

ONCOLOGY VALUE MODELS



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Cancer treatment is better than ever before, thanks in part to more effective medications.

But these medications often carry high price tags and co-pays, causing financial stress for cancer patients and their families. Although some medications benefit patients substantially, others offer only moderate improvement, prompting questions about when the high costs are justified.¹ Such questions lead to a discussion of value and how it can shape cancer care.² They have also led to the creation and use of oncology value models, intended to help physicians, patients and policymakers determine whether a given cancer treatment's cost aligns with its value.

So, what is a good value in terms of cancer treatment? Different people have different answers.

When Mr. Perez discusses care with me, it's about what that treatment will do to his family, not his disease. Mrs. Green says, "Whatever we do, Doc, I need to be well enough to take care of my husband." Sally says, "Will I ever be able to have children?" And Mr. Bruno says, "I worked my entire life for my children, and now I am becoming a burden to them."

HOW DO PATIENTS DEFINE VALUE?



The value doctors bring to managing patients is a blend of their experience, training, judgment, intuition and understanding of an individual patient's perspective. It cannot be replaced by the numbers. We physicians do not confuse math and algorithms with medical care.

But even though physicians are primarily concerned with the health of their patients, we must include the cost of care in discussions. We cannot offer the best course of action in a vacuum. Value models can aid in decision making so long as they remain helpful tools, not absolute directives.

Developing models that can accommodate different and changing viewpoints, however, is

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a challenge. Some of the current models were designed to aid physicians and patients in choosing between treatments. Other models were designed to consider cost and benefit from a societal or population perspective. Each of these models has its own advantages and disadvantages.

A CLOSER LOOK AT FOUR MODELS

MODEL	MODEL 1 AMERICAN SOCIETY OF CLINICAL ONCOLOGY MODEL	MODEL 2 NATIONAL COMPREHENSIVE CANCER NETWORK MODEL
HOW IT WORKS 	<ul style="list-style-type: none"> » The American Society of Clinical Oncology model uses the concept of Net Health Benefit to help determine a treatment's value. » The Net Health Benefit score incorporates treatment benefit, side effects, improvement in quality of life, and reduction in cancer-related symptoms.^{3,4} 	<ul style="list-style-type: none"> » The National Comprehensive Cancer Network value model adds Evidence Blocks™ to its trademark clinical practice guidelines.⁵ » Evidence Blocks are 5 x 5 grids that visually represent five values: treatment efficacy, safety, quality of evidence, consistency of evidence, and affordability. » Experts rate treatments on each of the five values from 1 (least favorable) to 5 (most favorable).
POTENTIAL BENEFITS 	<ul style="list-style-type: none"> » As part of the discussion, patients will assign weights to the various inputs. For example, some patients may value clinical benefit over side effects and others vice versa. » This feature gives patients a say in how value is defined. 	<ul style="list-style-type: none"> » This model may help physicians and patients make treatment decisions and better understand the rationale for the National Comprehensive Cancer Network's specific recommendations.
POTENTIAL DRAWBACKS 	<ul style="list-style-type: none"> » The current American Society of Clinical Oncology model includes only selected values that are important to patients. » It also relies on comparative clinical studies for data about each medication. » Medications that have not undergone these trials will not be included in the comparison. 	<ul style="list-style-type: none"> » The criteria for rating levels is not explicitly defined and therefore may be subjective. » The five values do not include all of the values that are important to patients.

A CLOSER LOOK AT FOUR MODELS *(cont'd)*

MODEL	MODEL 3 MEMORIAL SLOAN KETTERING CANCER CENTER MODEL	MODEL 4 INSTITUTE FOR CLINICAL AND ECONOMIC REVIEW MODEL
HOW IT WORKS 	<ul style="list-style-type: none"> » The model developed at the Memorial Sloan Kettering Cancer Center is an online drug pricing tool known as Drug Abacus.⁶ » It estimates what cancer medications should cost based on the emphasis a user places on values such as: price per year of life, severe side effects, and factors related to drug development and cancer population. » Given the inclusion of factors such as medication novelty and cost of research and development, the Drug Abacus may be primarily useful for physicians and policymakers considering the societal burden of cancer and its treatment.³ 	<ul style="list-style-type: none"> » The Institute for Clinical and Economic Review, or ICER, model is used to develop evidence reports that compare the clinical effectiveness of treatments and tests³ to create a benchmark price for therapies based on their value to patients and the health care system. » The two major concepts in the ICER model are long-term value for money and short-term affordability.⁷ » ICER focuses on the population perspective instead of the individual patient perspective.
POTENTIAL BENEFITS 	<ul style="list-style-type: none"> » Users can assign their own weights to each value and can change them to see how Abacus prices would be affected. 	<ul style="list-style-type: none"> » ICER reviews include a broad range of evidence and estimates the economic impact of medications on the overall health care system.³
POTENTIAL DRAWBACKS 	<ul style="list-style-type: none"> » The eight values do not include all of the factors that are important in assessing a medication's cost. » Conversely, some of the factors included in the Drug Abacus model may not be broadly relevant. » Depending on the inputs, Abacus prices may be higher than actual prices, potentially providing a basis for increasing a medication's cost. 	<ul style="list-style-type: none"> » ICER relies on the subjective judgments of a panel as opposed to objective ratings. » The ICER reviews may potentially be used to limit access to treatments.

USE & CONSEQUENCES

Cancer is rarely solved by a “one and done” treatment. The American Cancer Society expects the number of cancer survivors to exceed 20 million in 2026,⁸ and many of these patients will continue to require care.

Prostate, breast and colon cancers make up the majority of not only new diagnoses but also long-term survivorship. Though value decisions will become important across all cancers, therefore, they may be especially pertinent for these cancers—and for recurrent disease of all types.

Oncology value models can allow physicians to provide (and patients to receive) optimal, personalized care within cost constraints. Those can include patients’ ability to pay or specific features of the patient’s health plan formulary, tier system, or cost-sharing scheme.

Although oncology value models can be useful, they come with real dangers. At the societal level, insurers may use data from these models to restrict access to certain medications. In such cases, patients may be unable to receive a medication that their physician prescribes.

For example, some patients may be predisposed to experience certain side effects as a result of their health history. Physicians may recommend one

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medication over another so that patients can avoid these side effects. Yet patients may not be able to obtain the recommended medication if it doesn’t fare well in the oncology value model.

It is also possible that cancer care centers may pressure physicians to recommend medications that score well in population-based oncology value models. This could mean that patients will not receive the medication that best matches their particular values. Even the oncology value models designed for use in patient-physician discussions have limitations. They omit some factors that patients may highly value, such as the ability to continue working.

It is essential that the data derived from these models, and particularly population-level models, is not misused as a tool for rationing care and limiting access to treatments.

CONCLUSIONS

- » A cancer diagnosis is devastating for patients and their families. Patients trust their physicians to help them navigate cancer care as they face a life-or-death situation.
- » At this critical time in patients’ lives, it is essential that the physician-patient relationship—and not models or restrictions based on those models—drive patient care.
- » Oncology value models should be tools for patients, physicians, and policymakers, but should not dictate cancer care decisions or override the physician-patient relationship.



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