the minimum attendance at multidisciplinary care conferences from 24 to 36 hours per year, with at least 50 percent in the physician's primary subspecialty interest.
- Criterion 3 increased physician engagement 10 percent by requiring in-person attendance at a minimum of 3 of the 5 system medical oncology meetings.
- Criterion 4 was modified to align with our medical oncology group's Quality Oncology Practice Initiative certification and improve one of the Quality Oncology Practice Initiative quality measures where scores were below what was expected. To increase compliance, 75 percent of patients must have an oral chemotherapy written plan for ongoing and regimen-specific assessment of each patient's adherence and toxicity at each clinical visit. This replaced the previous initiative to increase clinical trial participation, which had increased by more than 400 percent following implementation of the new practice plan and introduction of ClinicalPath.
- Criterion 5 remained the same, with eligibility for payment per instance of other citizenship activities, such as publications, speaking engagements, and participation in a quality of care review committee or an approved strategic program development team.

Growing the Multidisciplinary Conference and Clinic Program

One of the committee's original concerns involved potential abuse of attendance at multidisciplinary conferences and clinics. However, this proved not to be the case. Hours of participation in conferences during the first three years were 2,333; 2,245.5; and 2,533 hours, respectively. Participation in multidisciplinary clinics from 2016 to 2018 was 786.5; 1,537.5; and 1,339.75 hours, respectively. This overall rise was expected as the number of disease-specific multidisciplinary clinics increased and the greater number of patients seen in these clinics became consistent over time. As a direct result of the new practice plan, the multidisciplinary clinic program saw substantial growth. In addition to the benefits for our patients, it enabled adequate billing for individual physicians, which has eliminated the need to provide physicians with an hourly stipend beginning in 2021. The service line now provides 14 weekly disease-specific, systemwide multidisciplinary videoconferences where all new and complex patient cases are presented.

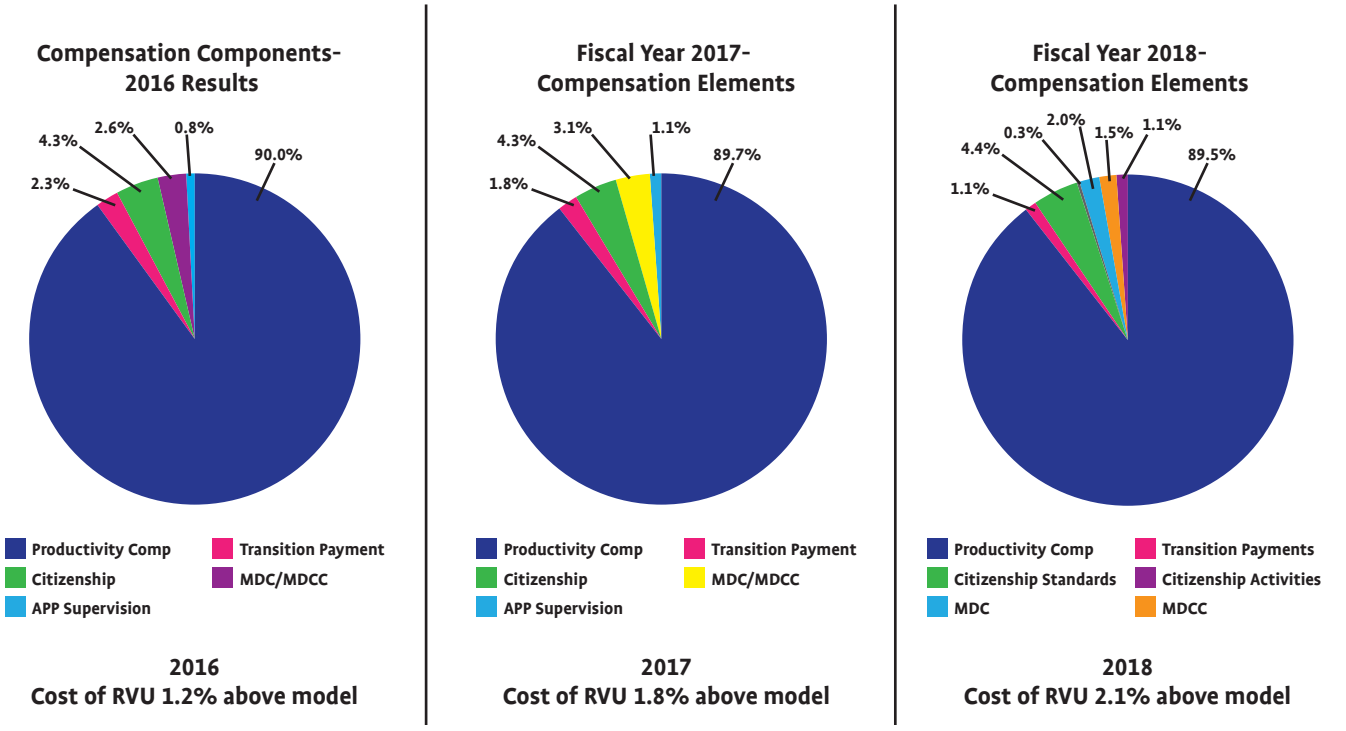
Practice Plan Demonstrates Financial Viability

The expense of the new practice compensation plan was compared to service line leadership projections for the first three years post-adoption and is shown in Figure 1, right. The expenditures ran within a 2.1 percent variance of projections every year, proving the plan's financial viability. When considering the benefits to patients, physicians, the oncology program, and the healthcare system that resulted from implementation, the new practice plan also demonstrated its cost-effectiveness.

A practice plan model is described that was instituted for an employed medical oncology group across a geographically expansive network. This model could be employed in other disciplines as well. It is important to define the goals that the plan aims to achieve and, if appropriately managed, can be accepted by a diverse group of providers and used to stabilize expenditures, enhance engagement, and maintain acceptable costs. The model also successfully modified behavior to meet the needs and enhance the reputation of the practice and the system in general. OI

James L. Weese, MD, FACS, is vice president for the cancer program for Aurora Health Care in Milwaukee, Wisc., overseeing the care of nearly 9,000 new patients with cancer yearly. Amy Bock, RN, MBA, BSN, OCN, is the senior director of Clinical Program Strategy for the Cancer Service Line; Jacob C. Frick, MD, (retired) was physician director of Medical Oncology; Federico A. Sanchez, MD, is medical director for Oncology; and Marija Bjegovich-Weidman, RN, MSN, BSN, CCAP, (semi-retired) was senior director for the Cancer Service Line when the practice plan was developed at Aurora Cancer Care, Advocate Aurora Health, Milwaukee, Wisc. E. Stuart Arnett, MBA, (retired) was chief financial officer of the Aurora Health Care Medical Group in Milwaukee, Wisc., and led the development of revised physician compensation plans for all major Aurora Health Care Medical Group clinical service lines and departments. Corey J. Shamah, MD, is director of Physician Informatics for Aurora Cancer Care, Advocate Aurora Health in Milwaukee, Wisc.

Figure 1. Financial Accomplishments of the Practice Plan



The distribution of total dollars paid to physician participants in the medical oncology practice plan over the first 3 years. Colors represent different areas of expenditures. APP = advanced practice providers, including nurse practitioners and physician assistants; MDC = multidisciplinary clinics, MDCC = multidisciplinary care conferences

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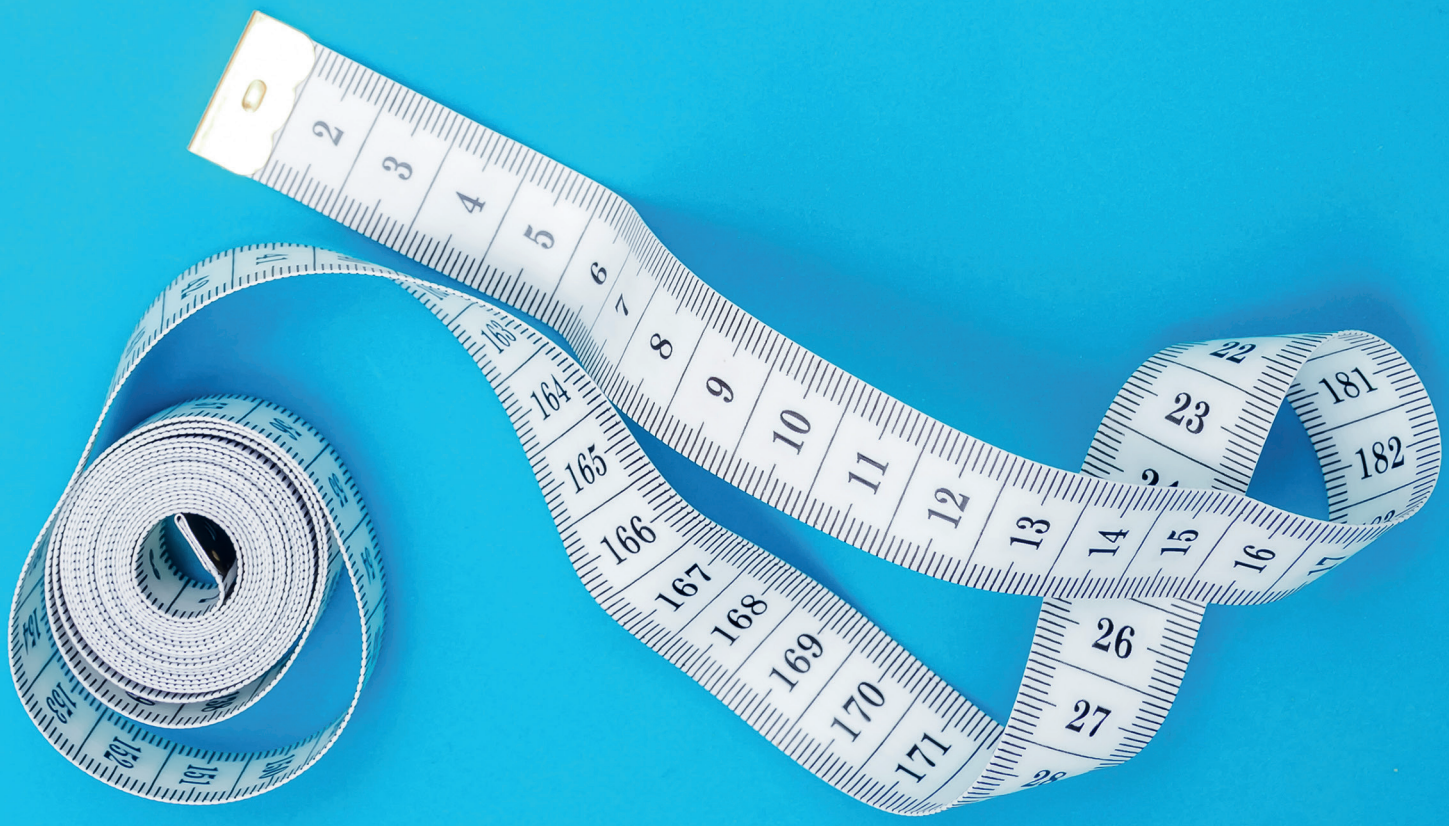
Acknowledgment

We acknowledge Lorene Schweig, MS, RN, medical writer and editor, Advocate Aurora Health Research Institute, and Cordell Mack, Partner, Health Care Futures, L.P., Edina, Minn., as our consultant for practice plan development.

Tailoring Distress Screening in Oncology Populations



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Timing distress screening in surgically resectable esophageal cancer

Abstract

Objectives: Distress screening has now become part of the culture of cancer care, with clinical practice guidelines set forth by the National Comprehensive Cancer Network (NCCN) and requirements by the Commission on Cancer (CoC). Because interdisciplinary teams are specialists in treating certain disease sites, it is important to develop distress screening guidelines that best serve that patient population and their treatment.

Methods: A retrospective review of patients with surgically resectable esophageal cancer who were treated at a single institution was performed. Patients voluntarily undergoing the prehabilitation program (n = 11) received a structured protocol intervention in several clinical domains, including psychosocial distress screening.

Results: Despite having a protocol, variations in the number of times patients were screened for distress (range, 1-9 times; mean = 4.73) suggests that the protocol was not accomplished. Elapsed time between first and final distress screens ranged from 0 to 68 days (mean = 40.27), and time from final distress screen to surgery ranged from 50 to 122 days, with a mean of 76.45 days.

Significance of Results: The pilot prehabilitation program demonstrated difficulties with the distress screening protocol. Subsequently, a more comprehensive distress screening program is recommended in this highly vulnerable patient population by aligning the NCCN distress management screening guidelines with the clinical pathway for treating surgically resectable esophageal cancer. With the difficult prognosis and treatment known for patients with esophageal cancer, tailored distress screening protocols should be implemented throughout the duration of treatment.

Distress screening is a required part of cancer care secondary to initiatives from the NCCN, the National Academy of Medicine, and the CoC. Patients with cancer have twice the risk of experiencing depression and anxiety than the general population,[1] and patients with gastrointestinal cancer have higher levels of anxiety than patients with other metastases from other cancers.[2] Esophageal cancer has a poor prognosis, with a less than 15 percent overall five-year survival rate[3] and with only 25 percent of patients eligible for surgery as a treatment.[4] Surgically resectable esophageal cancer cases follow a somewhat predictable path to surgery. Following an initial workup, patients typically receive neoadjuvant treatment that includes sequential chemotherapy and chemoradiation. Following the neoadjuvant treatment, patients at our cancer program then have a four-week break before pre-surgical restaging occurs. At restaging, some patients are no longer eligible for surgery due to the tumor's lack of response to neoadjuvant treatment. For those who are eligible for surgery, surgery is extensive and is associated with high morbidity or recurrence.[5] The survival rate even for that initial 25 percent who are eligible for surgery at time of diagnosis is low, with the post-operative survival rate of less than 35 percent.[6]

Though the NCCN and CoC have developed guidelines for distress management, these offer sweeping standards of care that are broadly developed to fit any oncology disease; it is therefore left up to the healthcare team to define the exact and appropriate intervals for screening based on clinical indication and clinical practice guidelines. CoC requires distress screening at one time for all patients with cancer. NCCN suggests that ideal screening would happen at every medical visit and, at a minimum, at the initial visit, appropriate intervals, and as clinically indicated related to changes in the patient's disease status. The NCCN recommends that a full clinical assessment should occur when there is clinical evidence of moderate to severe distress. In an effort to reach the CoC mandate for distress screening, many cancer programs have implemented standards for distress management at their institution that take a one-size-fits-all approach and are not specific to the cancer type or treatment. NCCN has developed clinical practice guidelines for the medical treatment of cancer by disease site. Because interdisciplinary teams become specialists in treating certain disease sites, it is important to develop distress screening guidelines that best serve specific patient populations and their treatment.

Methods

At our National Cancer Institute-designated NCCN Comprehensive Cancer Center, our esophageal cancer multidisciplinary working group consists of medical oncologists, surgical oncologists, radiation oncologists, pharmacists, advanced practice providers, psychologists, social workers, and registered dietitians. In our work, our team has tailored supportive care services for patients with esophageal cancer who are eligible for surgery at time of diagnosis to improve outcomes. We tailored distress screening in this highly vulnerable population by aligning the CoC and NCCN distress management screening guidelines with our institution's clinical pathway for treating surgically resectable esophageal cancer.

Design and Data Collection

Patients were eligible for our quality improvement prehabilitation project (Seeking to Reactivate Esophageal aNd Gastric Treatment Health; STRENGTH) if they had resectable esophageal cancer, were a candidate for surgery, and planned to undergo neoadjuvant therapy. The STRENGTH program is the implementation of a standardized pathway of supportive interventions that includes an order set in the electronic health record; full procedure and overall results for the project are viewable elsewhere.[7]

Sixteen patients were offered participation in the STRENGTH program but those with interval progression of disease or seeking part of their care elsewhere were excluded from analysis because they did not proceed to surgery. The study was approved by the Colorado Institutional Review Board. See Table 1, below, for patients' demographic information.

Distress screening was completed via a modified version of the NCCN distress thermometer and problem list for patients.[8] Protocol included completion of the distress screener at time of initial presentation to our cancer program and then additionally at each infusion visit (compared to screening at new patient visits, which was standard at our cancer program).

Instructions for the distress screen process were provided to the infusion center check-in staff. Patients enrolled in the STRENGTH program were given paper copies of the distress

Table 1. Patient Demographics

	***n*=11**
Age (years)	67.3 (mean) 57-75 (range)
Gender	Females: *n* = 2 (18%) Males: *n* = 9 (82%)
Race	Caucasian: *n* = 11 (100%)
Ethnicity	Hispanic: *n* = 2 (18%) Non-Hispanic: *n* = 9 (82%)
Cancer stage	Stage 2: *n* = 5 (45.5%) Stage 3: *n* = 6 (54.5%)
Caregiver	Daughter: *n* = 1 (9%) No caregiver: *n* = 3 (27%) Spouse: *n* = 7 (64%)
Marital status	Divorced: *n* = 3 (27%) Married: *n* = 8 (73%)
Distance from cancer center (miles)	208 (mean) 6.9-768 (range)

measure at each chemotherapy visit. Staff were instructed to ask patients to complete the paper distress screening tool in the waiting room and hand it back to the same staff member when completed. Staff were directed to page the social worker if the patient had a distress screen score of six or higher (range, 0-10) on any of the four distress quadrants (Emotional Concerns, Health Concerns, Social Concerns, Practical Concerns).

Because patients typically undergo chemotherapy and radiation, followed by surgery, the STRENGTH program used the following algorithm. When chemoradiation begins, the STRENGTH pathway is activated. Patients then completed 4 to 6 weeks of chemoradiation and surgery was scheduled for 6 to 12 weeks after completion of neoadjuvant therapy.

Building psychosocial oncology care plans based on a patient's specific diagnosis and treatment can further personalize supportive care beyond distress screening, which can lead to less suffering, better care satisfaction, and enhanced health outcomes.

Results

Large variations occurred in the number of times patients were screened for distress, with a range of 1 to 9 times and mean of 4.73 times (see Table 2, below). Reasons for variations in completions of distress screening included patient declining, patient survey fatigue, staff not giving it to patients when intended, and patients receiving it during non-chemotherapy infusion visits (such as during hydration infusions). Total elapsed time between first and final distress screening was calculated, with a mean of 40.27 days (range, 0-68). Elapsed time from final distress screening to end of neoadjuvant treatment was calculated as a measure of whether screening continued throughout chemotherapy; the mean was 15.36 days (range, –13 days [patient received distress screen at hydration infusion after completion of neoadjuvant treatment, which was not part of the protocol] to 69 days [patient was only screened for distress at initial oncology visit and none of the infusion visits]). Finally, time from final distress screening to surgery was calculated, with a mean of 76.45 days (range, 50-112; see Table 2).

Table 2. Completion of Distress Screen and Time Between Completions

	Number of Completed Distress Screens	Elapsed Time (Days) from First Distress Screen to Last Distress Screen	Elapsed Time (Days) from Last Distress Screen to End of Neoadjuvant Treatment	Elapsed Time (Days) from Last Distress Screen to Surgery
Participant 1	4	68	22	79
Participant 2	6	55	4	72
Participant 3	2	14	10	94
Participant 4	6	35	10	79
Participant 5	6	50	8	71
Participant 6	5	35	2	50
Participant 7	9	68	–13	58
Participant 8	8	55	3	51
Participant 9	5	63	7	64
Participant 10	1	0	47	111
Participant 11	1	0	69	112
Mean	4.73	40.27	15.36	76.45

Discussion

Results reveal several issues. Patients reported survey fatigue from frequency (weekly per protocol) of being asked to complete the distress screening at chemotherapy visits. Because some patients were inappropriately asked to complete the screening at hydration infusions as well, some were asked more frequently than weekly. Infusion staff changes during this project led to inconsistency in script and delivery of distress screening to patients.

Some critical times in the patients' treatment were missed and some patients did not respond due to survey fatigue. Many did not live close enough to come in to discuss symptoms of distress with a provider at our cancer program and may have benefited from telephone check-ins.

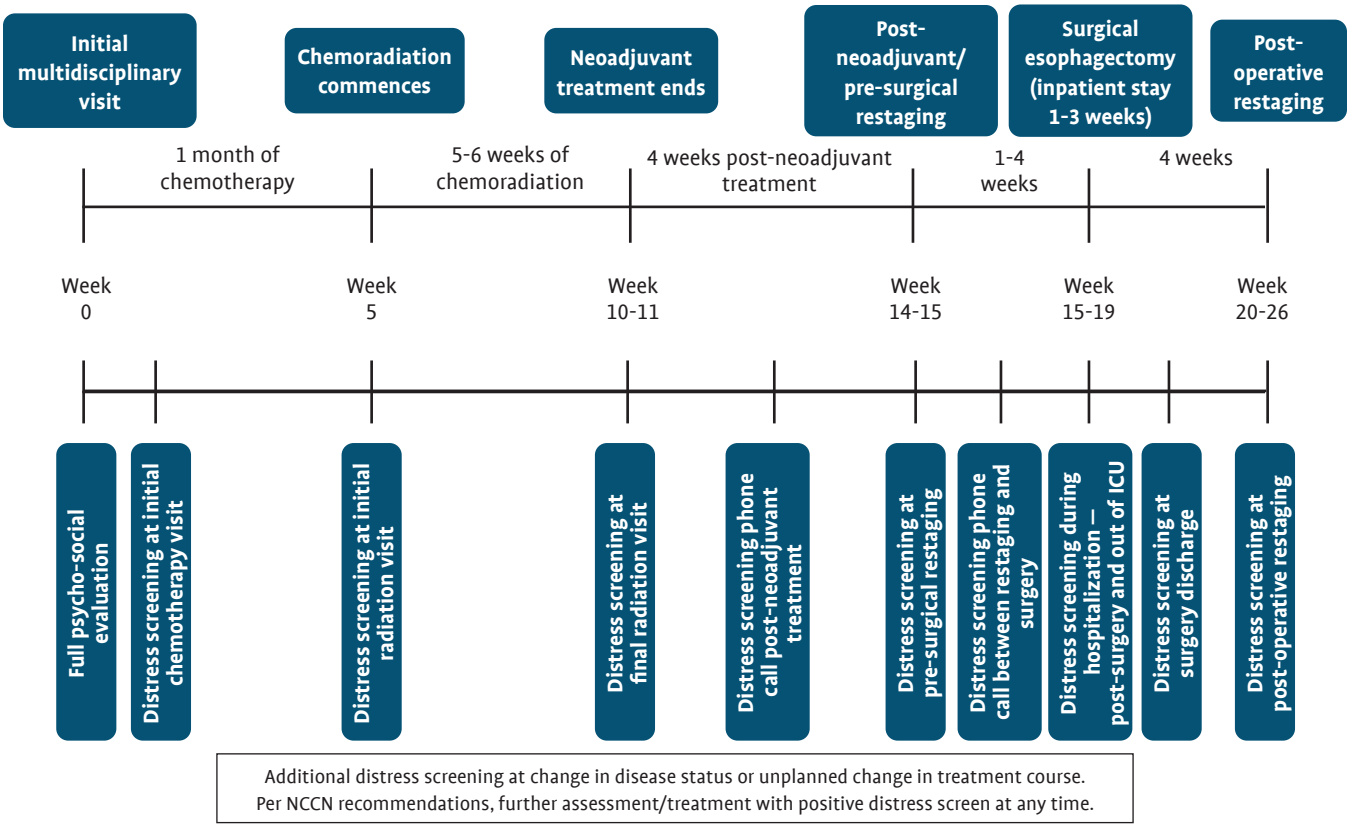
Next Steps: Proposed Timing of Distress Screening

Learning from our experience, we developed a proposed timing for distress screening for patients being treated for surgically resectable esophageal cancer that we plan to implement going forward. Specifically, we suggest an initial meeting with an oncology social worker to complete a full psychosocial assessment to identify barriers to care and therefore proactively address them. We then suggest distress screening at time periods that indicate treatment change (see Figure 1, below):

- In-person distress screening at initial chemotherapy visit
- In-person distress screening at first radiation visit
- In-person distress screening at final radiation visit
- Telephone distress screening at week two of the four weeks from the end of neoadjuvant treatment to pre-surgical restaging
- In-person distress screening at pre-surgical restaging
- Telephone distress screening between restaging and surgery
- In-person distress screening during inpatient hospital stay for planned surgery
- In-person distress screening at surgery discharge
- In-person distress screening at post-operative restaging.

We also recommend that any change in treatment plan or change in disease status activate the distress screening process as well because those times have the potential for high distress.[9]

Figure 1. Surgically Resectable Esophageal Cancer Clinical Pathway with Distress Screening Recommendations



Conclusion

The protocol of our quality improvement process attempted to screen patients for distress at increased time intervals during the chemotherapy portion of their treatment (while in infusion for chemotherapy). In retrospect this model only captured distress screening data during one phase of treatment and therefore missed opportunities to screen at other potentially vulnerable time periods. A distress screening best practice personalizes the timing of patients' distress screening to be concurrent with their entire medical plan of care, such as we propose in Figure 1. This model of aligning medical care plans with distress screening is replicable for other cancer types and respective treatment care plans. Building psychosocial oncology care plans based on a patient's specific diagnosis and treatment can further personalize supportive care beyond distress screening, which can lead to less suffering, better care satisfaction, and enhanced health outcomes.[9]

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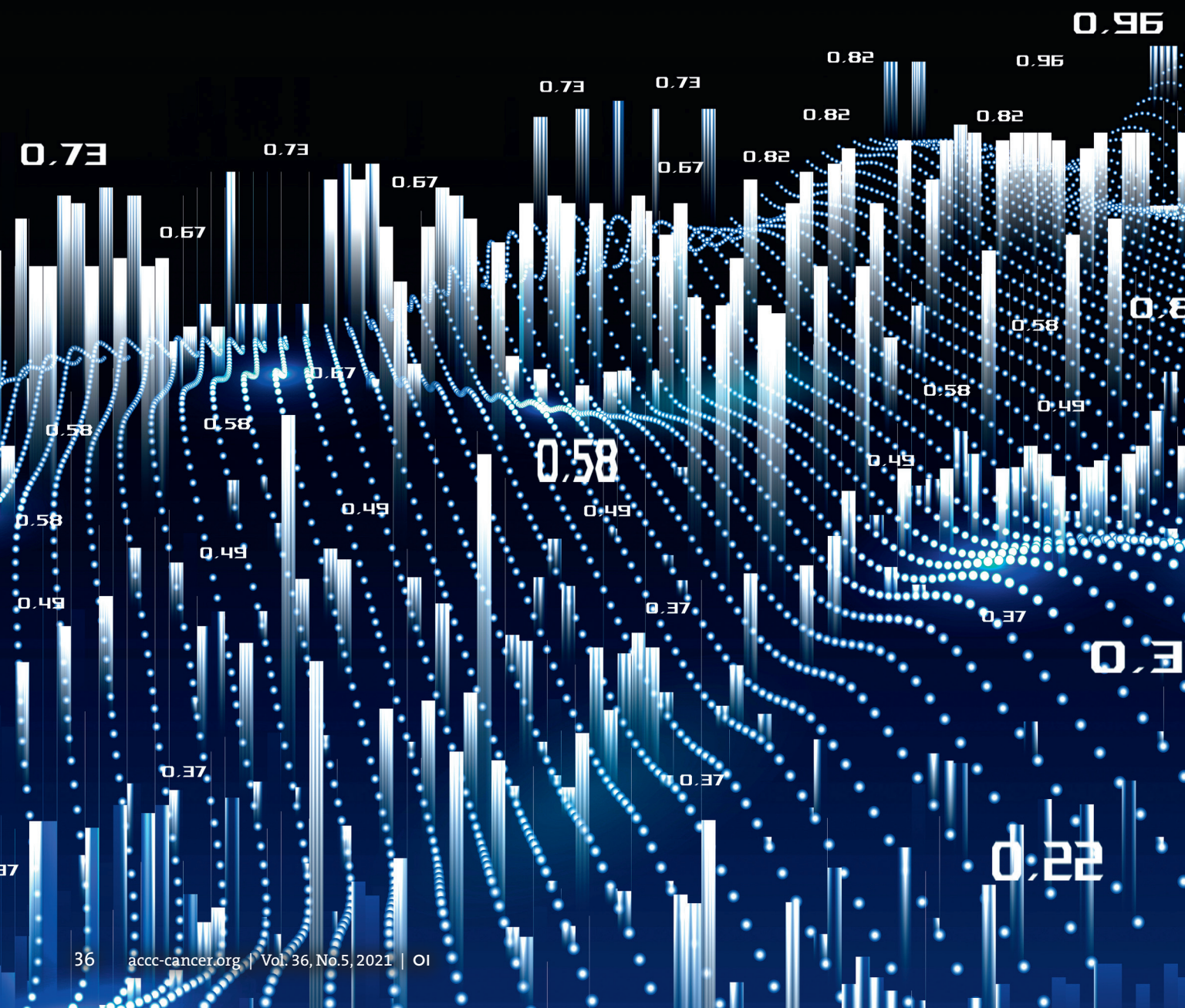
Mining Data to Improve Care Coordination of Patients with Hematologic Malignancies



BY RACHEL DRAGOVICH, PHARMD, AND JAN KOVER, RPH, BCOP

Abstract

Purpose: The purpose of this study was to assess patient, disease, and medication-related factors that affect the rate of unplanned readmissions before next chemotherapy cycle or within 30 days since last chemotherapy admission in patients with hematologic malignancies.

Methods: This study is a retrospective chart review. All patients with leukemia, lymphoma, or multiple myeloma aged >18 years who received chemotherapy over a three-year period were evaluated.

Results: A total of 107 inpatient chemotherapy encounters and 47 patients were included. Of those encounters that led to readmission, 68.7 percent (n = 22/32, p = 0.2212) did not have medications filled prior to discharge, 78.1 percent (n = 25/32, p = 0.4026) did not receive a follow-up phone call, and 50 percent (n = 16/32, p = 0.0233) did not attend their follow-up appointment. In the readmission group, 9 patients had an adverse event (AE) and none were communicated upon discharge. In the not readmitted group, 34 had an AE and 15 were communicated upon discharge (100 percent vs. 44 percent; p = 0.0169).

Conclusions: Factors that contributed to readmission in this patient population include providers not communicating upon discharge whether the patient had an AE during treatment and patients not attending their follow-up appointment. There is a need to improve transitions of care coordination and communication in patients with hematologic malignancies.

The term *transitions of care* refers to the movement of patients between various healthcare settings and/or healthcare providers. Ineffective transitions of care have been shown to increase the number of adverse events (AEs), patient safety issues, 30-day hospital readmission rates, and costs.[1,2] It was estimated that avoidable complications and unnecessary hospital readmissions due to inadequate transitions of care were responsible for $25 billion to $45 billion in 2011 alone.[2] A study by Jencks and colleagues, analyzing Medicare patient claims from October 2003 to December 2004, concluded that about 20 percent of Medicare patients were readmitted within 30 days, about 50 percent of whom did not receive post-discharge follow-up.[3] Another prospective cohort study found that one in five patients transitioned from hospital to home experienced an AE within three weeks of discharge. Of these AEs, 66 percent were concluded to be medication related.[4]

Three common root causes of ineffective transitions of care have been identified by the Joint Commission: communication, patient education, and follow-up breakdowns.[5] Implementation of medication reconciliation and expectations for handoffs are national patient safety goals recognized by the Joint Commission. The World Health Organization also has published strategies for hospitals to implement effective transitions of care.[1] Currently, there is no gold standard model or guideline specifically for medication transitions, but some essential components have been identified in the literature, including medication reconciliation, structured discharge communication, and facilitation (e.g., meds to beds, patient education, and timely post-discharge follow-up).

Patients with cancer are a complex and high-risk patient population. Patients with hematologic malignancies often require brief admissions for monthly chemotherapy due to an inability

Brown and colleagues concluded that 33 percent of readmissions within 7 days of discharge were for potentially preventable complications, including nausea, vomiting, dehydration, and pain.[7,8]

to deliver treatment safely in the outpatient setting. In addition to the base cancer treatment plan, patients can require initiation of prophylactic antimicrobials, antiemetics, anticoagulation, steroids, pain medications, colony-stimulating factor drugs and other adjuvant medications, as well as new high-risk oral anticancer treatments added into treatment regimens that need to be coordinated prior to discharge. Proper education and follow-up at discharge becomes even more critical. Chemotherapy itself requires frequent follow-up for blood work, symptom management, and evaluation of cancer response. All of these factors increase the risk for ineffective and unsafe transitions of care in oncology patients and higher readmission rates.

Shank and colleagues identified common transition of care challenges in patients receiving cancer treatment. Causes are similar to those identified by the Joint Commission in the general population. Specific challenges to good transitions of care identified include patient health literacy, medication adherence, comorbidities, transportation access to care services, age, and financial issues. System factors identified include lack of staff, communication of complex care across health systems, caring for multiple patients, and challenges in communicating discharge plans with outpatient providers.[6]

A systematic review of 56 studies of hospital readmissions among patients with cancer by Bell and colleagues found that the highest 30-day readmission rates (up to 34 percent) were found in patients with bladder, pancreatic, ovarian, and hematologic malignancies.[7] Predictors of readmission included patients with significant comorbidities, male gender, older age, more advanced disease, and low socio-economic status. The top five medication- and disease-related reasons for readmission included gastrointestinal complications (nausea, vomiting, diarrhea), infection, nutritional complications (dehydration, malnutrition), surgical complications (blood loss), and cardiopulmonary complications (respiratory, pneumonia). Brown and colleagues concluded that 33 percent of readmissions within 7 days of discharge were for potentially preventable complications, including nausea, vomiting, dehydration, and pain.[7,8] In 2014 an academic medical center implemented a process improvement project to reduce 30-day unplanned hospital readmissions in palliative and medical oncology patients. The improvement project included provider education, nursing phone calls within 48 hours of discharge, and post-discharge follow-up provider appointments within five business days. Before the project, readmission rates from January 2013 to April 2014 were 27.4 percent; after project implementation, readmission rates dropped to 22.9 percent ($p<0.01$; relative risk reduction = 18 percent).[9]

Objectives and Purpose

This study was conducted to evaluate the current transition of care processes and to identify areas of needed improvement and potential for increased involvement of the oncology pharmacist. The primary objective of this study was to evaluate medication-related factors that affect the rate of unplanned readmissions before subsequent chemotherapy cycles or within 30-days of admission where chemotherapy was administered. Secondary objectives included identifying whether all changes in medications, treatment plans, and AEs noted during admission where chemotherapy was received were communicated upon discharge to the patient's outpatient provider and whether all required appointments were made and attended by patients post-discharge. This study assessed the current medication transition of care processes in patients with hematologic malignancies at the MetroHealth System and attempted to find areas for consistent pharmacist involvement and overall process improvement.

Methodology

This study is a retrospective chart review approved by MetroHealth Systems' Institutional Review Board. The study included all patients with leukemia, lymphoma, multiple myeloma, and myelodysplastic syndrome aged 18 years and older who received inpatient chemotherapy treatment while admitted at MetroHealth. The only exclusion criteria were patients under the age of 18 years old. All patient data were extracted from MetroHealth Systems' electronic medical record system (EPIC), including Care Everywhere.™

The data collection period was from Jan. 1, 2015, to Jan. 1, 2018, to capture and assess a sufficient number of patients. All data collected were stored in the secure electronic database REDCap.™ Demographic data collected included age, sex, ethnicity, insurance type, and preferred language. Medical information collected included malignancy type, attendance and communication to patients of the required appointments for outpatient follow-up after discharge, treatment regimen, route of chemotherapy, number of chemotherapy cycles, adverse effects (infusion reactions, drug toxicity, nausea, decline in organ function, or allergic reactions) during treatment, treatment plan modifications during admission, and disposition location. Other information collected included discharge education, whether patients' prescriptions were filled prior to discharge, follow-up phone calls, medication-related discharge summary information and after-visit summary information, follow-up appointments, and readmission information.

Table 1. Baseline Demographics

	Total Patients	Inpatient Encounters/ Cycles
	47	**107**
	Total Number	**%**
Females	16	34
Males	31	66
Median age	64	N/A
Ethnicity		
African American	19	40.4
American Indian/ Alaskan Native	1	2.1
Caucasian	24	51.1
Hispanic	1	2.1
Other	2	4.3
Insurance Type		
Commercial insurance	9	19.1
Medicaid	16	34
Medicare	14	29.8
Uninsured	8	17
Preferred Language		
English	44	93.6
Spanish	1	2.1
Other	2	4.3
Malignancy		
Leukemia	11	23.40
Lymphoma	19	40.42
Multiple myeloma	17	36.17
Myelodysplastic syndrome	0	0

Statistical Analysis

Descriptive statistics were used for all data points including continuous data. Chi-square/Fisher's exact tests were used for categorical data. A p value less than 0.05 was used to determine statistical significance.

Results

Forty-seven patients met the inclusion criteria for this study. A majority of patients were male (66 percent) with a median age of 64 years old. Baseline demographics are listed in Table 1, left. When looking at the primary endpoint of readmission, there were no statistically significant demographic differences between the patients who were readmitted and those who were not (Table 2, p. 40).

Overall, 32 patients were readmitted prior to their next cycle or within 30 days of last admission and therefore met the primary endpoint. Reasons for readmission were separated into four groups: cancer-related (46 percent), non-cancer-related (11 percent), infection (38 percent), and medication-related (5 percent). Cancer-related readmissions were those readmissions directly due to cancer or the expected side effects of cancer treatment (e.g., tumor lysis syndrome, neutropenia, and thrombocytopenia). Non-cancer-related readmissions included readmissions for reasons not directly due to the patient's cancer or chemotherapy (e.g., surgical complications, hypotension, chronic obstructive pulmonary disease exacerbation, etc.). Readmissions for infection included patients who had a diagnosis code for infection and were treated with antibiotics (including febrile neutropenia). Readmissions that were considered medication-related included acute kidney injury directly related to nephrotoxic chemotherapy, nausea, vomiting, dehydration, and chemotherapy-induced diarrhea. These designations were applied consistently to all data points examined by one reviewer according to the documentation in the electronic medical record for the readmission encounter.

Of the 32 readmissions, 16 developed infection and/or febrile neutropenia. Of the 16 patients with infection, 3 did not receive any type of prophylactic antimicrobials at discharge, and 6 did not receive growth factor support. Of those who did not receive prophylactic antimicrobials, at least one patient qualified for antimicrobials based on their malignancy treatment risks as per the National Comprehensive Cancer Network Clinical Practice Guidelines in Oncology.[10] Of the 6 patients who did not receive growth factor support, two were scheduled to receive it but did not attend the follow-up appointment.

Table 3, p. 41 lists the results of studied readmission factors. The data were collected for all encounters and compared between patients who did and did not meet the primary endpoint of readmission. Thirty-five patients did not attend their follow-up appointments with the oncologist (16 [56 percent] in the readmitted group vs. 19 [25.3 percent] in the not readmitted group; $p = 0.0233$). Of those 16 patients who were readmitted, reasons for not attending their follow-up appointment included readmission prior to follow-up (5; 31.2 percent), appointment was not scheduled (4; 25 percent), lack of transportation (1; 6.2 percent),

Table 2. Comparing Baseline Demographics Between Patients Not Readmitted and Readmitted

N = 107 Total Encounters	Not Readmitted (*n* = 75)	Readmitted (*n* = 32)	*p* Value
Gender: male, *n* (%)	55 (73.3)	23 (71.9)	1.00
Age: >60 years, *n* (%)	54 (72)	19 (59.3)	0.2573
Ethnicity: Caucasian, *n* (%)	41 (54.6)	14 (43.7)	0.3985
Insurance: Medicare/Medicaid, n (%) Uninsured, n (%)	 54 (72) 12 (16)	 22 (68.7) 7 (21.8)	 0.8169 0.4180
Language: English, n (%)	71 (94.6)	30 (93.7)	1.00
Malignancy: Leukemia, n (%) Lymphoma, n (%) Multiple myeloma, n (%)	 18 (24) 43 (57.3) 14 (18.6)	 5 (16.6) 23 (71.8) 4 (12.5)	 0.4436 0.1949 0.5763

patient had to reschedule (1; 6.2 percent), and no-show/unknown (5; 31.2 percent).

Of the 43 patients who had an adverse reaction during treatment, 24 events (55 percent) were not communicated upon discharge. In the readmission group, 9 patients had adverse effects and none of those events were communicated upon discharge (*n* = 9/9; 100 percent); in the not readmitted group, 34 had adverse effects and 15 were communicated upon discharge (*n* = 15/34; 44 percent; *p* = 0.0169; 95 percent confidence interval, 0.0074-1.7261). Of the 36 patients who had treatment plan modifications made while they were admitted, 24 (66 percent) were not communicated upon discharge. In the readmission group, 11 patients had changes made to their medications, 7 of which (*n* = 7/11; 63 percent) were communicated; in the not readmitted group, 25 had changes made to their medications, 17 of which (*n* = 17/25; 68 percent) were not communicated upon discharge (*p* = 1.00).

Discussion

MetroHealth System is a 730-bed teaching hospital; it is common for attending physicians and residents to rotate between multiple services and patients. According to MetroHealth Systems' scheduling data, patients can have up to five physicians involved in their care on a weekly basis. This increases the opportunities for communication breakdowns during transitions of care. MetroHealth is also a safety net hospital with more than 20 outpatient locations, including three centers for cancer care and a dedicated 17-bed inpatient unit. Patient factors, such as health literacy, adherence, communication across the system, and financial issues, are also of great importance within our cancer population.

Currently there are limited transitions of care measures in place in the oncology patient population at many institutions, including MetroHealth. Transitions of care strategies currently implemented by the oncology service line at MetroHealth include a social work discharge huddle, a mandatory medication reconciliation upon care transition, and the provision to patients at discharge of an after-visit summary that includes an updated medication list, event summary of the hospital admission, and subsequent follow-up appointments. Pharmacists often make notes in the patients' treatment plan, but these notes are not visible to providers. MetroHeath System's oncology service line is moving to a hospitalist model where the primary oncologists provide consults only, which increases the need for multidisciplinary communication and good transitions of care. Several other institutions follow a similar model and may benefit from the thoughts and data in this article.

There were several limitations noted during this study. There was a change in nursing documentation in the electronic medical record that required formal documentation of education provided by nursing at discharge. This affected over half of the encounters. Another limitation was that patients may have been admitted to outside facilities that our electronic medical record system does not have access to, so medication transitions could not be verified and readmissions could not be accounted for. In addition, this is a retrospective, single-center study in a relatively small patient population.

Future directions for process improvement include several oncology pharmacist-led interventions. Examples include a formalized pharmacist medication transitions of care note, patient medication education at discharge with specific focus on encouraging use of the Meds to Beds program, and attempting to ensure

Table 3. Results of Studied Readmission Factors

N = 107 Total Encounters	All Encounters (*n* = 107)	Not Readmitted (*n* = 75)	Readmitted (*n* = 32)	*p* Value
Cycle #1, *n* (%)	56 (52.3)	38 (60.6)	18 (56.2)	0.6746
Adverse reactions during treatment, *n* (%)	43 (40.1)	34 (45.5)	9 (28.1)	0.1318
Modifications made to treatment plan, *n* (%)	36 (33.6)	25 (33.3)	11 (34.3)	1.00
Pharmacy notes added to treatment plan, *n* (%)	53 (49.5)	36 (48)	17 (53.1)	0.6765
Transferred while inpatient (intensive care unit/ telehealth), *n* (%)	11 (10.3)	6 (8)	5 (15.6)	0.2985
No verbal discharge education, *n* (%)	43 (40.1)	32 (42.6)	10 (31.2)	0.2893
No medications filled prior to discharge, *n* (%)	88 (82.2)	60 (80)	22 (68.7)	0.2212
No follow-up phone call, *n* (%)	89 (83.1)	64 (85.3)	25 (78.1)	0.4026
Had scheduled follow-up with oncologist at discharge, *n* (%)	69 (47.2)	47 (62.6)	22 (68.1)	0.6606
Disposition location, *n* (%) Home Homecare Homeless Skilled nursing facility	 77 (71.9) 12 (12.1) 5 (4.6) 6 (5.6)	 58 (77.3) 8 (10.6) 2 (2.6) 2 (2.6)	 19 (59.3) 5 (15.6) 3 (9.3) 4 (12.5)	 **0.0652** 0.5237 0.1567 **0.0641**
Did not attend follow-up appointment with oncologist, n (%)	72 (67.2)	19 (25.3)	16 (50)	**0.0233**

Note: Significant values $p<0.05$ have been bolded.

that all patients have scheduled follow-up appointments within a specified time frame for laboratory monitoring, patient assessment, and medication administrations—all of which should be communicated in writing to the patient, caregiver, and family prior to discharge.

Conclusion

This study shows that the most significant factors that contributed to readmission in patients with hematologic malignancies at MetroHealth System included patients not attending follow-up appointments with the primary oncologist ($p = 0.0233$) and lack of communication to the outpatient provider of adverse reactions that occurred during treatment ($p = 0.0169$). One factor trending toward statistical significance was readmission from a skilled

Lack of provider communication of adverse reactions and attendance at follow-up appointments prevents the outpatient oncologist from being able to make modifications in patient care that could prevent subsequent readmissions.

nursing facility ($p = 0.0641$), suggesting that transitions to those locations at discharge need a more formalized process or scrutiny. There is a need to further evaluate why patients did not attend follow-up appointments (e.g., transportation issues, lack of appointment awareness, or other). Lack of provider communication of adverse reactions and attendance at follow-up appointments prevents the outpatient oncologist from being able to make modifications in patient care that could prevent subsequent readmissions.

Overall, there is a need to improve the medication transitions of care process and general discharge communication regarding medications and follow-up care in this population. OI

Acknowledgment

Nilam Patel, PharmD, BCPS, is acknowledged for her contribution to this research project.

Disclosure Statement

The authors report no conflict of interest.

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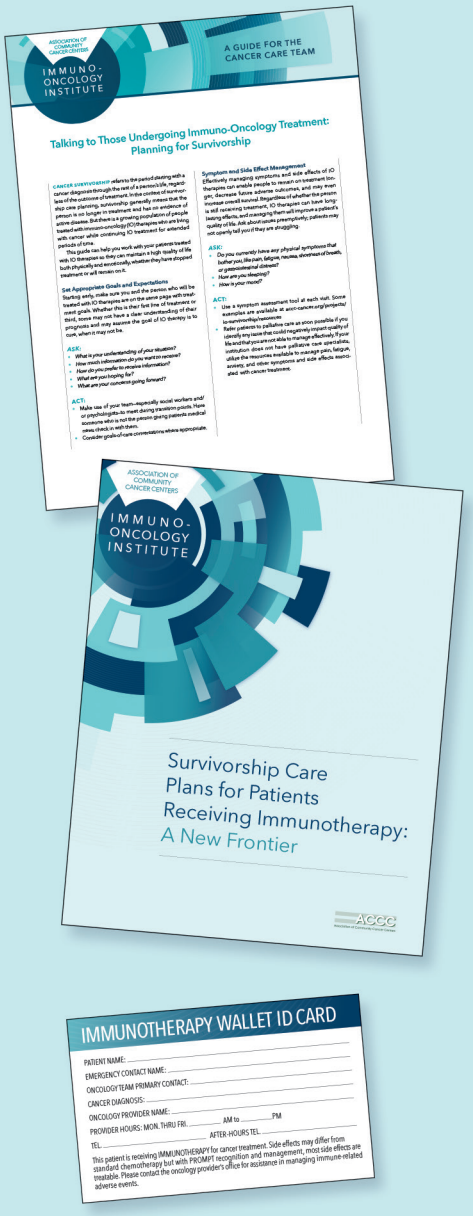

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Cancer Care from the Comfort of Your Car

BY BARBARA A. GABRIEL, MA

Moffitt's Curbside Clinic gives patients another option for accessing care

With widely fluctuating new COVID-19 infection and vaccination rates—and masking and social distancing mandates changing daily—it is important to consider whether some of the positive developments wrought by the pandemic are worth keeping. One such development is Moffitt Cancer Center's Oncology Curbside Clinic.

COVID-19 has had a disproportionate effect on patients immuno-compromised by their cancer treatments, which has made it difficult for them to access ongoing care during the pandemic. Providers across the country have turned to non-traditional methods of delivering care to these vulnerable populations, including virtual physician consultations and limited office visits under sterile and distanced circumstances.

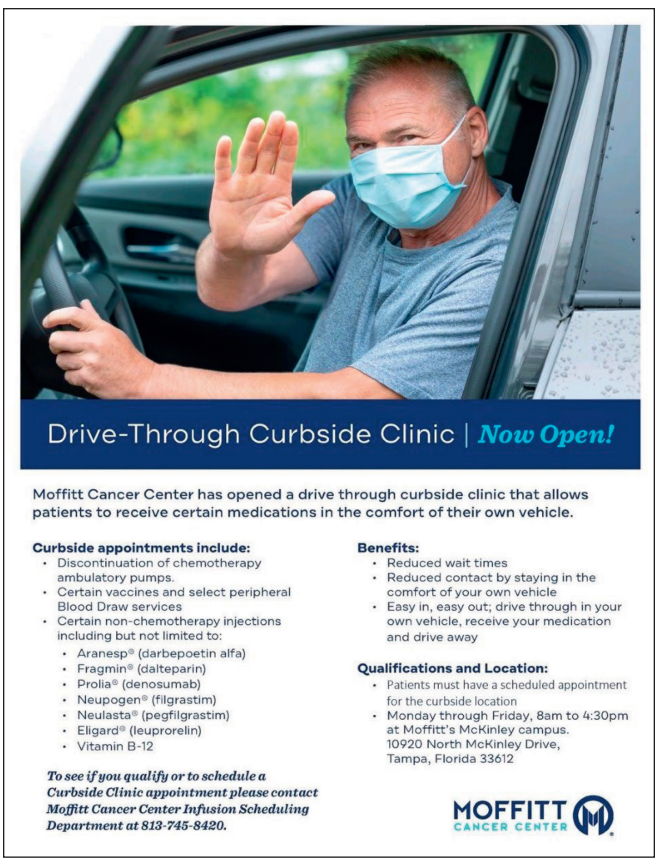
To offer its patients another option for accessing care with fewer risks than traditional in-person office visits, Johns Hopkins Hospital pioneered the concept of the curbside clinic in response to the restrictions made necessary by COVID-19. Dealing with her own obstacles to providing care to patients with cancer during the pandemic, Heather Morgan, MSN, RN, director of Infusion Services and Blood Draw Services at Moffitt Cancer Center in Tampa, Fla., spoke to her colleagues at Hopkins to learn more about how they made their curbside clinic a reality. She said the leadership team at Moffitt was enthusiastic about being able to offer curbside services to a population hesitant to access in-office treatments.

> The fact is that patients value their time. They want to spend it with family and friends. Our goal is for them to spend as little time here as possible.

"It was easy to get support from our leadership," recalls Morgan. "In our initial call to Hopkins, Moffitt's leaders got on board. They contacted legal to see if it was feasible, and we went from there." Considering all of the logistical and clinical pieces that needed to be in place to make Moffitt's Curbside Clinic safe and feasible, the cancer program managed to launch the new service quickly.

"Our first conversation with Hopkins happened in August 2020, and on October 15, 2020, our program launched," says

Heather Morgan, MSN, RN, director of Infusion Services and Blood Draw Services at Moffit Cancer Center.



Morgan. "Right now, the program is limited to Moffitt's satellite McKinley campus, but we are seeking to expand to other locations."

Morgan says that once Moffitt committed to opening its Curbside Clinic, it had to determine which patient services were safe and feasible to deliver while patients sat in their cars. "We currently offer non-chemo injections for patients who do not need same-day labs to receive treatment," explains Morgan. "We also offer vaccinations, port flushes, and peripheral lab draws" (see Table 1, right).

The Importance of Timing

Timing is essential to making Moffitt's Curbside Clinic a practical, efficient alternative to in-office visits. When patients drive into the clinic, their intake procedure mirrors the one inside. Patients' ID bracelets are scanned, charting is the same at all points of care, and all safety steps are in place.

"Patient visits are carefully timed to last as long as we expect their appointments to take, which is usually 10 to 15 minutes," explains Morgan. Getting that timing right is essential to preventing vehicles from having to wait in the parking lot for extended periods of time, which Morgan says would lead to traffic jams in their parking lot. Florida's year-round hot weather could also complicate curbside visits if patients were asked to wait in their cars in the heat. Morgan says that Moffitt's carefully cultivated ability to check-in, treat, and discharge patients safely in their allotted time slot has made the Curbside Clinic the success it is.

"When we were planning for the clinic, we relied on our pharmacy department to tell us which medications could be safely given at curbside, and we worked with them to establish how we could prepare orders beforehand, so they were ready as soon as a patient pulled up," says Morgan. "Because we have what we need at hand when a patient arrives, there are no waits, and appointments take 10 to 15 minutes."

In-office appointments for the same services, says Morgan, can take much longer. "For example, if a patient comes in for a pump disconnect, by the time she parks, comes inside, gets checked in, gets her vitals taken, and then waits for and receives care, it can easily take an hour."

Prepping for Visits

Accurately and efficiently prepping for what each patient requires during their individual appointments is what makes Moffitt's program work. The process starts two days prior to a patient's visit, when the pharmacy is notified of the injection(s) that specific patients require. All scheduled medications are prepared the night before and are delivered in the morning to a refrigerator near the Curbside Clinic, where nurses easily access mediations via a key when needed. This way, no further pharmacist review is necessary on the day of the visit.

Shanel Fisher, PharmD, MHA, BCOP, manager of Pharmacy Satellite Operations at Moffitt, says that drug safety was the first consideration when exploring the feasibility of the Curbside Clinic. "From the pharmaceutical perspective, the biggest concern is medication safety; that is, how to safely administer drugs outside

(Continued on page 48)

Table 1. Treatments Offered at Moffitt's Curbside Clinic
Injections*
Aranesp® (darbepoetin alfa)
Eligard® (leuprolide acetate)
Fragmin® (dalteparin)
Lovenox® (enoxaparin)
Neulasta®/Neulasta Onpro OBI® (pegfilgrastim)
Neupogen® (filgrastim)
Pegasys® (peginterferon alfa-2A)
Procrit® (epoetin alfa)
Prolia® (denosumab), 6 months
Xgeva® (denosumab), 4 weeks
Vitamin B-12 (cyanocobalamin)
Other
Continuous infusion CADD pump disconnect with/without subsequent placement of a Neulasta OBI
Vaccines for asplenia and/or splenectomy
Prevnar 13® (pneumococcal 13-valent conjugate vaccine)
Haemophilus b conjugate (PRP-T vaccine)
Bexsero® (meningococcal group B vaccine)
Menveo® (meningococcal conjugate vaccine)
Pneumovax 23® (pneumococcal 23- polyvalent vaccine)
Peripheral lab draws for patients on active treatment**
Pre-chemo/treatment peripheral labs
Injections in combination with peripheral labs
Other
Port flushes (pending; Phase III)

*ONLY when the administration of these injections is not dependent on results of the labs being drawn at that same Curbside Clinic visit.
**Peripheral lab draws ONLY. (There has not been a method established that would allow the clinician to maintain an aseptic field on which to lay dressings/flushes, etc.)

As patients pull into the clinic, nurses take their vitals.

(Continued from page 46)

of the building," says Dr. Fisher. "We identified the drugs that would not elicit a reaction, are easily tolerated, and are limited to injections, including chemo injections and pump disconnects."

Dr. Fisher says her role in Moffitt's Curbside Clinic began when she spoke to Johns Hopkins' pharmacy operations manager about how Hopkins was making its curbside program work and then tweaking that process to fit Moffitt's needs. "For example," says Dr. Fisher, "Hopkins has coolers attached to mobile nursing computers, but in Florida, that presents a challenge, given the heat and humidity here. So, we keep all drugs inside refrigerators in the curbside unit area just inside the building until they are needed. We may consider using portable refrigerators in the future if curbside capacity expands and adds more vehicle lanes."

Logistical Issues

There are plenty of logistical issues to address when you move a patient service from indoors to outdoors, and some issues may not be understood until they occur. For example, Dr. Fisher says one unexpected barrier is car seats that do not fully recline: "For some of the hormonal treatments we offer, the patient has to lay very far back in a chair. Sometimes cars have seats that cannot go all the way back, which can present an operational issue. We are considering offering to put up screens for privacy if a patient requests it."

Dr. Fisher says that besides retooling medication dispensing protocols to accommodate curbside patients, the biggest barrier is technical in nature. "Initially, there was not a strong enough signal outside of the building for us to provide care at the curbside," explains Dr. Fisher. "Our IT department had to enable wireless connection to our mobile workstations."

Dr. Fisher says that Moffitt has protocols in place in case certain things go wrong. For example, in case an injection spills in a patient's car, Moffitt makes spill kits available to the nurses treating patients. The nature of a curbside service has some unavoidable restrictions. Because Moffitt prepares all medications prior to a patient's visit, all labs must be done beforehand.

Dr. Fisher says that Moffitt has started doing lab draws in patients' vehicles, but those patients do not wait in person for their results because that would occupy parking spaces that Moffitt's McKinley site does not have. "Think of the curbside clinic process as going through a fast-food drive-through," says Dr. Fisher. "It's a couple minutes. You quickly get your food, but you can't pull off to the side and wait if your chicken nuggets aren't ready yet."

Morgan says that it took coordination among many Moffitt stakeholders to make the curbside clinic a reality, including those who may not immediately come to mind. "The clinic requires the coordination of multiple departments and leadership," Morgan explains. "And we needed buy-in from all of them." Among the

(Continued on page 50)

Nurses review patient information before administering treatment.

Table 2. Stakeholders Who Coordinated to Create Moffitt's Curbside Clinic

- Senior leadership: to obtain project approval (organizational/operational standpoint)
- Legal: to obtain project approval (legal standpoint)
- Physician leadership: to review and approve the list of medications to be offered at the clinic
- Pharmacy leadership: to approve the medications to be administered and construct statement of processes
- Regulatory accreditation pharmacy: to approve pharmacy regulatory standards at the clinic
- Ambulatory site management: to build workstations for Curbside Clinic staff and approve location
- IT: to connect mobile workstations and establish wireless connectability
- Patient Relations: to message patients via patient portal, robocalls, etc.
- The Patient and Family Advisory Council: to solicit feedback from patients' point of views
- Infusion Clinic leadership: to determine Curbside Clinic staffing and workflows and to create rapid response measures
- Patient Access: to schedule appointments and make template revisions
- General stores: to provide curbside supplies (mobile supply carts, etc.)
- Clinical Informatics: to develop Curbside Clinic workflows
- Public Relations: to develop signage (directional) on campus to direct patient flow
- Parking and Transportation
- Environmental Services
- Finance: to handle reimbursement and payer relations
- Revenue Cycle: to enable charge capture
- Infection Prevention
- Client Systems and Support
- Strategic Marketing
- Nursing Education: to teach procedures to be performed at curbside
- Security

Moffitt's curbside team celebrates the success of the clinic.

(Continued from page 48)

stakeholders Morgan engaged to ensure patient safety and best practices were not only physician and pharmacy leadership, but also legal, IT, parking and transportation, revenue cycle (to ensure charge capture), security, and patient relations (Table 2, p. 49).

Looking Ahead

Morgan says that Moffitt currently has the capacity to serve 32 patients curbside per day, but the census can vary greatly. She adds that this is due to Moffitt's practice of combining multiple appointments on the same day. If any one of those appointments require an in-person visit, it is not practical to use the curbside service. "We are looking at perhaps decoupling some appointments so patients have alternative options of how to receive care," says Morgan.

Morgan says that the strong positive patient response to Moffitt's Curbside Clinic has the cancer program planning to continue to offer these services—and perhaps others—after the pandemic subsides. "We ask each patient to complete a survey on an iPad about their experience at the end of their clinic visit," says Morgan. "Thus far, every single patient has said they would use the service again. We have a 99.9 percent satisfaction rate, and 85 percent of patients are repeat users of the Curbside Clinic."

Fisher attributes this patient enthusiasm to their desire to spend as little time in treatment as possible. "The fact is that patients value their time," says Dr. Fisher. "They want to spend it with family and friends. Our goal is for them to spend as little time here as possible; we want them to have more time in their day to be out and enjoying time with those who mean the most to them."

Morgan says that although Moffitt's Curbside Clinic is currently small, she anticipates its expansion. "We have four sites of service, and right now our Curbside Clinic is only offered at one of them," she says. "Going forward, it will be easier to expand the services we offer, both at the McKinley campus and beyond."

Morgan adds that Moffitt's patient load is increasing, and curbside services may provide a way of accommodating high demand for their services, in oncology and other specialties. "As with a lot of other health systems right now, we are having growing pains," explains Morgan. "We are seeing an increased number of patients, physicians are growing their practices, and we are challenged with capacity issues. This [Curbside Clinic] can be a win/win in terms of chair space in our ambulatory infusion centers. For each patient we serve curbside, we can accommodate another patient inside."

Morgan says she is currently being contacted by other cancer programs interested in offering a similar service to their patients, just as Moffitt had initially contacted Johns Hopkins. "We want this service to be permanent," affirms Dr. Fisher. "We get good feedback from patients, and we are able to support it with our resources. We anticipate being able to offer additional services this way, such as same-day appointments." OI

Barbara Gabriel, MA, is associate editor, Oncology Issues.

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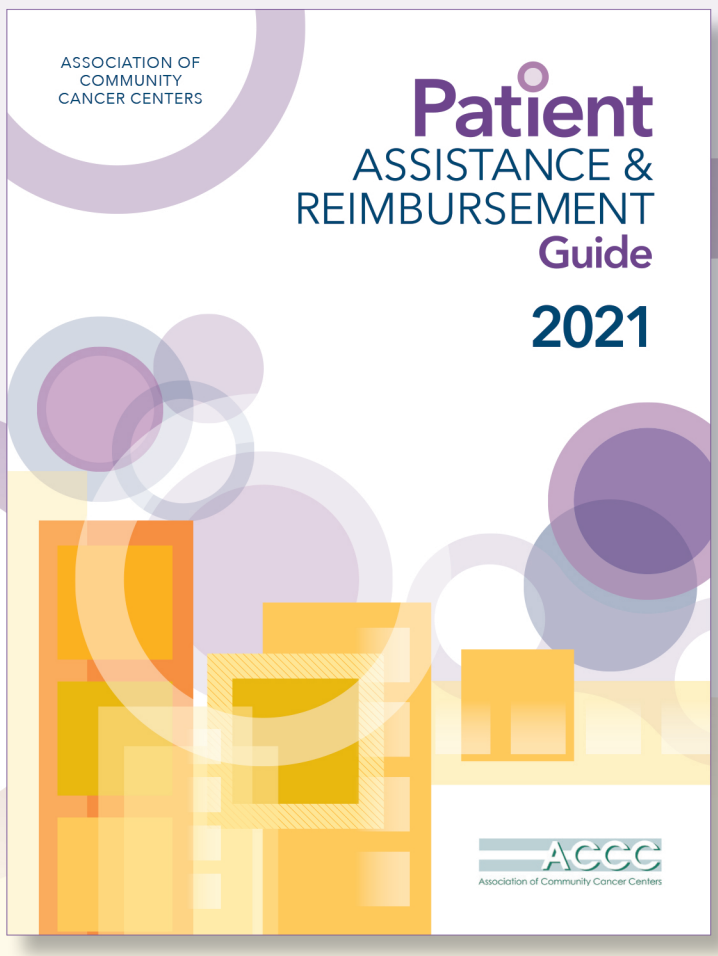

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What Does Leading with Mindfulness and Compassion Look Like?

BY AMANDA PATTON, MA

Or how not to blame the cucumber for becoming a pickle

Since 2012 Leah Weiss, PhD, has taught a perennially wait-listed course, "Leading with Mindfulness and Compassion," at Stanford University's Graduate School of Business. She is the co-founder of Skylyte (skylyte.com), which offers online training and coaching on managing team health, resilience, and well-being. Dr. Weiss previously taught compassion courses at the Stanford School of Medicine, the U.S. Department of Veterans Affairs (for people with post-traumatic stress disorder), the Boston Center for Refugee Health and Human Rights, and the Alzheimer's Association. She traces her professional interest in compassion and its connection with resilience to growing up in a family of healthcare clinicians and her own experience "seeing such highly driven people with so much intelligence, so focused on health and the health of people around them, giving so much of themselves, trying to work in environments that were really inhospitable in many ways for their own health." In 2020, during the early days of the SARS-CoV2 pandemic, she lost a physician cousin and a close family friend, also a physician, to COVID-19.

In an interview with *Oncology Issues*, Dr. Weiss shares why she believes this work is important in all levels of healthcare—from the clinic to the boardroom.

Leah Weiss, PhD

The distinction between empathy and compassion and why that matters for burnout is not traditionally part of medical education, but it's increasingly something that folks are learning and trying to build into education [and training].

OI. Can you say more about how leading with mindfulness and compassion intersects with healthcare and quality care delivery?

Dr. Weiss. The distinction between empathy and compassion and why that matters for burnout is not traditionally part of medical education, but it's increasingly something that folks are learning and trying to build into education [and training]. I spent a lot of time doing individual approaches to resilience earlier in my career. For the last five years I have been trying to prioritize team and organizational components of resilience, because I think it's an unfair ask—particularly in healthcare—to tell people they need to solve this themselves when it's a systems-based challenge that they are reacting to. The metaphor I always use in my talks on this point is from Dr. Christina Maslach.* It's like asking cucumbers in the pickle barrel not to become pickles, but they're sitting there in the vinegar. So, what do we do to acknowledge the vinegar and not blame the cucumber for what's happening? Part of the answer comes back to the individual, but—and the research is really showing this now—organizations that take the pathway of providing more meditation, more yoga, and more benefits focused just on the individual alone—that approach doesn't work. It doesn't help individual outcomes or organizational outcomes.

OI. What does it look like to be a mindful, compassionate leader?

Dr. Weiss. I define compassionate leadership as respecting the dignity of others, acknowledging the full context of their lives, and recognizing that people who are valued create value. This means we also must understand that there is a business case for compassionate leadership. It is not saying you should be compassionate as a detriment to your bottom line. It is acknowledging a myriad of research that shows that you have more profitability, more engagement, more patient satisfaction, and less safety errors when an organization is higher in compassion and the leaders are prioritizing it [compassion].

If you want to have a compassionate organization you have to think in terms of the individual, the team, and the culture. On an individual level, much of the work I do at the Stanford Graduate School of Business involves thinking about compassionate management from the time you are defining a position and hiring so that you are understanding the emotional intelligence components of that role. You are building compassion into what you are looking for in performance reviews and incentivizing it [compassion].

An organization can say, "We care about compassion." But it is much more than hanging a banner or making a statement. What steps is the organization taking to put these words into action? How is compassion embedded in the culture? This can even trickle down into the small details of how meetings are run.

Are you creating a sense of belonging? Are you sanctioning repeated microaggressions? Are you keeping an awareness of "in-group" bias? Are you thinking about the role of moral injury—a big topic in healthcare right now? Thinking back to the acute phase of the COVID-19 pandemic, for example. Times when, due to societal-level challenges, clinicians may have been faced with insurmountable barriers to providing the quality of care they would have liked to provide.

Even the language an organization uses can reflect compassion. My sister, orthopedic surgeon Jennifer Weiss, MD, is a physician leader who has come out strongly against the use of the word "provider."[1] She, along with many others, has argued that substituting the non-specific umbrella term provider commodifies physicians, fails to distinguish care team member roles, is confusing for patients, and is a potential barrier in physician-patient communication.

Further, replacing the professional title of doctor with the word "provider" has disturbing historical context. In 1930s Nazi Germany, Jewish physicians were stripped of the title *arzt* (doctor) and instead referred to as *behandler*, which many experts translate as "provider." During the Third Reich it was a way to dehumanize physicians and turn them into non-human competency providers.

Today, subbing the term provider for professional titles, such as physician, nurse practitioner, physician assistant, or pharmacist, sets healthcare delivery in a transactional framework rather than in the relational framework that is important to achieving patient-centered care. The non-specific term "provider" blurs the roles and unique contributions of each healthcare team member to patient care.

Compassionate leaders ask what we are doing collectively around these topics of humanizing and bias. How are we acknowledging the impact of COVID-19 and what people are holding in the context of their lives?

One of the key things is recognizing, as Mahatma Gandhi said, "Compassion is a muscle that gets stronger with use." It's something that we need to practice, stay aware of, and work on collectively and individually.

OI. In today's healthcare environment, everyone on the cancer care team is so pressed for time. How might this work in the real world?

* Editor's note: Christina Maslach, PhD, pioneered research on the definition, predictors, and measurement of job burnout and is the creator of the Maslach Burnout Inventory. She is a Professor of Psychology (Emerita) and a core researcher at the Healthy Workplaces Center at the University of California, Berkeley.

Dr. Weiss. Part of the answer is recognizing there are constant opportunities to practice compassion or not. This doesn't mean that we must enable bad behavior in the workplace or say "yes" to unreasonable requests or poor-quality work. Often people have a whole set of misnomers in their mind about what compassion means. They may believe compassion means enabling a co-worker who is doing what they're not supposed to do. No. Absolutely not that.

Rather, think of focusing on interactions between staff, for example, and recognizing opportunities to work on creating more compassionate interactions. Consider questions such as how to disagree with compassion. How to call someone out with compassion. How do you show up to these courageous, compassionate conversations? Nobody is too busy to do that. I'm not saying stop and go to a meditation retreat. I'm saying you have to be thoughtful about how you are interacting. It doesn't take time. It does take attention.

OI. What would compassion look like when you have to give a colleague, or someone you supervise, criticism or negative feedback?

Dr. Weiss. We've developed a tool for folks to play around with. It's an exercise to help practice compassionate language interactively. [Access the tool at: skylyte.com.]

The question always comes up: You want to be a compassionate leader, but how do you fire people? Or what about these hard conversations?

A specific example of compassionate feedback I'll draw from is the CEO of a well-known tech company who visited my class at Stanford. One of the classic points he made is that nobody should be surprised when they are fired from an organization. Building off of this line of thinking, what you need to do out of compassion is have the straightforward difficult conversation in which you tell the person that their work is not what you are expecting. You show them where there is a gap. You ask them: What is the block? What do you need? Training? Resources? Is there something happening in your life? Start by having the conversation. Set a clear expectation of what is going to happen to close the gap between what they are doing and what you need. And then continue having the courage to show up and tell the person: Look we're still not there. Let's revisit this plan. You are letting them know so that they are not surprised when you've reached the point where it is not a good fit anymore. They are not getting the call out of the blue.

This is having the courage and willingness to have the difficult conversation and not outsource that to the human resources department. You have to be clear and direct. They may not like hearing that there is a gap in their work. But they will prefer to have an opportunity to work on it, and they can't work on it if they don't know what it is.

> I define compassionate leadership as respecting the dignity of others, acknowledging the full context of their lives, and recognizing that people who are valued create value.

OI. Thinking about the current environment, we have not really entered the post-COVID-19 stage yet. Our healthcare workforce has done an amazing job over the past year. Most—if not all—cancer programs and practices had to completely re-consider their workflows and processes. Many are simply exhausted. Now we are asking that they make time to reflect on their behavior and compassion. How does a healthcare organization or a cancer program go about this without making everyone feel as though you've added another burden when they're already feeling overtaxed?

Dr. Weiss. I think it's a false binary to think you have a choice here because people, especially in healthcare, are so exhausted. If you can't create an organizational environment that works for them, you're going to lose your people to another organization that can, or to burnout, or worse. There is nothing more expensive or costly to time than turnover. If you allow for burnout and the impact of burnout to proliferate, that is going to cost you a lot in terms of safety, patient satisfaction, and the human cost on your clinicians.

I tell the CEOs [that I work with], including those of many healthcare organizations: Ignore it at your own peril. Making compassion and resilience a priority is not just because it's the right thing to do; you must do it if you want to succeed in this environment. I'm not saying it's easy, but I don't think you have a choice. Compare and contrast a year from now the organizations that are investing in resilience [and compassion] and those that are not. Let's see who is in better fiscal shape.

OI. Clearly, this is not a one-time, quick fix. It's an ongoing process. Can you share an example of a healthcare organization that is doing this well?

Dr. Weiss. One I've been working with for years is Stanford Children's Hospital. There is a lot of attention on resilience—not just having a talk once in a while but building it in pervasively in performance plans and leadership trainings and community practice circles. I've helped them design and implement all of the above. I think a metaphor that your readers can relate to is that

For the cancer care team, I think it's also important to understand the difference between empathy and compassion and then really look at how to build that into your care team and create opportunities to practice.

just like infection control, clinician resilience is something you always have to keep an eye on. Resilience for your workforce is similar. It's ongoing. If you drop the ball, the end results are catastrophic. There is a lot of research in this area related to patient safety and patient outcomes. It's not a matter of do it because you're nice. It's an imperative.

OI. How does a focus on mindful and compassionate leadership dovetail with the critical need in healthcare, and in cancer care specifically, to advance health equity?

Dr. Weiss. One piece that comes to mind is that compassionate management and compassionate leadership start all the way at the beginning with whom you hire. Representation is one of the most critical things that can happen in terms of equity and disparities. Thinking of clinical trials, some of this comes back to what are you doing as a compassionate leader to mitigate unconscious bias in the hiring processes both for clinicians and the allied staff involved in conducting these studies. If you don't have representation, then how are you trying to solve for making pathways to inclusion in studies and listening to people? Bias, stereotypes, and prejudice are a part of how human beings are wired. But we can work on that.

I do think the bottom line—the best action we can take—is to make sure we are focused not just on representation but also on belonging. Are we listening to people who are from the communities we are trying to include in studies? Are we listening to them in terms of what the blocks to improving quality of care are? That might mean that sometimes we're upstanders and followers and leading from behind in seeking out different perspectives.

Sometimes the answers are complex, but sometimes they [answers] are really straightforward. My sister's advocacy within her organization, and the resolution passed in 2006 by the Southern California Permanente Medical Group Board of Directors that prohibits use of "provider" to describe physicians in its medical group, is a great example of compassionate leadership.

OI. Any final thoughts you'd like to share with ACCC members?

Dr. Weiss. To healthcare practitioners, I want to say that if you are experiencing moral injury from the pandemic or from challenges in the system that you are a part of, find ways to voice those and process those. Otherwise, over time, these types of moral injury can lead to pain and burnout.

I think the distinction between empathy and compassion has a lot of practical importance. Empathy and empathic response to someone else's pain light up the pain region in our brain. We can't sustain that. Compassion lights up the reward regions, bringing connection, meaning, and purpose. If we don't have access to compassion as an alternate option, then we will be at much higher risk for burnout.

For the cancer care team, I think it's also important to understand the difference between empathy and compassion and then really look at how to build that into your care team and create opportunities to practice. I remember in my clinical training one of the environments I worked in had great staff, but there was very much a kind of negative tone in talking about the patients, and it had a huge impact. We can work on that; we can work on some of these habits that we can blindly fall into. We're human. We're busy. We don't realize it. These [habits] don't just matter for the patients; they matter for the sense you have of your own work, your own dignity, and your own connection that brought you into the purpose of this incredibly noble work in the first place. OI

Amanda Patton, MA, is a freelance healthcare writer. She worked as a senior writer and editor for the Association of Community Cancer Centers for more than 15 years.

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ASSOCIATION OF COMMUNITY CANCER CENTERS

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Association of Community Cancer Centers

ASSOCIATION OF COMMUNITY CANCER CENTERS

IMPROVING CARE COORDINATION FOR ADVANCED NSCLC

RESULTS FROM A NATIONAL QUALITY SURVEY FOR PATHOLOGISTS AND PULMONOLOGISTS

BY MICHELLE SHILLER, DO, AP/CP, MGP;
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Lung cancer is the leading cause of cancer-related deaths in the United States,[1] accounting for approximately 25 percent of all cancer deaths.[2] According to estimates from the American Cancer Society, more than 220,000 new cases of lung cancer will be reported in 2020.[1] While the prognosis of lung cancer remains poor, important advances in lung cancer screening, diagnosis, staging, and treatment over the past decade have translated into an improvement in overall survival.[3]

Non-small cell lung cancer (NSCLC), which accounts for more than 85 percent of all lung cancer diagnoses,[4] remains a complex and unpredictable disease at presentation, owing to its heterogeneity (differences between tumors of the same type in different patients, and between cancer cells within a tumor; both can lead to different responses to therapy).[5] Consequently, key components of optimal care delivery for patients with NSCLC include complete and accurate staging of patients to assess the extent of disease[6] and obtaining an adequate sample for accurate tumor subtyping.[7] These steps are of critical importance as inaccurate clinical staging can result in incorrect treatment,[6] while inadequate tumor sampling may delay detailed molecular characterization.[7] In addition, a multidisciplinary approach remains the cornerstone of NSCLC management, especially for locally advanced NSCLC.[8] Indeed, it has been reported that multidisciplinary teams provide improved adherence to evidence-based guidelines and better-informed treatment decisions, which in turn translate to improved clinical outcomes.[9,10] Notably, pathologists[11] and pulmonologists[12] are an intrinsic part of lung cancer multidisciplinary teams. Recent advances in pathology and the advent of personalized therapy have resulted in pathologists playing a pivotal role in many aspects, including diagnosis, tumor typing and subtyping, and molecular testing.[11] Likewise, pulmonologists play a crucial role in the prompt diagnosis, staging, and treatment of patients with lung cancer.[12] Moreover, they often manage comorbidities and are increasingly involved with palliative and end-of-life care.[12]

Despite the availability of an array of treatment options for patients with NSCLC, fragmentation in the U.S. healthcare system can prevent patients from gaining consistent access to optimal care.[13] Moreover, the approval of multiple agents with a similar mechanism of action presents clinicians with a complex decision making process, especially due to limited availability of comparative efficacy data.[14] In addition, the increased availability of predictive biomarkers and other diagnostic testing can also result in more complexity in treatment planning and decision making, particularly for patients with stage III and IV NSCLC.[13, 14] Consequently, there remains an overarching need to identify and provide guidance on key issues related to the optimal care of patients with NSCLC across different community cancer programs/settings in the U.S.

To address this need, a multiphase project, involving a multidisciplinary team, was implemented by the Association of Community Cancer Centers (ACCC) and its partner organizations, with the main goal being to support the optimization of care for patients diagnosed with stage III and IV NSCLC.[13] Here, we report results from subanalyses of the ACCC survey that were undertaken to analyze discipline-specific survey findings from the perspectives of pathologists and pulmonologists, who serve as key advisors within oncology multidisciplinary teams, in order to inform NSCLC guidelines on quality of care.

Study Design

Full details of the study design, including the survey instrument, were reported previously.[15] In brief, this was a national, double-blind, comprehensive online survey undertaken between January 24, 2019, and April 25, 2019, as the first phase of the multiphase project. Since the study did not involve patient data, details that could be linked to protected health information, or the identification of a specific hospital or facility, a request for review and approval was not submitted to an Institutional Review Board.

Sample and Setting

Participants were oncology multidisciplinary team members, including thoracic surgeons, radiation oncologists, medical oncologists, pulmonologists, pathologists, and representatives from patient advocacy groups. Demographic information including profession/specialty of the survey respondent, type of affiliated cancer program, and location and region (i.e., rural/suburban/urban) of the primary cancer program was collected. Responders

who did not specify the cancer program type were included in an "unknown" category. The survey was customized for each oncology multidisciplinary team specialist, with questions encompassing screening, diagnosis, staging, treatment, and care coordination for patients with NSCLC.

This article focuses on the roles of pathologists and pulmonologists as key advisors within multidisciplinary teams from U.S. cancer programs and examines relevant care delivery practices in relation to treatment-related outcomes through subanalyses of the ACCC survey questions and findings. Research questions were formulated to examine relationships between relevant care delivery practices at community-based oncology programs and outcomes related to treatment, diagnosis, familiarity with current diagnostic modalities and guidelines, genomic profiling, criteria for unresectability, and challenges encountered in clinical practice (Table 1, right).

Statistical Analysis

Descriptive statistics were calculated for select survey questions relevant to pathologists and pulmonologists and statistical tests, including Pearson's chi-square crosstabulation, independent t-test, and linear-by-linear association, were performed for the subanalyses. Sample size varied for each research question based on the variables used in the subanalyses. Categorical data were presented as an absolute number (proportion). Parametric analyses were supplemented with nonparametric equivalents for continuous variables with non-normal distributions, and statistical significance was determined based on the P values of these nonparametric tests.

Results

The analyses included a total of 639 participants from 160 unique oncology programs across 44 states in the U.S. Of these, 17.8 percent (n=114) were pathologists and 8.9 percent (n=57) were pulmonologists. Most responders indicated that a pathologist was almost always (26.6 percent, n=63/237) or frequently (27.0 percent, n=64/237) present at the bedside to assess the adequacy of samples. Similarly, most responders indicated that a cytotechnician was almost always (35.0 percent, n=82/234) or frequently (20.9 percent, n=49/234) present at the bedside to assess the adequacy of samples. Overall, 40.5 percent (n=177/437) of responders indicated that they almost always followed a pathology-driven reflex biomarker testing protocol; however, a small proportion of responders (11.0 percent, n=48/437) indicated that they had no plans for developing such a protocol.

Outcomes: Research Questions 1 and 2

No association was observed between outcomes (time-to-treatment initiation) and the use of a pathology-driven reflex biomarker testing protocol (P=0.407). However, a significant positive association was observed between the bedside presence of a pathologist for assessing the adequacy of samples and the frequency of inadequate computed tomography (CT)-guided needle biopsy (r=0.226, P=0.018) or bronchoscopic biopsy (r=0.161, P=0.014). No significant association was observed for the combined measure of bedside presence of a pathologist or a cytotechnician to assess for sample adequacy and the frequency of inadequate CT-guided needle biopsy (r=0.181, P=0.059) or bronchoscopic biopsy (r=0.073, P=0.267).

Diagnosis and Screening: Research Question 3

Most responders (47.8 percent, n=54/113) indicated that 3 to 5 pathologists provided diagnostic services for patients with lung cancer at their program. Similarly, most responders (49.1 percent, n=28/57) also indicated that 3 to 5 pulmonologists performed transbronchial biopsies and/or provided care for patients with lung cancer. No significant difference was observed in the average number of pathologists providing diagnostic services (P=0.368) or pulmonologists performing transbronchial biopsies and/or providing care for patients with lung cancer (P=0.169) across program types. However, a numerically greater proportion of responders from the Academic Comprehensive Cancer Program (ACAD) reported that 1 to 2 pulmonologists (44.4 percent, n=4/9) rather than 3 to 5 (7.1 percent, n=2/28) or ≥11 (30.8 percent, n=4/13) pulmonologists performed biopsies and/or cared for patients with lung cancer.

Diagnosis and Screening: Research Question 4

During bronchoscopic biopsy for patients with suspected stage III and IV NSCLC, a significant correlation was observed between the number of biopsies obtained by pulmonologists and the number of biopsies submitted to pathologists (P<0.0001). While a greater proportion of pathologists than pulmonologists reported receiving two to three biopsies, a greater proportion of pulmonologists reported submitting four to six biopsies for review.

Diagnosis and Screening: Research Question 5

Overall, no significant difference was observed in the number of patients with NSCLC treated per year by pulmonologists versus responders from other specialties (P=0.33). Since treatment was not further defined in the survey question, the interpretation by pulmonologists may encompass prescription of an inhaler, participation in multidisciplinary team care, or other aspects. In line with responders from other specialties, most pulmonologists treated 20 to 50 patients (32.7 percent, n=18/55) with NSCLC per year, followed by pulmonologists who treated 101 to 200 patients (23.6 percent, n=13/55), > 200 patients (21.8 percent, n=12/55), 51 to 100 patients (20 percent, n=11/55), and <20 patients (1.8 percent, n=1/55) with NSCLC per year.

(Continued on page 62)

Table 1. Research Questions to Examine Relevant Care Delivery Practices

Outcomes

1. Does the presence of a pathology-driven reflex biomarker testing protocol influence outcome?
2. Does the bedside presence of a pathologist or a cytotechnician during a biopsy procedure influence the amount of tissue obtained during the procedure?

Diagnosis

3. To what extent does the availability of a pathologist or pulmonologist differ by program type?
4. Is there a disconnect between the number of samples that pathologists obtain and the number of samples that pulmonologists think they obtain?
5. What is the role of pulmonologists in the diagnosis of NSCLC?

Familiarity with current diagnostic modalities

6. Is there a difference in knowledge on biomarker testing among pathologists and pulmonologists as compared with other specialties and by program type?

Genomic profiling

7. To what extent does the use of broad genomic profiling using NGS for biopsy samples differ among pathologists and pulmonologists?

Familiarity with current guidelines

8. To what extent does pathologist and pulmonologist familiarity with current guidelines for NSCLC management differ by region or program type?

Unresectability criteria

9. Is there a difference in criteria determining unresectability in stage III NSCLC by region or program type?

Other

10. Is there a difference in the availability of NSCLC protocols on criteria for unresectability by region/program type?

Challenges

11. To what extent are the challenges faced by pathologists and pulmonologists different from those faced by other specialties?

Abbreviations: NGS, next-generation sequencing; NSCLC, non-small cell lung cancer.

(Continued from page 60)

Familiarity with Current Diagnostic Modalities: Research Question 6

Pathologists

Although most pathologists (66.7 percent, n=74/111) were familiar with the use of next-generation sequencing (NGS) for NSCLC, a substantial proportion (33.3 percent, n=37/111) were not familiar with NGS. The familiarity of pathologists with the use of NGS was not significantly different versus that of responders from other specialties (X^2=0.243, P=0.622) and did not show any significant association by cancer program (X^2=9.352, P=0.405). A comparable proportion of pathologists were familiar versus not familiar with the use of liquid biopsy testing (52.3 percent [n=58/111] versus 47.7 percent [n=53/111]) and tumor mutational burden (TMB) (48.6 percent [n=54/111] versus 51.4 percent [n=57/111]). However, compared with responders from other specialties, a significantly greater proportion of pathologists were not familiar with the science around liquid biopsy testing (47.7 percent [n=53/111] versus 35.4 percent [n=107/302]; X^2=5.189, P=0.023) and TMB (51.4 percent [n=57/111] versus 39.1 percent [n=118/302]; X^2=5.011, P=0.025) for NSCLC. By program type, fewer non-pathologists from unknown programs were familiar versus not familiar with the use of liquid biopsy testing (8.7 percent [n=17/195] versus 24.3 percent [n=26/107]). Similarly, fewer non-pathologists from National Cancer Institute-Designated Network Cancer Programs (NCIN) were familiar versus not familiar with the use of TMB for NSCLC (1.1 percent [n=2/184] versus 5.1 percent [n=6/118]). In contrast, more pathologists from the Integrated Network Cancer Program (INCP) were familiar versus not familiar with the use of TMB (13 percent [n=7/54] versus 1.8 percent [n=1/57]).

Pulmonologists

Although most pulmonologists (64.8 percent, n=35/54) were familiar with the use of NGS for NSCLC, a substantial proportion (35.2 percent, n=19/54) were not familiar with the use of NGS. Compared with responders from other specialties, no significant difference was observed in the proportion of pulmonologists familiar with the use of NGS (X^2=0.396, P=0.529), liquid biopsy testing (X^2=0.105, P=0.746), and TMB (X^2=1.48, P=0.224) for NSCLC. By program type, more non-pulmonologists from the Veterans Affairs Cancer Program (VACP) were not familiar versus familiar with the use of NGS (1.8 percent [n=2/111] versus 0.0 percent [n=0/248]); however, more pulmonologists from unknown programs were not familiar versus familiar with NGS (36.8 percent [n=7/19] versus 8.6 percent [n=3/35]).

A numerically greater proportion of pulmonologists were familiar versus not familiar with the use of liquid biopsy testing (59.3 percent [n=32/54] versus 40.7 percent [n=22/54]). However, an equal number of pulmonologists were familiar versus not familiar with TMB (50 percent [n=27/54] versus 50 percent [n=27/54]). By program type, more non-pulmonologists from unknown programs were not familiar versus familiar with the use of liquid biopsy testing for NSCLC (21.7 percent [n=30/138] versus 9 percent [n=20/221]); however, more pulmonologists from the NCIN program (13.6 percent, [n=3/22] versus 0.0 percent [n=0/32]) and unknown programs (36.4 percent [n=8/22] versus 6.3 percent [n=2/32]) were not familiar with liquid biopsy. By program type, more non-pulmonologists from unknown programs were not familiar versus familiar with the use of TMB (19.6 percent [n=29/148] versus 10 percent [n=21/211]); however, more pulmonologists from the Hospital Associate Cancer Program (HACP) program were familiar versus not familiar with TMB (22.2 percent [n=6/27] versus 3.7 percent [n=1/27]), while more pulmonologists from unknown programs were not familiar versus familiar with TMB (29.6 percent [n=8/27] versus 7.4 percent [n=2/27]).

Genomic Profiling: Research Question 7

Most pathologists (54.7 percent, n=58/106) occasionally performed broad genomic profiling using NGS for patients with NSCLC; this was followed by pathologists who routinely (28.3 percent, n=30/106) or rarely (17 percent, n=18/106) performed genomic profiling. Similarly, most pulmonologists occasionally (48.8 percent, n=21/43) or routinely (46.5 percent, n=20/43) performed NGS, while a small proportion of pulmonologists (4.7 percent, n=2/43) rarely performed these tests.

The use of NGS by pathologists and pulmonologists did not significantly vary by region (pathologists: X^2=2.212, P=0.697; pulmonologists: X^2=1.497, P=0.827) or program (pathologists: X^2=27.693, P=0.067; pulmonologists: X^2=17.259, P=0.505). However, several differences were observed within specific programs. For example, more pathologists from the VACP rarely ordered NGS for NSCLC (11.1 percent, n=2/18), while no pathologists ordered NGS occasionally (0.0 percent, n=0/58) or routinely (0.0 percent, n=0/30). Similarly, more pulmonologists from the NCIN rarely ordered NGS for NSCLC (50 percent, n=1/2), while no pulmonologists ordered NGS occasionally (0.0 percent, n=0/21).

Familiarity with Current Guidelines: Research Question 8

In terms of familiarity with the 8th edition of the American Joint Committee on Cancer tumor/node/metastasis (TNM) staging system, most pathologists (71.9 percent, n=82/114) and pulmonologists (85.2 percent, n=46/54) were familiar with the latest NSCLC staging system. Familiarity with the staging system did not significantly differ by region among either pathologists (X^2=0.383, P=0.826) or pulmonologists (X^2=0.461, P=0.794).

Among non-pulmonologists from unknown programs, a greater proportion were familiar versus not familiar with these guidelines (9.4 percent [n=31/331] versus 22.1 percent [n=17/77]). Additionally, more pulmonologists from the VACP (12.5 percent [n=1/8] versus 0.0 percent [n=0/46]) and unknown programs (50 percent [n=4/8] versus 13 percent [n=6/46]) were not familiar versus familiar with the guidelines. In contrast, fewer non-pathologists from the VACP (0.3 percent [n=1/295] versus 3.8 percent [n=2/53]) and unknown programs (8.8 percent [n=26/295] versus 26.4 percent [n=14/53]) were familiar versus not familiar with the guidelines.

In terms of familiarity with the 2018 update to the College of American Pathologists (CAP), the International Association for the Study of Lung Cancer (IASLC), and the Association for Molecular Pathology (AMP) molecular testing guideline for lung cancer, most pathologists (73 percent, n=81/111) and pulmonologists (68.5 percent, n=37/54) were familiar with the latest molecular testing guideline. Familiarity with the molecular testing guideline did not significantly differ by region among either pathologists (X^2=0.466, P=0.792) or pulmonologists (X^2=0.469, P=0.791). By program type, more pulmonologists from the Comprehensive Community Cancer Program (CCCP) (35.3 percent [n=6/17] versus 8.1 percent [n=3/37]) and unknown programs (47.1 percent [n=8/17] versus 5.4 percent [n=2/37]) were not familiar versus familiar with the 2018 update. In contrast, fewer non-pathologists from unknown programs were familiar versus not familiar with the 2018 update (9.8 percent [n=20/204] versus 21.6 percent [n=27/125]).

Criteria for Unresectability in Stage III NSCLC: Research Question 9

With the exception of suspected mediastinal nodal metastases, no significant correlation was observed between region and any of the criteria for unresectability (contralateral mediastinal nodal metastases, bulky multi-station ipsilateral nodal metastases, mediastinal nodal metastases confirmed by biopsy, CT, or positron emission tomography [PET]/CT evidence of mediastinal nodal metastases, and low-volume multi-station or single nodal station ipsilateral nodal metastases). However, some variation between regions was observed; for example, more urban responders indicated that suspected mediastinal nodal metastases were unresectable rather than resectable (76.9 percent [n=40/52] versus 55.7 percent [n=327/587]). Conversely, more suburban responders indicated that suspected mediastinal nodal metastases were resectable rather than unresectable (33.9 percent [n=199/587] versus 19.2 percent [n=10/52]). In a comparison between pulmonologists and other responders by region, differences were observed between pulmonologists from urban regions who indicated that suspected mediastinal nodal metastases were unresectable (83.3 percent [n=10/12]) rather than resectable (51.1 percent [n=23/45]) and between other responders from urban regions (75 percent [n=30/40] versus 56.1 percent [n=304/542], respectively).

With the exception of low-volume multi-station ipsilateral nodal metastases, criteria for unresectability varied by program type. For contralateral mediastinal nodal metastases, more responders from the ACAD program (22 percent [n=35/159] versus 12.5 percent [n=60/480]) and unknown programs (17.6 percent [n=28/159] versus 10.8 percent [n=52/480]) indicated that these were unresectable rather than resectable. In contrast, more responders from the HACP program indicated that these were resectable rather than unresectable (11 percent [n=53/480] versus 5.7 percent [n=9/159]). For bulky multi-station ipsilateral nodal metastases, more responders from the ACAD program indicated that these were unresectable rather than resectable (23.2 percent [n=32/138] versus 12.6 percent [n=63/501]). For mediastinal nodal metastases confirmed by biopsy, more responders from the ACAD program (21.5 percent [n=29/135] versus 13.1 percent [n=66/504]), and unknown programs (18.5 percent [n=25/135] versus 10.9 percent [n=55/504]) indicated that these were unresectable rather than resectable. In contrast, more responders from the NCIP program indicated that these were resectable rather than unresectable (16.5 percent [n=83/504] versus 7.4 percent [n=10/135]). For CT or PET/CT evidence of mediastinal nodal metastases, more responders from the INCP program (10.4 percent [n=10/96] versus 3.7 percent [n=20/543]) and the ACAD program (24 percent [n=23/96] versus 13.3 percent [n=72/543]) indicated that these were unresectable rather than resectable. However, more responders from the NCIP program indicated that these were resectable rather than unresectable (16.2 percent [n=88/543] versus 5.2 percent [n=5/96]). For suspected mediastinal nodal metastases, more responders from the INCP program indicated that these were unresectable rather than resectable (13.5 percent [n=7/52] versus 3.9 percent [n=23/587]). In contrast, more responders from the NCIP program indicated that these were resectable rather than unresectable (15.5 percent [n=91/587] versus 3.8 percent [n=2/52]). For low-volume single nodal station ipsilateral nodal metastases, more responders from the NCIP program indicated that these were resectable rather than unresectable (15.3 percent [n=93/609] versus 0.0 percent [n=0/30]).

A comparison was also conducted for pulmonologists and other responders by program type. For contralateral mediastinal nodal metastases, differences were observed among pulmonologists from HACP (5.3 percent [n=2/38] versus 26.3 percent [n=5/19]) and other responders from CCCP (9.9 percent [n=12/121] versus 17.4 percent [n=804/461]) and ACAD (23.1 percent [n=28/121] versus 12.4 percent [n=57/461]) who indicated that these were unresectable rather than resectable, respectively (other responders: X^2=19.333, P=0.023). For bulky multi-station ipsilateral mediastinal nodal metastases, differences were observed among other responders from ACAD (22.9 percent [n=25/109]

versus 12.7 percent [n=60/473]), HACP (2.8 percent [n=3/109] versus 11 percent [n=52/473]), and other programs (19.3 percent [n=21/109] versus 10.1 percent [n=48/473]) who indicated that these were unresectable rather than resectable, respectively (other responders: X^2=28.458, P=0.001). For mediastinal nodal metastases confirmed by biopsy, differences were observed among other responders from CCCP (9.2 percent [n=10/109] versus 17.3 percent [n=82/473]), ACAD (22.9 percent [n=25/109] versus 12.7 percent [n=60/473]), NCIP (6.4 percent [n=7/109] versus 16.7 percent [n=79/473]), and other programs (17.11 percent [n=19/109] versus 10.6 percent [n=50/473]) who indicated that these were unresectable rather than resectable, respectively (other responders: X^2=25.836, P=0.002). For CT or PET/CT evidence of mediastinal nodal metastases, differences were observed among other responders from INCP (11.5 percent [n=9/78] versus 3.8 percent [n=19/504]), ACAD (25.6 percent [n=20/78] versus 12.9 percent [n=65/504]), and NCIP (5.1 percent [n=4/78] versus 16.3 percent [n=82/504]) who indicated that these were unresectable rather than resectable, respectively (other responders: X^2=25.340, P=0.003). For suspected mediastinal nodal metastases, differences were observed among other responders from INCP (15 percent [n=6/40] versus 4.1 percent [n=22/542]) who indicated that these were unresectable rather than resectable, respectively (other responders: X^2=18.039, P=0.035). For low-volume multi-station ipsilateral nodal metastases, differences were observed among pulmonologists from HACP (38.5 percent [n=5/13] versus 4.5 percent [n=2/44]) and other responders from other programs (23.7 percent [n=9/38] versus 11 percent [n=60/544]) who indicated that these were unresectable rather than resectable, respectively (other responders: X^2=10.926, P=0.281). For low-volume single nodal station ipsilateral nodal metastases, differences were observed among pulmonologists from VACP (14.3 percent [n=1/7] versus 0.0 percent [n=0/50]) and other responders from ACAD (30.4 percent [n=7/23] versus 14 percent [n=78/559]) and NCIP (0.0 percent [n=0/23] versus 15.4 percent [n=86/559]) who indicated that these were unresectable rather than resectable, respectively.

Other: Research Question 10

A comparable proportion of responders indicated that their cancer program did versus did not have specific protocols that defined resectability for stage III NSCLC (44.4 percent [n=103/232] versus 44.8 percent [n=104/232], respectively). A small proportion of responders were unsure as to whether such protocols were available (10.8 percent [n=25/232]).

The availability of NSCLC protocols on criteria for unresectability did not vary significantly by program type (X^2=23.721, P=0.164) but varied significantly by region (X^2=10.716, P=0.03). More responders from rural regions reported that their cancer program did versus did not have specific protocols that define resectability for stage III NSCLC (12.5 percent [n=13/104] versus 2.9 percent [n=3/103]).

Challenges: Research Question 11

Overall, the challenges faced by pulmonologists and pathologists were different from those encountered by responders from other specialties.

Pathologists

In terms of caring for patients with advanced/metastatic NSCLC, the most significant challenge faced by pathologists versus responders from other specialties was primary care providers (PCPs) not referring patients with suspected NSCLC for screening (P=0.032). More pathologists (15.7 percent, n=16/102) versus responders from other specialties (6.4 percent, n=29/452) indicated that patient refusal to undergo biopsy or other tests significantly impacted NSCLC diagnosis and/or staging. More pathologists versus responders from other specialties considered cost-related barriers to significantly impact on NSCLC diagnosis and/or staging (28.8 percent [n=30/104] versus 16.1 percent [n=73/453]).

Pulmonologists

Compared with responders from other specialties, the most significant barrier faced by pulmonologists in caring for patients with advanced/metastatic NSCLC was scheduling challenges and/or access to a CT scanner (P<0.0001). Overall, PCPs not referring patients for screening was considered less of a challenge for pulmonologists versus responders from other specialties (P<0.001). Compared with responders from other specialties, more pulmonologists considered scheduling (18.9 percent [n=10/53] versus 7.6 percent [n=26/342]) and non-referral of patients (44.4 percent [n=24/54] versus 28.4 percent [n=94/331]) as barriers that significantly impacted lung cancer screening. Most pulmonologists indicated that cost-related barriers had a minimal impact on screening versus responders from other specialties (56.9 percent [n=29/51] versus 38.5 percent [n=126/327]); however, most responders from other specialties indicated that cost had some impact on screening versus pulmonologists (40.7 percent [n=133/327] versus 23.5 percent [n=12/51]).

Discussion

The ACCC survey provides valuable insights into how pathologists and pulmonologists function as part of a multidisciplinary team involved in the diagnosis and management of patients with stage III/IV NSCLC in U.S. cancer programs. Most responders indicated that three to five pathologists and pulmonologists were involved in providing diagnostic services or performing transbronchial biopsies, respectively, at their cancer programs. Accurate diagnosis has important implications for patient care[16] and increasingly requires both pathologists[11] and pulmonologists[12] to interact closely with other members of the multidisciplinary team. Overall, a significant positive association was observed

between the bedside presence of a pathologist and the frequency in which samples were considered inadequate for molecular testing using techniques such as CT-guided needle biopsy or bronchoscopic biopsy. This unexpected finding may be a consequence of response bias and temporality of these survey questions, with respondents perhaps reporting their initial assessment of sample inadequacy and modifying their practices accordingly.

Ensuring the availability of adequate samples is key to accurate diagnosis and molecular testing.[7] Accordingly, there is a need for greater guidance around the most appropriate techniques to obtain tissue samples of adequate size and quality at the first biopsy, a fact highlighted by differences in opinion reported from two surveys of 250 U.S.-based pathologists and 100 pulmonologists from the American College of Chest Physicians as to the most appropriate method for obtaining tissue samples.[17] Moreover, the biggest challenge encountered by both pulmonologists and pathologists in terms of biomarker testing was not always being able to acquire a tissue sample of sufficient size (60 percent and 73 percent, respectively) or quality (31 percent and 39 percent, respectively).[17] Likewise, in a global survey of 562 oncologists from 10 countries (including the U.S.), insufficient tissue sample was identified as one of the main reasons for not performing epidermal growth factor receptor mutation testing.[18]

Other commonly reported reasons for inadequate biopsy samples include a change in molecular testing strategy that may render the process of collecting and processing specimens inadequate,[19] poor specimen quality,[20] and the technique used for sample evaluation—for example, preparation of cell blocks may lead to cross-linking and chemical modification of DNA.[21] Notably, the acquisition of an inadequate tissue sample may lead to the need for repeat procedures, which could potentially negate the minimally invasive aspect of the diagnostic procedure.[7] Hence, a need exists to implement guidelines on optimal techniques for acquiring samples of adequate size and quality to facilitate accurate diagnosis and prevent patients from having to undergo additional invasive procedures for sample procurement.[17, 22] Consequently, the development and standardization of algorithms or protocols for the diagnosis and staging of NSCLC will optimize diagnostic accuracy, ensure the procurement of adequate tissue samples, maximize testing efficiency, and help inform treatment decisions.[23, 24]

Notably, results from a systematic review and meta-analysis of 25 studies that assessed the effect of rapid on-site evaluation on sample adequacy and diagnostic yield highlighted that the rapid evaluation of specimens at the time of the procedure improved the adequacy rates of fine-needle aspiration cytology across a wide range of tissue types by 12 percent, although considerable variability across studies was observed.[25] More recently, an expert panel was convened to perform a systematic review and released evidence-based recommendations on appropriate collection and handling of thoracic small biopsy and cytology samples.[22] These recommendations included the use of rapid on-site evaluation for adequacy assessment, if available and clinically feasible, in case of transthoracic needle procedures (strong recommendation with moderate evidence) and for transbronchial needle aspirates, if available (recommendation with moderate evidence).[22]

Sample adequacy can also be ensured by optimizing tissue handling after acquiring biopsy samples and collaborating closely with other members of the multidisciplinary team, such as pulmonologists and intervention radiologists.[26] Indeed, on-site evaluation of biopsy samples by cytotechnologists, with consultation or interpretation provided by cytopathologists, has shown to improve the assessment of sample adequacy,[27] enhance diagnostic yield,[28] and reduce false-negative rates.[28] In addition, timely feedback from pathologists to clinicians about sample adequacy can increase the likelihood of obtaining a diagnostic result.[29]

Accurate diagnosis and staging of lung cancer are essential in terms of making informed treatment decisions,[6, 16] and both pathologists[11] and pulmonologists[12] play an important role in this regard. Pulmonologists are not only involved in the diagnosis, staging, and treatment of patients with lung cancer but also have key roles in the interpretation of clinical and radiographic findings, the performance of interventional procedures, such as endobronchial ultrasound, and the development and implementation of algorithms for the diagnosis and treatment of lung cancer.[12] Pathologists play an important role in maximizing the diagnostic yield from biopsy samples, which is a limited and precious resource.[30] Unsurprisingly therefore, the majority of pathologists (71.9 percent) and pulmonologists (85.2 percent) participating in the survey reported being familiar with the latest NSCLC staging system, further highlighting their valuable role as part of a multidisciplinary team. However, although most pathologists and pulmonologists were familiar with the use of diagnostic modalities and current treatment guidelines, a sizeable proportion were familiar with neither (between 14.8 percent and 50 percent of responders from both disciplines). Moreover, although responders from both disciplines were familiar with NGS (66.7 percent of pathologists and 64.8 percent of pulmonologists), a significantly greater proportion of pathologists were not familiar with the science around liquid biopsy (47.7 percent) and TMB (51.4 percent) compared with responders from other specialties. Among pulmonologists, 59.3 percent and 50 percent were familiar with the science around liquid biopsy testing and TMB, respectively. In comparison, 86.2 percent, 77.1 percent, and 78.9 percent of medical oncologists participating in the survey were familiar to very familiar with the use of NGS and the science around liquid biopsy and TMB, respectively.[31] These findings therefore underscore the need for increasing awareness and improving education among pathologists and pulmonologists about diagnostic modalities and current treatment guidelines for the management of NSCLC.

This is of paramount importance as familiarity with guidelines can inform decision making in relation to appropriate diagnostic testing and the overall treatment plan.

Notably, only 28.3 percent of pathologists and 46.5 percent of pulmonologists routinely ordered NGS testing for patients with NSCLC despite the majority (66.7 percent of pathologists and 64.8 percent of pulmonologists) being familiar with the procedure. Moreover, only 40.5 percent of responders indicated that they almost always followed a pathology-driven reflex biomarker testing protocol. These results are in line with findings from two surveys that reported that although one-third of pathologists (33 percent) and nearly half of pulmonologists (43 percent) implemented reflex testing in their programs or in local healthcare communities, there remains the potential to significantly increase its use.[17] Taken together, these findings clearly highlight the need for greater awareness and adoption of genomic profiling and reflex testing. However, current barriers to more widespread adoption, which should be overcome, include inadequate tissue samples for processing and molecular analysis,[32, 34] long response times,[32] poor integration into routine pathology practice, and uncertainty around reimbursement of expenses.[32]

Guidelines from CAP, IASLC, and AMP recommend that pathologist-initiated reflex testing should accommodate the intricacies of clinical management and include an open dialogue between pathologists and oncology teams.[24] Crucially, pathologist-initiated reflex testing enables an effective assessment of sample adequacy and facilitates recommendations for repeat biopsy, if required.[35] In addition, a reflex testing strategy allows pathologists to prioritize sample processing for molecular diagnostics and eliminates the need for re-review of samples, thereby reducing the time from sample submission to final result reporting, ensuring more efficient molecular testing, and increasing success rates.[35] In addition, the use of reflex testing with NGS can increase the implementation of biomarker testing.[36] However, in our survey, no significant association was observed between the time-to-treatment initiation and the use of pathology-driven reflex biomarker testing. This may be explained by the series of intervening steps from reflex testing to rapid therapy initiation, including receipt of results, interpretation by a treating clinician, prescribing targeted therapy, prior authorization processes, and applications for financial assistance programs, if relevant. Another reason may be fewer differences between reflex testing and the current standard of care, owing to evolving acceptance of these methods over time.

Overall results from the ACCC National Quality Survey conducted among multidisciplinary specialists, including oncologists, thoracic surgeons, pathologists, pulmonologists, and representatives from patient advocacy groups, reported that the most challenging barriers to delivering high-quality NSCLC screening, diagnosis, and care coordination were lack of community awareness, limited access to diagnostic procedures, and lack of patient adherence to appointment schedules, respectively.[15] Adding further knowledge in this area, this survey highlights the specific challenges and barriers faced by pathologists and pulmonologists that may impact the delivery of high-quality care for patients with NSCLC, such as poor referral from PCPs for screening, challenges with scheduling appointments, patient refusal to undergo tests, and missed appointments. Notably, barriers to lung cancer screening commonly cited by PCPs include concerns regarding the cost to patients or insurance coverage, uncertainty around patient benefits, and potential harms.[37, 38]

Consequently, raising awareness on the importance of diagnostic and molecular testing may not only assist the cancer care team but also increase referral rates from PCPs.[33] In addition, assisting PCPs in understanding reimbursement policies,[39] identifying clinical features suggestive of NSCLC through the development of referral guidelines,[40] and implementing accelerated diagnostic pathways[41] may reduce delays in diagnosis and aid PCPs in identifying patients that require further investigation. Moreover, increasing patient awareness about the availability of cancer screening services and encouraging patients to discuss these services with care providers is also recommended.[39] The education of patients around the importance of timely diagnosis may also improve their engagement with the care team. Furthermore, shared decision-making can help bridge the gap between patient expectations and treatment goals,[42,43] improve understanding about those factors that may influence patients' decision making in relation to treatment,[44] increase treatment adherence, reduce healthcare costs, and enhance overall patient satisfaction.[45]

As observed in our survey, the care of patients with NSCLC can vary between programs or regions. Indeed, such differences were observed in terms of familiarity with diagnostic modalities and guidelines among pathologists and pulmonologists. Addressing such variations will require solutions, both at an operational and educational level, that can be carefully tailored to the specific needs and challenges of each program or region to optimize success. Nevertheless, health service research has shown that multidisciplinary meetings can help decrease variations in lung cancer care,[46] and the widespread adoption of coordinated multidisciplinary care can reduce test redundancy, improve compliance with clinical pathways, and positively impact patient satisfaction.[47] In addition to streamlining of diagnostics and therapeutics, communication and collaboration between different stakeholders are important components of multidisciplinary care, leading to improvements in clinical decision-making.[46] Indeed, results from a systematic review of 37 studies reported that multidisciplinary cancer teams changed cancer management in 2 percent to 52 percent of cases.[48] There is also evidence that effective communication of decisions within the multidisciplinary team improves the patient journey and ensures smooth

transition between services.[46] Consequently, it would appear that the multidisciplinary team approach is increasingly being used in the care of patients with NSCLC in the U.S.; results from a survey reported that 57 percent of pathologists and 65 percent of pulmonologists from the U.S. routinely had discussions with a multidisciplinary team.[17] Furthermore, the majority of pathologists and pulmonologists reported consulting with oncologists (92 percent and 85 percent, respectively).[17] The establishment of multidisciplinary tumor boards to facilitate coordinated care across all disciplines, together with a concerted effort to improve education and communication on the importance of biomarker testing, for example at formal venues such as multidisciplinary tumor boards, could further improve overall care practices and potentially improve collaboration.[33]

This survey has a few limitations. There was an absence of cognitive interviews with a demonstrative cohort prior to study initiation. All survey data were self-reported and therefore could not be validated. In addition, the survey did not demonstrate an association between the multidisciplinary teams involving pathologists and pulmonologists and clinical care delivery and outcomes. Therefore, further studies are required to validate this self-reported data and explore the association between patient outcomes and cancer care delivery. However, to the best of our knowledge this is the largest and most robust health-based survey performed among U.S. cancer programs across diverse healthcare-delivery settings.

This survey, which provides an overview of decision-making processes, functioning, and barriers to optimal care for patients with stage III/IV NSCLC from the perspective of pathologists and pulmonologists, can inform process improvement efforts by providing practical solutions for strengthening various facets of care delivery across a diverse array of cancer programs in the U.S. Opportunities to improve the quality of care for patients with stage III/IV NSCLC include reducing barriers to effective screening, improving care coordination and collaboration between healthcare professionals, increasing awareness around diagnostic modalities and current treatment guidelines, enhancing patient-provider communication, and engaging patients through a shared decision-making process.

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Acknowledgments

The multiphase initiative, "Fostering Excellence in Care and Outcomes in Patients with Stage III and IV NSCLC," involved the following partner organizations: the American College of Chest Physicians (CHEST), the International Association for the Study of Lung Cancer (IASLC), and the LUNGevity Foundation. The authors are grateful for the contributions of the Steering Committee (David Spigel, Jennifer Aversano, David Feller-Kopman, Percy Lee, Nicholas Robert, Ravi Salgia, Michelle Shiller, Mark Socinski, Alex Spira, Brendon Stiles, Karen Van De Steeg, and Howard "Jack" West) and patient advocacy partners (Andrea Ferris and Nikki Martin, both from the LUNGevity Foundation).

The authors also acknowledge the survey methodology expertise provided by Matthew Smeltzer, PhD, MStat (Division of Epidemiology, Biostatistics, and Environmental Health, School of Public Health, The University of Memphis), and Joseph Kim, MD, MPH, MBA (Xaf Solutions). Data analysis services were provided by Elite Research, LLC; Ryan Krone, PhD, of Elite Research, LLC served as the statistical consultant for the preparation of this manuscript. The authors would like to thank all survey respondents at cancer programs nationwide for participating in the survey and providing valuable insights on NSCLC care delivery. Medical writing and editorial services for the development of this manuscript were provided by Praveen Kaul, PhD, and Frances Gambling, BA (Hons), of Cactus Life Sciences (part of Cactus Communications).

Editor's Note: The full article, including three figures and seven additional tables, is available on the education project website at: accc-cancer.org/NSCLC-care-delivery.

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This project is made possible by support from AstraZeneca

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ASSOCIATION OF COMMUNITY CANCER CENTERS

ONCOLOGY PHARMACY EDUCATION NETWORK

Care Coordination

The Role of Pharmacy to Help Manage Patients with Cancer on Oral Oncolytics

Oral anticancer therapies have transformed the way in which care is provided to patients. When oral agents are equally efficacious as parenteral treatments given in infusion centers and other healthcare settings, most patients with cancer prefer oral agents because they can be taken at home. Because oral anti-cancer agents are most often administered outside of the clinic setting, it takes a multidisciplinary team to successfully manage these patients and their treatments.[2,3]

Effective oral chemotherapy programs require three key components:[4]

1. Cancer programs must offer resources and tools to mitigate the patient financial burden associated with these high-cost agents.
2. Patients must adhere to and comply with their clinicians' instructions.
3. Patients must be regularly monitored for safety.

Every cancer center manages its oral chemotherapy program differently. Some operate their own specialty pharmacies designed to promote a patient-centered, multidisciplinary team environment in an approach called medically integrated dispensing.[5] A medically integrated dispensing pharmacy is defined as "an outcome-based collaborative and comprehensive model that involves oncology healthcare professionals and other stakeholders who focus on the continuity of coordinated quality care and therapies for cancer patients."[5] Others use specialty pharmacies in their communities or work with large nationwide healthcare chains (ACCC Focus Group Discussions, January 2021) Patient education on how to properly take oral medications differs from facility to facility. There is also wide variation in how cancer programs monitor patients' drug regimen compliance and adherence.

ACCC Education Project Addresses the Role of Pharmacy to Help Manage Patients with Cancer on Oral Oncolytics

In March 2020, ACCC launched its education project, Evaluating Dispensing Models to Improve Cancer Care Delivery.[6] A key component of this project was an online, internally validated survey developed with a committee of expert pharmacists and other oncology specialists who collaborate closely with pharmacy. The survey was administered nationwide to multidisciplinary cancer care team members. Survey data provided learnings into medically integrated dispensing programs, both internal and external specialty pharmacy relationships, pharmacy team dynamics, and telehealth. Following this survey, ACCC conducted focus groups with four cancer programs to better understand how each navigates the complex issue of dispensing oral oncolytics.

The survey and focus groups identified three issues common to all dispensing models:

- Communication challenges among care teams.
- Patient adherence to medication dosing and scheduling.
- Care coordination between patient care teams and external specialty pharmacies.

In a growing number of cases, manufacturers and/or payers restrict the dispensing of certain oral anticancer therapies to select specialty pharmacies. These restrictions can be challenging for cancer programs. These restrictions complicate care coordination; often delay the initiation of therapy; and are not necessarily helpful for care delivery.

ACCC Survey Results

Survey questions sought deeper insight into the role pharmacy plays to manage patients on oral oncolytics, and how each one managed financial support systems; delivered patient education; and monitored patient adherence, compliance, and safety. The survey also asked questions related to pharmacy operations and care coordination as patients transition between care settings.

Launched in September of 2020, 123 individuals from 59 unique cancer programs in the United States responded to the ACCC survey. Of the total number of survey respondents, 28% were nurses, 22% pharmacists, 20% administrative personnel, 13% physicians, 10% financial advocates, 7% technicians, and 1% social workers. Almost three-fourths of survey respondents (74%) had more than 5 years of experience dispensing oral anticancer medications; half had more than 10 years of experience. Survey respondents worked at community cancer programs, academic cancer programs, physician practices, and teaching hospitals. Of those, 42% worked in community programs and 52% represented urban communities.

Survey respondents represented five different types of dispensing models:

- In-house pharmacies with the option to dispense specialty drugs (54%).
- In-house pharmacies without the option to dispense specialty drugs (12%).
- Mail order pharmacies with the option to dispense specialty drugs (23%).
- Mail order pharmacies without the option to dispense specialty drugs (12%).
- Oral anti-cancer drug repositories, in which unused medications are made available to patients who would not otherwise be able to afford essential cancer medications (4%).[7]

In addition to questions about use of external specialty pharmacies, workflow, and processes, the survey focused on five challenges patients face when they are prescribed oral oncolytic therapies:

1. High out-of-pocket costs.
2. The inability to afford co-payments.
3. The lack of available patient assistance programs.
4. The ability to obtain prescription refills in a timely manner.
5. Co-pay accumulator practices (a strategy used by payers and pharmacy benefit managers that stop manufacturer copay assistance coupons from counting towards a patient's deductible and maximum out-of-pocket spending).[8]

When respondents were asked about the effect of sending prescriptions to external specialty pharmacies:

- 98% believe treatment may be delayed.
- 77% believe communication is limited between the specialty pharmacy and the care team.
- 77% believe there is an inability to adequately track patient adherence and compliance.
- 73% believe that financial assistance for patients is limited.
- 72% believe that patients are required to work with unfamiliar care providers.
- 66% believe that access barriers are created.
- 48% believe that patients' access to their care team to ask questions is limited.

When asked how survey respondents used telehealth in their work:

- 58% used telehealth for follow up after the initiation of the patient's treatment.
- 47% used telehealth to monitor adherence to treatment protocols.
- 46% used telehealth to provide initial patient education.
- 42% used telehealth to monitor adverse events.
- 33% used telehealth to follow up on prior authorization.
- 4% used telehealth for reasons other than the ones listed above.

Some survey questions were specific to a particular dispensing model. Below are the most significant findings from in-house pharmacies without the option to dispense specialty drugs:

- 73% are concerned about the lack of available patient assistance programs.
- 53% are concerned about high out-of-pocket costs.
- 53% are concerned about the ability to obtain refills in a timely manner.
- 47% are concerned about the use of co-pay accumulators.
- 40% are concerned that their patients are unable to afford their co-payments.

- 27% are concerned their patients are unable to adhere to their oral chemotherapy regimen because of high out-of-pocket costs.

Below are the most significant findings from in-house pharmacies with the option to dispense specialty drugs:

- 71% are concerned about high out of pocket costs.
- 66% are concerned that their patients are unable to afford their co-payments.
- 52% are concerned their patients are unable to adhere to their oral chemotherapy regimen because of high out-of-pocket costs.
- 40% are concerned about the lack of available patient assistance programs.
- 34% are concerned about the use of co-pay accumulators.
- 31% perceived that their patients' ability to obtain oral anti-cancer therapy refills from them was a challenge.

ACCC Focus Groups Share Effective Practices

Following survey completion, ACCC conducted focus groups with four cancer programs representing diverse regions, program size, and dispensing models (ACCC Focus Groups, January 2021):

1. Billings Clinic, Billings, Montana. A comprehensive community cancer program with its own specialty pharmacy.
2. Franciscan Health Indianapolis, Indianapolis, Indiana. A comprehensive community cancer program that does not have its own specialty pharmacy.
3. Kellogg Cancer Center, Evanston, Illinois. An academic comprehensive cancer program with its own specialty pharmacy.
4. Norton Cancer Institute, Louisville, Kentucky. An integrated network program with its own specialty pharmacy.

These focus groups identified the following effective practices.

Insight 1. Medically Integrated Dispensing May Offer Significant Advantages (ACCC Focus Groups, January 2021)

Across all focus groups, ACCC uncovered an overarching theme—a strong preference for medically integrated dispensing. In this model, because pharmacy is integrated within the healthcare system, once an oral anticancer drug is prescribed, internal specialty pharmacy staff can dispense therapies more quickly than external pharmacies. Pharmacists associated with medically integrated dispensing can also:

- Provide patient education.
- Communicate issues and concerns directly with local care teams.
- Access patient medical records to evaluate labs and provider documentation.
- Document their own work directly into the program's electronic health records (EHRs).

Some cancer programs have developed collaborative practice agreements that allow pharmacists to manage some aspects of patient care, such as prescribing anti-nausea medications when appropriate.

Insight 2. Standard Operating Procedures Can Be Valuable Tools (ACCC Focus Groups, January 2021)

Healthcare institutions tend to define the roles and responsibilities of staff members in standard operating procedures, or SOPs. SOPs define the scope of a care team's responsibilities and outline how care will be delivered. Issues that can be addressed in a SOP include:

- What clinical evaluations need to be carried out when a new drug is prescribed?
- Who is responsible for patient education and when?
- How will patient adherence and compliance to therapies be assessed and documented in the EHR?
- Should the cancer program employ financial navigators and if so, what will be their scope of work?

Insight 3. Key Issues Must Be Addressed When Using Medically Integrated Dispensing or Specialty Pharmacies (ACCC Focus Groups, January 2021)

If a cancer program does not have a medically integrated dispensary or an internal specialty pharmacy, the cancer program should identify a direct point of contact at any and all external specialty pharmacies. This helps minimize staff time wasted navigating automated phone systems and challenges related to speaking to a different person on every call.

When an external specialty pharmacy is used, care teams should consider sending prescriptions early, because of the additional time it takes for these pharmacies to dispense medications. Unfortunately, this practice often means that patients need to be seen earlier than is clinically appropriate, and that sometimes prescriptions already sent in must be changed once patients are seen.

In addition, external specialty pharmacies do not have a direct way to communicate with cancer care teams to know when patients receive their medication, and when patients began taking it. External specialty pharmacies also do not have access to documentation, chart notes, and labs. Many external specialty pharmacies do not even have a full list of the medications a patient is taking, and therefore cannot address possible drug interactions.

Working with external specialty pharmacies places a significant burden on cancer care teams who need to know where patients are in the course of their therapy. It leads to a fragmented care model—and both survey and focus group participants unanimously reported that the time it takes to dispense medications is longer when external specialty pharmacies are involved.

Insight 4. Telehealth Can Be a Useful Tool (ACCC Focus Groups, January 2021)

Many cancer care teams are using telehealth interventions in innovative ways, especially once the COVID-19 pandemic made visits to healthcare facilities problematic for immune-compromised patients. These include:

- Educating patients.
- Following up with patients post-treatment.
- Ensuring patient adherence to medication schedules.
- Monitoring adverse events.
- Completing insurance-mandated prior authorizations.

Insight 5. Financial Navigation Plays an Important Role (ACCC Focus Groups, January 2021)

Many oral chemotherapy agents come with a high price tag, and patients bear much of these costs through out-of-pocket responsibilities such as premiums, deductibles, coinsurance, and co-pays.9 Financial navigators guide patients through the complexity of our nation's health insurance system and reduce financial barriers to care. By helping patients access resources like foundation or pharmacy patient assistance programs, financial navigators reduce patient financial toxicity and distress. Financial navigators (or in some cancer programs revenue cycle management) also help ensure prior authorizations from insurers are in place when new therapies are initiated.

Insight 6. EHRs Can Provide Valuable Support (ACCC Focus Groups, January 2021)

All four cancer programs that participated in the ACCC focus groups used EHRs. Integrating the EHR and the pharmacy not only reduced or eliminated the need for paper orders, it optimized workflows. Conversely, focus group participants reported difficulties in both tracking patients and transferring data when patients were required to receive medications from external pharmacies, either specialty or otherwise.

Insight 7. Patient Education is Critical to Therapeutic Success (ACCC Focus Groups, January 2021)

Many barriers can affect a patient's adherence to an oral chemotherapy regimen, including:[10]

- Cost.
- Dosing complexity.
- Forgetfulness.
- Distractions of everyday life.
- Side effects.
- Misinterpretation of instructions.

Patient education should be the responsibility of every member of the multidisciplinary cancer care team. Successful models have highlighted oral anticancer medication education provided by nurse navigators, pharmacists, pharmacy technicians, and other disciplines. These individuals may also be asked to assess adherence, compliance, and/or other issues throughout a patient's treatment. Several organizations, such as the National Community Oncology Dispensing Association, Inc., have created educational handouts and additional information.

Dispensing Models: Other Considerations

For cancer programs, the decision about which dispensing model to adopt impacts many aspects of coordinated, patient-focused care delivery, including how quickly patients receive their prescribed medications; how EHRs are used in the dispensing process; the financial burden of the cost of these medications; the way in which patient data is collected; and the use of telehealth in medication administration and management.[11] Dispensing decisions must also take into account factors, such as:[9,12,13]

- State laws.
- Organizational culture and structure.
- Level of commitment to empower pharmacy staff to work at the top of their license, in other words, to use the full extent of their education, training, and experience.
- How technology is integrated and/or used to dispense medications.
- Performance metrics.
- Payer mix and payment models.
- Internal and external specialty pharmacy relationships.

As the number of oral anticancer medications continues to grow, so do new challenges for education, delivery, and adherence. Dispensing requirements from manufacturers, payers, and regulatory agencies are also in flux during the transition to value-based cancer care. ACCC will continue to educate its member programs about evolving models, including education and resources to help cancer programs assess which works best for their specific patient and payer populations.

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Acknowledgements

ACCC is grateful to the Advisory Committee, Partner Organizations, cancer program staff, and others who graciously contributed their time to this publication.

Special Recognition

A special thank you to the four ACCC Cancer Program Members that contributed to the development of this publication and to the following individuals who shared their personal experiences.

Billings Clinic, Billings Clinic Cancer Center

Franciscan Health Cancer Center Indianapolis

Northshore University HealthSystem, Kellogg Cancer Center

Norton Cancer Institute

A publication from the ACCC education program, Evaluating Pharmacy Dispensing Models to Help Improve Cancer Care Delivery. This program is part of the ACCC Oncology Pharmacy Education Network. Learn more at accc-cancer.org/OPEN.

action

ACCC Welcomes Its Newest Members

St. Luke's University Health Network, Cancer Center
Easton, Pa.
Delegate Rep: Jesse Keiper, BS
Website: slhn.org

Texas Oncology
Austin, Tex.
Delegate Rep: Tammy Sayers
Website: texasoncology.com

Tulane Medical Center
Tulane Cancer Center
New Orleans, La.
Delegate Rep: Laura Godel, PMP
Website: medicine.tulane.edu/centers-institutes/tulane-cancer-center

A Reminder from ACCC's Bylaws Committee

Dec. 1, 2021, is the deadline for submission of any proposed amendments to the ACCC bylaws. Proposed recommendations should be sent to Betsy Spruill at bspruill@accc-cancer.org. The ACCC bylaws are available online at: accc-cancer.org/bylaws.

75 U.S. Research Sites Participate in ASCO-ACCC Initiative

Originally planned as a pilot project involving between 40 to 50 research sites testing a research site self-assessment tool and an implicit bias training program focused on increasing racial and ethnic diversity among clinical trial participants, the joint program was expanded in response to broad interest from the oncology community. The invited sites represent a diverse mix of small and large research sites at community- and academic-based oncology programs, which will allow the American Society of Clinical Oncology (ASCO) and the Association of Community Cancer Centers (ACCC) to draw actionable conclusions about the effectiveness of the tool and training in a variety of research and clinical settings. Each site has been assigned to participate in the site self-assessment tool pilot study, the implicit bias training program pilot study, or both pilot studies.

This work is part of an ASCO-ACCC initiative to establish evidence-based practical strategies and solutions to advance a vision where every patient with cancer has the opportunity to participate in research, focusing initially on patients who are black and/or Hispanic/Latinx. The collaboration launched in July 2020 with a Request for Ideas to the oncology community seeking novel innovations to remedy participation barriers. If the tool and training prove useful across a variety of research sites, ASCO and ACCC plan to explore a longitudinal intervention study to evaluate their effectiveness in diversifying participation of people from all racial and ethnic marginalized populations historically underrepresented in cancer treatment trials.

ACCC Launches Returning to Practice in the COVID-19 Era Series

With national COVID-19 vaccination rates still low and masking and social distancing mandates changing daily, this education series is designed to help cancer care professionals navigate the uncertain environment of caring for patients with cancer and immuno-compromised patients during the continued threat of a global pandemic. The project teaches multidisciplinary cancer care teams what to anticipate as they resume pre-pandemic services, specifically for patients with hematologic malignancies, including chronic lymphocytic leukemia, acute myeloid leukemia, and multiple myeloma.

The learning content is intended to meet cancer care professionals where they are and in the limited time they have with learning tools available to access online, listen, or view in mobile audio podcast and video podcast formats. All educational materials were developed under the guidance of the Returning to Practice Task Force, composed of experienced oncologists, oncology pharmacists, and oncology administrators.

Topics in the Returning to Practice Series include:

- Myeloma Care Strategies and COVID-19 (CANCER BUZZ TV)
- Returning to Practice in the COVID-19 Era: Hematology Disease Education (On-Demand Webinar)
- Chronic Lymphocytic Leukemia Patient Education in Transitional Times (Audio Podcast).

Explore the Returning to Practice Series resources online at ACCC's website at: accc-cancer.org/hematologic-malignancies. The education project was funded in part by AbbVie.

Celebrating Cancer Survivors During COVID-19

BY AMBER KAPOOR, MPH

National Cancer Survivors Day is an annual celebration of life for those who have survived cancer.[1] The day also serves as an inspiration for those who have been recently diagnosed with cancer, a gathering of support for families, and an outreach opportunity for the oncology community.[1] In the words of one survivor: "This day celebrates the heartache of being diagnosed, the courage we muster to get through the challenging times, and the countless healthcare workers who are by our side as we fight cancer. It also celebrates the family and friends who stand by us through the difficult days and provide kind words, hugs, and warm meals. It is a celebration of being given another day on Earth. It is a celebration of life."

Middlesex Health is a community health system in Middletown, Conn., that includes a 275-bed hospital and two cancer center locations, and every year we look forward to celebrating National Cancer Survivors Day. Typically, we even begin planning the day's festivities one year in advance.

Our celebrations usually include a brunch reception at a picturesque banquet facility on the bank of the Connecticut River. We try to include as many cancer survivors and guests as possible in the large ballroom and enjoy the fellowship, an engaging keynote speaker, heartfelt award presentations, and mimosas—a crowd favorite.

Our plans for 2020 were abruptly cancelled due to the COVID-19 pandemic. Instead, we mailed 3D pop-up cards to survivors. Though the gesture was greatly appreciated by those who received a card, we were disappointed that we had to celebrate this day separately. Though early 2021 showed some return to normalcy, a room filled with cancer survivors and their families was still not ideal. So, we had to forego our tradition once again.

Anyone working in healthcare, particularly those in oncology, knows that the pandemic has negatively impacted cancer care delivery in situations that were tough even during normal times. Visitor restrictions prevented caregivers from accompanying their loved ones to appointments where they could share the burden of difficult news or celebrate positive news. Fear of spreading COVID-19, especially to someone who is immuno-compromised, stopped community members from visiting the homes of those newly diagnosed with cancer to drop off a home-cooked meal or provide a shoulder to cry on. Makeshift barriers physically separated patients from one another, and virtual meetings marred by technical difficulties and user error (i.e., simply forgetting to mute and/or unmute) substituted in-person support groups. Masks, goggles, face shields, and social distancing requirements replaced the usual warm touch of healthcare providers and staff.

Needless to say, the pandemic robbed our patients with cancer of the support they needed and deserved in 2020. At Middlesex Health Cancer Center, we knew we could not let another year pass without an in-person celebration of all that our survivors and staff have endured. We were determined to bring people together again in a safe way.

Planning a Safe, Socially Distant Event

Inspired by the drive-through birthday, graduation, and other celebrations that became commonplace during the pandemic, a nurse navigator suggested that we hold a drive-through Survivors Day event. Our planning team loved the idea, and we began the planning process in late January 2020. Though we were all familiar with the concept, or perhaps had even participated in a drive-through celebration before, none of us had experience planning one. We were unsure of what to expect. We did not know how many survivors would show up or how long to schedule the event.

The ACCCeXchange discussion forum is our go-to resource for crowdsourcing ideas and to follow oncology-related topics. So, we posted on the exchange to garner guidance. Two ACCC member programs that had hosted similar celebrations responded to our posts, and after chatting with them, it sounded like we were on the right track.

Our first step was to select a theme. Many exciting ideas were offered, and we ultimately chose "Around the World." Thankfully, our circular parking lot was the perfect fit for this event. Because no patients are seen in our building on Sundays, we were given permission to use the complex on June 6, 2021.

We knew there would be some heavy lifting required to bring our vision to life within just a couple of months, so we formed the following subcommittees:

- Invitations and marketing

- Signage
- Logistics
- Giveaways.

The full Survivors Day committee met monthly, and the subcommittees met more frequently as needed.

The invitations and marketing subcommittee worked with the health system's marketing team to design invitations that looked like a passport page. We invited cancer survivors to join us on a tour around the world to celebrate their survivorship journey. Invitations were mailed to those on the cancer center's mailing list and to patients listed in the tumor registry who were diagnosed with cancer in the past year. Invitations were also electronically distributed via various listservs, social media, and community calendars. The invitations and marketing subcommittee then designed an event map so that attendees could easily locate any department or staff member they might be looking for that day.

Each participating department—surgical, radiation, and medical oncology; radiology; and the cancer center's support services and administration—chose a region of the world to represent. Our signage subcommittee used the graphics from the event invitation to create a large banner for the entrance, as well as banner stands that identified each department, their region of the world, and an inspirational quote that aligned with the theme. The signage subcommittee also made yard signs with arrows and an assortment of colored cancer survivor ribbons to guide attendees as they drove into the parking lot.

Historically, the banquet facility staff handled many of the details that ensured that our Survivors Day brunches ran smoothly, but with the drive-through celebration, our team faced a much heavier lift. The logistics subcommittee handled all details—large and small—including security; renting tents, tables, and a generator; hiring a photographer; booking a band; and coordinating a fire truck to park at the event entrance with a welcome banner.

The giveaway subcommittee coordinated

An astounding 100 Middlesex Health staff and community members volunteered their time to cheer on cancer survivors who attended the drive-through event.

A survivor is cheered on by Middlesex Health Radiology staff.

A cancer survivor stops to pose for a photo.

A survivor of breast cancer and her husband arrive at the drive-through event.

Surgical Oncology staff pose for a photo.

A survivor poses with her radiation mask.

souvenirs to give to event attendees that included a branded Survivors Day tumbler filled with curated goodies, branded survivor T-shirts, and Italian ice from a local food truck. To acknowledge volunteer efforts, this subcommittee also designed branded event staff T-shirts.

The Celebration

June 6 dawned hot and humid in Connecticut. Staff started setting up around 10:00 am, hustling to hang up all signage, set out tumblers and T-shirts, and decorate department tents before the event's start time at noon. At 12:00 pm on the dot, our first five cars entered the parking lot. We were off! Attendees made a quick stop at a registration station to give their name, receive a copy of the event map, and get a National Cancer Survivors Day pin. Each pin was customized to the individual and had their length of survivorship printed on it. Each participant then posed for a photo.

Following registration, the survivors drove in their cars through our medical complex, stopping at each department's station to be cheered on by staff, take photos, and receive a small, themed gift. For example, participants received a lei from a department representing the various tropical islands around the globe and a red, white, and blue star headband from a department representing the United States. Following the department stations, each survivor received their filled tumbler, T-shirt, and Italian ice—a much-needed cold treat given the heat!

The final attraction of the day was a live band. Attendees had the option to exit past the band or park and listen for however long they liked. In retrospect, we wished we had invited survivors to bring a lawn chair because this turned out to be a great way for attendees to enjoy themselves and the company of other survivors, while practicing social distancing. Even the survivors who thought they were "too old" to dance were eventually coaxed out of their cars by some of our most charismatic staff. Patients and their families had a blast boogying the afternoon away.

Survivors and Caregivers Respond

The response from the survivors and loved ones who attended our event was truly heartwarming. "My husband and I decorated our car with pink streamers," one breast cancer survivor said. "My emotions were running high that day not knowing what to expect, having never attended anything like this before; never dreaming I would be one of the people that this was made for. As soon as we drove in, I was swept up in emotions. Tears filled my eyes as my husband and I drove by each of the groups cheering, clapping, and taking our picture. It was a feeling that I will never forget! Seeing other survivors there that day with their cars decorated, waving to everyone, beeping horns, celebrating life, enjoying an Italian ice, dancing to the band, or getting and giving hugs allowed me to feel wonderful! It's so important for all of us cancer survivors to celebrate life."

Another attendee shared similar thoughts. "As I drove around the building, hearing everyone cheering, whooping, and hollering, it dawned on me that this [event] was for me," they said. "I was so overcome with emotion, feeling so much love from the kindest healthcare providers ever!"

Regarding the substitution of the drive-through event for our usual brunch, one survivor shared that "a celebration is a celebration. When times are better, we will go back to the luncheon. For now, this was the best! It was so much fun decorating the car and seeing all those smiling faces. I am truly blessed to have been part of Survivors Day. Thank you for making us all feel special."

Our staff unanimously agreed that this atypical event was a fun way to celebrate the different journeys of our survivors. Though the annual brunch is usually a celebration between survivors and staff, one of our favorite aspects of the drive-through event was that it enabled us to partner with our local community members and institutions to jointly support our cancer survivors. The local fire district, a longstanding and well-loved Italian ice vendor, a local band, and local contractors all took time out of their day to recognize our cancer survivors. Additionally, an astounding 100 community members and employees from across the health system volunteered their time on Survivors Day. We, along with our survivors, are so grateful for this outpouring of love and support.

At Middlesex Health Cancer Center we will continue to seek creative ways to meet the needs of our patients and the community. Our patients, like our staff, are Middlesex strong. Whether it be a cancer diagnosis, a pandemic, or other life-changing event, we will get through it *together*.

Amber Kapoor is the health education and grants coordinator at Middlesex Health Cancer Center in Middletown, Conn.

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The Middlesex Health vice president dances with a cancer survivor.

A nurse navigator dances with a cancer survivor to the live band.

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Transform Care for Older Adults with Cancer

Practical Resources for the Multidisciplinary Oncology Team

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Assess your program's performance against validated measures and best practices related to older adult care.

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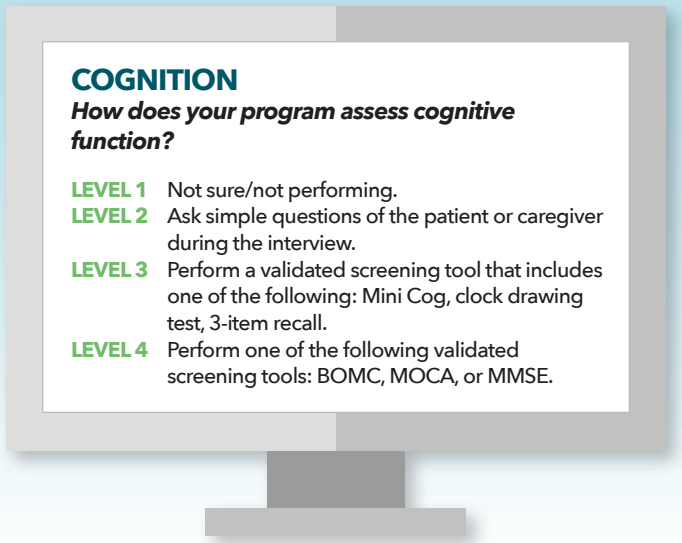

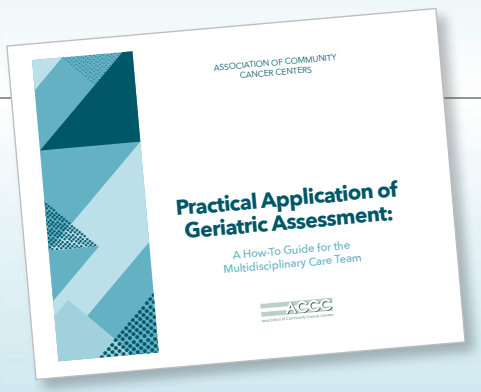

How-To Guide

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Thank you to Pfizer Oncology for their collaboration and support in developing these resources.

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