

CTE Session 4

Technologists Committee

Monday, October 6, 09:45 – 11:15**Session Title****Breathing Knowledge – the new Approaches of PET-CT Lung Scanning****Chairpersons****Marta Coelho** (Essen, Germany)**Mariano Portillo** (Buenos Aires, Argentina)**Programme**

- 09:45 – 10:15 **Riccardo Mei** (Bologna, Italy): The impact of PET/CT in patients with lung cancer
- 10:15 – 10:45 **Susana Valente** (Lisbon, Portugal): The role of the Technologists in PET/CT Lung imaging: techniques and patient care
- 10:45 – 11:15 **Hubertus Hautzel** (Essen, Germany): A step into the future: perspectives for lung cancer in nuclear medicine

Educational Objectives

1. Present the most commonly diagnosed Lung tumours.
2. Specify the most commonly used radiopharmaceuticals and their indications in the diagnosis of lung cancer using PET/CT.
3. Highlight the impact of PET/CT in the diagnosis of lung cancer.
4. List the protocols and radiopharmaceuticals most used in PET/CT for lung imaging.
5. Highlight the role of the NMT in a Nuclear Medicine department with a PET/CT.
6. Indicate strategies to reduce radiation exposure as well as care to be taken with patients with respiratory difficulties.
7. Name Gated respiratory devices: advantages and disadvantages.
8. Overview of the current state of lung cancer in nuclear medicine.
9. Mention future prospects of PET/CT in the diagnosis of patients with lung diseases.
10. Indicate future therapies or diagnostic methods in nuclear medicine for patients with lung cancer.

Summary

Lung cancer is the second most common cancer diagnosed worldwide. Despite numerous advances in genetics and risk factors of the disease, as well as innovation in new therapeutic modalities, lung cancer remains the leading cause of cancer deaths. Lung cancer comprises two main histological types that include non-small cell lung cancer (NSCLC), accounting for 85% of all cases, and small cell lung cancer (SCLC). In lung cancer patients, PET/CT is vitally important for optimal patient management. PET/CT is essential in determining staging and restaging of disease, detecting recurrent or residual disease, evaluating response to therapy, radiation therapy planning, and providing prognostic information.

Key Words

Lung Cancer; computed tomography; positron emission tomography; radiotracers; tumour imaging