Oncology Nurses and the Cancer Moonshot 2020

When Vice President Joe Biden’s son, Beau, died of a brain tumor in May 2015, the Vice President’s grief was profound. Yet, his grief generated an idea, a big idea: Let’s collaborate and focus the talent and resources in our country to eliminate cancer as we know it. When Vice President Biden shared his idea with President Barack Obama in the fall of 2015, not only did President Obama endorse the idea, he announced the National Cancer Moonshot Initiative during his January 2016 State of the Union Address. He even asked Congress for $1 billion to fund the four-year initiative (WhiteHouse.gov, 2016).

The initiative, now known as Cancer Moonshot 2020, was modeled after the race to the moon in the 1960s. The goal is to double progress against cancer and break down silos that prevent science and industry from working together. The initiative centers around the development and implementation of new vaccine-based immunotherapies to target individual tumors based on their genomic signature.

The initiative is led by Vice President Biden, who is chair of the White House Cancer Moonshot Task Force. The task force’s focus is on coordinating mechanisms from science and industry (pharmaceutical industry, insurers, philanthropy, patient advocacy, and engagement) to accelerate progress in cancer care and the development of new treatments and preventive vaccines. The task force also is addressing regulatory barriers and improving patient access to care, including clinical trials (National Immunotherapy Coalition, 2016a).

In April 2016, Vice President Biden announced the creation of the Blue Ribbon Panel that will advise the task force (National Institutes of Health, 2016). The panel is a working group of the National Cancer Advisory Board. The 28-member panel includes researchers in genomics and cancer immunotherapy, cancer center directors, industry leaders, and patient advocates. Most notably, the only nurse on the Blue Ribbon Panel is Deborah K. Mayer, PhD, RN, AOCN®, FAAN, former president of the Oncology Nursing Society (ONS) and former editor of the Clinical Journal of Oncology Nursing. Mayer is also a professor at the University of North Carolina School of Nursing and is the Director of Cancer Survivorship at the UNC Lineberger Comprehensive Cancer Center.

The focus areas for Cancer Moonshot 2020 include data sharing, cancer cell genomics, immunotherapy, pediatric cancers, and preventive vaccines. Data sharing is a key feature and includes a trial called QUILT (Quantitative Integrative Lifelong Trial). The goal of QUILT is to sequence the genomes of 100,000 people with cancer and enroll 20,000 patients with 20 different cancers (including breast, lung, prostate, and pancreatic cancers) in clinical trials with next-generation immunotherapies (National Immunotherapy Coalition, 2016b). QUILT will test novel combinations of vaccines and traditional treatments, such as chemotherapy and radiotherapy, to harness all elements of the immune system and target specific tumor types.

Given the lofty goals of Cancer Moonshot 2020, what is the role of oncology nurses in implementing these new vaccines? According to Brenda Nevidjon, RN, MSN, FAAN, chief executive officer of ONS, the voice of oncology nursing in Cancer Moonshot 2020 is the voice of patients, families, and caregivers. Oncology nurses drive person-centered cancer care and advocate for patients at the point of care and on national panels. ONS members serve on standing committees, such as the National Cancer Advisory Board (Deborah Bruner, RN, PhD, FAAN), the National Scientific Advisory Panel (Carol Ferrans, PhD, RN, FAAN), and the National Cancer Policy Forum (Carlton G. Brown, PhD, RN, AOCN®, ANA-BC, FAAN). In addition, ONS members (Kathi Mooney, PhD, RN, FAAN, Christine Miaskowski, RN, PhD, FAAN, Jeannine Brant, PhD, APRN, AOCN® , FAAN, and Angelique Richard, PhD, RN) and executive leadership (Nevidjon) serve on the working groups for Vice President Biden's Blue Ribbon Panel. Other members, such as ONS President Susan Schneider, PhD, RN, AOCN®, FAAN, have been involved in roundtable discussions with Vice President Biden to bring the voice and expertise of oncology nurses to national discussions.

At the point of care, oncology nurses know that new treatments and clinical trials affect patient care and require extra vigilance. We are at the forefront...
of implementing care—from identifying patients who may be candidates for new clinical trials to assessing and managing symptoms from new treatments. We carefully educate patients and families and caregivers to promote adherence to recommended care and support decision-making. Nowhere is this more true than addressing the side effects of the newest pillar of cancer treatment, immunotherapies.

The treatment for side effects from traditional chemotherapies may no longer be effective or appropriate for the adverse effects from treatments that target the immune system. For example, diarrhea from traditional chemotherapy is usually treated with loperamide (Imodium®) and hydration and may not change the regimen or dosing. Diarrhea from immunotherapies may be a sign of severe immune-mediated colitis that may indicate the need to stop treatment or risk toxic megacolon or, worse yet, perforation. Nurses will need to obtain additional education and training to care for patients receiving new and combined treatments, so they can provide high-quality and safe care at the chairside and bedside.

Oncology nurses care for patients with cancer from the time of diagnosis and throughout treatment, as well as provide care and comfort at the end of life. In fact, we spend more time with patients than any other healthcare provider (Ferrell, Grant, Ritchey, Ropchan, & Rivera, 1993). With ONS members present at national practice and policy tables, we can advocate for person-centered care at the highest levels. We are experts at symptom management, patient education, and supportive care for patients with cancer and their families and caregivers. With one voice, we can advocate for high-quality cancer care and guide policy decisions at the national level. Cancer Moonshot 2020 will change the complexity of cancer care, and we must be prepared to advocate for patients and provide the highest quality cancer care. I encourage you to work with ONS leaders to bring the voice of oncology nursing—person-centered cancer care—to our national panels, so we can safely deliver the best new treatments to our patients.

References