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Does Economics Matter When Treating Advanced Non-Small Cell Lung Cancer?

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The results of two major multicenter trials of alternative therapies for advanced lung cancer are now in, and the news is very sobering for a seldom-considered partner in the battle against cancer: health insurers. Both the Eastern Cooperative Oncology Group (ECOG) and the Southwest Oncology Group (SWOG) have recently reported findings from large multicenter studies of alternative chemotherapy regimens for those with advanced lung cancer [1, 2]. Of the five regimens tested, there was no survival advantage for any one combination. Toxicities varied modestly across studies, but patients treated with carboplatin plus paclitaxel had less nausea than those treated with other regimens. In discussing the results of their ECOG trial, Schiller and colleagues noted that none of the four chemotherapy regimens they evaluated for advanced lung cancer offered a significant advantage over the others. Nevertheless, the ECOG has adopted carboplatin and paclitaxel—the most costly combination therapy among the four they evaluated—as the reference regimen for future studies [1]. The SWOG has also adopted this regimen as their reference standard.

Although the clinical implications of the ECOG and SWOG decisions may be marginal, the economic implications are very great indeed. Carboplatin plus paclitaxel costs up to $12,000 more per treatment course than the least expensive alternative (cisplatin and vinorelbine) [3]. In an economic evaluation of the aforementioned SWOG study, there were no significant downstream savings in other areas (e.g., hospitalizations, emergency room visits for treating toxicities) to offset the drug costs, even after accounting for chemotherapy substitutions due to intolerable side effects [3]. Given that the toxicities reported for the alternative regimens in the ECOG trial closely match those in the SWOG trial, it is likely that an economic analysis of the ECOG trial would yield the same conclusion: the cost of the chemotherapy agents drives the cost of treating advanced lung cancer. Given that nearly 105,500 persons in the U.S. will be diagnosed with advanced non-small cell lung cancer this year, the economic analysis of the SWOG trial suggests that using carboplatin and paclitaxel as first-line therapy will add more than $1 billion to our annual national health bill, with survival outcomes no better than the least expensive regimen (cisplatin and vinorelbine) [3]. Of note, because the prices of much anticipated generic versions of paclitaxel differ by less than 1% from the branded version, the economic impact is unlikely to diminish over time as long as carboplatin and paclitaxel remain as first-line therapy for advanced lung cancer [4].

Should oncologists care about the economic implications of adopting carboplatin and paclitaxel as the reference standard therapy versus less costly alternatives? Put crudely, a health insurance payer might ask whether it is “worth it” to spend this amount of money to modestly
reduce nausea during treatment. Although the question may seem coarse to a physician or a cancer patient, the resource implications are very real. Health insurers work within a budget, and the additional expenditure on lung cancer will mean that less is available for all the other covered services. To make up for this extra expenditure, insurers can try to reduce coverage of services, or cut payments for services to physicians and other providers. This is precisely what we are seeing in the U.S. Medicare program today. Office-based prescription medication costs are one of the fastest growing components of the Medicare budget. Given the global expenditure caps set by Congress and the political consequences of cutting benefits, the Centers for Medicare and Medicaid Services has responded by cutting, among other things, payments for all physician services by 5.4% this year. Because of these cuts, doctors in some states are now refusing to care for additional Medicare beneficiaries.

Is all this a long way from the decision to adopt carboplatin and paclitaxel as standard therapy for advanced lung cancer? In our opinion, it is not. Cancer care is one of the fastest growing cost segments of our national health budget. A multitude of expensive new therapies are in the development pipeline for cancer. Some will offer substantial benefits in terms of survival, quality of life, or both. Others, however, will offer very marginal improvement at a high cost. Unless the oncology community can provide guidance as to which therapies provide good value for expenditure, choices will be made by those who are less able to make these distinctions (i.e., insurers).

Now is the time for the leaders in oncology to begin a dialogue with health insurers about the cost-effectiveness implications of the treatment regimens that are being considered for adoption as the standard of care. Economic analyses, such as that performed alongside the SWOG trial for advanced lung cancer, can provide guidance. The oncology cooperative groups, whose reference choices for future therapy trials often translate into community standards of care for cancer, also must acknowledge the economic implications of their choices. One step forward would be for these groups to provide statements about the substantial equivalence of less expensive alternatives to reference standard treatments as first-line therapy. Second, oncology groups must honestly address the uncomfortable reality that a substantial portion of their income comes from the margins they receive on the office-based chemotherapy agents they prescribe. This reality has been shown to influence pharmaceutical manufacturers’ pricing decisions, and, at the very least, gives the appearance of conflict of interest when a favored therapy with marginal clinical benefits (such as carboplatin and paclitaxel) compared with less costly alternatives offers substantial financial benefits to oncologists.

Economics, the unavoidable fact of life in medicine, is a major issue in oncology today, and will only become more urgent in the future. Now is a good time to be proactive about this reality.

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REFERENCES


