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Economic and technological pespective in lung cancer

According to a recent report by Mordor Intelligence, the global market for lung cancer therapeutics is projected to exceed 30 billion USD this year. Non-small cell lung cancer accounts for around 77% of total revenues. While chemotherapy accounts for 43%, revenues from immuno-oncology agents are growing much faster. Third-line and later therapies exhibit the highest growth. While developed economies are growing at a rate of 1-3% per year, the lung cancer medicine market is projected to grow by 12% annually over the next five years.

These revenue estimates for pharmaceutical manufacturers show escalating pressure on healthcare budgets, as they represent expenditures for patients, private insurers, and national health systems. Therefore, it is essential to evaluate treatment costs based on the health outcomes they provide. Every resource allocation has an opportunity cost; funds allocated to one intervention cannot be used for other purposes, such as primary prevention of lung cancer, screening programs, and high-quality end-of-life care supported by palliative services.

A systematic review published this month in JAMA Oncology examined the economic evaluation of immunotherapy for cancer treatment (not specifically lung cancer) when used as an adjuvant therapy. The review concluded that immunotherapy is cost effective in more than half of the studies, particularly in first-line settings, in high-risk patients, and in patients with lung cancer. However, not all of these therapies are cost-effective. Some do not deliver good value for money. The authors recommend adopting these therapies selectively based on value and supporting this decision with transparent economic assessments. So, economic evaluation is very useful to inform reimbursement decisions and policymaking.

Clinicians should not be responsible for the economic aspects of deciding treatments for individual patients. Economic evaluations of medicines, or cost-effectiveness analyses, are always conducted at the population level, never for a single individual. This responsibility lies with the decision-makers of coverage and pricing, who, in a national health system, are ultimately government authorities. However, clinicians should be aware that their clinical decisions carry an opportunity cost. In addition to clinical toxicity, treatments may impose financial toxicity on patients, their families, insurance companies, and the government in national health systems, such as Spain's.

This session is especially important because it covers the "far side of the moon": the economic and technological aspects of treatments and the role of AI. Thanks to the high quality of the two speakers, it is also an excellent session.

Pietro Veronesi

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Business. He is also a research associate of the National Bureau of Economic Research and a research fellow of the Center for Economic and Policy Research. Additionally, he is a former director of the American Finance Association and co-editor of the Review of Financial Studies. Veronesi conducts research that focuses on asset valuation under uncertainty, technological revolutions, bubbles and crashes, and the impact of government interventions on asset prices. His work has appeared in numerous top publications, and received several awards. Undergraduate in Economics at Bocconi University (1992), master's degree at the London School of Economics (1993), PhD from Harvard University in 1997, and member of the Chicago Booth faculty since then.

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