Pathway-Based Oncology Care: Time for More Transparency

Pathway-based oncology care has entered the mainstream of clinical practice. Experts estimate that more than 15% of patients with cancer in the United States are being treated at institutions or practices that vigorously use treatment pathways. In many respects, this is a long overdue and desirable development. Pathway-based care offers consistent, well-defined, and measurable treatment guidance. Pathways are also usually driven by high levels of clinical evidence, helping to ensure appropriate care. By homogenizing clinical practice, pathways can minimize unnecessary variation, simplify treatment offerings, and reduce medical errors, and are an integral part of many plans to contain costs in oncology care. Pathways also enable higher volumes of care, creating cost efficiencies. Finally, because they are well-defined in advance, pathways also facilitate more rational budgeting and financial planning, a big advantage for clinics and a desirable trait in the eyes of third-party payors.

Pathways are being developed by individual groups and practices, academic centers, and other hospitals and clinics, including those with regional networks. They are also being written by companies and commercial enterprises. At least half-dozen companies developing oncology care pathways have emerged. Even my institution, Dana-Farber Cancer Institute, is exploring the possibilities of pathway-based care.

However, the growing influence of pathway-based care means that it is also time for greater transparency in the pathway development process.

- **Departure Points:** Developing guidelines is a time consuming and labor intensive process. Organizations like NCCN and ASCO have spent years evolving practices to create well-documented, highly annotated, comprehensive, detailed, and structured guidelines. Understandably, many pathway developers use these efforts as the foundational documents for their own pathways, not least in part because treatments endorsed in NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) are compendium listed by most insurers and third-party payors. Pathway developers should be explicit if the departure point for a pathway is a guideline from NCCN, ASCO, Cancer Care Ontario, or other well-established guideline creator.

- **Levels of Evidence:** Many commercial pathways developers tout their reliance on evidence-based medicine, and in particular, level 1 evidence. Level 1 usually implies data from randomized trials, often even requiring meta-analyses of multiple randomized trials. However, such high levels of evidence are the exception, not the rule, for the multiple decisions that oncologists make with patients. A survey of 10 treatment guidelines from NCCN documented level 1 evidence for only 6% of the decision nodes in cancer care.1 In none of the guidelines did level 1 evidence and consensus exceed one-third of treatment recommendations. By necessity, pathway recommendations will rely on levels of evidence far below level 1 thresholds. This means that pathway developers should be far more explicit about how decisions and choices are made, and on what degree of evidence, opinion, and habit.

- **Conflict of Interest:** Major guideline generators have well-defined processes for disclosing, managing, and hopefully minimizing conflicts of interest among panelists and advisors. Those who seek to write pathways should be similarly transparent in disclosing and minimizing conflicts of interest, including direct financial stakes for clinical services affected by pathways.

- **Accountability:** A hallmark of major guideline efforts has been personal accountability, both for the intellectual content of the guidelines and for assuring...
broad representation of clinicians, patient advocates, and research experts. Accordingly, guidelines publish the names of panelists and participants in the guideline-development process. This not only helps establish the legitimacy of a guideline, but provides specific avenues for public comment and opportunities to redress disagreements with recommendations. Ultimately, individuals write pathways, even if dozens or even hundreds or thousands of clinicians participate in the overall pathway endeavor. Direct and public accountability for pathways will help ensure patient and clinician confidence in pathway-driven care and should be a regular feature for all pathways used in clinical practice.

• The Cost Factor: Cost management is widely understood to be a huge part of the driving force behind pathway development. Indeed, the prospect of factoring economic value into care decisions is the \textit{raison d'être} motivating a successful pathway. What might not be so apparent is the extent to which cost considerations explicitly affect pathway choices. Several commercial pathway companies acknowledge the role of cost in pathway decision-making; some even develop pathways explicitly for approval by insurers. eviti seeks to align “physicians’, patients’, and payers’ priorities” (www.eviti.com/cancer_care/solutions/). According to Via Oncology, their pathways are based on a “a hierarchy of efficacy, toxicity, and cost” (www.d3onc.com/pathways/). Innovent Oncology states that “If there is no clear evidence of clinical superiority, then costs are factored into the Pathway” (www.innoventoncology.com/web/2ProgramComponents/1LevelIPathways). However, in each case, the metrics by which cost factors into the pathway are unclear. Also unclear is who bears the cost—the oncologist, clinical team, third-party payor, patient, or hospital. A more explicit discussion of cost consciousness will help legitimize the pathways approach for cancer care.

Pathways are an important development in oncology treatment. By relying on high levels of evidence, standardizing care, reducing variation, and delineating specific steps for the treatment team, pathways may markedly improve care. Data already suggest that patients treated on pathways have better outcomes and lower costs than others. Although there are profound methodological critiques of such data, the fact remains that guidelines can create effective, efficient, and safe cancer care. But the importance of pathways for determining cancer treatments only underscores the need for greater transparency from those who are developing and implementing such care guides.

References