PATHWAY DEVELOPMENT

Lessons From the Front: Designing and Implementing Clinical Pathways by and for Clinicians

David M. Jackman, MD; Joanna Hamilton, MA, MS; Emily Foster, MPH; Craig A. Bunnell, MD, MPH, MBA; Louis Culot, MA; Carole Tremonti, RN, MBA; Joseph O. Jacobson, MD, MSc

OVERTHE PAST DECADE, the use of clinical cancer pathways has increased. In its 2017 State of Cancer Care in America report, the American Society of Clinical Oncology (ASCO) noted a 42% increase from 2014 to 2016 in practices using a clinical pathways program. This growing trend reflects a need for structured decision support among clinicians, clinical practices, and payer systems. As cancer care becomes more complex and more expensive, these decision-support algorithms offer a mechanism to define best practice, reduce unwarranted variation, and control costs across growing networks.

At the heart of the pathways movement lies a desire to improve treatment—its outcomes, its tolerability, its efficiency, and its value. Achieving these goals requires commitment not just to an electronic platform but also to a broader pathways program. At the Dana-Farber Cancer Institute (DFCI), we believe that this requires a tripartite platform but also to a broader pathways program. At the Dana-Farber Cancer Institute (DFCI), we believe that this requires a tripartite platform but also to a broader pathways program. At the Dana-Farber Cancer Institute (DFCI), we believe that this requires a tripartite platform but also to a broader pathways program.

FIGURE 1. The Interdependence of Content Development, Workflow Integration, and Data and Analytics.

PATHWAY ADOPTION

Clinical Pathways: Reducing Costs and Improving Quality Across a Network

Marcus Neubauer, MD

TODAY, AS ONCOLOGISTS STRIVE to meet the needs of a growing population of patients with cancer in 2020, they must remain abreast of rapidly emerging treatments to deliver positive patient outcomes, while meeting increasing demands from government and private payers. To do so, clinical pathways have emerged as a key tool driving informed decision making and providing more efficient, cost-effective, value-based care.

Across the practice of oncology, there is often a high variation of choices available to physicians in how best to treat patients. Adopting evidence-based clinical pathways helps align patient care and reduce unnecessary variation. These pathways provide a succinct, clinically proven list of treatment options that offer increased value to the healthcare system and the patient through a careful balance of cost sensitivity, treatment toxicity, and clinical outcomes.

COMMENTARY

Clinical Pathways: A Critical Component of Success in Episodes of Care

Lili Brillstein, MPH, and Brian Currie

THE EPISODES OF CARE MODEL is a value-based model that incorporates all the care rendered to an individual patient over the course of treatment for a particular procedure, diagnosis, or healthcare event, across the full continuum of care. This construct gives clinicians and their interdisciplinary partners a framework to explicitly and consciously collaborate in treating individuals who are clinically similar and therefore would be expected to have clinically similar outcomes. It is a model that focuses on consistently achieving the best of those outcomes.
Clinical Pathways: Reducing Costs and Improving Quality Across a Network

Marcus Neubauer, MD

Continued from Cover

As the cost of oncology drugs only continues to rise, incorporating clinical pathways into cancer care helps streamline the integration of evidence-based best practices while improving quality and reducing costs for patients and payers.

The Pathway Process

The US Oncology Network—which today comprises more than 1400 physicians treating more than 1 million patients in 25 states annually—was a pioneer in the development of clinical pathways in the early 2000s. We identified a need early on to help oncologists determine which regimens may drive better value when there is overlap or duplication among certain therapies.

The network’s clinical pathways are managed by our pathways committee, which is made up of 13 physicians who have a keen interest in delivering and supporting value-based care. The committee is supported by 5 pharmacists who scour the latest literature to absorb the rapid introduction of information into the cancer space. They are constantly looking for data on new therapies to inform our pathways. There has been an explosion of information concerning mutations that cause cancer, leading to rapid adoption of targeted therapies. Our team of pharmacists stays up to date on the latest information and presents this to our physicians to review, deliberate, and update our pathways.

Our review process allows us to move quickly to adopt the latest drugs and therapies backed by clinical evidence in order to achieve optimal outcomes for our patients. The pathways committee meets monthly to consider new literature, evaluate new treatments, and discuss what does and doesn’t warrant consideration for adoption into our pathways. Once the committee has identified a new drug or therapy for a specific pathway, all network physicians take an active role in decision making through an “open comment period,” which allows them to review and submit responses. This feedback is strongly weighed by the pathways committee before pathways are finalized, ensuring physician buy-in and network credibility.

What added significant validation to our pathways development process is the network’s unique partnership with the National Comprehensive Cancer Network (NCCN), a not-for-profit alliance of 28 leading cancer centers devoted to patient care, research, and education. The NCCN is focused on facilitating quality, effective, efficient, and accessible cancer care. Since 2013, we have worked with the NCCN to form a joint product, Value Pathways powered by NCCN, for which they provide clinical expertise adding strength to our content.

These Value Pathways, along with the NCCN’s larger suite of clinical practice guidelines, are easily integrated into the US Oncology Network’s system-wide electronic medical record system, iKnowMed, through a decision support tool called Clear Value Plus. This innovative tool can not only inform and educate physicians on the recommended pathways choices, it also enables input of clinical facts into the electronic medical record, subsequently allowing robust data collection. By offering physicians information at the point of care, it encourages accurate and real-time data entry so the network can track pathway adherence and outcomes. These invaluable data are used to inform future pathway refinement and patient care delivery to ensure we are supporting positive outcomes while managing the cost of care.

Further, the data collected through our decision support tool enable us to demonstrate the value of our clinical pathways to payers and reduce some of the barriers to timely coverage and care delivery such as prior authorization requirements. This has ultimately improved patient access to care and reduced administrative burden to our practices.

It is important to stress that the network’s clinical pathways program is, at its core, a tool. It was never meant to substitute a physician’s clinical judgment or independence. This is why we have put into place a collaborative process for physicians to engage in the development and refinement of Value Pathways. Further, there is an “exception to pathways” process, which allows physicians to treat patients outside of the identified Value Pathways when they feel it is clinically appropriate. We are proud of Value Pathways powered by the NCCN and remain fully committed to maintaining our physician-led process.

Data show that our pathways, previously known as Level I Pathways and, currently, as Value Pathways powered by NCCN, have been successful in shifting the delivery of cancer care from “volume to value.”

Pathways to Success

Since launching our clinical pathways program, the network has collected data on the economic impact and clinical outcomes associated with pathway adherence. Data show physician adherence to clinical treatment pathways can improve patient care while reducing costs.

Among the Medicare population, where patients are frailer and living with more comorbidities, a 3-year study of a practice-based, clinical pathways program coupled with a patient care-management program identified a cost savings of more than $3 million mainly due to a reduction in medication costs but also from a reduction in inpatient stays and emergency room visits. The 2018 study concluded that “a practice-based program supported by a payer sponsor can reduce costs while maintaining high adherence to treatment pathways and patient satisfaction in older patients.”

An earlier study examining our Innovent Oncology Program—to support pathway compliance and the use of patient support services in reducing chemotherapy-related emergency room and hospital admission costs—found that fewer emergency department visits and inpatient admissions occurred while costs declined and on-pathway adherence increased (Figure). Among patients participating in the Innovent Oncology Program over a 2-year period, the average in-patient days decreased from 2.1 to 1.2 days, which resulted in a total program savings of $596,481.

Previous results of studies also show clinical pathways to be highly effective in the treatment of patients with colorectal cancer and non-small cell lung cancer, specifically.
**CONCLUSIONS**

Because of our scale, The US Oncology Network has been able to successfully adopt pathways to the benefit of both patients and payers and publish our results. Data show that both our pathways previously known as Level I Pathways and, currently, Value Pathways powered by the NCCN have been successful in shifting the delivery of cancer care from “volume to value.” Although data show pathways might not be appropriate for every specialty, they do work for the practice of oncology.

Our experience demonstrates that value-based clinical pathways—including the rapid integration of new research and treatments into standards of care—can be done safely and effectively. These pathways reduce the cost of cancer care, increase patient satisfaction, and ultimately improve clinical outcomes.

**AUTHOR INFORMATION**

Marcus Neubauer, MD, is the chief medical officer for The US Oncology Network.

**FINANCIAL DISCLOSURE**

Dr Neubauer has no financial interests in the pathways programs used by the The US Oncology Network.

**REFERENCES**