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ONCOLOGY Fellows

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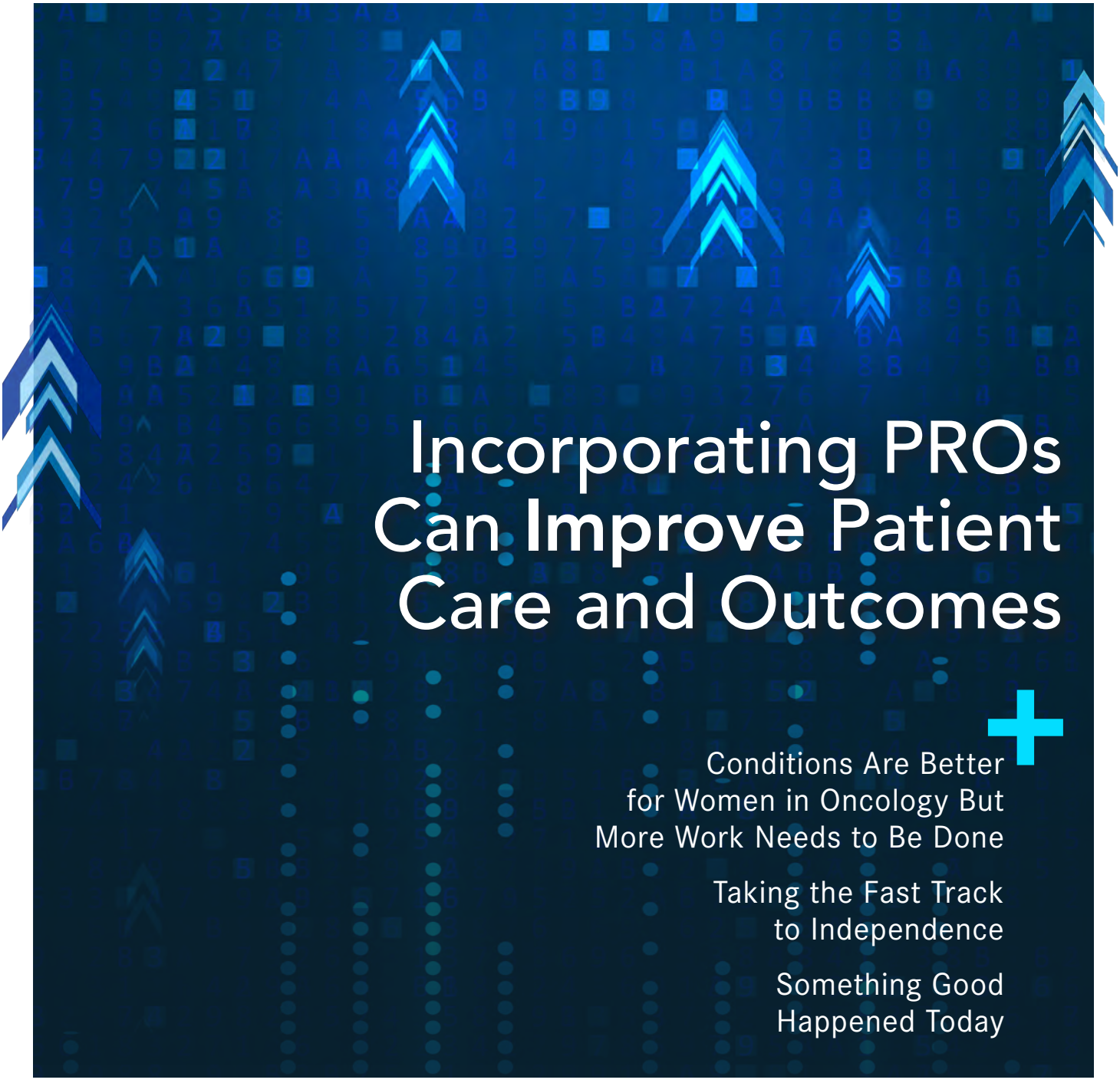

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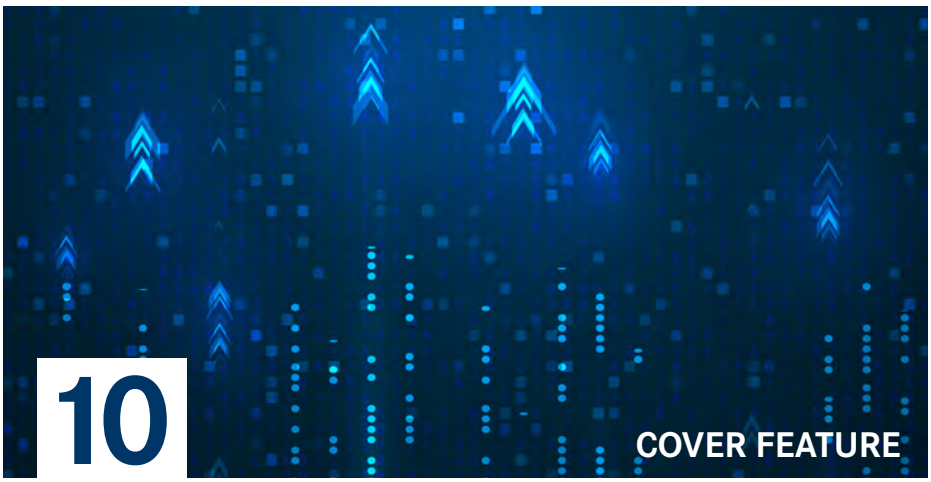

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Integrate Fitness Assessments Into Care for Older Patients

By Brittany Lovely

Armin Shahrokni, MD, MPH

TREATMENT DECISIONS FOR older patients with breast cancer should be individualized based on the fitness and frailty of the patient, making the use of geriatric assessment tools an essential element of care, according to Armin Shahrokni, MD, MPH.

In a presentation at the *18th Annual* International Congress on the Future of Breast Cancer® East, hosted by Physicians' Education Resource®, LLC, in New York, New York, Shahrokni emphasized the importance of performing a comprehensive geriatric assessment for each patient to determine optimal treatment.[1]

"There are a lot of exciting advances in the field of breast oncology, but the challenge is many times when you focus on the biomarkers and treatment-related issues, you forget the patient that is in front of you, and as geriatricians, we try to focus on the patient as a whole," said Shahrokni, a geriatrician and an oncologist at Memorial Sloan Kettering Cancer Center in New York, New York.

Seventy percent of patients with cancer are ≥65 years, and the geriatric patient with cancer population is projected to significantly increase, with the probability of developing cancer reaching 1 in 3 for men and 1 in 4 for women.[2] The median age at diagnosis for patients with breast cancer is 62 (range, 55-64), and the percentage of deaths due to breast cancer is highest in those aged 65 to 74 years, at 22.9%.

However, this population comprises a spectrum of patients whose physical condition does not match the age on their chart. Assessment of fitness and frailty, determination of life expectancy, and a balance of the toxicity of the treatment with potential benefits should replace age when making clinical decisions, according to Shahrokni.

Comprehensive Geriatric Assessment

Implementation of geriatric assessments in practice can aid in the identification of conditions that are often overlooked in routine care. In 1989 the National Institutes of Health first proposed a comprehensive geriatric assessment as a way to identify patient problems. Both the American Society for Clinical Oncology (ASCO) and the National Comprehensive Cancer Network (NCCN)[2,3] have issued guidelines for geriatric oncology for the practical assessment and management of this patient population.

Traditional oncology performance measures do not comprehensively assess geriatric patients, who are at higher risk from adverse events caused by chemotherapy. With uniform treatment recommendations by age rather than by fitness and frailty, some patients may experience overtreatment, whereas others may be undertreated.

The principal components of the geriatric assessment include functional status, comorbidities, cognition, and psychological, social, and nutritional status.

"As geriatricians, we spend 60 minutes or more with patients to assess their functional status, comorbidities, nutrition, mood, pharmacy, the place they live, their social support, and their cognition," Shahrokni said. "You may think this is too much, but some of these things you are already doing in your clinic."

The Cancer and Aging Research Group's brief geriatric assessment scale is designed to obtain specific estimates on the risk of chemotherapy toxicity. The predictive tool allows patients to complete a 20-to-30-minute self-assessment that includes activities of daily life, instrumental activities of daily life, number of falls in the prior 6 months, number and type of comorbid conditions, number of medications, vision and hearing assessment, social activity limitation measures, social support assessment, and any unintentional weight loss in the prior 6 months.

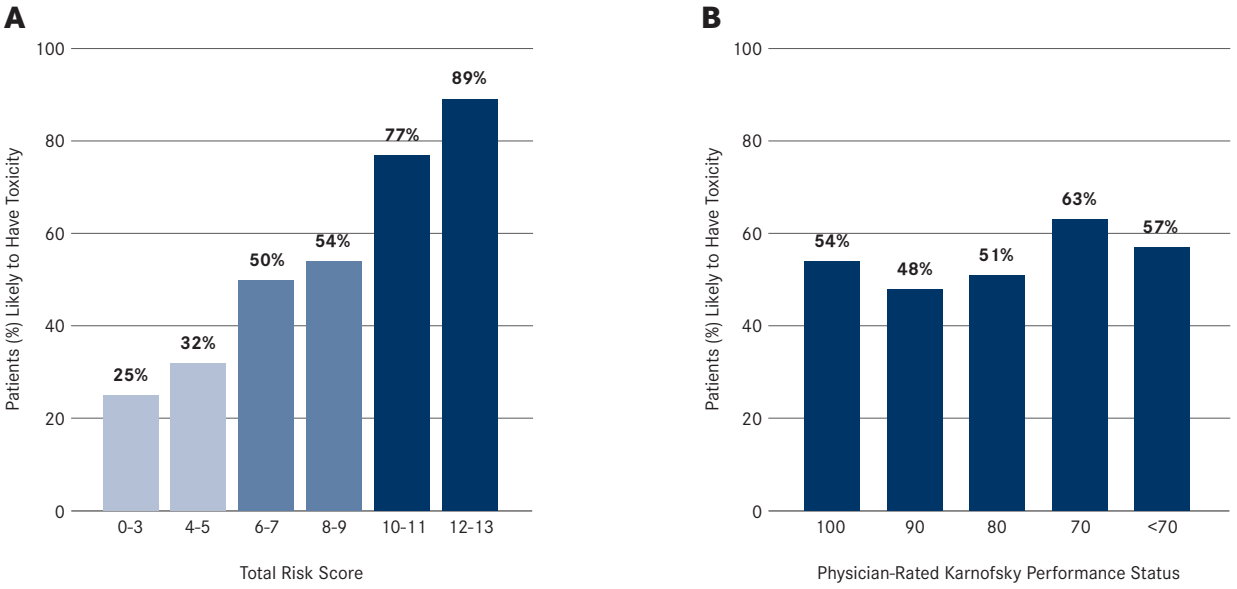
Physicians then follow up with an estimated 10-minute assessment in the clinic, where they perform cognitive examination through the Blessed Orientation Memory Concentration test, functional status with timed up and go tests, and nutritional evaluation through body mass index calculation.

"Without geriatric assessment, I don't know how we can even calculate life expectancy of older patients," said Shahrokni. "And the good thing is [with these assessments] we can also predict chemotherapy toxicity [**FIGURE**]."[4]

Balancing Life Expectancy With Treatment Goals

Defining the goals of treatment for geriatric patients with cancer must take the life expectancy of the patient

FIGURE. RISK SCORE (A) VERSUS PHYSICIAN-RATED KARNOFSKY PERFORMANCE STATUS (B) TO PREDICT GRADES 3-5 CHEMOTHERAPY TOXICITY[4]



into consideration. One such method, recommended in the ASCO and NCCN guidelines, is ePrognosis, an online assessment tool by the University of California, San Francisco, that takes into consideration noncancer comorbidities such as alcohol abuse, renal failure, pulmonary circulation disorders, and HIV/AIDS status to calculate mortality risk.[2]

The calculation of life expectancy allows clinicians to judge whether the benefit of the cancer treatment will be beyond their patient's expected survival.

Treatment selection should balance the physician's goals and those of the patient, which may not always include longevity. "Physician goals are [to provide] adjuvant chemotherapy and increase cure [and] prevent metastases, while maintaining quality of life and controlling the cancer," said Shahrokni. "There are times that patients are not in agreement with [treatment decisions], so [clinicians should] explore that. [Patients] would like to remain functional, and they love their independence."

In a secondary analysis of a Cancer and Leukemia Group B study (NCT00024102) focusing on adjvant treatment of older patients with breast cancer, investigators reported that 42% (n = 256) of patients experienced a decline in physical function at a median follow-up of 5.1 months (range, 2.2-6.4 months) post chemotherapy compared with baseline.

At 12-month follow-up, 47% of patients recovered within 10 points of their baseline physical function based on the European Organisation for Research and Treatment of Cancer subscale, whereas 53% experienced further decline. Regardless of a decline in physical function by the end of chemotherapy, 30% experienced a decline at 12 months.[5]

Hurria et al reported that approximately half of the patients who experienced physical function decline were able to return to baseline, noting that further research is needed to determine whether intervention aimed at increasing functional recovery can improve outcomes for these patients.[4]

This includes access to investigational treatments that are limited for older patients, who are often excluded from clinical trials because of comorbidities. Less than 25% of patients aged 65 to 74 years were enrolled in National Cancer Institute Cooperative Group clinical trials, and less than 10% were 75 years or older.[2] ■

REFERENCES

1. Shahrokni A. Treatment considerations for older patients. Presented at: *18th Annual* International Congress on the Future of Breast Cancer® East, hosted by Physicians' Education Resource®, LLC; July 19-20, 2019; New York, NY.
2. Mohile SG, Dale W, Somerfield MR, et al. Practical assessment and management of vulnerabilities in older patients receiving chemotherapy: ASCO guideline for geriatric oncology. *J Clin Oncol*. 2018;36(22):2326-2347. doi: 10.1200/JCO.2018.78.8687.
3. NCCN Practice Guidelines in Oncology. Older Adult Oncology, version 1.2019. National Comprehensive Cancer Network website. nccn.org/professionals/physician_gls/pdf/senior.pdf. Updated January 8, 2019. Accessed July 26, 2019.
4. Hurria A, Togawa K, Mohile SG, et al. Predicting chemotherapy toxicity in older adults with cancer: a prospective multicenter study. *J Clin Oncol*. 2011;29(25):3457-3465. doi: 10.1200/JCO.2011.34.7625.
5. Hurria A, Soto-Perez-de-Celis E, Allred JB, et al. Functional decline and resilience in older women receiving adjuvant chemotherapy for breast cancer. *J Am Geriatr Soc*. 2019;67(5):920-927. doi: 10.1111/jgs.15493.

Fellows Take Top Prizes in *OncLive*® Innovation Challenge

By Jason Harris

A PAIR OF FELLOWS will be able to advance their innovative technology-based projects thanks to the *OncLive*® Innovation Challenge: Innovative Technology in Cancer Care.

Juliet Wolford, MD

Juliet Wolford, MD, a gynecologic oncology fellow at the University of California, Irvine (UC Irvine), won the top prize of $15,000 for her proposal to construct 3-D-printed speculums in Tanzania. Francesco Maura, MD, a fellow in the myeloma service at Memorial Sloan Kettering Cancer Center, took second place and $7500 for his plan to develop a machine learning approach to quantify a patient's risk for melanoma and likely response to treatment.

"I was very impressed that our top 2 winners were fellows," said Reshma Mahtani, DO, one of the judges for the challenge and an associate professor of medicine at the University of Miami's Sylvester Comprehensive Cancer Center, in Florida. "It just speaks to where we're headed [in cancer care] and how bright our future is."

Francesco Maura, MD

The Innovation Challenge charged contestants with combining technology and oncology to create a product to improve clinical practice and/or patient outcomes. Participants uploaded their proposals to the OncLive.com website, and visitors could vote for their favorite project. Six finalists were then invited to give a 5-minute presentation, which was followed by a 5-minute question-and-answer session, via online video. All contestants were rated on a 5-point scale for originality, creativity, rationale, and appropriateness.

Wolford proposed using 3-D printers to construct speculums to screen and treat cervical cancer in low-resource nations. Patients in wealthier countries typically go through a 3-step screening and treatment process. A woman first receives a pap smear. If the pap smear is abnormal, she returns for a colposcopy. If the colposcopy finds evidence of grade ≥2 cervical intraepithelial neoplasia (CIN), a precancerous condition on the uterus, the patient returns for treatment.

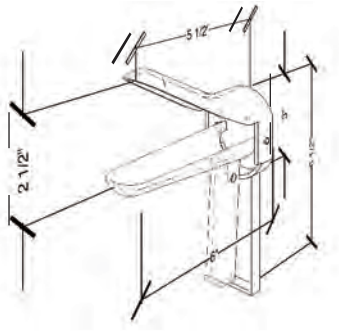
"That is way too cumbersome for a low-resource setting," Wolford said.

Healthcare systems in countries that don't have access to the human papillomavirus vaccine or pathologists to analyze pap smears or biopsy specimens often use visual inspection with acetic acid, a screening and treatment program endorsed by the World Health Organization. If the visual inspection shows any evidence of abnormality, the woman is treated during that visit.

"It's 1 visit, 1 speculum. You're screening and treating them," she said.

The other problem is that speculums can be hard to come by in African nations. UC Irvine physicians tried to bring the devices to the university's 2 healthcare clinics in Tanzania, but they were confiscated by government agents. "You have to go [through] this approval process to get them back, and [you have to] pay fees, so it ends up being a long process," Wolford said.

Most of her prize money will go toward getting 3-D printers into those clinics. In the pilot study, investigators used filament that cost $25/kg. The speculums

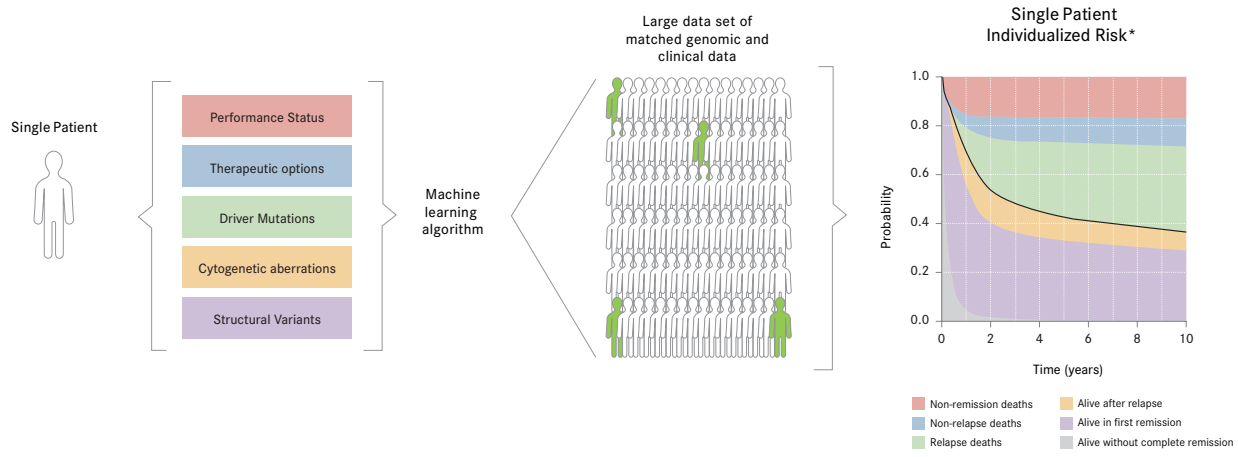


3-D Printer

3-D Printed Speculum:
Adapted from an Open-Source, Downloadable 3-D File, GynePunk Speculum, created by Gaudi

Acrylonitrile Butadiene Styrene (ABS) Filament Spool

Juliet Wolford, MD, proposed using a 3-D printer to make speculums on-site in low-resource countries.



*Adapted from Gerstung, *Nat Gen* 2017/Modified by Kellie Ehrmann

Francesco Maura, MD, plans to develop an algorithm that uses machine-learning to predict clinical outcomes for patients with multiple myeloma.

cost about $2.34 apiece to make, including the cost of the $350 printer.

Wolford said she would like to work with ReFab Dar, a global nonprofit that has developed a system to recycle waste plastic into 3-D printer filament, to keep costs down. ReFab Dar is established in Tanzania, where filament can cost as much as $80/kg, including shipping costs from China. Ultimately, she wants to see local providers create their own filament from recycled plastic as well as a self-sustaining system for printing any medical tool.

> **"I was very impressed that our top 2 winners were fellows. It just speaks to where we're headed [in cancer care] and how bright our future is."**
>
> — RESHMA MAHTANI, DO

Mahtani called the project "spot-on" for improving access and outcomes for patients, and praised Wolford for the proposal's originality.

"Instead of using things that we would have normally thought of as technology, like an app or some sort of computer-based algorithm, she used a 3-D printer," Mahtani said. "That's clearly technology and that's something that I'm hearing about from my kids because it's in their school.

"I was blown away. I said, 'Wow. I would have never thought of that.' It was really, really original," she added. "This project was intended to use technology to improve outcomes for patients with cancer, and this fulfilled that criteria so clearly, and she presented it so eloquently and with such passion that it was an easy choice."

Harnessing Artificial Intelligence to Improve Care

Maura said he recognized the value of next-generation sequencing (NGS), particularly whole genome sequencing, while working on the Wellcome Sanger Institute's Cancer Genome Project. NGS, he said, can decipher the biology and pathogenesis of different hematological cancers and improve current clinical practice.

The combination of cancer genomic background and patient performance status are the key elements to define the best treatment option and predict clinical outcome. Maura noted that multiple myeloma survival has dramatically improved over the last several years thanks to the introduction of several novel agents, and physicians need to develop accurate models that can predict outcomes and support therapeutic decisions.

He developed a machine-learning algorithm to create an estimated quantitative risk assessment for each patient. The algorithm also can identify which patients are most likely to benefit from a certain treatment, thereby increasing efficacy and reducing toxicity.

"Physicians are struggling to learn how to prognosticate for patients," Mahtani said. "This algorithm took different chromosomal abnormalities and mutations that were present in patients with multiple myeloma and was able to give the physician caring for those patients a retrospective look at how that patient may do."

Judges were looking for ideas that could be implemented sooner rather than later, and both projects should be ready to go within a matter of months. "These monies, we really wanted to see [them] going to immediate use rather than going into a fund for use years later," Mahtani said. ■

Fitness Apps Could Help Survivors Become More Active

By Jason Harris

ABOUT 20% OF FITNESS apps reviewed in a recent study were deemed appropriate for survivors of cancer, showing that they could be an effective tool in helping this population increase physical activity. Investigators from the University of Surrey in the United Kingdom and Spain's Universidad de Oviedo said that, based on these data, physicians could recommend such apps to their patients.[1]

Rubén Martín Payo, PhD

Lead author Rubén Martín Payo, PhD; along with coauthors Jenny Harris, MSc, and Jo Armes, PhD; evaluated 67 free fitness apps available for iOS and Android for their suitability for use by patients recovering from cancer and their ability to improve physical activity for these survivors. They did not recommend specific apps but concluded that roughly one-fifth of the fitness apps examined included information suitable for people affected by cancer, suggesting that such programs could be an effective tool in helping patients and survivors improve physical activity.

"We think that it's difficult to say what's the best app or what's the ideal app," Armes, a reader in cancer care and lead for digital health at the University of Surrey, said in an e-mail. "As we concluded, apps should be selected based on the needs and preferences of the individual. Specifically, people affected by cancer have some needs that people without the illness don't have."

The apps most successful at inducing change in health-related behaviors focused on aerobic-based activities and tended to include goal setting, monitoring, and feedback.

"Clinicians are often hesitant to recommend fitness apps to help cancer survivors increase physical activity levels, as they are unsure of the quality and suitability of the information provided," Harris, a research fellow at the School of Health Sciences at the University of Surrey, said in a news release. "Our ongoing research in this area has found that there are suitable fitness apps to help increase activity levels, and this will help equip clinicians with the knowledge and confidence in prescribing them, helping patients to benefit from the positive impact of physical activity."

Guidelines issued by the American Cancer Society (ACS) in 2012 advise "healthy weight management, a healthful diet, and a physically active lifestyle" for long-term survivors to prevent recurrence, second primary cancers, and other chronic diseases.[2] The US Department of Health and Human Services recommends that adults with chronic conditions or disabilities, including cancer, should do 150 to 300 minutes a week of moderate-intensity physical activity or 75 to 150 minutes a week of vigorous-intensity aerobic physical activity.[3]

Unfortunately, survivors aren't always diligent about sticking with an exercise regimen. Investigators in the Yale Fitness Trial assessed adherence to the ACS guidelines among female cancer survivors who participated in an exercise intervention trial for 1 year. In data published in May 2019, Park et al found that adherence was only moderate even among "highly motivated" survivors. Physical activity levels improved among participants, but there was no significant change in adherence to weight, dietary, or alcohol intake guidelines.[4]

Jo Armes, PhD

The investigators said that fewer than 25% of cancer survivors meet physical activity guidelines. Not only will physical activity help improve the quality of life of survivors, it lessens their risk of developing new conditions, such as osteoporosis or diabetes, they added.

Debra Patt, MD, MPH, MBA, a breast cancer specialist and executive vice president at Texas Oncology, discussed the effect that obesity has on patients with cancer with *Evidence-Based Oncology*™, an indexed publication of the *American Journal of Managed Care*, in October 2019. Excess weight can reduce the effectiveness of some therapies, she said, and clinicians need to encourage patients to eat healthy food and exercise to both improve outcomes and prevent recurrence.[5]

"For many patients who undergo surgery for the treatment of cancer, recovery is much faster if they [exercise] and their cardiovascular health [improves]," she said. "What we see here is that diet, exercise, and physical fitness can influence cancer outcomes in many ways."

There are limited real-world data available suggesting how patients can adhere with the fitness guidelines, and Payo, Armes, and Harris hypothesized that smartphone fitness apps could serve as a virtual exercise trainer to keep patients motivated and adherent. By providing clinical data, the authors hoped that oncologists would feel comfortable recommending these apps to their patients. Apps that required payment, those that required the use of wearable technologies, and apps with inappropriate content, such as negative body images, and/or unfounded claims of efficacy, were excluded.

> **"Apps should be selected based on the needs and preferences of the individual. Specifically, people affected by cancer have some needs that people without the illness don't have."**
>
> – JO ARMES, PhD

The investigative team rated the apps using the Mobile App Rating Scale (MARS), which evaluates factors like engagement, functionality, aesthetics, and information, as well considerations such as awareness and knowledge. The apps were also assessed for behavior change techniques, such as goal setting and monitoring. Each factor was rated on a 5-point scale, with 5 meaning "excellent" and 1 meaning "inadequate."

More than half the apps were available on both iOS and Android. Forty-six percent focused on a combination of aerobic/strength training or stretching, while 39% provided only aerobic training.

Compared with Android apps, the investigators found that iOS apps were more likely to try to change users' attitudes toward improving their health. iOS apps were also better at encouraging users to seek further help to address changing attitudes toward improving health and performed slightly better in terms of content and quality.

"Our findings contribute to helping physicians and other health professionals to understand that apps are potential options to assist patients to increase their physical activity but not all the apps can be recommended for them," Armes said. "In any case, more research and evidence are needed as this was a preliminary study."

She added that the research team is working develop tools that effectively help health professionals and patients to choose physical activity apps. "Additionally, it is necessary to highlight the constantly changing nature of the apps markets, which requires regular re-evaluation of research findings," she added. ■

REFERENCES

1. Payo RM, Harris J, Armes J. Prescribing fitness apps for people with cancer: a preliminary assessment of content and quality of commercially available apps. *J Cancer Surviv.* 2019;13(3):397-405. doi: 10.1007/s11764-019-00760-2.
2. Rock CL, Doyle C, Denmark-Wahnefried W, et al. Nutrition and physical activity guidelines for cancer survivors [erratum in *CA Cancer J Clin.* 2013;63(3):215]. *CA Cancer J Clin.* 2012; 62(4):242-274. doi: 10.3322/caac.21142.
3. Department of Health and Human Services. Physical activity guidelines for Americans. HHS website. hhs.gov/fitness/be-active/physical-activity-guidelines-for-americans/index.html. Published February 1, 2019. Accessed October 29, 2019.
4. Park SH, Knobf MT, Kerstetter J, Jeon S. Adherence to American Cancer Society guidelines on nutrition and physical activity in female cancer survivors: results from a randomized controlled trial (Yale Fitness Intervention Trial). *Cancer Nurs.* 2019;42(3):242-250. doi: 10.1097/NCC.0000000000000602.
5. Patt D, Rosenberg J. How obesity affects cancer treatment—and how to talk with patients about prevention. *Am J Manag Care.* 2019;25(SP11)SP336-SP337.

Informed Consent Means Patients Should Be Informed

Maurie Markman, MD

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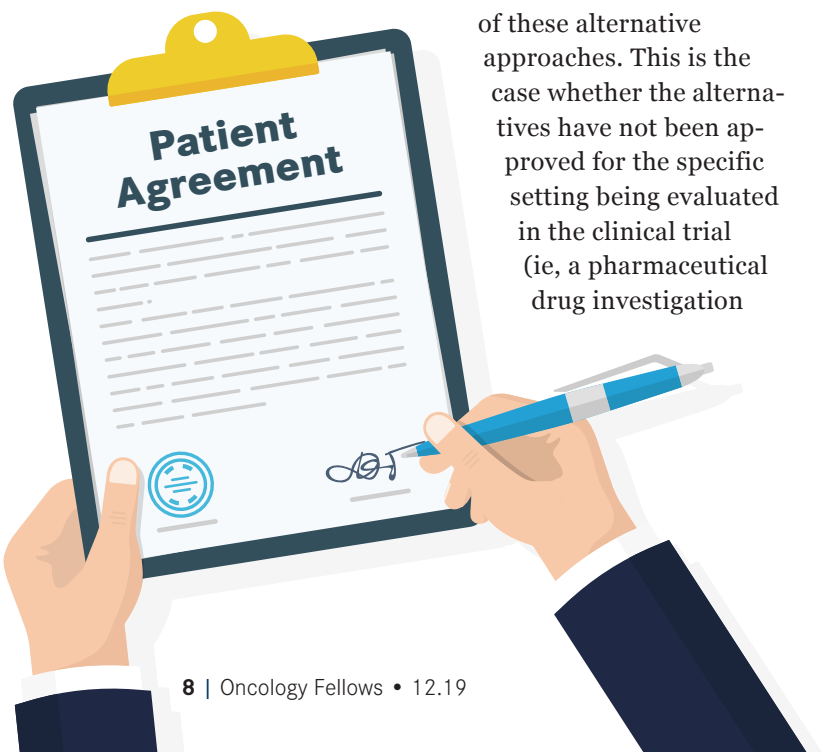
THERE IS NO MORE IMPORTANT principle in the conduct of legitimate therapeutic investigation than ensuring the adequacy of informed consent of the prospective clinical trial participant. Prior to obtaining an individual's signature on an institutional review board–approved document, investigators must provide the prospective enrollee with a thorough description of the goals of the study at a language level appropriate to optimize understanding by someone without clinical credentials. This description must include the potential risks or benefits to the extent known prior to or learned during the conduct of the study and also what is expected of the research subject—for example, time spent in the clinic and the number of return visits.

The consent process must also include a full description of alternative stragies that might be employed in a similar clinical setting. Again, investigators must include an objectively valid description of the known risks and benefits of these alternative approaches. This is the case whether the alternatives have not been approved for the specific setting being evaluated in the clinical trial (ie, a pharmaceutical drug investigation designed to ultimately result in regulatory approval) or are FDA approved for use outside the realm of investigation.



Consider, for example, the somewhat disturbing history of drug development in the management of ovarian cancer where, for a period of time, women who agreed to participate in platinum-resistant disease trials were randomized to receive pegylated liposomal doxorubicin at an initial dose of 50 mg/m^2 in a "study control arm" because this was the FDA-approved dose, even though a lower, far less toxic dose (generally 40 mg/m^2) was routinely employed by oncologists and considered to be equivalent in terms of efficacy to the higher, more toxic dose.[1,2] The concern here is that use of an unnecessarily high toxic dose for a control arm has the potential to inflate the apparent value of an experimental regimen.

Informed consent guidelines require that data be clearly explained if they might lead some, including the patient being asked to become a research subject, to question the wisdom of trial participation. There is a long-standing debate over when a physician should recommend that a patient consider entry into a randomized trial. Medical ethicists have suggested that clinicians should encourage participation only if they believe that between the control and investigational arms there is legitimate equipoise of potential benefits and harms associated with the study regimens.[3]

For example, if a treating oncologist believes that a randomized study holds the promise of superior efficacy based on existing data on the study arms, it

Informed consent guidelines require that data be clearly explained if they might lead some…to question the wisdom of trial participation.

would be appropriate for that physician to offer the patient trial participation. Conversely, if the individual physician believes the available data suggested 1 study arm is superior (efficacy, toxicity, or both), the decision to offer the patient trial participation could be ethically problematic. Although the individual-physician perspective is somewhat controversial, it is highlighted here to emphasize the extreme importance of providing patients with all relevant available clinical data that might influence a decision to enter a randomized trial.

Now, consider several contemporary oncology settings where the adequacy of informed consent merits a close examination.

A recent, 7-year follow-up of a single-arm phase II trial (N = 410) of adjuvant paclitaxel plus trastuzumab in node-negative but HER2-positive breast cancer (≤3 cm in size) revealed disease-free and overall survival (OS) rates of 93% and 95%, respectively.[4] The trial enrolled patients from October 2007 through September 2010. Although the results are impressive, some might conclude they are less than definitive because the data were not obtained through the conduct of a phase III randomized trial.

Should a clinical investigator doing a similar study in the future fully inform prospective trial participants of the details of the phase II paclitaxel/trastuzumab trial—including the 7-year follow-up survival data? Should physicians provide this information if they are considering asking patients with these clinical features to become research subjects in an existing study?

It's also relevant to consider the report of a phase II trial examining a reduction in treatment intensity of adjuvant chemoradiotherapy in a group of patients with squamous cell cancer of the oropharynx (OPSCC) that was shown to be human papillomavirus (HPV) positive.[5] Radiation treatment was modified based on documented recurrence risk (presence or absence of extranodal extension), with all patients also receiving adjuvant docetaxel. In the group of 80 individuals who participated in this study with a median and minimal follow-up of 36 months or 25 months, respectively, the 2-year locoregional control rate was 96.2%, with progression-free survival of 91.1% and OS of 98.7%. Impressively, grade 3 or greater toxicity 1 or 2 years following completion of the radiation was 0%.

The study authors noted that "aggressive radiation dose de-escalation in the adjuvant setting for selected patients with HPV-associated OPSCC achieved locoregional control rates comparable to historical controls while producing toxicity and quality-of-life outcomes superior to those of standard adjuvant treatment." However, the investigators added that "these results are currently undergoing additional evaluation in a phase III randomized trial."[5]

At this point, those reading this commentary can anticipate the final question: Are patients who are being asked to consider participation in this phase III study fully informed of the published results of the phase II trial, including the outcomes achieved via radiotherapy dose de-escalation, prior to becoming a research subject and potentially receiving the more toxic, so-called standard-of-care radiation regimen? ■

REFERENCES

1. Markman M. Serious ethical dilemma of single-agent pegylated liposomal doxorubicin employed as a control arm in ovarian cancer chemotherapy trials. *J Clin Oncol*. 2010; 28(19):e319-e320. doi: 10.1200/JCO.2010.28.9934.
2. Mutch DG, Orlando M, Goss T, et al. Randomized phase III trial of gemcitabine compared with pegylated liposomal doxorubicin in patients with platinum-resistant ovarian cancer. *J Clin Oncol*. 2007;25(19):2811-2818. doi: 10.1200/JCO.2006.09.6735.
3. Hellman S, Hellman DS. Of mice but not men: problems of the randomized clinical trial. *N Engl J Med*. 1991;324(22):1585-1589. doi: 10.1056/NEJM199105303242208.
4. Tolaney SM, Guo H, Pernas S, et al. Seven-year follow-up analysis of adjuvant paclitaxel and trastuzumab trial for node-negative, human epidermal growth factor receptor 2-positive breast cancer. *J Clin Oncol*. 2019;37(22):1868-1875. doi: 10.1200/JCO.19.00066.
5. Ma DJ, Price KA, Moore EJ, et al. Phase II evaluation of aggressive dose de-escalation for adjuvant chemoradiotherapy in human papillomavirus-associated oropharynx squamous cell carcinoma. *J Clin Oncol*. 2019;37(22):1909-1918. doi: 10.1200/JCO.19.00463.

Incorporating PROs Can **Improve** Patient Care and Outcomes

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Katie Kerrigan, DO

AS ONCOLOGISTS, WE TRY to remain both optimistic and realistic in patient care, but clearly, our tendency to "hope for the best and prepare for the worst" may affect our judgment and objectivity. Karnofsky Performance Status (KPS) and ECOG performance status (PS) alone leaves a lot to be desired for the practicing oncologist and as a community, we can improve upon this measurement with the routine incorporation of patient-reported outcomes (PROs).

KPS and PS are physician-synthesized compilations of a patient's symptoms, self-care ability, symptom burden, and mobility. PS is evaluated at each oncology clinic visit and used as a tool to quantify a patient's physiologic reserve and level of function. Thus, PS is an important element in routine clinical practice, guiding cancer treatment recommendations and determining eligibility in clinical trials.

Oncologists employ PS rigorously to determine prognosis. Data suggest that an individual's PS is likely a more accurate prognostic indicator than biologic age, medical comorbidities, or even cancer stage.[1]

This was nicely demonstrated in a single institution study performed in Canada, where 10 physicians determined ECOG, KPS, and the Palliative Performance Scale scores at the end of an initial consultation for 1655 patients and then developed a simple prognostic model using PS. Survival analyses using the Kaplan-Meier method demonstrated a significant decline in median overall survival (OS) for each worsening performance level, with a median OS of 293, 104, and 25.5 days for ECOG 0, ECOG 2, and ECOG 4 patients, respectively.[2]

Unfortunately, a static, subjective assessment of a patient in cancer clinic is not likely representative of longitudinal function. Previously published data demonstrated significant interobserver variability in the measurement of PS, with oncologists assigning higher PS scores than patients did at the same time points.[3,4]

I have experienced this phenomenon in the thoracic oncology clinic during my fellowship. After obtaining what I thought was a thorough clinical history, the patient and I were given the same PS questionnaire. I assigned them an ECOG 1 and they self-assigned an ECOG 2. Incorporating PROs may be a way to address the disconnect in opinion between patient and physician.

In 2004, the National Institutes of Health developed the Patient-Reported Outcomes Measurement Information System (PROMIS) to validate PROs for use in both clinical oncology practice and clinical research. The PROMIS profile domains focus on physical health measures such as fatigue, physical function, pain intensity, pain interference, and sleep disturbance; mental health measures such as anxiety and depression; and social health measures such as the ability to participate in social roles and activities.

Patient self-reported outcomes may more accurately reflect an individual's physical functioning and well-being because they are not subject to physician interpretation and bias, which can occur in a time-limited visit. Previous research demonstrated that incorporating PROs improves physician-patient communication, symptom awareness and management, and patient quality of life.[5-7]

Investigators at Huntsman Cancer Institute found that patient-reported physical function was strongly correlated with both overall and hospitalization-free survival.

— KATIE KERRIGAN, DO

Additionally, a systematic review found that when PRO measures were routinely collected at the clinic, physicians were more likely to discuss patient outcomes during consultation visits. These discussions facilitated an increased number of supportive care referrals, improvements in patient satisfaction, and improved healthcare usage at end of life.[5]

Implementation of PROs in the academic oncology practice can reduce emergency department visits and hospitalizations, and may even extend OS.[7-10] A single institution study at a tertiary cancer hospital demonstrated the feasibility and success of PRO implementation in 766 patients with advanced cancer.[8] Nurses were notified via email if a patient in the PRO intervention group reported a worsening or severe symptom, which resulted in clinical interventions such as new prescriptions, dose modifications, counseling, or referrals for symptom management. »

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The PRO group participants saw a 5-month improvement in median OS compared with the usual care group (31.2 vs 26 months; $P = .03$). These findings were both statistically significant in multivariate analysis (HR, 0.83; $P = .04$) and clinically meaningful.

At Huntsman Cancer Institute, we performed a retrospective pilot study evaluating the 5 PRO domains—physical function, pain interference, fatigue, anxiety, and depression—at a single time point within 6 months of a diagnosis of metastatic melanoma or non–small cell lung, breast, or colorectal cancer.

On multivariate regression, we found that patient-reported physical function was strongly correlated with both hospitalization-free survival and OS.[11]

We can use this information to refer patients with metastatic cancer who report poor physical function to ancillary services such as physical and/or occupational therapy and palliative care services for early intervention. We hope that, given the high economic and emotional costs associated with hospitalization in patients with cancer nearing the end of life, prospective PRO data collection can identify declining patients at an earlier time point so that we may intervene to prevent hospitalization.[12]

In recent years, there has been a growing interest in PROs within the oncology community. The National Cancer Care Network (NCCN) created a PRO/electronic health record (EHR) work group to develop PRO best practices and implementation strategies. Unfortunately, there have been challenges to incorporating the data into the EHR.

The results of a recently published national survey showed significant practice variation in the specific PRO measures collected, instruments used to gather PROs (66% of PROs were collected on something other than the practice EHR), and timing and frequency of PRO collection.[13] At present, the field lacks a complete understanding and a standardized strategy on how to best obtain PRO data and then incorporate it into the clinical workflow for daily use.

Until the oncology community is willing to measure PROs and follow standardized guidelines on implementation, the onus will be on the individual practitioner to collect these data. When available, PROs should be incorporated into the oncologist's treatment decision making and help guide both referrals to ancillary support services for symptom management and end of life care.

PROs can help support the oncology care provider's assessment of patient PS to guide treatment decision making, supportive care interventions, and estimations of prognosis. In the future, PROs may supplant PS as the most important prognostic factor in cancer patients. Continued research efforts and buy-in from organizations like the NCCN will be important to develop best practices and confirm the benefit of PRO measurement in the oncology practice. ■

REFERENCES

1. West HJ, Jin JO. Performance status in patients with cancer. *JAMA Oncol.* 2015;1(7):998. doi: 10.1001/jamaoncol.2015.3113.
2. Jang RW, Caraiscos VB, Swami N, et al. Simple prognostic model for patients with advanced cancer based on performance status. *J Oncol Pract.* 2014;10(5):e335-e341. doi: 10.1200/JOP.2014.001457.
3. Sørensen JB, Klee M, Palshof T, et al. Performance status assessment in cancer patients. An inter-observer variability study. *Br J Cancer.* 1993;67(4):773-775. doi: 10.1038/bjc.1993.140.
4. Ando M, Ando Y, Hasegawa Y, et al. Prognostic value of performance status assessed by patients themselves, nurses, and oncologists in advanced non-small cell lung cancer. *Br J Cancer.* 2001;85(11):1634-1639. doi: 10.1054/bjoc.2001.2162.
5. Velikova G, Booth L, Smith AB, et al. Measuring quality of life in routine oncology practice improves communication and patient well-being: a randomized controlled trial. *J Clin Oncol.* 2004;22:714-724. doi: 10.1200/JCO.2004.06.078.
6. Kotronoulas G, Kearney N, Maguire R, et al. What is the value of the routine use of patient-reported outcome measures toward improvement of patient outcomes, processes of care, and health service outcomes in cancer care? a systematic review of controlled trials. *J Clin Oncol.* 2014;32(14):1480-1501. doi: 10.1200/JCO.2013.53.5948.
7. Basch E, Barbera L, Kerrigan CL, Velikova G. Implementation of patient-reported outcomes in routine medical care. *Am Soc Clin Oncol Ed Book.* 2018;38:122-124.
8. Basch E, Deal AM, Kris MG, et al. Symptom monitoring with patient-reported outcomes during routine cancer treatment: a randomized controlled trial. *J Clin Oncol.* 2016;34(6):557-565. doi: 10.1200/JCO.2015.63.0830.
9. Basch E, Deal AM, Dueck AC, et al. Overall survival results of a trial assessing patient-reported outcomes for symptom monitoring during routine cancer treatment. *JAMA.* 2017;318(2):197-198. doi: 10.1001/jama.2017.7156.
10. Zhang B, Lloyd W, Jahanzeb M, Hassett MJ. Use of patient-reported outcome measures in quality oncology practice initiative-registered practices: results of a national survey. *J Oncol Pract.* 2018;14(10):e602-e611. doi: 10.1200/JOP.18.00088.
11. Stukenborg GJ, Blackhall LJ, Harrison JH, Dillon PM, Read PW. Longitudinal patterns of cancer patient reported outcomes in end of life care predict survival. *Support Care Cancer.* 2016;24(5):2217-2224. doi: 10.1007/s00520-015-3024-y.
12. Patel SB, Akerley WL, Ose D, et al. Prognostic value of patient-reported outcomes (PROs) in advanced cancer. *J Clin Oncol.* 2018;36(suppl 30; abstr 8). doi: 10.1200/JCO.2018.36.30_suppl.8.
13. Chastek B, Harley C, Kallich J, Newcomer L, Paoli CJ, Teitelbaum AH. Health care costs for patients with cancer at the end of life. *J Oncol Pract.* 2012;8(6):75s-80s. doi: 10.1200/JOP.2011.000469.

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Conditions Are ***Better*** for Women in Oncology But More ***Work Needs to Be Done***

Inas Abuali, MD, FACP

I RECENTLY ATTENDED a CV writing workshop where the male speaker discussed how it helps to include personal information to provide your interviewer with a glimpse of who you are outside of work. He spoke about how he personally writes a blurb about being a father and how talking about his children has been a great ice-breaker in many interviews. A female colleague said she would be hesitant to do the same for fear of being judged as someone less devoted to work, pointing out that women's discussions about their home lives provoke different reactions and are associated with various biases.

Over the years, many of my colleagues have made similar statements. I distinctly remember a conversation with a friend who was told that her pregnancy was "ill-timed" and would mark the "end of her career." Many of my colleagues have voiced frustrations about vague, nonconstructive performance evaluations with scathing remarks that were not backed by any objective findings. As women, we, unfortunately, face obvious discriminatory behaviors and not-so-obvious microaggressions in our careers.

It is true that we have come a long way since 1847 when Elizabeth Blackwell, MD, was accepted into Geneva Medical College—an incident that began as a prank but that culminated in the long-delayed inclusion of women in medicine. Dr Blackwell, inspired by the death of a close friend who said her suffering would have been much alleviated if her care had been provided by a female physician, decided to apply to medical schools. As a joke, the all-male student body at Geneva voted "yes" to her application, assuming she would never join their ranks. In 1849, against all odds, Dr Blackwell was the first woman to receive a medical degree from a US medical school, paving the way for all of us who follow in her footsteps.[1]

In 2017, for the first time in US history, more women (50.7%) than men entered medical schools. Women now make up an estimated one-third of US physcians.[2]

Results from a study published in *JAMA* assessing outcomes for elderly hospitalized patients showed that female internists tended to use more patient-centered communication and provide more preventive care, and were more likely to adhere to clinical guidelines than their male counterparts.

The difference in clinical practice may translate into a difference in patient outcomes. The investigators

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concluded that patients treated by female internists had lower mortality and fewer readmissions.[3]

Despite the strides made by women over the past 170 years, significant disparities remain, especially in academic medicine. Medical education literature has looked at bias during evaluation of female trainees, including polarizing and contradictory feedback and preconceived notions regarding how women are expected to conform to certain stereotypes.

Many institutions report the "leaky-pipeline" phenomenon, in which women faculty drop out at earlier professional levels, leading to their underrepresentation in advanced leadership positions. This talent drain has been attributed to conflicts between work and family responsibilities, disparities in recognition of efforts, inequalities in promotion opportunities, and lack of mentorship.[4]

More recently, results from a survey of sexual harassment and gender disparities among gynecologic oncologists were presented at the 2019 American Society of Clinical Oncology (ASCO) Annual Meeting. Lead author Marina Stasenko, MD, a clinical fellow in gynecologic oncology at Memorial Sloan Kettering Cancer Center, and colleagues found that 71% of female respondents reported experiencing some form of sexual harassment during their training including sexist, offensive remarks; unwanted sexual advances; and being asked for sexual favors in exchange for academic advancement.[5]

Although respondents said there was a workplace policy on how to report this behavior, most did not report the incidents due to fear of reprisal or concern of nonaction. Furthermore, women reported being denied opportunities for training and career advancement and receiving lower performance evaluations compared with their male peers, solely based on gender.

Nevertheless, it is an incredibly exciting and rewarding time to be a female oncologist, and awareness is growing about the unique challenges we face. Institutions are now openly acknowledging the gender gap and implementing various corrective initiatives, such as increased transparency regarding hiring decisions and professional advancement, ensuring a more equal representation of women in various committees, and education regarding unconscious biases that may be at play.

As a hematology/oncology trainee and early career physician, here are a few resources I personally find helpful:

Both the American Society of Hematology and ASCO have championed initiatives dedicated to improving diversity and inclusion in the hematology/oncology workforce. Each organization's annual meeting includes unique networking opportunities for women. Furthermore, special funding is available through Women Who Conquer Cancer, a program run by the ASCO Foundation nonprofit Conquer Cancer, that offers grants to young women researchers and clinical investigators to support their academic careers.

Social media has become a powerful tool for connection, with both Facebook and Twitter serving as forums to connect women, providing support and networking at all stages of your career.

Join your local women in medicine group. Most institutions have one. If you can't find one, then consider starting one. Such groups provide space to discuss challenges and explore solutions with your colleagues, forge friendships, and create an invaluable support system.

Finally, remember to always pay it forward. No matter where you are in your career, there is always someone more junior who can use a mentor. An empowered woman can empower other women. Many professional societies, including ASCO, have a formal mentoring program, which is a great way to get involved.

As the saying goes, "Behind every successful woman is a tribe of other successful women who have her back." Not only is that true, but it is imperative that our male colleagues also acknowledge our unique obstacles and take active steps to correct deeply ingrained biases and create a more collaborative and inclusive environment. It is essential that we, women *and* men, support each other in overcoming the gender disparity that still exists in our field and help pave the way for the incoming generation of women in oncology. ■

REFERENCES

1. Markel H. How Elizabeth Blackwell became the first female doctor in the U.S. *PBS Newshour* website. to.pbs.org/1JZfCbg. Published January 23, 2014. Accessed October 15, 2019.
2. More women than men enrolled in U.S. medical schools in 2017 [news release]. Washington, DC: Association of American Medical Colleges; December 18, 2017. news.aamc.org/press-releases/article/applicant-enrollment-2017/. Accessed October 15, 2019.
3. Tsugawa Y, Jena AB, Figureroa JF, Oray EJ, Blumentha DM, Jha AK. Comparison of hospital mortality and readmission rates for Medicare patients treated by male vs female physicians. *JAMA Intern Med.* 2017;177(2):206-213. doi: 10.1001/jamainternmed.2016.7875.
4. Sklar, DP. Women in medicine: enormous progress, stubborn challenges. *Acad Med.* 2016;91(8):1033-1035. doi: 10.1097/ACM.0000000000001259.
5. Stasenko M, Tarney CM, Veith M, et al. Survey of sexual harassment and gender disparities among gynecologic oncologists. *J Clin Oncol.* 2019;37 (suppl; abstr LBA10502). ascopubs.org/doi/abs/10.1200/JCO.2019.37.18_suppl.LBA10502?af=R.

Rahul S. Shinde, DVM, PhD
Caspar Wistar Fellow
The Wistar Institute

TAKING THE *FAST TRACK* TO INDEPENDENCE

I HAVE LONG DREAMED of operating my own laboratory and serving as a leader in scientific research. Toward the end of my postdoctoral fellowship in the Tumor Immunotherapy Program at Princess Margaret Cancer Center in Toronto, Canada, I published my first high-impact research paper in *Nature Immunology*. I began looking for opportunities in academia and saw ads for the new Caspar Wistar Fellows Program. What an intriguing opportunity to transition from postdoctoral fellow to independent scientist, I thought.

The Wistar Institute has an illustrious history, and I had always wanted to work at such an esteemed institution. I conducted further research and found the program was indeed a chance to enter a top research environment and take an accelerated path toward independence as a principal investigator (PI). I could refine my skill set and mature professionally while launching my own research program in a great academic setting and city.

When considering a fellowship, think about your goals: Where are you in your career? Where are you trying to go? What are the cultural values of the organization you're considering? Who will be your mentor and guide your career? What is the environment beyond the organization? Can you reach out, collaborate, and meet other like-minded scientists at nearby institutions?


Rahul S. Shinde, DVM, PhD

I joined Wistar as the first Caspar Wistar Fellow in June 2019 and moved to Philadelphia. It was a great honor and a very exciting time to join a boundary-pushing biomedical research institute with a rich history of discovery in cancer and immunology, vaccine creation, and infectious disease research. I'm getting to know the city's robust and collaborative life sciences community and setting up my laboratory. I hired my first assistant in September.

A fast-tracked PI is quite different from a postdoctoral fellow. As a PI, I run my lab like my own business; for the first time, I have sole responsibility for managing funds and hiring people.

As a postdoctoral fellow, I was usually in charge of 1 main project and 1 side project, so it's been an exciting leap at Wistar. On the fast track to a PI, I think and act with a much broader perspective. I get to

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choose and develop my own projects, and I'm currently working on 4. It's important that I know the ins and outs of my field, so I've always got my head in a journal. I'm drafting foundation grants and preparing to submit federal grants by next summer. And of course, I will be working hard to publish my first paper as corresponding author.

I have joined the Immunology, Microenvironment, and Metastasis Program, and I'm part of a uniquely collegial, interdisciplinary scientific environment with very strong expertise in tumor immunology that will be a critical source of know-how and guidance as I explore my own scientific hypotheses.

> **"I run my own lab like a business; for the first time I have sole responsibility for managing funds and hiring people."**
>
> — RAHUL S. SHINDE, DVM, PHD

My research centers on therapy options for patients with pancreatic cancer, which are consistently limited and largely ineffective. I am interested in characterizing molecular mechanisms that control macrophage immunosuppressive behavior and developing tools to target and open new therapeutic avenues for the disease.

Pancreatic cancer is surrounded by a highly immunosuppressive tumor microenvironment (TME) with a dense fibrotic stroma that limits drug penetration and effector T-cell responses. Macrophages are a major immune cell infiltrate, important for driving immunosuppression, T-cell dysfunction, and profibrotic events.

One facet of my research is exploring how alterations in the cell metabolism of macrophages affect their function. My findings so far highlight the importance of branched-chain amino acids (BCAAs) and their catabolism mediated by Kruppel-like factors (KLFs) in shaping the functional responses of macrophages in the tumor. My lab is interested in expanding our knowledge of KLF biology and BCAA catabolism in macrophages affecting cancer progression and therapy resistance.

Additionally, commensal microbiota are critical in shaping the TME and tumor progression. Recent advances in the field indicate that host, dietary, and environmental factors contribute to changes in the microbiome. I am interested in identifying key factors that influence the healthy-symbiotic or disease modulating–dysbiotic microbiome and contribute to the refractory nature of the disease to eventually target these factors for therapies.

Beyond thinking about my research, I'm surrounded and learning from Wistar's scientific leadership. I have regular meetings with Dmitry Gabrilovich, MD, PhD, the Christopher M. Davis Professor and leader of the Immunology, Microenvironment, and Metastasis Program, and David B. Weiner, PhD, executive vice president, director of the Vaccine & Immunotherapy Center, and the W.W. Smith Charitable Trust Professor in Cancer Research.

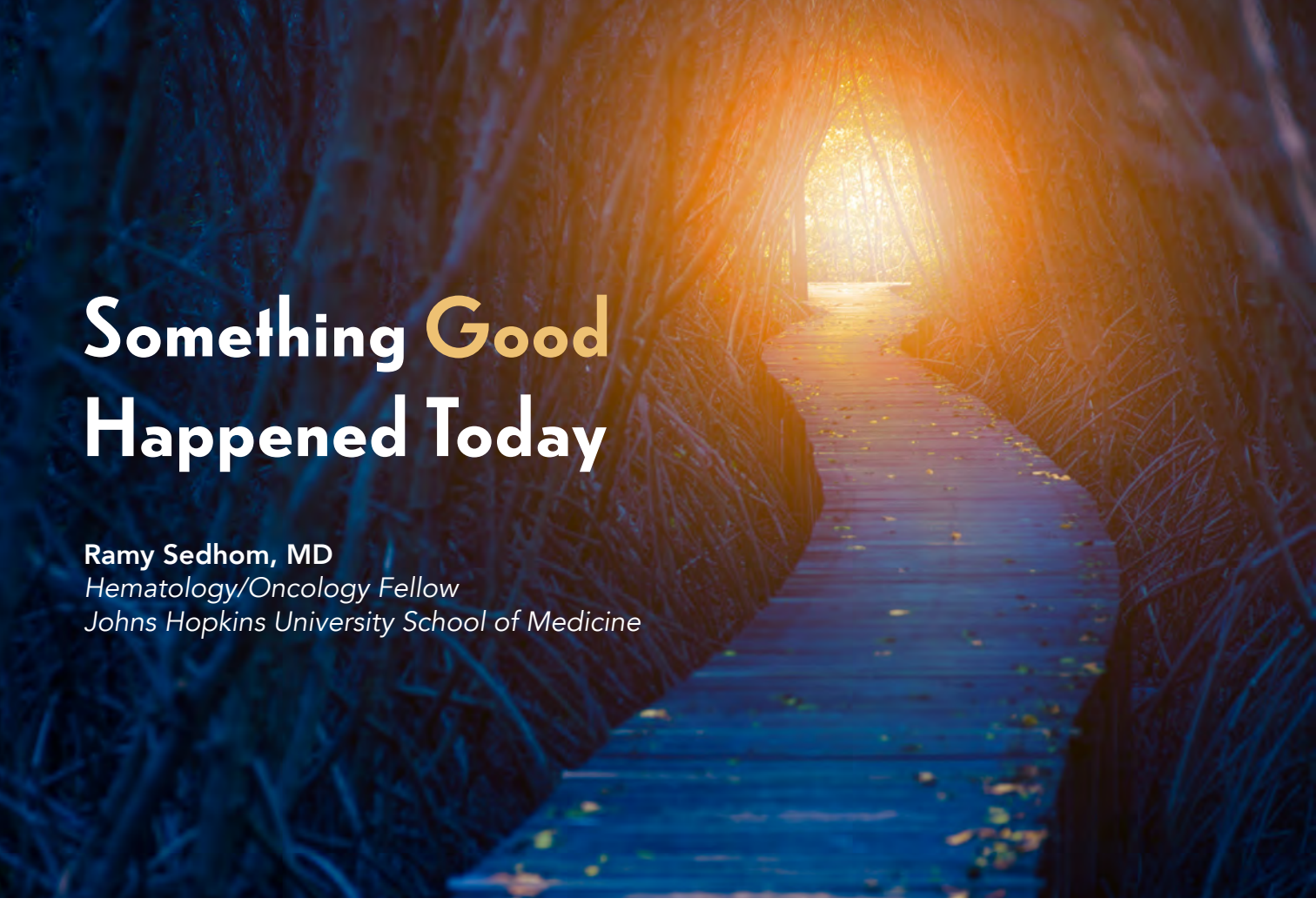
The vibrant atmosphere at Wistar is helping me begin collaborations with Wistar faculty as well as scientists at the University of Pennsylvania. I continue scientific exchanges with my mentors, Tracy McGaha, PhD, at the University of Toronto, and David Munn, MD, at Augusta University's Georgia Cancer Center.

The Caspar Wistar Fellows Program is providing me with the best foundation to succeed. I'm gaining momentum and advancing my academic career with mentoring from top scientists in my field, in an environment that nurtures collaboration, creativity, and excellence. I look forward to obtaining federal grant funding and publishing quality research in top-tier journals. I want to achieve the skill sets needed to establish an innovative lab, solve key questions in the field of cancer, and one day, repay my good fortune by mentoring future generations of scientists. ■

Fellowship Opportunity at the Wistar Institute

In the spring of 2020, the Caspar Wistar Fellowship will be seeking promising, early-career scientists who are ready to transition from postdoctoral training to independence. Fellowship appointments last for 3 years and include start-up funds to support the establishment of a new laboratory and the possibility of promotion. Fellows receive mentoring from senior faculty members, but have the freedom to pursue their scientific interests.

Visit wistar.org/casparwistarfellows to learn more.



Something Good Happened Today

Ramy Sedhom, MD
Hematology/Oncology Fellow
Johns Hopkins University School of Medicine

THE OTHER DAY, I had the chance to reflect on my first year of oncology fellowship. Looking back, there is a craziness to it all that is hard to explain unless you experience it. I want to share reflections from what seemed like a typical day, with some advice for first-year fellows and trainees.

Alarm at 5 AM. Get dressed. Grab breakfast on the go. Chug a triple-shot espresso.

I am one of the first cars in the hospital parking lot and one of the last out. I wonder if and when things will get easier. I make up in hours what I surely lack in experience. Chemotherapeutics, genomics, and controversies on Twitter over *P* values. Too much to learn each day. I'm thankful podcasts exist to consolidate my learning.

I take the stairs up to the fellow room. This is the peak of my exercise routine. I sign into the medical record to review patient charts. My colleague asks why I look so tired. I don't answer. Doesn't he know why?

The fatigue, physical and emotional, adds up. Training to be an oncologist has made me, at times, an absent friend and a preoccupied husband. I tell myself it is worth it. We all have friends who suffered from cancer. There is meaning in this profession.

There are 19 patients today who are admitted with a variety of solid tumors. All of their ailments make my complaints seem trivial. Their loved ones sleep on couches, and the patients who can sleep barely get any rest because we constantly interrupt them with blood pressure checks.

I start my rounds, and each visit begins with the typical, "How are you doing today?" The question often seems rhetorical. Most of our patients don't like to complain, and we never have enough time to really engage anyway. We triage through who can go home, who has an impending emergency, and who needs more investigation.

Two cups of coffee later, the nurses remind me it's time for discharge rounds with social work. We discuss the diagnosis, prognosis, and discharge plans for each patient. We evade talks of hospice, even though it is often on our minds. Maybe we will discuss it during the next admission.

I lose track of time, and now I'm 20 minutes late to noon lecture. Food brings my co-fellows together. It's the 1 hour of protected education. I am to learn about new advances for metastatic kidney cancer. It is during this hour when our fellowship group text

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For more practical articles from *Oncology Fellows*, go to **onclive.com/link/2375.**

flashes with puns and complaints. I send a few memes. I survey the room for smirks. Eventually, it'll all be immunotherapy. I think that was the conclusion of the lecture. I promise myself that I'll re-review the PowerPoint slides in a few weeks once I'm on my elective.

Ramy Sedhom, MD

It's time to run the list with the residents. We have many consults to call and outpatient oncologists to touch base with. I begin my first email:

Dear Doctor: Your patient is unfortunately admitted with new-onset ascites. Her scans suggest disease progression. We have shared the bad news. We hope to tie in a few things before discharge to prep for your next visit with her and her family. Let us know if there is anything else you'd like us to coordinate while she is admitted. social work and palliative care have been by to see her. Thank you.

I wonder how many of these emails it took before bad news became routine for me. At some distant time, the suffering of both patient and family was palpable. I can't remember when that feeling went away.

> **"We discuss the diagnosis, prognosis, and discharge plans for each patient. We evade talks of hospice, even though it is often on our minds. Maybe we will discuss it during the next admission."**
>
> — RAMY SEDHOM, MD

I start revisiting the patients with whom we did not have a chance to truly engage. The next hour will be the only time in my day where I am not discussing medicine. Following the advice of a mentor, I primarily engage with patients about their grandchildren, favorite movies, places to travel, and the glory of ice cream. I wish the residents had the time to join; instead, they are plagued with progress notes.

I wonder how my wife is doing. She's at home and a few weeks pregnant with our first child. We haven't had a chance yet to visit family and share the good news.

I send her a text. She has been waiting to hear from me and sends a warm note back. She asks if I'll make it home in time for dinner. I check with the charge nurse who confirms no beds for admissions today. I text back, "I think so."

I walk back to the call room and prepare for the handful of patients I will be seeing in clinic tomorrow. I then realize I forgot about Ms Jones, the new patient admitted last night. She is 85, lives alone, and lacks resources. All her children live on the West Coast. Her performance status is poor. She was too sick to discuss her condition in depth on rounds this morning, so I promised to come back later.

I pull a chair into her room to start our second visit and try to follow the script I've been taught. "Good afternoon, Ms Jones. I wanted to check in and see how you're feeling. I know we didn't get a chance to talk this morning. I'm all yours for the next few minutes before I have to circle back and check in with the team."

Selfishly, I am trying to keep this brief, hoping to finally be home for dinner.

"Doctor," she starts with a smile, "I may be an old lonely lady, but I know how this works. All of the faces this morning suggested this was going to be my last visit to the hospital. I don't need to be here. Let someone else have this bed. I've lived a good life."

When did I get so cold?

Years ago, at my medical school graduation, I received a reward for humanism. My classmates voted me as the person they'd like to care for their ailing loved ones. Is this who they expected me to be?

Today, I've fielded numerous consults. I learned the second- and third-line therapies for what was once a lethal cancer with few options. I supervised and taught our amazing residents. I shared research plans with my mentor. I prepared for journal club. I gave advice to my favorite social worker about where to eat in Italy. Yet I blew off the few minutes that truly mattered.

Later that day, after signing out, I returned to see Ms Jones. She was still smiling, and it seemed as if she knew I'd return. She was ready to speak and I to listen.

After nearly a year, the experiences with patients are what truly matter in oncology training. We all want to learn how to treat, but it is more important to teach yourself to care. First-line treatment may change over time, but what remains constant is this: Patients are our greatest teachers. They want to live normal lives. And they put their trust us—even when we are not deserving. ■

2020 Oncology Conferences

February 3-5
European Society for Medical Oncology (ESMO) Sarcoma and GIST Symposium 2020
Milan Marriott Hotel
Milan, Italy
bit.ly/2NIXy5N

February 4
State of the Science Summit™: Breast Cancer
TBD
Falls Church, VA
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February 6-8
American Society of Clinical Oncology–Society for Immunotherapy of Cancer Clinical Immuno-Oncology Symposium
Rosen Shingle Creek
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Westin Snowmass Resort
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February 13-15
Genitourinary Cancers Symposium
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February 14-16
ESMO Summit Africa 2020
Century City Conference Centre
Cape Town, South Africa
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February 20
State of the Science Summit™: Lung Cancers
TBD
Scottsdale, AZ
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February 26-28
6th Annual Immuno-Oncology 360º
Crowne Plaza Times Square
New York, NY
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February 27
State of the Science Summit™: Genitourinary Cancers
New York Marriott East Side
New York, NY
onclive.com/meetings/soss

February 27-29
2020 Multidisciplinary Head and Neck Cancers Symposium
Westin Kierland Resort and Spa
Scottsdale, AZ
bit.ly/2Jwjfik

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2020 Oncology Conferences (continued)

February 27-March 1
***24th Annual* International Congress on Hematologic Malignancies®: Focus on Leukemias, Lymphomas, and Myeloma**
Eden Roc Miami Beach
Miami Beach, FL
onclive.com/link/6615

March 2-4
ESMO Targeted Anticancer Therapies Congress 2020
Palais des Congrès de Paris
Paris, France
bit.ly/36c3BCB

March 2-5
The Evolving Landscape of Cancer Modeling
Hard Rock Hotel San Diego
San Diego, CA
bit.ly/2WmhYzs

March 4-6
Association of Community Cancer Centers 46th Annual Meeting & Cancer Center Business Summit
Washington Hilton
Washington, DC
bit.ly/36gQNuv

March 5-7
Asian Oncology Society 1st International Conference
SMX Convention Center
Pasay City, Philippines
aos2020.com.ph

March 5-8
***37th Annual* Miami Breast Cancer Conference®**
Fontainebleau Miami Beach
Miami Beach, FL
onclive.com/link/6616

March 10
State of the Science Summit™: Gastrointestinal Malignancies
TBD
Dallas, TX
onclive.com/meetings/soss

March 13-14
New York GU *13th Annual* Interdisciplinary Prostate Cancer Congress® and Other Genitourinary Malignancies
The Roosevelt Hotel
New York, NY
onclive.com/link/6617

March 18-21
The Annual Assembly: Hospice and Palliative Care 2020
San Diego Convention Center
San Diego, CA
bit.ly/2WnR4r3

March 21
***5th Annual* School of Gastrointestinal Oncology™ (SOGO®)**
MGM National Harbor
Oxon Hill, MD
onclive.com/link/6618

March 25-28
Society of Surgical Oncology 2020 International Conference on Surgical Cancer Care
Hynes Convention Center
Boston, MA
bit.ly/347REM4

March 26-29
2020 Leading Edge Urology: 52nd Duke Urologic Assembly & Urologic Cancer Symposium
Omni Hilton Head Oceanfront Resort
Hilton Head, SC
bit.ly/2pf7jL4

March 28-31
Society of Gynecologic Oncology 2020 Annual Meeting on Women's Cancer
Metro Toronto Convention Centre
Toronto, ON, Canada
sgoannualmeeting.org

April 2-4
7th Immunotherapy of Cancer Conference
Klinikum der Universität München
Munich, Germany
itoc-conference.eu

April 3-4
2020 Summit on National & Global Cancer Health Disparities
Hyatt Regency Bellevue
Bellevue, WA
bit.ly/36d0Dxw

April 15-18
European Lung Cancer Congress 2020
Palexpo
Geneva, Switzerland
bit.ly/2MXYgXZ

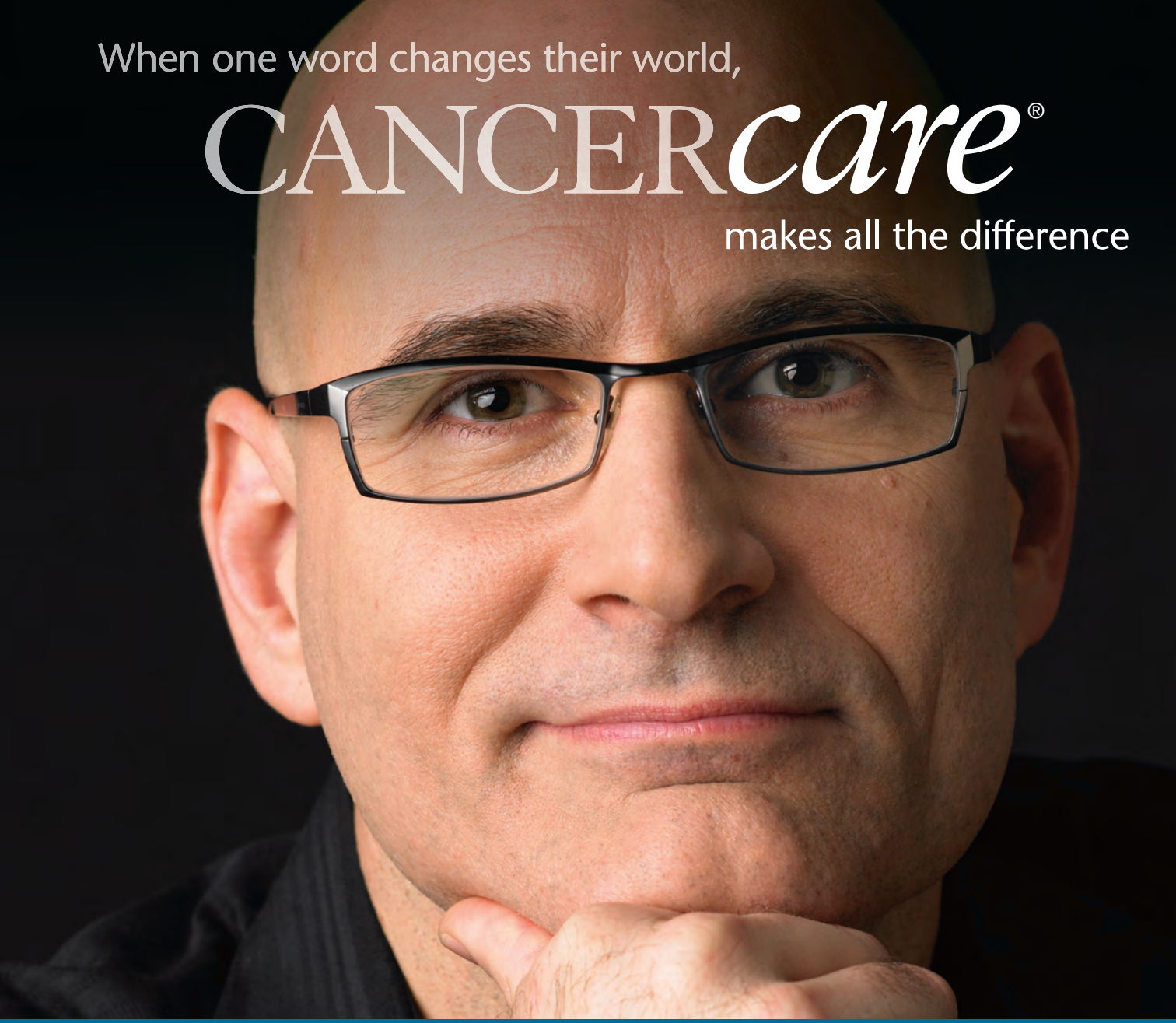
April 17
8th Annual Symposium on Global Cancer Research
Washington Hilton
Washington, DC
bit.ly/2prrhC6

April 17-18
***2nd Annual* Precision Medicine Symposium: An Illustrated Tumor Board**
InterContinental New York Barclay
New York, NY
onclive.com/link/6620

April 23
State of the Science Summit™: Hematologic Malignancies
TBD
Pasadena, CA
onclive.com/meetings/soss

April 23
State of the Science Summit™: Ovarian Cancer
TBD
Cincinnati, OH
onclive.com/meetings/soss

April 23-24
2020 Community Oncology Alliance Annual Conference
Walt Disney World Dolphin Hotel
Orlando, FL
bit.ly/36f5GNZ



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