

available at www.sciencedirect.comjournal homepage: www.ejconline.com

Position Paper

The Masterclass of the European School of Oncology: The ‘key educational event’ of the school

N. Pavlidis ^{a,*}, W. Gatzemeier ^b, R. Popescu ^c, R. Stahel ^d, H. Pinedo ^e, F. Cavalli ^f, A. Costa ^g

^a Department of Medical Oncology, Medical School, University of Ioannina, Greece

^b Humanitas Clinical Institute, Breast Unit, Milan, Italy

^c Hirslanden Klinik Aarau, Tumor Center, Department of Medical Oncology, Aarau, Switzerland

^d University Hospital of Zurich, Department of Oncology, Zurich, Switzerland

^e Academisch Ziekenhuis, Vrije Universiteit, Amsterdam, Netherlands

^f Oncology Institute of Southern Switzerland, Bellinzona, Switzerland

^g European School of Oncology, Milan, Italy

ARTICLE INFO

Article history:

Received 25 May 2010

Accepted 2 June 2010

Available online 6 July 2010

Keywords:

Cancer education

European School of Oncology

Masterclass

ABSTRACT

The European School of Oncology (ESO) Clinical Masterclass is a one-week, full-immersion course, where students and teachers intensively interact with each other. This educational event is designed for medical or clinical oncologists who are defining and orientating their professional careers. Since 2002 nine Masterclasses have been organised in different European cities in which more than 500 oncologists have participated.

In this paper, we are presenting data derived from the analysis of the questionnaire distributed to all participants.

© 2010 Elsevier Ltd. All rights reserved.

1. Introduction

In Europe postgraduate or continuing medical education in oncology is provided not only by academic institutions or cancer centres, but also through scientific societies (i.e. ESMO, ESTRO, ESSO) or other scientific bodies (i.e. EORTC, ESO).^{1–6}

The ESO was founded in 1982 with the aim of contributing to the reduction of deaths from cancer due to late diagnosis and/or inadequate treatment. ESO's mission is reflected in its motto ‘Learning to Care’, which stresses the concept of studying and learning and also of caring for the patient in a global sense. By improving the skills of all health professionals dealing with cancer patients, ESO shortens the length of

time needed to transfer knowledge from research centres to daily practice, combining advanced technology with humanism in care. Care and not only treatment is of paramount importance because ESO believes in the holistic approach to the cancer patient.

ESO educational activities include Advanced Courses, Seminars, Symposia, Inside Track Conferences, Global Insight Conferences and Masterclasses. Masterclasses are unique educational events in collaboration between the school and the main European scientific societies. The Masterclass on radiotherapy is organised with ESTRO, the Masterclass on paediatric oncology with SIOP Europe, the Masterclass on nursing oncology with EONS, the Masterclass

* Corresponding author. Address: Department of Medical Oncology, Medical School, University of Ioannina, 451 10 Ioannina, Greece. Tel./fax: +30 26510 99394.

E-mail address: npavlid@uoi.gr (N. Pavlidis).

0959-8049/\$ - see front matter © 2010 Elsevier Ltd. All rights reserved.

doi:10.1016/j.ejca.2010.06.006

on surgery with ESSO and the Masterclass on medical/clinical oncology with ESMO.

The ESO Masterclass is an interactive clinically oriented educational programme designed for medical and clinical oncologists who wish to improve their skills or those who are preparing for the national board examination. The admission to the ESO Masterclass is by application and a competitive selection, only for the 60 places available at each course.

Since 2002 nine Masterclasses took place in the following European cities: Montecatini, Italy, in 2002; Tenerife, Spain, in 2003; Limassol, Cyprus, in 2004 and 2005; St. Julians, Malta, in 2006 and 2007; Sofia, Bulgaria, in 2008; Sintra, Portugal, in 2009 and Ermatingen, Switzerland, in 2010.

In this report, we present the evaluation of the ESO Masterclasses in Clinical Oncology, of which the latest two were organised in collaboration with ESMO. We are illustrating in detail the educational programme, the participant's selection process and the extensive analysis of the evaluation of the programme and of the faculty through a provided questionnaire.

2. Materials and methods

2.1. Educational programme characteristics

This key educational event carries the following characteristics: (i) it is mainly designed for medical and/or clinical oncologists, (ii) it offers plenary lectures regarding state-of-the-art clinical evaluation and treatments with reference to clinical guidelines, (iii) the programme focuses on breast, colorectal, lung, gynaecological, genitor-urinary and head and neck cancers and has spotlight sessions on haematological malignancies, palliative and supportive care, communication skills and various other topics, (iv) participants deliver case presentations within small groups and discuss them with faculty members, (v) it is a multidisciplinary clinically oriented 5-day residential event in which participation is compulsory throughout the course.

2.2. Faculty and educational material

An international faculty of more than 30 European distinguished academic experts including mainly medical oncologists (45.5%), radiation oncologists (15%) and surgical oncologists (16%) are involved in each of this rather intense educational programme. Most faculty members are well-known experts from prominent European Universities or Cancer Centres (Table 1).

At the end of most days three members of the faculty discuss in a very interactive way for 1½–2 h clinical cases presented by the students in small groups of 20 students. An educational ESO book of around 500 pages with extended abstracts, references and copies of all presented slides is provided to all participants.

2.3. Participant selection criteria

The ideal Masterclass candidate should fulfil the following criteria: (i) age between 30 and 40 years, (ii) at least 2–3 years' experience in medical or clinical oncology, (iii) involvement in

Table 1 – Faculty members.

Specialty	2002	2003	2004	2005	2006	2007	2008	2009	2010	Overall
Medical oncologists	32% (14/44)	23% (9/39)	44.5% (17/38)	37% (11/30)	46% (12/26)	48.5% (15/31)	29% (11/38)	54% (16/30)	52.5% (20/38)	41%
Radiotherapists/clinical oncologists	11% (5/44)	13% (5/39)	13% (5/38)	16.5% (5/30)	19% (5/26)	19% (6/31)	2.5% (1/38)	17% (5/30)	18.5% (7/38)	14%
Surgeons	29.5% (13/44)	18% (7/39)	15.5% (6/38)	16.5% (5/30)	15.5% (4/26)	19% (6/31)	10.5% (4/38)	20% (6/30)	15.5% (6/38)	17.5%
Pathologists	4.5% (2/44)	2.5% (1/39)	3% (1/38)	7% (2/30)	4% (1/26)	3.5% (1/31)	2.5% (1/38)	3% (1/30)	3% (1/38)	3.5%
Radiologists	7% (3/44)	5% (2/39)	3% (1/38)	–	–	–	5.5% (2/38)	3% (1/30)	3% (1/38)	4%
Others	16% (7/44)	38.5% (15/39)	21% (8/38)	23% (7/30)	15.5% (4/26)	10% (3/31)	50% (19/38) ^a	3% (1/30)	7.5% (3/38)	20%

^aMost nurses due to combined Masterclass with Nursing Oncology.

scientific or research activities, (iv) fluency in English, (v) submission of an application form along with a letter of motivation, supporting letter from head of department or mentor, curriculum vitae with list of publications and abstract of a clinical case relating to one of the subjects of the Masterclass. Around 60 participants are selected annually by an ESO Committee. ESO offers free registration and accommodation to selected participants.

2.4. Questionnaire evaluation

A questionnaire including the evaluation of the course in general, content, organisation and speakers is distributed to all participants. In addition, it is requested to provide helpful suggestions concerning the Masterclass. They are asked to score each question concerning the topics and faculty members based on a grading scale from 1 to 4 (1 = poor, 2 = fair, 3 = good, 4 = excellent) (Table 2).

3. Results

3.1. Participant demographics

The participants' demographics are illustrated in Table 3. In total 485 participants were selected to attend the nine ESO Masterclasses organised between 2002 and 2010.

Almost 60% of participants were below 35 years old and 37% between 35 and 45 years. Fifty per cent were females.

The vast majority of participants were medical oncologists (72%). Sixty-seven per cent of them were originated from countries of the European Union, 25% were non-European Union citizens and only 8% from non-European countries.

3.2. Masterclass evaluation

The analysis of the Masterclass evaluation was based on the seven most important questions of the questionnaire, rated on a scale from 0 (poor) to 4 (excellent) (Table 4). It became evident that most of the attendees declare that the conference provided the goals and learning outcomes needed (median: 3.68, range: 3.55–3.79). The overall rating for the quality of the education offered was also highly rated with a median score of 3.54 (range: 3.03–3.74). Most of the participants found the information given useful and relevant to their practice (median score: 3.64, range: 3.46–3.79).

In addition, participants felt that the provided information were well balanced with adequate evidence and that they had adequate time for discussion and questions (median: 3.59, range: 3.30–3.75 and median: 3.51, range: 2.80–3.82, respectively).

Concerning the facilities, and the venue as well as the management and the organisation of the courses, the vast majority scored very highly (median: 3.61, range: 2.70–3.95 and median: 3.71, range: 3.37–3.98, respectively).

It is obvious though that the 2008 Masterclass held in Sofia was scored with the lowest marks (overall score 3.32). The

Table 2 – Masterclass ESO – ACOE questionnaire.

General

- 1 Did the meeting provide the goals and learning outcomes:
 - a) The Masterclass will offer participants a qualified training in clinical oncology to improve their knowledge in epidemiology, prevention, diagnosis, treatment and care in the field
 - b) Attendees should improve their skills in dealing with cancer problems as a whole challenge and should gain more security to intercourse with them in sense of current best clinical practice and state of the art
- 2 Please give an overall rating for the quality of the education offered at this meeting

Content

- 3 Was the information useful and relevant to your work and practice techniques?
- 4 Did you feel that the presented information was well balanced and supported with adequate evidence?
- 5 Did the programme allow adequate time for discussion and questions?
- 6 Did you feel that the event contained material designed to promote (commercially)?

Organisation

- 7 How would you rate the facilities and venue for the purposes of this meeting?
- 8 How would you rate the management and organisation of this meeting?
- 9 How would you finance your participation?
- 10 How did you find out about the event?

Information about you

- 11 Gender
- 12 Country
- 13 Profession/specialty

All readable suggestions will be taken into account

- 14 Which part of the conference was the most useful and why?
- 15 Which part of the conference was the least useful and why?
- 16 Do you have suggestions for future Masterclass topics?

Speakers' evaluation (poor: 1/fair: 2/good: 3/excellent: 4)

You are kindly asked to give an evaluation of each speaker, by considering the quality of the presentation, of the visual support, the relevance to the objectives of the course and the usefulness of the content

Table 3 – Participant demographics.

Venue	2002 Montecantini, Italy	2003 Tennerife, Spain	2004 Limasol, Cyprus	2005 Limasol, Cyprus	2006 St. Julians, Malta	2007 St. Julians, Malta	2008 Sofia, Bulgaria	2009 Sintra, Portugal	2010 Ermatingen, Switzerland	Overall
No Participants	53	44	54	60	54	52	50	54	64	485
Age (years)										
<35	–	41%	55%	54%	52%	76.5%	54%	68.5%	85%	61%
35–45	–	41%	45%	44%	46%	23.5%	42%	30%	15%	37%
>45	–	18%	–	2%	2%	–	4%	1.5%	–	2%
Gender										
Males	62%	64%	57%	48.5%	50%	40%	44%	34%	48.5%	50%
Female	38%	36%	43%	51.5%	50%	60%	56%	66%	51.5%	50%
Specialty										
Medical oncology	46%	45%	69%	63%	85%	90%	96%	80%	86%	72%
Radiation oncology	11%	11.5%	8%	10%	4%	8%	4%	13%	5%	6%
Clinical oncology	11%	11.5%	4%	10%	–	–	–	–	9%	7%
Other	32%	32%	19%	17%	11%	2%	–	7%	–	15%
Countries of origin										
European Union	57%	68%	53%	57%	72%	61%	83%	68%	85.5%	67%
Non-European Union	24%	16%	38%	35%	28%	35%	11%	25%	11%	25%
Non-Europeans	19%	16%	7%	8%	–	4%	6%	7%	3.5%	8%

Table 4 – Masterclass evaluation: analysis of selected questions.

Question	Average rating score (1–4)									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	Median
Did the meeting provide the goals and learning outcomes?	3.60	3.63	3.62	3.71	3.79	3.78	3.55	3.77	3.71	3.68
Please give an overall rating for the quality of the education offered at this meeting	3.50	3.58	3.03	3.69	3.74	3.62	3.35	3.71	3.70	3.54
Was the information useful and relevant to your work and practice?	3.60	3.79	3.58	3.48	3.70	3.76	3.46	3.73	3.71	3.64
Did you feel that the presented information was well balanced and supported with adequate evidence?	3.30	3.63	3.73	3.65	3.66	3.75	3.30	3.69	3.62	3.59
Did the programme allow adequate time for discussion and questions?	2.80	3.51	3.59	3.62	3.79	3.64	3.54	3.82	3.28	3.51
How would you rate the facilities and venue for the purposes of this meeting?	3.60	3.76	3.70	3.70	3.75	3.84	2.70	3.56	3.95	3.61
How would you rate the management and organisation of this meeting?	3.42	3.63	3.88	3.62	3.83	3.94	3.37	3.79	3.98	3.71
Overall	3.40	3.64	3.59	3.63	3.75	3.76	3.32	3.72	3.70	3.61

reasons were attributed to the fact that the Masterclass in Clinical Oncology was combined with the Masterclass in Nursing Oncology and the venue and facilities were not ideal.

3.3. Teaching evaluation

For each speaker evaluation the following parameters were taken into consideration: (a) the quality of presentation, (b) the quality of visual support, (c) the relevance to the objectives of the course and (d) the usefulness of the content.

From the scores provided 40% of the speakers/topics marked above 3.5, 54.5% between 3.0 and 3.5 and only 5.5% below 3.0. Several topics were rated constantly higher i.e. ovarian cancer or haematological malignancies. In general, the overall score rate of each Masterclass through the years was ranging from 3.15 to 3.50, the lowest seen in the 2002 course (3.15) and the highest (3.50) in the 2004 and 2008 courses (Table 5).

Clinical case presentations were also quite popular with a median score of 3.46 (range: 3.08–3.68). Several spotlight sessions got also high scores such as those of clinical trials (3.78), cancer of unknown primary (3.71), mesothelioma (3.61), medical ethics (3.53), sarcomas (3.41) and others.

4. Discussion

ESO organises a wide range of educational activities, covering many different topics and relevant to all health professionals in oncology. All ESO's events are clinically oriented and organ-

oriented courses where the disease is approached from all possible sides, from epidemiology to surgery and from basic science to rehabilitation.

The range of ESO activities includes: (a) the advanced courses and seminars (intermediate level of complexity corresponding to the specific educational needs of a particular geographic area), (b) the inside track conferences (for those who already have clinical experience and need a quick, concentrated and essential update), (c) the global insight conferences (scientific meeting focusing on one specific topic with the intention of promoting dialogue between different areas of the World), (d) the medical students oncology course (to introduce more solid teaching in oncology and to influence students' career decision)⁷ and (e) the Masterclass (designed for young or in-training medical or clinical oncologists who wish to improve their skills or to prepare them for the national board exam).

The Masterclass is considered as the 'key event' of the school since young oncologists are exposed to a wide range of interactive clinical educational sessions involving more than 30 European faculty members. ESO has also attempted to organise Masterclass events in other parts of the world such as in the Middle East (Euro-Arab School of Oncology) or in the Balkans.⁸ A recent report on the 7th ESO Masterclass held in Sofia, Bulgaria, appeared in a Hungarian Cancer Journal in 2008.⁹

ESO Masterclasses should be considered as a supplementary postgraduate or continuing medical education tool for European or non-European oncologists. Since 2008 ESMO collaborates in the organisation of the annual ESO

Table 5 – Teaching evaluation of major topics (score 1–4).

Topic	2002	2003	2004	2005	2006	2007	2008	2009	2010
Breast cancer	3.35	3.56	3.52	3.49	3.43	3.58	3.58	3.12	3.34
Lung cancer	3.12	3.38	3.49	3.51	3.41	3.60	3.63	3.28	3.61
Prostate cancer	3.38	3.56	3.45	3.18	–	3.08	3.13	3.30	3.22
Testicular cancer	–	–	–	–	–	–	–	3.69	3.61
Renal cancer	–	–	–	–	–	–	–	3.57	3.67
Ovarian cancer	3.14	3.75	3.58	3.67	3.85	3.73	3.37	3.65	3.83
Cervical/endometrial cancer	2.99	3.17	–	3.34	3.34	3.22	–	2.69	3.06
Colorectal cancer	3.46	3.39	3.60	3.49	3.54	3.57	3.65	3.41	3.63
Gastric/pancreatic cancer	–	–	–	–	–	–	–	–	3.37
Head and neck cancer	–	–	–	3.26	3.34	3.28	–	3.25	3.49
Haematological malignancies	2.70	3.36	3.53	3.56	3.86	3.79	3.81	3.75	3.25
Supportive care	3.12	3.36	3.34	3.09	3.17	3.35	3.56	2.71	3.66
Palliative care	–	–	–	3.08	3.20	2.79	3.16	–	3.53
Clinical case presentations	–	–	3.50	3.08	3.55	–	3.68	3.47	3.49
Overall	3.15	3.44	3.50	3.34	3.46	3.39	3.50	3.34	3.48

Masterclasses. ESO Masterclasses could also be seen as an additional complimentary educational service for those European countries where medical or clinical oncology has not been officially recognised.

According to the ESMO MOSES Phase III survey, Medical Oncology and Clinical Oncology are foreseen or officially recognised in 53.6% and 57.1% of European countries, respectively. The situation regarding postgraduate education in Oncology and especially of Medical Oncology is not completely satisfactory. Concerning CME it seems that in only half of the European countries, medical oncologists working in the public sector are required to follow a CME process in order to continue practising, while merely in a third of the countries CME is also required for medical oncologists in private practice. The supervision is mainly made by the National Health System or the medical associations.¹⁰

Regarding the ESO-ESMO Masterclasses, CME recognition is awarded by both the Accreditation Council for Oncology in Europe and ESMO (ESMO-MORA category 1 credits).

In summary, the ESO Masterclass is an educational event mostly dedicated to young European medical oncologists (72% of participants) and mainly taught by medical oncologists (41% of speakers). Secondly, participants rated the organisation and management of most of the courses with very high scores. Thirdly, the vast majority of the attendees found the education level and information very useful, relevant to their daily practice well balanced with adequate of evidence-based medicine and little or no bias from the supporting partners. Fourth, the clinical case presentations were very much appreciated by the participants who characterised them as very educational and interactive.

ESO in collaboration with ESMO will continue in future the organisation of Masterclasses and would welcome the promotion of this unique educational experience by senior physi-

cians and mentors in teaching hospitals throughout Europe to their young trainees and staff.

Conflict of interest statement

The authors have no any conflict of interest to declare.

Acknowledgements

We would like to thank Mrs. Chatrina Melcher and Dolores Knupfer (ESO Bellinzona Office) for their valuable and continuous contribution in the organisation and management of ESO Masterclasses.

REFERENCES

1. Wagener DJ, Vermorken JB, Hansen HH, Hossfeld DK. The ESMO programme of certification and training for medical oncology. *Ann Oncol* 1998;9(6):585–7.
2. Hansen HH, Bajorin DF, Muss HB, et al. ESMO/ASCO task force on global curriculum in medical oncology. Recommendations for a global core curriculum in medical oncology. *Ann Oncol* 2004;15(11):1603–12.
3. Naredi P, Leidenius M, Hocevar M, et al. Recommended core curriculum for the specialist training in surgical oncology within Europe. *Surg Oncol* 2008;17(4):271–5.
4. An EC/EORTC effort to achieve common European guidelines for the teaching of oncology. *Acta Oncol* 1988;27(4):421.
5. Costa A, Gatzemeier W. European school of oncology: 20 years of cancer education and a contribution to European guidelines of oncology. *Surg Oncol Clin N Am* 2001;10(4):781–94.

6. Armand JP, Alberto P, Costa A, et al. European school of oncology advisory report to the commission of the European communities for the “Europe against cancer programme”. Continuing medical education in oncology within the European Union. *Eur J Cancer* 1994;**30A**(8):1145–8.
7. Pavlidis N, Vermorken JB, Stahel R, et al. Oncology for medical students: A European school of oncology contribution to undergraduate cancer education. *Cancer Treat Rev* 2007;**33**:419–26.
8. Pavlidis N, Gadallah M, Cavalli F, Costa A. Euro-Arab school of oncology: an educational collaborative activity of European school of oncology with the Arab world. *J Cancer Educ* [in press].
9. Avramucz C, Horvath A, Kocsis J. European school of oncology: “7th masterclass in clinical oncology and 2nd masterclass in oncology nursing”. Interdisciplinary patient-centered oncology master course. *Magy Onkol* 2008;**52**(2):221–3.
10. Medical Oncology Status in Europe Survey (MOSES). Phase III; September 2008. <www.esmo.org/policy/status-of-medical-oncology-in-europe.html>.