Abstract
In his Keynote Address at the NCCN 20th Annual Conference, Robert W. Carlson, MD, reflected on the achievements of NCCN and described how the organization will continue to grow under his leadership. Recognizing that the founding of NCCN was by a group of visionary leaders who came together 20 years ago to assure access of patients to high-quality cancer care, Dr. Carlson said “All our efforts within NCCN are focused on improving the quality, effectiveness, and efficiency of patient care, so that our patients can live better lives.” (J Natl Compr Canc Netw 2015;13:629–632)

“...All our efforts within NCCN are focused on improving the quality, effectiveness, and efficiency of patient care, so that patients can live better lives,” Robert W. Carlson, MD, NCCN’s CEO told attendees at the 20th NCCN Annual Conference.

Dr. Carlson became NCCN’s CEO in January 2013, after serving for many years as Chair of the NCCN Guidelines Panel for Breast Cancer and as a member of numerous other panels and committees. In his Keynote Address, he reflected on the achievements started before his tenure and described how NCCN will continue to grow under his leadership.

Dr. Carlson recognized NCCN’s founding by “a group of visionary leaders who came together 20 years ago to assure access of patients to high-quality cancer care.” They came from 13 different academic centers “that traditionally competed for funding, faculty, students, and patients.”

“...That commitment and focus on the patient was always central to NCCN and it continues, with our alliance now of 26 academic cancer centers,” he said.

NCCN’s Guidelines Were Visionary
The NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines), first issued in 1996, form the core of the organization’s mission. They were conceived at a time of “tremendous threats” to the practice of oncology, especially in academic centers, “by forces aimed at dictating to physicians and patients the care that would be provided,” Dr. Carlson noted.

The development of clinical practice guidelines were seen by NCCN Member Institutions as a means of ensuring that cancer centers would have a strong voice. “The aim was to convince payers that academic centers provided effective and efficient care,” he said.

The original 10 guidelines were “both complicated and visionary” for their time, and yet compared with current guidelines, “very simple,” he said. “The scientific basis and rigor with which they were developed has rapidly evolved” (Figure 1).

NCCN now works with 48 panels in which 1075 panel members develop 61 sets of NCCN Guidelines.

Some of the initial decisions regarding the NCCN Guidelines have proven to be visionary and critical to their success:

• NCCN Guidelines were provided free-of-charge on the Internet. As a result, in 2014 alone, there were 6 million downloads.
• The panels included not only experts from multiple disciplines but “fully empowered” patient advocates, who kept the information grounded to the patients’ needs.
• Recommendations were graphically displayed, across the continuum of care. This was logical, in-
“The outcome ultimately proved fully appropriate,” Dr. Carlson said. Although the treatment lacked high-level evidence, patients still had access to a potentially important treatment via the clinical trials system.

Dr. Carlson used this story to illustrate an abiding theme: “Assessment of the evidence by experts, patient access, quality care, and patient-centric decisions. These continue to be central to the heartbeat of NCCN today.”

**Used for Making Coverage Decisions**

Today, he added, the NCCN Guidelines and the NCCN Drugs & Biologics Compendium (NCCN Compendium) are used by more payers than any other documents in making coverage decisions; they have a “breadth and depth” that others lack; and they are efficient enough to be used at the point of care.

In 2008, the Centers for Medicare & Medicaid and UnitedHealthcare recognized the NCCN Guidelines and the NCCN Compendium as a means of informing their coverage decisions, creating another “inflection point” in the history of NCCN. Dr. Carlson explained, “When NCCN first formed, payers were challenging physicians and telling them what they would cover. Now, major payers were saying, ‘We think you got it right. Use your guidelines, and you can tell us what to cover.’ That was remarkable.”

**Transformative Initiatives in the Works**

“As strong and as good as the guidelines are,” Dr. Carlson continued, “we are not satisfied with where we are.” A number of special initiatives will trans-

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**Figure 1** NCCN Guidelines: 1996 versus 2015.
form the NCCN Guidelines over the next few years:

- Collaboration with IBM to create a digitally based database, moving beyond the current graphical document that cannot be processed by a computer-based system. This will ultimately be implemented across a range of clinical support systems;
- Enhanced description of efficacy, safety, data quality, and cost; and
- Resource stratification of NCCN Guidelines.

One enhancement will be a user-friendly depiction of treatment regimens. Complexity in treatment decision-making largely exists because “different patients have widely varying value systems and priorities in selecting treatment; one may focus on effectiveness and ignore safety and cost, and the other, vice versa,” he noted.

To assist health care providers and patients in understanding and selecting among their options, NCCN developed a novel method for comparing treatments that scores several characteristics on a 5-point scale (Figure 2). This allows the user to quickly scan through a large number of options and focus on the issues most important to that user. Clinicians can expect the evidence blocks to begin appearing online later in 2015.

**Coming Soon: Resource-Stratified Guidelines**

Resource stratification became an important initiative after the global burden of cancer gained recognition. Today, cancer is recognized as a problem in all resource settings. In 2012, experts estimated that 57% of cancers and 65% of cancer deaths occur in low-to-middle resource regions of the world.

Almost half the users of NCCN.org reside outside the United States, and they represent almost 200 different countries. The need for usable guidelines in other regions spurred translation of the NCCN Guidelines into multiple languages and their adaptations to different regions.

“Guidelines are developed at the maximum resource level, but we need to extend the use of NCCN Guidelines to regions with limited resources. We need to provide treatment recommendations at different resource levels, preserving the context of the full guidelines. And we need to provide a framework for using healthcare resources to efficiently improve patient outcomes,” he explained.

To this end, NCCN recognizes 4 levels of resources: basic, limited, enhanced, and maximal. Efforts are underway to resource-stratify the entire family of guidelines. A pilot project in cervical cancer shows how this will look (Figure 3). This initiative is rapidly expanding, and a library of these resource-stratified recommendations should be available by the end of 2016.

“This effort is likely to be transformative. It will make the NCCN Guidelines relevant in almost all parts of the world,” Dr. Carlson predicted.

The list of future initiatives continues to grow, with a number of projects underway with Flatiron Health (outcomes database), McKesson Specialty Health (pathways), and EPIC (chemotherapy order templates). NCCN is also expanding its family of

**Figure 2** Example of an evidence block for the NCCN Guidelines.
Abbreviations: A, affordability; C, consistency of evidence; E, efficacy; Q, quality of evidence; S, safety.
Conclusions

Dr. Carlson concluded his address by acknowledging the strengths of the NCCN Member Institutions and staff; NCCN’s collaboration with industry, the payer community, and patient advocacy groups; its partnership with the international community; and its contribution from “highly dedicated and skilled” staff.

“All these organizations and people have come together to assure we have evidence-based cancer care, access to expert care, and physician and patient choice,” he said.