Clinical pathways: are we there yet?

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For nearly a decade, The US Oncology Network has been on a journey toward the widespread use of evidence-based clinical pathways in oncology. The road has been sometimes rocky, and the path occasionally branching and uncertain. But we have recognized that enhancing value is good for all stakeholders and we are confident that with new collaborations and expanded access through technology we will be able to deliver high-quality cancer care to patients.

When we introduced pathways, some payers voiced concern that our use of pathways would actually cost them more, not less. Furthermore, some oncologists were concerned that they would be forfeiting patient outcomes and their clinical freedom to choose their own treatments for their patients based on their medical judgment. The US Oncology Network has published reassuring data to address both of those concerns.

Although we are glad that payers and oncologists are embracing the value of using pathways, we strongly believe that there should be a national standard for evidence-based care in oncology. This standard should be physician-led, offer clear recommendations, take cost of care into consideration where appropriate, and encourage enrollment in clinical trials. The emergence of companies that market pathways that might actually reverse the progress that has been made and threaten the financial and clinical independence of oncologists should be of concern to all who seek to ensure high-quality care, providers and payers alike. So, where are we now?

Enthusiasm for the benefits of following evidence-based treatment guidelines continues to grow. We attribute this in part to the publication of 2 studies that validated the benefits of The US Oncology Network Level I Pathways in regard to outcomes and cost. One of those studies, done in collaboration by The US Oncology Network and Aetna in 2010, was the first known peer-reviewed study to measure the cost-effectiveness of treatment on pathways in cancer therapy. The investigators examined the impact of adherence to Level I Pathways for the treatment of non–small-cell lung cancer in the community setting.[1] The study generated significant interest when it reported that over the course of 12 months, the average cost of care for patients who were treated on-pathway was 35% less than the cost of care for patients who were treated off-pathway. The cost difference between the 2 arms was driven primarily by the use of significantly lower-cost chemotherapy that was clinically comparable with higher-cost agents. Furthermore, there was no compromise observed in patient survival in either group.

In 2011, results were released from the second study in which the investigators used an electronic health record database and claims data from a national administrative database to evaluate the clinical outcomes and economic impact of adherence to Level I Pathways in the treatment of patients with colon cancer.[2] The results suggested that overall costs from the national claims database – including the total cost and chemotherapy cost per case – were lower for patients who had been treated on-pathway, compared with those who had been treated off-pathway. In the same study, the use of pathways was also associated with the administration of fewer lines of therapy and a lower rate of chemotherapy-related hospital admissions. Survival for patients who were treated on-pathway in the EHR database was comparable with survival reported in the published literature.

These 2 studies have given credence to the concept of pathways, and specifically to Level I Pathways, among both payers and physicians. Couple this with recent trends that highlight the benefits of standardized care throughout the

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health care continuum, and pathways are now getting the attention they deserve.

Trends in cancer care pathways

"Pathways" as a commodity and applied in new ways

Now that payers have begun to understand the benefits of Level I Pathways, there has been a recent proliferation of payer-led solutions under the banner of oncology pathways. Some payers have begun to develop their own "pathways" or have formed partnerships with other companies to carve out management of oncology care through narrowed options. Although imitation is said to be the sincerest form of flattery, it raises concerns in this instance about the commoditization of pathways and its threat to what makes them effective.

Higher variability in cancer treatment introduces unnecessary cost increases, the risk of errors, and unpredicted events,[3,4] all of which can lower the quality of care and increase its cost. The benefits of pathways are rooted in the creation of standardized care plans that are based on a thorough review of available medical science. As payers and outside vendors create tailored reinterpretations of this evidence, unnecessary variation increases. Moreover, having multiple versions of pathways for a single stage of disease would present operational and financial challenges that oncologists cannot easily bear and worse, they would be making treatment decisions based on payer criteria, not the best medical evidence. This would make gains in quality and cost of care elusive for everyone.

It has taken years to develop Level I Pathways, which are the result of a thorough process led by community oncologists. Our pathways are based on significant research data, best practices, and expected outcomes, and their purpose is clear: to improve the quality of patient care, to lead to improved outcomes, and to control the cost of care. By definition, pathways involve optimal sequencing and timing of interventions for a particular diagnosis or procedure. They are focused by stage and line of therapy to lead the oncologist to prescribe a specific treatment on the basis of the best available evidence-based recommendations. An important feature of Level I Pathways is that they also consider cost of care. When evaluating one regimen against another, efficacy is evaluated first. Toxicity is considered second, and if both efficacy and toxicity are similar, then the lower-cost regimen is preferentially incorporated into the pathway. However, reducing costs does not only benefit payers. Patients benefit as well because as financial responsibility for treatment increases, they have to bear the brunt of the rising cost of cancer care.[5]

Integrating clinical pathways into health IT

More community-based oncology practices are now in the process of implementing EHR systems. Practices that use oncology-specific systems will also have the benefit of a technological infrastructure that supports clinical pathways. In The US Oncology Network, Level I Pathways are built in to the leading oncology-specific EHR system, iKnowMed. This integration provides point-of-care decision support for pathways and clinical trials, which results in a rich data base being available for continued long-term studies and comparative effectiveness research. Unfortunately, not all EHRs can incorporate the logic to drive pathways, and updating and maintaining pathways in this setting have been difficult, which has reinforced the need for a common pathways language and platform.

Understanding the 80% rule

Our experience with using Level I Pathways has led us to believe that about 80% compliance on clinical pathways is ideal. In other words, about 80% of patients are ideally treated on clinical pathways (or clinical trials), while the remaining 20% appropriately benefit from alternative approaches, which are classified as exceptions. Oncologists who are routinely below 80% compliance with pathways are likely veering off pathway too quickly. Some payers and programs push for higher levels of compliance, but we believe that such an approach is like trying to force the proverbial square peg into a round hole, which results in a bad fit and certainly not optimal patient care. Payers and other stakeholders increasingly understand the balance between allowing flexibility and standardizing options, and in some cases they are rewarding performance of providers who meet certain benchmarks.

Next steps

In keeping with the positive trends, we have collaborated with the National Comprehensive Cancer Network to develop a national content and technology standard for evidence-based medicine. Enabling technology will include the NCCN's Clinical Practice Guidelines in Oncology and also the Value Pathways powered by NCCN – the next generation in Level I Pathways. Using the NCCN's guidelines as the foundational evidence for further enhancements to the Value Pathways, we will build on the existing content of Level I Pathways by incorporating the expertise of leading physicians from both NCCN member institutions and The US Oncology Network.

The Value Pathways content will be available for practices to drive quality programs through a clinical quality and regimen support system. The proprietary tool will allow evidence-based regimen choices at the point of care through most EHRs. It enables greater detail for practices

to understand their adherence to NCCN guidelines and pathways while also providing transparency to payers. We are hopeful that these content and technological tools backed by the clinical rigor of the NCCN guidelines will strengthen standards in evidence-based oncology care and enhance collaboration between payers and providers.

The last decade of pathways development has blazed an exciting new path in cancer care. The introduction of promising new drugs, targeted therapies, and technological advancements has given us better insight into what works, which has in turn led to more predictable outcomes for patients with most stages of cancer. The onus is on us as providers to make costs more predictable and transparent to payers and our patients. Maintaining the traditional pathway philosophy is critical as is the continued awareness of the benefits of Level I Pathways (soon to be Value Pathways powered by NCCN), as we strive toward our goal of high-quality, cost-effective cancer care.

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