More People Living With HIV and Cancer Should Get Appropriate Cancer Treatment, According to New Guidelines

NCCN has released brand new NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) intended to help make sure people living with HIV (PLWH) who are diagnosed with cancer receive safe, necessary treatment. In 2010, an estimated 7,760 PLWH in the United States were diagnosed with cancer, representing an approximately 50% higher rate than the general population.¹ However, studies have found PLWH are treated for cancer at significantly lower rates than HIV-negative people with cancer, despite most treatment courses being safe and effective in this population.^{2,3}

“The disparity in cancer care is large and significant. For most cancers, PLWH are 2- to 3-times more likely to receive no cancer treatment compared with uninfected people,” said Gita Suneja, MD, Duke Cancer Institute. Dr. Suneja is Co-Chair of the NCCN Guidelines Panel for Cancer in PLWH. “Although we don’t yet know all the reasons for these large differences in cancer treatment, the lack of clinical management guidelines available to clinicians has been shown to be one contributing factor.”⁴

The most common types of cancer occurring in PLWH are, in order of incidence: non-Hodgkin’s lymphoma, Kaposi sarcoma, lung cancer, anal cancer, prostate cancer, liver cancer, colorectal cancer, Hodgkin lymphoma, oral/pharyngeal cancer, female breast cancer, and cervical cancer. The new NCCN Guidelines for Cancer in PLWH includes general advice—while highlighting the importance of working in collaboration with an HIV specialist—as well as specific treatment recommendations for non-small cell lung cancer, anal cancer, Hodgkin lymphoma, and cervical cancer. Additional recommendations can be found in the recently released NCCN Guidelines for AIDS-Related Kaposi Sarcoma as well as the AIDS-related B-cell lymphomas section of the NCCN Guidelines for B-Cell Lymphomas.

“The ultimate goal is to improve cancer survival among PLWH,” said Dr. Suneja. “With modern antiretroviral therapy (ART), PLWH are living longer and therefore getting more cancers related to both HIV infection and aging. The bottom line is that the cancer burden is growing—in fact, cancer is quickly becoming the leading cause of death in PLWH—so we urgently need to improve cancer treatment in this population.”

Among the recommendations found in the new NCCN Guidelines:

- Most PLWH who develop cancer should be offered the same cancer therapies as HIV-negative individuals, and modifications to cancer treatment should not be made solely on the basis of HIV status.
- Care for patients diagnosed with HIV should be comanaged with an oncologist and an HIV specialist (visit locator.hiv.gov to find local specialists in the United States).
- Oncologists and HIV clinicians, along with HIV and oncology pharmacists, if available, should review proposed cancer therapy and ART for possible drug-drug interactions and overlapping toxicity concerns prior to initiation of therapy.

“One of the most important points we want providers to be aware of surrounds the potential for drug interactions and overlapping toxicities between cancer therapeutics and ART,” said Erin Reid, MD, UC San Diego Moores Cancer Center. Dr. Reid is Co-Chair of the NCCN Guidelines Panel for Cancer in PLWH and Vice-Chair of the AIDS Malignancy Consortium Lymphoma Working Group. “Some antiretroviral-cancer therapeutic combinations have serious risk of increased toxicity, although others may reduce levels of either cancer therapeutics or antiretrovirals. The good news is that with the expansion of antiretroviral combinations available, there is opportunity to minimize these risks by modifying ART during cancer treatment.”

Dr. Reid also notes: “Another major area of concern oncology providers have in managing cancers in PLWH involves risk of infectious complications. The guidelines

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address infection prophylaxis considerations, including specific recommendations for PLWH receiving cancer therapy for whom profound immunosuppression/myelosuppression is anticipated.”

“Treating PLWH for cancer is a relatively new concern. It’s both a testament to the successes of HIV treatments in recent years and a reminder that the quest for healthier outcomes is ongoing,” said Robert W. Carlson, MD, Chief Executive Officer, NCCN. “That’s why at NCCN we are always seeking new ways to expand and update the resources that we offer.”

The NCCN Guidelines Panel for Cancer in PLWH included oncologists, radiologists, infectious disease specialists, surgical oncologists, pharmacists, and a patient advocate. The panel stressed the importance of increasing the number of PLWH who participate in clinical trials for cancer treatments. Clinicians working with PLWH who have cancer should use ClinicalTrials.gov to help patients find appropriate trials.

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NCCN Engages Envision Pharma Group to Support Their Oncology Research Program Using iEnvision—A New Web-Based Software Platform for Medical Programs

The NCCN Oncology Research Program (ORP) recently announced the selection and implementation of the iEnvision medical affairs platform developed by Envision Technology Solutions. NCCN ORP supports research through collaborations with pharmaceutical companies and by drawing on the expertise of investigators from leading cancer centers. iEnvision is a Web-based software platform specifically designed and developed to support multiple medical affairs–related programs of activity, including, as in this case, investigator-led studies.

NCCN chose the iEnvision platform to help manage the multiple research projects supported within the ORP. NCCN values the iEnvision platform’s simple and intuitive system for use by investigators/applicants, pharmaceutical industry grant providers, and internal staff. Although NCCN did require minor adaptations to the industry standard iEnvision configuration usually used by pharmaceutical companies to manage investigator-led research, the platform did not require extensive customization in order to support the NCCN ORP process.

“Switching to Envision’s Web-based system has allowed the ORP to streamline our process for managing proposals and investigator-initiated clinical trials, making it easier to manage research that will improve patient’s quality-of-life and reduce cancer-related deaths,” said Susan Most, RN, MBA, Director of Clinical Operations, NCCN ORP.

NCCN has now launched their iEnvision-based solution and migrated active studies into the system. NCCN will use the system to process approximately 50 proposal submissions and manage 70 active studies annually, and to communicate directly from within the system with the pharmaceutical companies who provide the research grants.

Kelli Walker, Envision’s Director of Platform Strategy, added, “We are pleased to have been able to provide the adaptation of our industry standard study management

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iEnvision module for NCCN, supporting their industry-wide coordination of important, independent oncology research.”

NCCN anticipates that the iEnvision-based system will enable the management of their studies in an efficient manner, with the ability to upgrade and make changes to the system annually. iEnvision will facilitate a consistent experience for grant applicants, NCCN staff, and peer reviewers, leading to a more effective study selection process, and ultimately contributing to better patient care.

Leading Cancer Organizations Provide Guidance on Understanding and Managing Immunotherapy Side Effects

Immunotherapy with immune checkpoint inhibitors is the first of a new generation of immunotherapy treatments, revolutionizing treatment for many different types of cancer. By unleashing the body's immune system to attack cancer, these treatments can send even the most hard-to-treat cancers into lasting remission.

Patients who receive immune checkpoint inhibitors, however, may experience a unique set of side effects. These side effects can involve multiple organs and, although typically mild, can sometimes be severe, irreversible, or life-threatening. Given that these therapies have entered the clinic fairly recently, few clinicians are experienced in recognizing and treating associated side effects.

New guidelines developed collaboratively by ASCO and NCCN offer clinicians much needed recommendations for assessment and management of side effects related to immune checkpoint inhibitors.

“With rapidly increasing use of immune checkpoint inhibitors, it is imperative that clinicians are knowledgeable about their unique toxicity profiles,” said Clifford A. Hudis, MD, Chief Executive Officer, ASCO. “These new guidelines from ASCO and NCCN will help our community continue to provide the highest quality of care to all patients as they incorporate these agents into routine care.”

Several checkpoint inhibitors have already been FDA-approved for various cancers, including melanoma, Hodgkin lymphoma, and lung, liver, kidney, and bladder cancers. The use of checkpoint inhibitors is continuously expanding to more indications, along with the development of new checkpoint inhibitors and combinations.

“The real winners here are patients whose healthcare teams now have high-quality, collaborative guidelines from ASCO and NCCN to minimize treatment toxicity and optimize outcomes,” said Robert W. Carlson, MD, Chief Executive Officer, NCCN. “Although novel immunotherapies allow for life-extending therapy for selected forms of cancer, their success is associated with potentially substantial toxicity. These side effects are different from other forms of anticancer therapy and require rapid and appropriate recognition and treatment. NCCN has been pleased to collaborate with ASCO on developing strategies and collaborative guidelines for managing the toxicity of immunotherapies.”

Immunotherapy-related side effects can occur at any time and can affect any organ. The most common side effects are rash, diarrhea, low thyroid hormone, and fatigue, but they can also include inflammation of the lung, intestines, or liver; hormonal abnormalities; and kidney, heart, or neurologic problems.

“If you take the brakes off the immune system and allow it to attack cancer, it may also attack the healthy tissue in a patient's body,” said John A. Thompson, MD, Co-Director, Seattle Cancer Care Alliance Melanoma Clinic, Fred Hutchinson Cancer Research Center. Dr. Thompson is chair of the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) Panel on Management of Immunotherapy-Related Toxicity, as well

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as Co-Chair of the expert panel that developed the ASCO guideline. “Fortunately, most of the side effects are reversible, but early recognition and proper treatment are critical.”

To develop the guidelines, ASCO and NCCN convened multidisciplinary panels with representation from medical oncology, dermatology, gastroenterology, rheumatology, pulmonology, endocrinology, urology, neurology, hematology, emergency medicine, and nursing, as well as patient advocacy experts. The clinical recommendations are based on systematic review of literature and an informal consensus process. These guidelines pertain only to immune checkpoint inhibitors, not to other types of immunotherapy. NCCN will update its guidelines continuously as data evolve and plans to include toxicities of new CAR-T cell therapies later this year.

“Some people will brush their symptoms aside, but any unusual symptom should be reported to the doctor,” said Julie Brahmer, MD, Chair of the expert panel that developed the ASCO guideline. “These guidelines will help all providers who care for patients treated with immune checkpoint inhibitors, not just oncologists, but also emergency room and primary care doctors, assess and manage these side effects.”

Key guideline recommendations:

- In general, checkpoint inhibitors can be continued with close monitoring for mild (grade 1) toxicities, with the exception of neurologic and some hematologic toxicities.
- For moderate (grade 2) toxicities, checkpoint inhibitors should be held until symptoms and/or laboratory values revert to grade 1 levels or lower. Corticosteroids may be offered.
- For severe (grade 3) toxicity, patients should receive high-dose corticosteroids for at least 6 weeks. Extreme caution when restarting immunotherapy after a grade 3 toxicity is recommended, if it is restarted at all.
- In general, very severe (grade 4) toxicity necessitates stopping checkpoint inhibitor therapy permanently.
- Consult the guidelines directly for more specific recommendations depending on which organ is affected.

The Management of Immune-Related Adverse Events in Patients Treated With Immune Checkpoint Inhibitor Therapy: American Society of Clinical Oncology Clinical Practice Guideline and NCCN Guidelines for Management of Immunotherapy-Related Toxicities were both published recently in the *Journal of Clinical Oncology* and online with NCCN.org’s Guidelines for Supportive Care, respectively.

Patients can find information about side effects of immunotherapy at Cancer.net, or download an infographic at [NCCN.org/infographic](https://www.nccn.org/infographic). An educational video is available at <https://youtu.be/BTrlDgaNjyQ>.

ASCO and NCCN encourage feedback on their guidelines from oncologists, practitioners, and patients through the ASCO Guidelines Wiki at www.asco.org/guidelineswiki or via the NCCN submission form at [NCCN.org](https://www.nccn.org).

For embargoed copies of the guidelines, please contact Lada Krilov (ASCO) (lada.krilov@asco.org; 571-483-1377) or Rachel Darwin (NCCN) (darwin@nccn.org; 267-622-6624).

NCCN Reaches New Records for Guidelines, Resources, and Programs

More than 8 million copies of the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) were downloaded in 2017, marking a 16% increase over 2016, and setting a new personal record for NCCN. Over the past 2 years, free downloads from [NCCN.org](https://www.nccn.org) and the Virtual Library of NCCN Guidelines mobile app increased by approximately 25%.

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“Rising download numbers mean more clinicians are using the most frequently updated medical guidelines available, and that in turn means more people with cancer are receiving the highest quality care possible,” said Robert W. Carlson, MD, Chief Executive Officer, NCCN. “In 2017, many new treatment options became available for patients. NCCN’s across-the-board increases represent the hard work we do every day to keep up with the rapid pace of medical advancement.”

NCCN’s growth included several milestones throughout 2017. In October, the organization achieved a registered user count of >1 million people, nearly half of whom are based outside of the United States. The number of individuals accessing the patient-friendly versions of the guidelines, the NCCN Guidelines for Patients, also increased, with 29% more page views. The NCCN Foundation funded the release of 5 new patient guidelines, bringing the total library to 39, including 4 international translations. The NCCN Radiation Therapy Compendium was completed in 2017, as was NCCN’s Imaging Appropriate Use Criteria (NCCN Imaging AUC).

NCCN held 62 different in-person meetings and events—up approximately 27% from 2016. NCCN’s continuing education department reached nearly 14,000 medical professionals. In addition, the NCCN Oncology Research Program awarded funding to 11 different projects across the country, as part of NCCN’s ongoing efforts to investigate new ways to improve cancer care.

This past year also represented far and away the highest number of guidelines updates completed in a single year, with 150 total. Those updates were made possible thanks to time contributed by 1,355 panel members from across the 27 NCCN Member Institutions.

2017 was also a year for new collaborations. NCCN worked alongside the African Cancer Coalition, American Cancer Society, and Clinton Health Access Initiative to create the NCCN Harmonized Guidelines for Sub-Saharan Africa, which launched in November. And in February, NCCN announced plans to work together with ASCO on a new set of guidelines for the Management of Immunotherapy-Related Toxicity, which have recently been published.

“As the number of people around the world whose lives are impacted by cancer goes up every year, so does our obligation to provide them with the best care possible,” explained Dr. Carlson. “We will continue to stretch ourselves in 2018 and onward.”

NCCN’s 23rd Annual Conference will take place on March 22–24, 2018, in Orlando, Florida. It will include presentations of 3 new NCCN Guidelines, an emerging issues roundtable focused on value-based healthcare, and keynote addresses on the future trends in cancer care from Ron Kline, MD, and Lee N. Newcomer, MD, MHA.