

BY VIVIENNE RAPER



# Italians make effective use of multidisciplinary team approach to combat lung cancer

Multidisciplinary care and personalised medicine have developed hand-in-hand over the last few years. At today's session, five Italian specialists in lung cancer will be looking to the future and discussing how developing the right strategy can make a substantial difference in diagnosing and managing lung cancer.

Dr. Anna Rita Larici, an assistant professor of radiology at the Agostino Gemelli University Hospital in Rome, is an enthusiastic advocate of multidisciplinary care for lung cancer patients. She recalls a case from earlier this year in which a patient was referred to her hospital after multiple investigations elsewhere.

"He underwent several diagnostic tests, including CT and PET/CT scans, and invasive procedures, notably transthoracic biopsy and endobronchial ultrasound biopsy, before it was demonstrated that his lung lesion was not cancer, but pneumonia," she explained.

Larici, who is president of the College of Thoracic Radiology of the Italian Society of Medical and Interventional Radiology (SIRM), believes the patient didn't receive correct management. "He underwent several 'non-useful' investigations because he wasn't dealt with, from the beginning, in a multidisciplinary context," she said.

Lung cancer remains a leading cause of mortality worldwide and is responsible for more than 2 million cases and more than 1.75 million deaths each year, according to recent data from the World Health Organization (WHO).

"Diagnosis and therapeutic management of patients with lung cancer is a challenging topic and the overall death rate hasn't significantly improved for several decades," said Larici. "But nowadays we have new possibilities to customise care for these patients".

This inspired her to agree to moderate today's session, which will focus on the different roles in a multidisciplinary team, with talks from experts in imaging, pathology, oncology, and surgery. Among them is Prof. Silvia Novello, professor of medical oncology at the University of Turin, Italy. She too is convinced that current and future developments in lung cancer treatment are due to the work of multidisciplinary teams.

"Nothing can be done in a proper way in the diagnostic and therapeutic fields without the co-operation of different specialists, such as the oncologist, pulmonologist, pathologist, radiologist, radiotherapist and surgeon," she noted.

Multidisciplinary teams are common in Italian university hospitals, according to Larici, although they are less widespread in small peripheral hospitals. They improve clinical decision-making by bringing specialists together in the same room to discuss cases. In her hospital, the team analyses patient information and comes to a joint clinical decision.

"We start from images," she said. "Imaging is the core of the meeting. The expert chest radiologist puts forward the diagnostic hypothesis in the case of an indeterminate lung lesion, taking into consideration imaging characteristics and available clinical data, or defines the clinical stage or re-stage after treatment of a known lung cancer, and the further management of the patient mainly depends on these evaluations."

Personalised medicine has come hand-in-hand with multidisciplinary teamwork, Novello explained. Physicians have access to a wider range of treatment options, including drugs that may only benefit a certain percentage of patients.

"With personalised medicine, the overall survival rate is increased in a substantial proportion of patients with lung cancer," said Dr. Mario Silva, assistant professor in radiology at the Department of Diagnostic Imaging, University of Parma, and researcher in Lung Cancer Screening at the National Cancer Institute of Milan.

Silva will be talking about cancer staging using the 8<sup>th</sup> edition of the TNM Classification of Malignant Tumours. He explained that personalised medicine and technological development have led to an increased complexity of staging

algorithms, with more sub-stages being added. Although this makes the radiologist's job harder, the benefits to clinicians include knowing when not to intervene.

He gave the example of a 67-year-old female smoker with chronic obstructive pulmonary disease (COPD) and a non-solid 1.5cm lesion of the upper lung. Improved imaging criteria and a multidisciplinary view of the patient allow the weighing up of surgery risk in patients with multiple co-morbidities. This could lead to the patient's tumour being managed conservatively unless a solid component appears, avoiding an unnecessary lobectomy, he said.

The treatment guidelines have changed in response to personalised medicine, with suggestions on alternative treatments after the tumour becomes resistant to initial therapy. According to Silva, the faster new drugs are developed, the more options clinicians have to combat drug-resistant tumours, and the longer patients may survive.

With patients moving through a succession of treatments, cancer no longer progresses in a systematic predictable way, explained Novello. Instead, there may be progression at one or two disease sites, despite an overall improvement in the patient's condition. Radiological imaging may need to be interpreted differently and treatment targeted to individual metastases.

In his talk, Silva will also briefly discuss new technologies to improve staging. Spectral CT, which relies on advanced scanner technology, can detect abnormalities in the distribution of contrast agent in the neoplastic tissue to better pinpoint the tumour's evolution. He believes it may develop into an alternative to PET, the current reference standard for non-invasive lung cancer staging.



Regular meetings of the multidisciplinary lung cancer team play an essential role in determining an appropriate care plan at the Agostino Gemelli University Hospital in Rome. (Provided by Dr. Anna Rita Larici)



Multidisciplinary team meetings at the Agostino Gemelli University Hospital are always well attended. (Provided by Dr. Anna Rita Larici)

## Multidisciplinary Session

Wednesday, February 27, 08:30–10:00, Room K  
MS 1 Lung cancer team

- » Chairperson's introduction  
A.R. Larici; Rome/IT
- » Imaging and staging  
M. Silva; Parma/IT
- » Role of the pathologist: making the most of the sample  
G. Rossi; Ravenna/IT
- » Role of the oncologist: personalising the treatment  
S. Novello; Orbassano/IT
- » What the surgeon needs to know  
U. Pastorino; Milan/IT
- » Multidisciplinary case presentation and discussion  
A.R. Larici; Rome/IT

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IN RADIOLOGY

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Wednesday to Friday  
10:30 - 12:00

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