This is an *abstract* of the first in a series of special reports on precision medicine. The full report may be read or downloaded *here*.

TPA Network Research Consortium
a Healthcare-Focused Non-Profit Enterprise

A Science-Based Rationale for Abandoning Obsolete Standard-of-Care Cancer Treatment Dogma in favor of

PRECISION MEDICINE'S MORE CONSERVATIVE APPROACH

Part 1: Why and How Payers Must Serve as Catalysts for Change

Improving Survival • Reducing Waste • Containing Cost

This piece advocates for replacing obsolete, organ-based standard-of-care (SoC) cancer treatment with genomic-driven precision medicine, emphasizing improved outcomes, cost-effectiveness and value. It issues a call-to-action to payers: *take responsibility for facilitating the adoption of precision medicine.*

Limitations of Standard-of-Care Cancer Treatment

SoC cancer treatment focuses on organ site, ignoring molecular drivers, often leading to suboptimal outcomes. Its empiric cancer regimens ignores tumor heterogeneity which frequently results in low-clinical-value care, unnecessary toxicity and a waste of human/financial resources. Limited under SoC, many FDA-approved drugs remain underutilized due to misconceptions about efficacy, cost and therapy complexity.

Importance of Genomics and Precision Medicine in Cancer Care

The integration of modern genomics into cancer care has profoundly enhanced our understanding of the disease and revolutionized our ability to treat it. Genomics underpins precision medicine, a conservative, evidence-based alternative that moves beyond traditional organ-based, one-size-fits-all SoC approaches.

Precision medicine addresses tumor heterogeneity directly, enabling the biologically matched selection of targeted and effective therapies based on each patient's unique genomic profile … often with the assistance of AI-enabled tools that can identify the most effective, cost-efficient treatments, including personalized multi-drug combination regimens that often outperform traditional single-drug therapies. This expands treatment options exponentially, enables risk-taking patients to consider other therapies, eliminates ineffective treatment, reduces toxicity, improves response rates, survival and quality of life.

Challenges in Transitioning to Precision Medicine

Despite these advantages, payers have been slow to adopt genomics-driven precision medicine. This hesitation reflects patient, provider, health system and industry barriers that include limited awareness; persistent misconceptions; inadequate training and infrastructure; outdated policies; and insufficient or unclear guidance on implementation. Many clinicians lack familiarity with genomics and decision-support tools. Our fragmented healthcare system and regulatory hurdles slow adoption, and the cancer industrial complex resists change due to entrenched practices and drug approval issues. Consequently, many payers continue to rely on the outdated inefficient and wasteful SoC approach to cancer treatment, potentially missing opportunities to improve patient outcomes and contain healthcare costs.

What Payers Can and Must Do

Transitioning to precision medicine will require policy changes, infrastructure investment, and education. Payer strategies should prioritize genomic diagnostics and molecular decision-making infrastructure, align coverage with biologic rationale and shift reimbursement to value-based models. This will require building expertise; creating dedicated cancer programs and benefits; supporting multidisciplinary care teams; steering patients toward value-based providers; discouraging empiric therapy with poor expected benefit; and providing unfettered access to all scientifically-targeted treatments. They must use longitudinal health records that enhance treatment precision and efficiency; technologies that monitor disease progression and treatment response to optimize outcomes and reduce waste; and cancer focused AI-enabled tools. Payers must also consider the legal liability related to continuing their dated, pre-genomic era cancer treatment coverage decision policies; administrative practices, authorization processes, etc.

Guidance: A Framework for Payer Action

Our unbiased research and analysis helps healthcare providers evaluate new medical technologies, plan participants obtain leading-edge care, scientists advance medical research, and payers reduce risk.

This first-in-a-series of payer-focused reports provides a frank perspective on the current state of cancer care and details how precision medicine can improve outcomes, enhance quality of life, and contain cost. To assist payers, the *Research Consortium*'s created a *Precision Medicine Protocol*, a practical framework for driving change. In later installments, we provide greater detail about our precision medicine protocol; challenge conventional thinking about combination drug treatments and their cost and value; and show payers how to use value-based purchasing to gain greater control over oncology specialty-drug spending.

Payer Call-to-Action

Payers must accept the limitations of the SoC approach to cancer treatment and acknowledge that the move to precision medicine represents a conservative, evidence-driven approach to care that is better and more cost-effective. They must also recognize that many of their cancer-related treatment policies, processes and procedures impede the adoption of precision medicine, perpetuating waste and poor care.

Given this, we advocate for payers to serve as catalysts for the transition to precision medicine as they are uniquely positioned to revise the policies, processes, and procedures that currently hamper its adoption.