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Contact: Jayne Fairley

jayne.fairley@sagepub.co.uk

020-732-48719

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Best care for the oldest lung cancer patients

Los Angeles, London, New Delhi, Singapore and Washington DC (April 29th, 2010) - Although more than two fifths of lung cancers are diagnosed in patients over 70, data from clinical trials on the safest and most effective treatments for this age group are scarce. Now Italian oncologists are conducting a number of trials targeting elderly patients with non-small cell lung cancer (NSCLC), and offer a review of the latest findings - and their recommendations - in the current issue of Therapeutic Advances in Medical Oncology, published by SAGE.

According to Paolo Maione, Antonio Rossi, Cesare Gridelli and colleagues from S.G. Moscati Hospital in Avellino, Italy, elderly patients have more co-morbidity and don't tend to tolerate toxic medical treatments as well as younger patients. This means that clinical findings from studies on younger populations don't necessarily apply to the majority of elderly patients with NSCLC.

More than half of all cases of advanced NSCLC are diagnosed in patients over 65, and recent Surveillance, Epidemiology and End Results (SEER) Program data from the United States show that patients aged 70 years or older account for 47 percent of all lung cancers. Most prospective clinical data on chemotherapy and molecularly targeted therapy for elderly NSCLC patients come from studies in advanced disease. Unfortunately, by the time most patients from any age group receive a lung cancer diagnosis, the majority already have metastatic disease and a systemic, palliative treatment is their primary therapeutic option.

Cisplatin-based chemotherapy is currently recommended as the standard approach for patients with advanced NSCLC. However, to date, no prospective phase III study has explored the reproducibility of this benefit in elderly patients, the authors say. "The evaluation of

cisplatin-based chemotherapy in elderly patients, in our opinion should be a priority," says one of the study authors, Cesare Gridelli.

A number of phase II and III clinical trials show that single-agent chemotherapy with third-generation agents (vinorelbine, gemcitabine or taxanes) is the routine standard of care in elderly advanced NSCLC patients. The authors performed their own phase I/II trials looking at attenuated doses of cisplatin combined with gemcitabine or vinorelbine in elderly patients with advanced NSCLC. Their results were published in 2007, and in particular show that gemcitabine combined with cisplatin deserves comparison with single agent therapy for this patient group. The researchers are now launching a phase III randomized trial of cisplatin plus gemcitabine versus gemcitabin.

In addition to these chemotherapy treatments, targeted therapies are also available. Oncologists have tested epidermal growth factor receptor (EGFR) tyrosine kinase inhibitors, erlotinib and gefitinib, in phase II prospective trials on older patients. They showed that these drugs were a good first line treatment option. The United States Food and Drug Administration (FDA) has recently approved gefitinib for first-line treatment of patients whose tumors are positive for EGFR gene mutations. This means that screening lung cancer patients for EGFR gene mutations will have an important role in decisions about treatment, and will benefit elderly patients, too.

However, another targeted treatment option for the general patient population, using the monoclonal antibody bevacizumab combined with chemotherapy, may be less suitable for the elderly due to their higher likelihood of co-morbid cardiovascular illnesses.

"The lack of data on octogenarians suggest that clinicians should exercise caution when applying the existing data on chemotherapy and targeted therapies for patients aged 70-79 years to those aged over 80 years," the authors stress. "Further specifically designed clinical trials are needed to optimize medical treatment of NSCLC in elderly patients."

Since 2000, oncologists have noticed that incidence of and death from lung cancer among women aged 50 and below has actually decreased. However, for women aged 70 and older

these have increased. For men, mortality has been decreasing for all age groups except among men aged 70-74, where it has leveled off.

Lung cancer is the most common cancer in the world and the leading cause of cancer-related deaths in western countries. NSCLC constitutes between 80% and 85% of all lung cancers. Elderly cancer patients often present with medical and physiological challenges that make the selection of their optimal treatment daunting for oncologists. Despite this (or perhaps because of it), the elderly are sorely underrepresented in clinical trials, even though most phase II and III trials now have no upper age limit.

"Elderly-specific trials provide quality care in the elderly, particularly among the oldest of the old," says Gridelli. "This patient population is at risk of both empirical under treatment resulting in poor survival or excessive toxicity from standard therapy."

The authors are continuing to conduct and publish their prospective trials of a number of lung cancer treatments on elderly patients, to ensure that the data is available for oncologists to make the best choices for their oldest patients in years to come.

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Treating advanced non small cell lung cancer in the elderly by Paolo Maione, Antonio Rossi, Paola Claudia Sacco, Maria Anna Bareschino, Clorinda Schettino, Marianna Luciana Ferrara, Marzia Falanga, Rita Ambrosio and Cesare Gridelli will be published in *Therapeutic Advances in Medical Oncology* published by SAGE on the 29th April 2010. DOI:

Author Contact: Cesare Gridelli - cgridelli@libero.it

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