NCCN: The Future is Bright

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As readers of JNCCN hopefully know, part of the celebration of NCCN’s 20th anniversary has included monthly “Anniversary Reflections” from those of us who have been involved with NCCN’s genesis and ongoing growth. As the present Chair of the Board of NCCN, I was asked to add my reflections to this feature, so in preparation, I reviewed the previous anniversary editorials from this year. They make compelling reading. This young organization has benefitted from an amalgam of extraordinary member institutions, visionary leadership, almost inexhaustible volunteer effort, and, finally, a dedicated staff of fewer than 100, whose work product is amazing given their small number.

The centerpiece of NCCN is the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines). The original premise that the father of these guidelines, Rodger Winn, MD, provided—evidence-based and expert-based recommendations—still stands. The format is intuitively understandable to the practicing oncologist, and the guidelines are accessed worldwide via the Internet or mobile apps. The NCCN Guidelines have been continuously useful and continually used. The fact that more than 6 million guideline downloads occurred in 2014 is a testament to their popularity.

I have had the privilege of visiting many community hospital tumor boards. A universal finding is that, when a clinical question arises, one hears, “What do the NCCN Guidelines say?” The reasons for the popularity of these guidelines are manifold: intuitive format, continual updating, translations into many languages, and, above all, rigorous development methodology based on evidence and expert consensus. The very fact that only 6% of the guidelines’ recommendations are based on Category 1 evidence1 (recommendation is based on high-level evidence [eg, randomized controlled trials] and there is uniform NCCN consensus that the intervention is appropriate) make it all the more important that expert-based consensus recommendations are available for most of the decision nodes encompassed in the guidelines. Eighty-three percent of the recommendations are Category 2A (recommendation is based on lower-level evidence and there is uniform NCCN consensus that the intervention is appropriate), and these are the decisions for which oncologists in day-to-day practice require the most guidance.

The NCCN Guidelines meet most of the Institute of Medicine’s (IOM) essential components of a trustworthy guideline. One area in which NCCN differs from the IOM is that the IOM does not recommend use of experts to develop clinical practice guidelines, whereas NCCN believes that experts are essential in the process, given the specialized and varied nature of cancer.2

In addition, the NCCN Guidelines for Patients—based on the NCCN Guidelines—are also regularly updated and are available on the Internet at NCCN.org/patients and Amazon.com. These are increasingly popular, with more than 3 million page views in 2014.

The newly introduced NCCN Framework for Resource Stratification of NCCN Guidelines (NCCN Framework) accounts for variability in clinical treatment resources worldwide. Four levels of resource stratification—basic, limited, enhanced, and maximal—will allow appropriate treatment in regions with low- and mid-level resources. At the time of writing, NCCN Framework for Cervical and Breast Cancers have been released; NCCN Framework for Hepatobiliary Cancers are expected shortly, and those for prostate cancer and melanoma are planned for the end of this year.

The next major enhancement to the NCCN Guidelines will be cancer evidence blocks that will allow at-a-glance comparisons of treatment regimens in terms of efficacy, safety, quality and consistency of evidence, and affordability. This will allow
more in-depth discussions between patients and physicians during the selection of treatment options.

The future of the NCCN Guidelines is strong. Past Anniversary Reflections have detailed the collaborative efforts NCCN has undertaken with such companies as IBM, McKesson Specialty Health, Flatiron Health, and Epic to integrate NCCN Guidelines into electronic health record systems to make them more available and useful at the point of service. However, these technologic advances, although essential, are not the most difficult hurdles for future guideline panels (and the future is now). Targeted therapies based on potentially “actionable” somatic mutations present in the tumor and detected by genomic profiling tests are increasingly being offered. Dr. Barbara Parker of Moores Cancer Center at UC San Diego, has recently described the breast cancer experience of the Molecular Tumor Board at UC San Diego. She noted that many breast tumors contain rare aberrations that are potentially targetable, and of 57 patients who underwent next-generation sequencing, no 2 patients had the same abnormalities. How do we present guidelines in this new and rapidly evolving era? I am not here to offer an answer, but the NCCN Member Institutions are at the forefront of this potential revolution, and the experts on our Guideline Panels are the ideal physician-scientists to offer ever-changing guidance in this exciting new world of oncology therapeutics.

It has been my pleasure to serve as Chair of the Board of NCCN for these past few years. The NCCN Member Institutions continue to work together in the production of the NCCN Guidelines and many other projects. I continue to see a remarkable collaborative effort, summarized in our Mission Statement: “Our mission, as an alliance of leading cancer centers devoted to patient care, research, and education, is to improve the quality, effectiveness, and efficiency of cancer care so that patients can live better lives.” The NCCN future is bright. It will be exciting to see what is ahead.

References