

ASCO 2026: Anticipating Advances in Oncology Treatment

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Oncologists face the ongoing challenge of optimising treatment efficacy while mitigating toxicity across diverse cancer types. The American Society of Clinical Oncology (ASCO) Annual Meeting 2026 is anticipated to present data that will refine current therapeutic approaches, particularly in the integration of novel agents and biomarker-guided strategies.

KEY TAKEAWAYS

- **The Pivot:** The focus at ASCO 2026 is expected to shift further towards individualised treatment paradigms, moving beyond broad-spectrum chemotherapy.
- **The Data:** Presentations are likely to feature hazard ratios and progression-free survival data for new targeted agents and immunotherapy combinations.
- **The Action:** Clinicians should prepare to evaluate evidence supporting expanded indications for existing drugs and the introduction of novel compounds, necessitating updated biomarker testing protocols.

The ASCO Annual Meeting serves as a critical forum for disseminating advancements in cancer research and clinical practice. The 2026 meeting is expected to continue the trend of presenting data on targeted therapies, immunotherapies, and the application of precision oncology principles across various malignancies. The overarching clinical dilemma remains how to translate preclinical and early-phase trial successes into improved patient outcomes in routine clinical settings. This involves identifying patient populations most likely to benefit from specific interventions and understanding the mechanisms of resistance to current treatments. The increasing complexity of cancer biology necessitates a multi-faceted approach, moving beyond single-agent therapies to rational combinations that target multiple pathways or overcome compensatory mechanisms. Furthermore, understanding the tumor microenvironment and its role in immune evasion and drug resistance is becoming increasingly critical for developing effective treatment strategies. Key areas of focus are anticipated to include updates on novel drug approvals, extended follow-up data from pivotal trials, and the emergence of new therapeutic combinations. Specifically, presentations are likely to address the evolving landscape of antibody-drug conjugates (ADCs), bispecific antibodies, and cellular therapies. ADCs, for instance, combine the specificity of monoclonal antibodies with the cytotoxic potency of chemotherapy, delivering the therapeutic agent directly to cancer cells expressing specific surface antigens, thereby minimizing systemic toxicity. Bispecific antibodies, by contrast, can engage two different targets simultaneously, such as a tumor antigen and an immune effector cell, facilitating tumor cell killing. The integration of artificial intelligence and machine learning in diagnostic pathology and treatment selection is also a growing area of interest, with early data potentially presented at the meeting. These

technologies hold promise for improving diagnostic accuracy, predicting treatment response, and identifying novel therapeutic targets by analyzing vast datasets of genomic, proteomic, and imaging information.

Anticipated Session Highlights

Sessions at ASCO 2026 are expected to feature late-breaking abstracts detailing phase 3 trial results for new molecular entities. For instance, in lung cancer, data on novel EGFR inhibitors for resistant mutations or combination strategies for KRAS-mutated disease are highly probable. KRAS mutations, historically considered "undruggable," are now being targeted by direct inhibitors, and the meeting may present data on their efficacy and strategies to overcome resistance. In breast cancer, updates on CDK4/6 inhibitors in earlier disease stages or new ADCs targeting HER2-low expressions are anticipated. HER2-low breast cancer represents a significant proportion of breast cancers, and ADCs targeting this expression level offer a new therapeutic avenue. Colorectal cancer sessions may focus on immunotherapy combinations for microsatellite stable tumours or novel agents for refractory metastatic disease. The challenge in colorectal cancer often lies in the heterogeneity of the disease and the development of resistance to standard chemotherapy regimens, making novel targeted approaches crucial.

Immunotherapy remains a cornerstone of cancer treatment, and ASCO 2026 is expected to present further refinements. This includes data on immune checkpoint inhibitors in neoadjuvant or adjuvant settings, as well as strategies to overcome primary and acquired resistance. Primary resistance refers to tumors that do not respond to immunotherapy from the outset, while acquired resistance develops after an initial response. Understanding the underlying mechanisms, such as alterations in antigen presentation or immune cell exclusion, is vital for developing effective counter-strategies. Combination therapies involving checkpoint inhibitors with chemotherapy, targeted agents, or other immunomodulatory drugs will likely be a prominent theme. The identification of predictive biomarkers for immunotherapy response, beyond PD-L1 expression, tumour mutational burden (TMB), and microsatellite instability (MSI), is an ongoing area of research that will likely see new data presented. These new biomarkers could include specific gene expression signatures, immune cell profiles, or microbiome characteristics.

Precision oncology, driven by comprehensive genomic profiling, will continue to be a central topic. Sessions are expected to cover the clinical utility of liquid biopsies for minimal residual disease (MRD) detection and treatment monitoring across various solid tumours and haematological malignancies. Liquid biopsies offer a less invasive method for detecting tumor DNA, allowing for earlier detection of recurrence and dynamic monitoring of treatment response, potentially guiding treatment escalation or de-escalation. The application of germline genetic testing for hereditary cancer syndromes and its implications for screening and prevention will also be discussed. This includes identifying individuals at high risk for developing certain cancers, allowing for personalized screening protocols and risk-reduction strategies. Furthermore, the meeting will likely address disparities in cancer care and access to novel therapies, with sessions dedicated to health equity and global oncology initiatives. These discussions are crucial for ensuring that advances in oncology benefit all patient populations, regardless of socioeconomic status or geographic location. While specific papers are not provided, the trajectory of oncology research indicates a continued emphasis on identifying specific patient subgroups that derive maximum benefit from targeted interventions. The challenge remains in validating these findings in diverse populations and ensuring equitable access to advanced diagnostics and therapeutics. The meeting will likely present data that, while promising, will require careful interpretation regarding generalisability and cost-effectiveness. The economic burden of novel cancer therapies is a significant consideration, and discussions around

value-based care and sustainable healthcare models are increasingly relevant. Furthermore, the long-term toxicity profiles of new agents and combinations will require ongoing surveillance and reporting to ensure patient safety and quality of life.

CLINICAL IMPLICATIONS

The anticipated data from ASCO 2026 will undoubtedly influence clinical practice, particularly in the adoption of increasingly complex treatment algorithms. Clinicians will need to assimilate new evidence on targeted therapies and immunotherapy combinations, which often require specific biomarker testing. The expansion of indications for existing drugs and the introduction of novel agents will necessitate continuous education and a critical evaluation of the evidence, moving beyond the initial excitement to assess true clinical benefit and patient selection.

For patients, the promise of more personalised and effective treatments is significant. However, the rapid pace of drug development and the increasing cost of novel therapies present substantial challenges. Access to advanced genomic profiling and the latest treatments remains uneven, creating a two-tiered system of care. Guideline bodies like NCCN and ESMO will face the task of rapidly integrating these new data into clinical recommendations, ensuring that the evidence is robust enough to warrant widespread adoption and that health systems can support the associated costs and infrastructure requirements.

The pharmaceutical industry will continue its focus on developing highly specific agents, often with smaller target populations. This strategy, while scientifically sound, raises questions about drug pricing and market access. Companies like AstraZeneca, Merck, and Roche, with significant portfolios in oncology, will be keen to demonstrate superior outcomes for their latest compounds. The emphasis on biomarker-driven trials also means that companion diagnostics will become increasingly integral to drug development and commercialisation, further intertwining the diagnostic and therapeutic sectors.

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