Magnolia's Perspective From ASCO 2024

Catalyst for Change: How Precision Medicine Is Shifting Mindsets in Healthcare & Pharma

Executive Summary

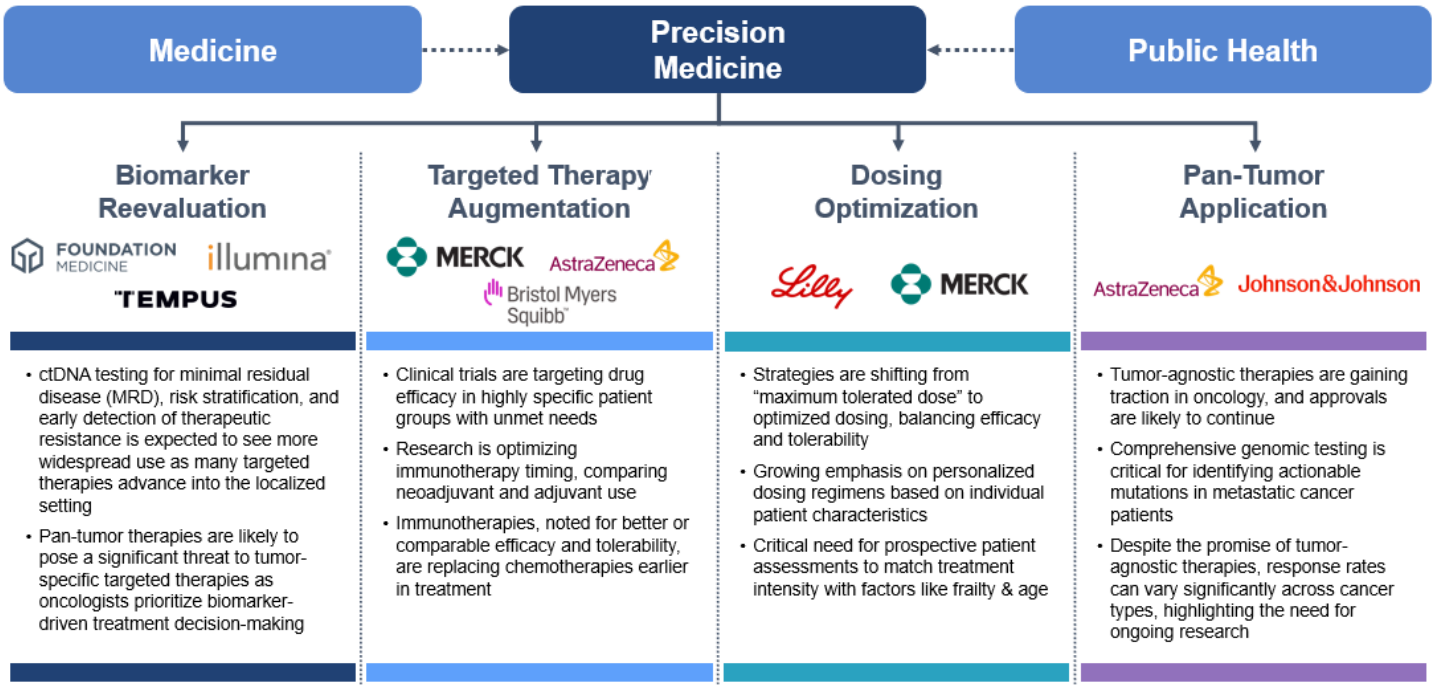
Precision medicine, a cornerstone of modern oncology, took center stage at ASCO 2024, highlighting its transformative impact on patient care through tailored treatment strategies based on individualized molecular profiles and characteristics. This approach exemplifies the shift from conventional therapies to more effective, personalized care, integrating genomic insights, biomarker analysis, and patient-specific factors to improve outcomes and quality of life. These advancements necessitate a strategic recalibration in pharmaceutical market research and strategy, emphasizing biomarker-driven drug development, companion diagnostics, and innovative trial designs. The conference underscored the importance of biomarker-driven targeted therapies, including tumor-agnostic treatments that prioritize specific biomarkers over tissue origin, revolutionizing cancer care. Thorough genomic testing is crucial for identifying actionable mutations and addressing response variability across cancer types. Emerging evidence supports the strategic use of immunotherapies at optimal times and in specific combinations, particularly in neoadjuvant and adjuvant settings, to enhance outcomes and decrease dependence on traditional chemotherapies. Personalized dosing strategies, tailored to individual patient characteristics and pharmacogenomics, are crucial for ensuring treatment efficacy and safety. At Magnolia, we help our clients turn insights into strategy by offering actionable recommendations. We explore the root of these paradigm shifts and guide each client in navigating the ever-changing landscape while addressing their unique needs.

Key Takeaways

- Market research must assess how companion diagnostics fit into treatment plans to inform patient journeys and go-to-market strategies for drugs reliant on these diagnostics
- As indications narrow to specific biomarkers, companies must balance developing in-house diagnostics with forming partnerships with oncology diagnostic companies to accurately forecast drug profitability and expand market reach
- Increasing trust in biomarker and liquid biopsy testing means messaging should focus on specific biomarkers rather than tissue origin, impacting treatment selection across tumor types, especially in crowded disease areas
- Broad applicability of tumor-agnostic therapies requires innovative reimbursement models and robust real-world evidence to assess long-term effects and ensure competitiveness in precision oncology
- Market research should analyze the impact of optimal timing and combinations of immunotherapies in treatment protocols, particularly in neoadjuvant vs adjuvant settings, to enhance messaging around improvements in overall survival and progression-free survival

Overview of Precision Medicine

Figure 1: Key Components of Precision Medicine Discussed at ASCO 2024, Market Movers Within Each Category & Key Findings



Source: Magnolia Innovation, ASCO 2024

Re-Examining Biomarker Testing

Background & Insights

The proliferation of biomarker testing and targeted therapies in oncology is bringing us closer to true "personalized medicine," but is also raising critical questions about how we use these therapies. How and when to test for biomarkers, how to use biomarker testing in the adjuvant setting, and how to think about data across tumor types are just a few of the foundational topics discussed at the annual meeting that could impact how we think of "precision medicine" going forward **(Figure1).**

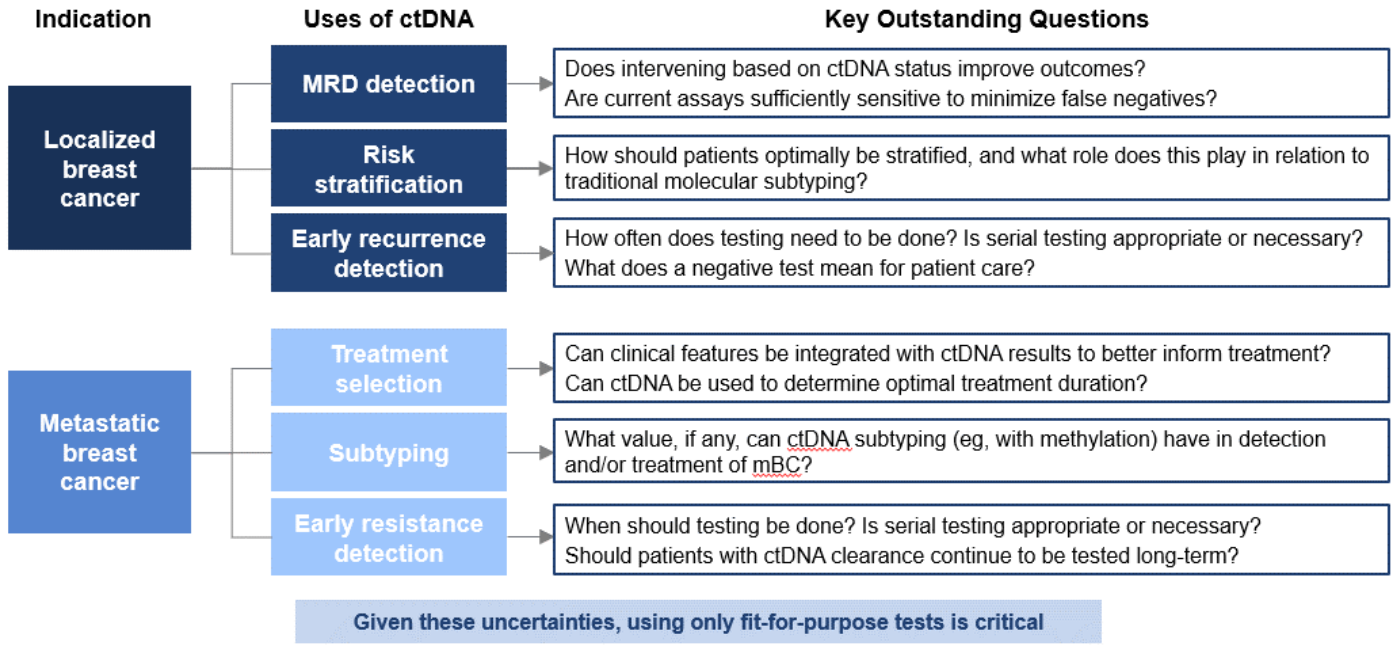
As liquid biopsy NGS becomes more widely accessible, research has focused on optimizing its utility in both metastatic and localized cancers. In localized disease, use of ctDNA testing for postsurgical detection of residual disease, risk stratification, and predicting therapeutic resistance were a recurring point of discussion across tumor types. Liquid biopsies also provide an opportunity to conduct serial testing for tracking treatment response and relapse over time, a tool increasingly used in clinical trials for solid tumors. New minimal residual disease (MRD) tests launched at the meeting from Tempus AI (xM) and Guardant Health (Reveal), coupled with earlier-stage use of biomarker-driven therapies such as Enhertu, are likely to continue driving the discussion around ctDNA-based risk stratification in the adjuvant setting going forward.

In breast cancer, discussions at ASCO 2024 on the optimal use of ctDNA testing raised many new questions. A plethora of tests are now available to track ctDNA in both localized and metastatic settings for a variety of uses **(Figure 2)**. However, deciding when and how to test, which test(s) to use, and how to intervene based on test results remains to be determined. Both Dr Heather Parsons and Dr Daniel Stover cautioned that liquid biopsy-based ctDNA

testing is not ready for prime time and should not supplant the use of fit-for-purpose tissue-based biomarker tests until clear guidance on ctDNA use can be developed.

Another topic of discussion at the annual meeting focused on optimal use of pan-tumor, biomarker-driven therapies in solid tumors. An early presentation on the results of the EVOKE-01 phase 3 trial of Gilead Science's sacituzumab govitecan in patients with metastatic NSCLC previously treated with an anti-PD-L1 demonstrated no statistically significant improvement in overall survival compared with docetaxel. It should be noted that a majority (>90%) of patients in this sample were naive to targeted treatment toward actionable genomic alterations (AGAs), suggesting the need for further genomic characterization of the tumor. This presentation shaped a discussion in later sessions around how efficacy data in one tumor type should be interpreted and implemented in other tumor types. While historically, the anatomic site of the tumor has been a foundational factor in treatment decisions, it was clear from audience discussions that oncologists are (and should be) considering prioritizing biomarkers in treatment choice.

Figure 2: Persistent Questions Regarding Optimal Uses of ctDNA Testing for Breast Cancer



Source: Magnolia Impressions from Dr Bernard Fisher Memorial Annual Clinical Science Symposium, ASCO 2024

"ctDNA is clearly already here in breast cancer but it's 'use with care.' Liquid biopsy is not ready to replace tissue biopsy…yet. As our menu continues to grow, we should focus on using fit-for-purpose tests."

-Daniel G. Stover, MD, FASCO