

Harmonising Education in Thoracic Oncology in Europe; European Recommendations for integrated Training

Georgia Hardavella¹,
Mina Gaga²

¹Department of Respiratory Medicine, King's
College Hospital, London, UK

²7th Resp. Med. Dept and Asthma Center,
Athens Chest Hospital

In 2005, the European Respiratory Society (ERS) has commenced an ongoing attempt to harmonise education in Respiratory Medicine for European Specialists (HERMES) across all Europe¹. This resulted in the formation of an integrated syllabus and curriculum as well as the HERMES Diploma in Respiratory Medicine Exam^{2,3}. Over the last 8 years (2008-2015), 416 Respiratory Physicians have successfully participated in the exam⁴.

In this context, the ERS Thoracic Oncology Assembly identified the need to specifically harmonise education in Thoracic Oncology and therefore initiated the HERMES Taskforce in Thoracic Oncology.

The anticipated output was to consolidate and certify a training curriculum and syllabus in Thoracic Oncology that will be accessible to all physicians involved in the diagnosis and treatment of lung cancer, regardless of their specialty training or country of origin.

This initiative was prompted by the following factors:

- A. There is a wide variability among specialty training programmes in Europe and in particular among specialties involved in the diagnosis and treatment of lung cancer.
- B. Thoracic Oncology training is not well defined in most countries.
- C. There is a continuous epidemiological increase of thoracic malignancies, which have a huge personal, social and financial impact. The optimal and certified care therefore of lung cancer is crucial
- D. Lung cancer care should be optimal and this is achieved
 - D₁. Through multidisciplinary team care. There is an unmet need of shaping a professional culture to reinforce equal and effective multidisciplinary collaboration among all specialties involved in the diagnosis and treatment of lung cancer across all European countries.
 - D₂. Through frequent professional and academic mobility of healthcare professionals with a special interest in Thoracic Oncology resulting in optimal training and equal provision of care.
 - D₃. Through less variability in European healthcare systems and infrastructure in Thoracic Oncology Services.

The Taskforce was a collaborative work among medical doctors (MD) of all specialties involved in the diagnosis and treatment of lung cancer; Chest Physicians, Thoracic Surgeons, Medical Oncologists, Clinical Oncologists

Correspondence:

Mina Gaga MD, PhD
Director, 7th Resp. Med. Dept and Asthma Center
Medical Director, Athens Chest Hospital
152 Mesogion Ave Athens 11527
Tel + 30 210 7781720, + 30 210 7763667
Fax +30 210 7781911
Email: minagaga@yahoo.com

(Radiation Oncologists), Pathologists In parallel, patients and carers were involved in a multidisciplinary collaboration aiming to define the role and function of MDTs (multidisciplinary team meetings). All members have worked towards an integrated syllabus and curriculum for training and certification in Thoracic Oncology. The syllabus was completed and published in September 2013^{5,6} and the curriculum was published in September 2016⁷ (Table 1).

- The 'HERMES Task Force in Thoracic Oncology' was chaired by Anne-Pascale Meert and Fernando Gamarra. Julie-Lyn Noël, a medical education specialist, has coordinated all group activities.
- The Taskforce group was inclusive and had a wide representation from European countries and specialties as follows;

TABLE 1. Thoracic oncology curriculum modules; detailed report can be accessed in the latest issue of *Breathe*⁷.

Thoracic oncology curriculum modules

General principles of the biology of thoracic cancers
Aetiology and epidemiology
Clinical presentations
Diagnostic procedures
Imaging
Diagnostic and interventional bronchoscopic techniques and medical thoracoscopy
Clinical and pathological staging
Pathology of intrathoracic tumours
Prognostic factors/predictive markers
Principles of thoracic surgery
Management of surgical complications
Principles of radiation therapy
Principles of systemic therapy
Side-effects of systemic therapy and their management
Combined-modality treatments
Management of particular groups of patients
Treatment evaluation and follow-up
Supportive care
Methodologies for clinical practice and research
Ethics
Cancer-related immunology
Quality and economic considerations in lung cancer treatment

- Respiratory Physicians and active ERS members: Mina Gaga (Greece), Bogdan Dragos Grigoriu (Romania), Rudolf M. Huber (Germany), Sam Janes (UK), Jean-Paul Sculier (Belgium), Georgia Hardavella (UK) who represented junior members from the Thoracic Oncology Assembly.
- Thoracic Surgeons and official representatives of ESTS (European Society of Thoracic Surgeons): Gilbert Massard (France), Dirk Van Raemdonck (Belgium), Alessandro Brunelli (UK).
- Medical Oncologists and official representatives of ESMO (European Society for Medical Oncology): Enriqueta Felip (Spain), Anne-Marie C. Dingemans (Netherlands).
- Clinical Oncologists and official representatives of ESTRO (European Society of Thoracic Radiotherapy and Oncology): Sara Ramella (Italy) and Paul Martin Putora (Switzerland).
- Pathologist with a special interest in thoracic malignancies: Philipp A. Schnabel (Germany).

Their affiliations are included in the Acknowledgements' section.

The multidisciplinary Taskforce group has considered contemporary concepts of medical education (Bloom's taxonomy of education objectives, Miller's model of clinical skills etc) prior to the formation of the curriculum and has received guidance by the assigned medical education specialist⁸⁻¹³.

The HERMES Taskforce in Thoracic Oncology is suitable for Medical Doctors (Respiratory Physicians, Thoracic Surgeons, Medical Oncologists, Clinical/Radiation Oncologists) that hold a recognized certificate of completion of specialty training in the country they practice and wish to subspecialize in Thoracic Oncology following the systematic approach offered by the curriculum. This process will help them participate efficiently in the Lung Cancer Multidisciplinary Team Meetings and chair them⁷ independent of their primary specialty. The curriculum is meant to be supported by relevant training and structured activities in specialised centres of Thoracic Oncology with high volume of cases and active involvement of all specialties on site. To ensure quality of care, patients with thoracic tumours should be managed in centres where all the involved specialties are available¹² therefore there is a reasonable expectation that the involved physicians are certified for their competences and expertise. The HERMES Diploma in Thoracic Oncology will aim to offer this.

The Taskforce proposes a minimum of 12 months and up to 24 months dedicated training (full time), depending on the training centre and its case load, accomplished

after the completion of specialty training. This Thoracic Oncology training should be interprofessional and multidisciplinary. The accreditation with the HERMES Diploma in Thoracic Oncology confirms the acquisition of specialized knowledge, skills, and behaviors.

The training will be module oriented. Modules could be followed independently or in combination depending on the candidate's main specialty eg. a certified Radiation Oncologist will not need to repeat the radiation oncology related module as opposed to medical doctors from other specialties that will need to.

The HERMES Taskforce in Thoracic Oncology is the first Taskforce to set a novel platform of multidisciplinary and interprofessional training for specialised medical doctors involved in lung cancer treatment and are members of the Lung Cancer Multidisciplinary Team Meetings. It sets standards and ensures consistency in Thoracic Oncology training, independent of the pre-existing specialty training. Furthermore, it offers better insight of all specialties involved in the treatment of lung cancer patients.

Multidisciplinary collaboration will become more efficient and will be contemplated by effective communication among all disciplines involved while ensuring high quality of care is tailored to patients' needs.

ACKNOWLEDGEMENTS

Members of HERMES Taskforce in Thoracic Oncology

Alessandro Brunelli (Dept of Thoracic Surgery, St James's University Hospital, Leeds, UK)

Anne-Marie C. Dingemans (Maastricht University Medical Centre, Pulmonology, Maastricht the Netherlands)

Enriqueta Felip (Hospital Univer. Vall d'Hebron, Barcelona, Spain)

Mina Gaga (Athens Chest Hospital, 7th Respiratory Medicine Dept, Athens, Greece)

Bogdan Dragos Grigoriu (University of Medicine and Pharmacy Iasi, Regional Institute of Oncology Iasi, Iasi, Romania)

Georgia Hardavella (Dept of Respiratory Medicine, King's College Hospital, and Dept of Thoracic Medicine, University College London, London, UK)

Rudolf M. Huber (Division of Respiratory Medicine and Thoracic Oncology, University of Munich, and Thoracic Oncology Centre Munich, Member of the German Centre for Lung Research (DZL CPC-M), Munich, Germany)

Samuel Janes (University College London, Centre for Respiratory Research, London, UK)

Gilbert Massard (Dept of Thoracic Surgery, Hôpitaux

Universitaires de Strasbourg, Strasbourg, France)

Paul Martin Putora (Kantonsspital St Gallen, Dept of Radiation Oncology, St Gallen, Switzerland)

Jean-Paul Sculier (Institut Jules Bordet, Intensive Care and Thoracic Oncology (ULB), Brussels, Belgium)

Philipp A. Schnabel (Institut für Allgemeine und spezielle Pathologie, Universität des Saarlandes, Homburg/Saar, Germany)

Sara Ramella (Campus Bio-Medico University, Radiation Oncology, Rome, Italy)

Dirk Van Raemdonck (Dept of Thoracic Surgery, University Hospital Leuven, Leuven, Belgium).

REFERENCES

1. Loddenkemper R, Séverin T, Eiselé J-L, et al. HERMES: a European Core Syllabus in Respiratory Medicine. *Breathe* 2006; 3:59-69.
2. Loddenkemper R, Haslam PL, Séverin T, et al. European Curriculum Recommendations for Training in Adult Respiratory Medicine. *Breathe* 2008; 5:80-121.
3. Loddenkemper R, Séverin T, Haslam PL. European curriculum recommendations for training in adult respiratory medicine: crossing boundaries with HERMES. *Eur Respir J* 2008;32:538-40.
4. <http://hermes.ersnet.org/exams/diplomates-registry.html>. Accessed on 20.08.2016.
5. Meert AP, Noël JL, Boffetta P, et al. Thoracic Oncology HERMES: a European syllabus towards a harmonised education and training of Thoracic Oncology specialists. *Breathe* 2013 9: 381-392.
6. Gamarra F, Boffetta P, De Ruysscher D, et al. Thoracic Oncology HERMES syllabus: setting the basis for thoracic oncology training in Europe. *Eur Respir J*. 2013;42:568-71.
7. Gamarra F, Noël JL, Brunelli A, et al. Thoracic oncology HERMES: European curriculum recommendations for training in thoracic oncology. *Breathe* 2016; 12:249-55.
8. Harden RM. AMEE Guide No. 21: Curriculum mapping: a tool for transparent and authentic teaching and learning. *Med Teach* 2001; 23:123-37.
9. Oandasan I, Reeves S. Key elements for interprofessional education. Part 1: The learner, the educator and the learning context. *Journal of Interprofessional care* 2005;19(sup1):21-38.
10. Lobst WF, Sherbino J, Cate OT, et al. Competency-based medical education in postgraduate medical education. *Medical Teacher* 2010; 32:651-6.
11. Bluteau P, Jackson A. (Eds.). *Interprofessional education: Making it happen*. Palgrave Macmillan, 2009.
12. Bloom BS. *Taxonomy of educational objectives; the classification of educational goals*. 1st Edn. New York, Longmans Green, 1956.
13. Miller GE. The assessment of clinical skills/competence/performance. *Acad Med* 1990; 65(Suppl.):63-7.
14. Gaga M, Powell CA, Schraufnagel DE, et al. An official American Thoracic Society/European Respiratory Society statement: the role of the pulmonologist in the diagnosis and management of lung cancer. *Am J Respir Crit Care Med* 2013;188:503-7.