

Lung Cancer: Beyond the Guidelines

This issue of *JNCCN* contains the clinical practice guidelines for both small cell (SCLC) and non-small cell lung cancer (NSCLC). Over the past few years, the therapeutic options for patients with lung cancer, particularly NSCLC, have increased dramatically. For patients with potentially curable disease, combined-modality therapy has been fully integrated into care and has shown benefits as adjuvant chemotherapy for patients with completely resected stage II or III NSCLC and as concurrent chemoradiotherapy for those with unresectable stage III NSCLC and limited-stage SCLC. For patients with advanced disease, broader recognition of the benefits of various palliative care options, including the rational use of chemotherapy and targeted therapy, have improved both the quality and length of life.

As a realistic clinician, however, I must acknowledge that the gains achieved thus far have been modest. Lung cancer remains an enormous public health problem. In the United States, lung cancer accounts for more deaths every year than colon, breast, prostate, and pancreatic cancers *combined*. Few people realize that nearly twice as many women in the United States die each year of lung cancer than of breast cancer. The personal and societal toll of this disease is staggering.

So how can we favorably impact these dismal statistics? Theoretically, prevention is the best hope, but the prevalence of smoking has hit a plateau in the United States and is rising at an alarming rate in the developing world. Practically, further progress can not be made on preventing lung cancer until we, as a society, recognize that tobacco use is not merely a matter of free-choice, but a matter of life and death.

After prevention, early detection is the next best strategy because most patients currently present with disease that has advanced beyond surgical curability. Newer screening modalities will hopefully identify more patients while their disease is potentially curable. However, because no currently available screening techniques have favorably impacted mortality, they cannot be recommended for widespread use.

Advanced lung cancer continues to be a challenging disease. The standard of care for extensive-stage SCLC has remained unchanged for 20 years, and numerous once-promising strategies have failed to improve outcomes. In advanced NSCLC, the use of molecularly targeted agents, such as erlotinib and bevacizumab, has led to clinically significant gains, but the improvements in survival are generally measured in months and the number of patients who benefit remains frustratingly small.

We must remember that the real scientific progress in understanding the biology of lung cancer has just begun to affect clinical care. Bevacizumab and erlotinib are clearly not the be-all-and-end-all in managing this disease, but they are a start. Each patient represents a unique challenge, and optimizing care depends on a thorough understanding of how each patient's host and tumor characteristics determine the response to specific therapeutic interventions. This has always been the "holy grail" of medical oncology. Now I can reasonably believe that this personalization of care will be achievable within my lifetime, even for patients with a disease as enigmatic as lung cancer.



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