

Technology and Cancer Care

BY DAVID R. PENBERTHY, MD, MBA



ACCC—the how-to organization for the multidisciplinary cancer care team—has a long and rich history of bringing forward technology-driven solutions. More than a decade ago in 2011, ACCC

created its Innovator Award program to recognize visionary ideas and compelling solutions in oncology. MultiCare Health System, MultiCare Regional Cancer Center was recognized for leveraging technology to enhance the patient experience—a significant investment that included a health system-wide electronic health record, audio-visual systems at each chemotherapy chair, wall-mounted monitors in all rooms, and more. That same year, Oregon Health and Science University, Knight Cancer Institute was honored for its telepharmacy program, which used remote medication verification technology to reduce risk, improve safety, and save millions of dollars. The next year, 2012 ACCC Innovator Award Winners Fox Chase Cancer Center implemented bed management software to streamline scheduling and resolve capacity issues and Ruttenberg Cancer Center adopted a web-based tracker to manage patient registration and reduce treatment delays.


Flash forward 10 years to 2021 ACCC Innovator Award Winners Mercy Cancer Care and Tennessee Oncology for their use of predictive algorithms to reduce emergency department visits and hospital admissions and to proactively identify patient co-morbidities.

The science of oncology is exploding, and keeping up with all the information is a daunting task. As oncology providers, we are exceptional at engaging with patients, and an opportunity exists to use technology like artificial intelligence-driven practice support tools and patient wearable devices to free up our time so we are better able to focus on critical issues like shared medical decision-making, improving care to underserved and marginalized patients, increasing clinical trial participation, and—most important—delivering person-centered care. Last year's ACCC Innovator Award Winners showed us just how to do so:

- The University of Colorado Cancer Center, UHealth-Oncology Services implemented virtual reality technology to show patients their tumor, its location, and its size, as well as how their radiation treatment plan will work, the size of the radiation beam, and where it will target.
- Wayne State University School of Medicine: Karmanos Cancer Institute developed its Discussions of Cost mobile application to improve doctor-patient discussions around costs of care.
- Inova Schar Cancer Institute used common technology like iPads to remotely monitor COVID+ patients with cancer, keeping these immuno-compromised patients safe and out of hospitals.

In addition to using technology to deliver better, smarter, and more efficient care; standardize and improve clinical decision-making; drive down costs; and deliver person-centered care, we have an opportunity to use technology to help mitigate the oncology workforce shortages we are all experiencing. At our 2022 retreat, the ACCC Board of Trustees had a lively discussion on just this topic. One board member shared how moving services like billing and prior authorization to a remote work model helped to not only retain staff but also increase productivity! Others shared how technology, such as remote check-in apps and self-serve kiosks, alleviated workforce shortages when front office staff were lured away by higher-paying jobs. From this brief conversation, it is clear that we have the opportunity—no, the need—to reimagine how we deliver cancer care.

Accordingly, on March 4, at the ACCC 48th Annual Meeting and Cancer Center Business Summit, I announced that my ACCC 2022-2023 President's Theme would be "Leveraging Technology to Improve Cancer Care Delivery and the Patient Experience."

The future is now. For the next 12 months, ACCC will inquire about pain points and opportunities for improving workflows and the patient experience to understand the current state of cancer care delivery. ACCC will then serve as a conduit to collect and disseminate large and small technology-driven solutions to help cancer programs and practices move toward an ideal future state. This journey is just beginning. 

Coming in Your 2022 ONCOLOGY ISSUES

- ▶ Auricular Acupuncture for the Treatment of Cancer-Related Pain
- ▶ Cannabis in Cancer Research and Creating a Patient Education Clinic
- ▶ An APP-Physician Model Improves Risk Stratification and Palliative Care
- ▶ Oncology Capture of ED Patients with Incidental Radiologic Findings
- ▶ A Comprehensive Oncology Program for Elders (COPE)
- ▶ Meeting NCCN Guidelines for Genetic Counseling Referrals Among Cancer Registry Patients: An Ohio Study
- ▶ Best Practices for Development of a Successful Cardio-Oncology Program in a Community Hospital
- ▶ Improving Care of Patients with Lung Cancer and COVID-19
- ▶ Meeting Women's Sexual Health Needs After a Cancer Diagnosis and Treatment
- ▶ A Study of Genetic Counseling Referrals Among Cancer Registry Patients Meeting NCCN Guidelines
- ▶ The Effect of the "Living Well After Cancer" Program on Physical and Metabolic Health: A Community-Based Feasibility Study