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Educational needs in gastrointestinal cancer: a consensus position paper from the ESMO Gastrointestinal Cancer Faculty

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ABSTRACT

Gastrointestinal (GI) cancers are common in all parts of the world. Effective prevention and early detection of GI cancers are not universally implemented. Therefore, it must be anticipated that the incidence and the mortality of GI cancers will remain high within the next decades. The European Society for Medical Oncology (ESMO) Gastrointestinal Cancer Faculty aims to increase the skills of medical oncologists and other disciplines involved in treating GI malignancies. We aimed to increase the survival chances for patients with GI cancers, augment their quality of life and enable successful return to normal social and professional life during the period of survivorship. ESMO also aims to decrease the economic burden of GI cancer in our societies and national healthcare systems. Therefore, the ESMO Gastrointestinal Cancer Faculty initiated a consensus process based on the Delphi method to identify the most important educational needs of physicians who are concerned with GI malignancies. This paper summarises the process and its results and outlines the mission of ESMO in education.

INTRODUCTION

In 2016, 17.2 million cancer cases and 8.9 million cancer deaths were reported worldwide. Cancer increased by 28% between 2006 and 2016. Almost 30% of newly diagnosed cases and almost 40% of cancer deaths are attributed to gastrointestinal (GI) tract cancers.[1] These numbers underline the urgent need for a well-educated new generation of medical oncologists and physicians from other disciplines treating GI cancer to tackle the demands of prevention, diagnosis, treatment and follow-up of patients with GI cancers. In order to fulfil the mission of the European Society for Medical Oncology (ESMO) to be a leader in providing education for current and future oncologists, we aimed to define the most important educational needs of GI cancer physicians.

METHODS

Members of the ESMO gastrointestinal faculty (n=90) were requested to take part in a consensus and modified Delphi process.[2] We aimed to define the most important educational needs of GI cancer physicians. We created a web server-based questionnaire containing the following simple question: What are in your opinion the three most important educational needs for the next 10 years to train clinical and/or research fellows in GI oncology?

The survey was distributed online to the GI faculty members on 8 May 2018, with the aim of getting an overview on current educational priorities in GI tract cancers. The submitting deadline was 8 June 2018. The answers were collected at the ESMO head office. Results were made available for the coordinator of the ESMO GI faculty (FL), who prepared a meeting that took place on 22 June 2018 at the 20th ESMO World Gastrointestinal Cancer Congress in Barcelona. Results of the survey were presented at a 2-hour meeting in Barcelona, and the discussion about the statements was recorded and put into a protocol by one faculty member (RO) and verified by the coordinator (FL). Results of the survey and of the meeting were circulated among ESMO faculty members to get feedback in the sense of a confirmatory Delphi round and are presented here in a consensus position paper.

RESULTS

Ninety members of the ESMO GI faculty were invited to take part in the process. Sixty-two faculty members (69%) from 22 countries answered the online survey (figure 1). The professional specialties of participants are shown in figure 2. Forty-five faculty members took part in the face-to-face meeting and discussion on 22 June 2018.

According to the answers received from the survey, we formed 10 categories and

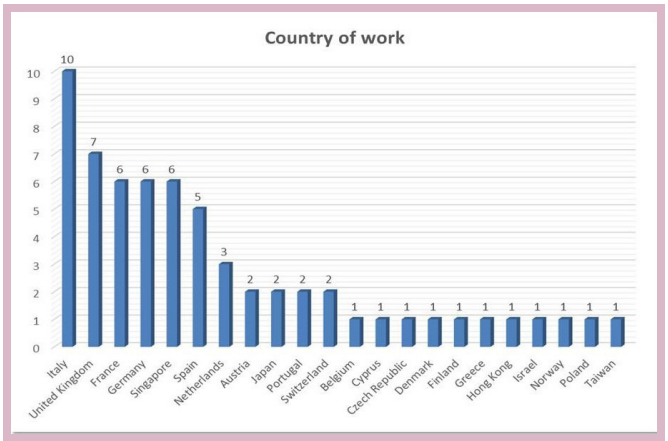

Figure 1 Country of work of participants in the European Society for Medical Oncology Gastrointestinal Faculty position paper.

structured the needs expressed during the survey accordingly. These ten categories are

1. Multidisciplinarity and multiprofessional care.
2. Standards and clinical training.
3. Biology and translation.
4. Medical oncology care training.
5. Specific disease situations.
6. Prevention and screening.
7. Evidence-based medicine and decision making.
8. Clinical research skills.
9. (Self-)management and career building.
10. Patient orientation.

It is acknowledged that among the 10 categories, several are not specific for GI oncology and should apply in general to the medical oncology practice and continuous education. This observation underlines the view of the ESMO GI faculty that for management of such a broad field like GI oncology, an integral way of viewing cancer medicine and a holistic approach to medical oncology is needed.

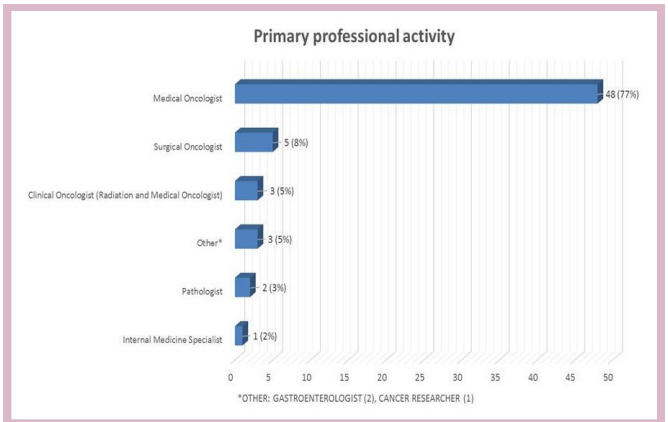

Figure 2 Primary professional activity of participants in the European Society for Medical Oncology Gastrointestinal Faculty position paper.

MULTIDISCIPLINARITY AND MULTIPROFESSIONAL CARE

Multidisciplinarity and multiprofessional care are seen as a key element in the management of patients with cancer. This includes the

- Active and educated participation in multidisciplinary board discussions.
- Ability to work in the context of a multidisciplinary team (MDT), including the appropriate referral for and the use of surgery and radiotherapy or other local treatments for oligometastatic cancer.
- Comprehensive knowledge on multidisciplinary treatment of GI cancers, including knowledge about endoscopic treatment techniques for cure and for palliation of symptoms, new surgical, radiation and interventional radiology techniques.
- Comprehensive understanding of the expertise and tasks of non-physician healthcare professionals, including oncology nurses, psycho-oncologists, social workers, physiotherapists and dietitians, among others.

GI faculty members felt that ESMO should further increase its activities in this area and offer pragmatic workshops on working in MDT with radiologists, radiotherapists, pathologists, nuclear medicine specialists, gastroenterologists and surgeons. Participants said that ESMO should train medical oncologists to lead the multidisciplinary approach, as medical oncology is the specialty that must have the global perspective of the disease. However, it is recognised that in some countries, there are trained and highly dedicated GI oncologists who can also do this. Techniques and communication skills to lead an MDT should be developed and applied. It was criticised that sometimes and at some sites, medical oncologists still do not have sufficient understanding and knowledge of surgical oncology, radio-oncology and other non-medical oncology specialities.

It was discussed that web-based tools could be of value and should be further developed to use the multidisciplinary approach. Latest results, developments and technologies from research should be part of the multidisciplinary training process. This should also include diagnostic disciplines like imaging.

STANDARDS AND CLINICAL TRAINING

Knowing the standards and having a good clinical training is without any doubt a prerequisite for good clinical care. More specifically, the following aspects should be trained:

- Assignment of patients for the best treatment modalities (=good interpretation of standards), which refers back to the multidisciplinarity training category (point 1).
- A critical analysis of the scientific evidence and how this should inform clinical decision making.
- Communication with the patient.
- Supportive/palliative care skills.
- Understand the needs of cancer survivors.

Clinical case discussions between junior and senior GI oncologists for teaching purposes could be of help. Faculty members encourage ESMO to update regularly the clinical practice guidelines, to extend the courses such as the masterclasses and preceptorship programmes in Europe and beyond (Asia-Pacific region, Middle East, Africa and Latin America), and to further facilitate clinical fellowships and exchange programmes. Collaboration with patient organisations was also seen as useful and necessary.

BIOLOGY AND TRANSLATION

A majority of faculty members are convinced that profound understanding of cancer biology and how to translate biology into clinical practice is key for improving prevention and treatment of GI malignancies. For GI cancer, this means

- Understanding of genomics to be comprehensively covered in both undergraduate and postgraduate training with application into clinical practice.
- Understanding of basic immunology, tumour–host interaction and immunotherapy.
- Understanding the molecular characteristics of GI cancer and correlate them with therapeutic options in terms of precision oncology.
- Understanding the importance of tumour heterogeneity, prognostic and predictive markers, and clonal evolution during systemic therapy.
- The prognostic and predictive value of biomarkers, of molecular subtyping and of contemporary multiomics approaches.
- The mechanisms of carcinogenesis and treatment resistance/clonal evolution of GI cancers and novel diagnostic techniques to capture these (circulating tumour DNA and tumour sequencing).
- How to integrate imaging techniques in the management of different GI cancers and how new technologies, for example, artificial intelligence, can add to patient care.

It was mentioned that ESMO educational activities like preceptorships sometimes focus too much on clinical perspectives alone, but biological, molecular and immunological teaching should be reinforced as well. The potential value of continuing medical education training courses in GI cancer biology was discussed.

MEDICAL ONCOLOGY CARE TRAINING

Treating patients and guiding them through the trajectory of disease is a core activity of medical oncologists. Therefore, it was emphasised that a high level of treatment expertise must be learnt by all GI oncologists in training and thereafter. This should include

- Immunotherapy: understanding mechanisms of immunotherapy and basic immunology.
- Confirming the right indications for chemotherapy, immunotherapy and targeted therapy.
- How to deal with the toxicity of chemotherapy, targeted therapy, immunotherapy and combinations
- Strategies to reduce long-term side effects.
- Strategies to implement systemic treatment breaks, for example, by introducing local therapies into treatment of advanced disease.
- Sequence of different treatment options.
- Understanding the importance of long-term side effects of anticancer treatment and its impact on quality of life.
- Treatment of elderly patients.
- Palliative and supportive care, including professional symptom control and nutrition.

SPECIFIC DISEASE SITUATIONS

Some situations are seen as particularly complex. It was felt that these require special attention and training. Among others, faculty members mentioned

- Optimal strategy in rectal cancer.
- Adjuvant treatment in rectal cancer.
- Management of potentially curative oligometastases of GI cancers.
- Multidisciplinary treatment of localised gastro-oesophageal and pancreatic cancer.
- Role of local treatment of peritoneal carcinomatosis.
- Treatment strategy based on tumour and liquid biopsy for metastatic GI cancers (currently mostly applied for colorectal cancer).

These topics can be perfectly addressed in ESMO preceptorships and in ESMO online resources, such as ESMO e-learning lectures and trainings.

PREVENTION AND SCREENING

Although prevention and screening are not routine tasks in the daily practice of many medical oncologists, the GI faculty underlined the utmost importance of these topics. It was felt that a significant improvement of disease burden in GI oncology can only be achieved if advances in prevention and early detection of GI malignancies will be accomplished. Therefore, medical oncologists should

- Be involved in the development of primary and secondary prevention strategies.
- Know about agents and interventions for preventing cancer development.
- Know about risk factors and detrimental habits.
- Know about GI cancer screening tools and programmes with the benefits and potential risks.
- Know about familial and hereditary cancers.

Apart from the training of individual medical oncologists, the GI faculty sees an important role for ESMO to be engaged in information and education of the general population, as well as in political lobbying for promoting a healthier lifestyle, avoidance of risky behaviour, and support of early detection and screening programmes in the national healthcare systems, where appropriate.

EVIDENCE-BASED MEDICINE AND DECISION MAKING

Cancer medicine, including GI oncology, should be highly science-driven. Knowledge is expanding at a rapid pace. The physician's individual expertise and the patient's preference, both part of the traditional model of evidence-based medicine,[3] need to be combined with the best external evidence to come to good clinical recommendations. GI faculty members mentioned the following important educational needs in this context:

- Critical analysis of the external evidence.
- Efficient literature review skills and how to identify good and meaningful trials.
- Help medical oncology fellows maturing the concept that evidence-based clinical decisions do not always mean following the guidelines.
- How to keep informed about not only what guidelines are stating but also what has been proven by the latest studies.
- Evaluate limitations of clinical research, including critical evaluation of methodology.
- To be able to assess the prognosis of each condition and to describe the delta benefit for each decision.
- Understanding the impact and measure of quality of care.
- Understanding the impact of clinical benefit.

It was acknowledged that ESMO already provides excellent tools for improving in these skills, including clinical trials workshops, magnitude of clinical benefit scale and others. However, communication about the availability of these tools can probably be improved.

CLINICAL RESEARCH SKILLS

In the same line, GI faculty members feel that a good training and knowledge in clinical research skills are an educational need complementary to other skills. Training should focus on

- Statistical knowledge.
- Clinical trial methodology.
- Good clinical practice.
- How to write a trial protocol.
- Getting familiar with novel trial designs (eg, basket, umbrella and adaptative designs).
- Clinical research networking and how to conduct multinational trials.
- Biobanking and use of sampled biomaterials.

It was felt that, in addition to the above-mentioned ESMO tools, closer interaction with networks and organisations that work specifically on clinical research, for example, the European Organisation for Research and Treatment of Cancer, could be helpful.

(SELF-)MANAGEMENT AND CAREER BUILDING

For being efficient in patient care and making an impact on the future development of GI oncology, we need to train fellows in their level of (self-)management and help them build their career. Within the multifaceted demands in this field, the following points were highlighted:

- Time management strategies.
- Skills to lead the MDT approach.
- Presentation skills.
- How to organise interdisciplinary work and patient care locally.
- How to build professional development from early stages of training (career consulting).
- How to build a career as a clinician scientist.
- Knowledge and skills in health economics.

It was felt that mentorship programmes and meet-the-expert opportunities at congresses and courses could be helpful.

PATIENT ORIENTATION

The patient perspective is an integral part of evidence-based medicine.[3] Respecting patients' needs is a cornerstone of good cancer care. Specific educational needs were raised by the faculty:

- Improve communication skills with patients in the era of personalised medicine.
- Learn techniques of shared decision making.
- Understand the value and use of patient-reported outcomes.
- Understand the needs of cancer survivors.
- Understand the need of specific patient groups like young adults and elderly patients.
- Learn from collaboration with psychosocial healthcare professionals and researchers.
- Learn from collaboration with self-help groups and patient advocacy groups.

It was discussed that, for interacting effectively with patients, new approaches should be built up, including web-based and app-based technologies.

CONCLUSIONS

ESMO is well equipped for taking the lead in the education of GI cancer specialists. Numerous ESMO-initiated and ESMO-related activities exist. These include

- ESMO conferences (https://www.esmo.org/Conferences).
- Oncology meeting resources (https://oncologypro.esmo.org/Meeting-Resources).
- ESMO-European School of Oncology courses in medical oncology (https://www.esmo.org/Conferences/ESMO-ESO-Courses-on-Medical-Oncology-for-Medical-Students).
- ESMO academy https://www.esmo.org/Conferences/ESMO-Academy-2019).
- ESMO preceptorship courses https://www.esmo.org/Conferences/Preceptorship-Courses).
- ESMO advanced courses https://www.esmo.org/Conferences/Advanced-Courses).
- ESMO workshops and courses https://www.esmo.org/Conferences/Workshops-Courses).

Figure 3 Young oncologists *Meet Your Expert* at the Discussion Hub at European Society for Medical Oncology Asia 2018.

- ESMO scientific journals (*Annals of Oncology*, *ESMO Open*, and *Immuno-Oncology Technology*; https://www.esmo.org/About-Us/ESMO-Oncology-Journals).
- ESMO-American Society of Clinical Oncology global curriculum in medical oncology (endorsed by 47 societies; https://www.esmo.org/Career-Development/Global-Curriculum-in-Medical-Oncology).
- ESMO guidelines https://www.esmo.org/Guidelines).
- ESMO e-learning resource centre on Oncology Pro (https://oncologypro.esmo.org/Education-Library/ESMO-E-Learning-and-V-Learning?hit=ohp).
- ESMO Young Oncologist activities (https://www.esmo.org/Career-Development/Young-Oncologists-Corner).
- Young Oncologist Committee (https://www.esmo.org/About-Us/Who-We-Are/Young-Oncologists-Committee).
- Fellowship programme (https://www.esmo.org/Career-Development/Oncology-Fellowships), career and professional development tools (https://www.esmo.org/Career-Development) and travel grants (https://www.esmo.org/Career-Development/Young-Oncologists-Corner/Travel-Grants-for-ESMO-Meetings).
- Multiple networking opportunities, like meet-your-expert sessions at ESMO meetings (figure 3).

The GI faculty—as other ESMO faculties—should be encouraged to increase its active role in education. Cooperation between the faculties and the Young Oncologist Committee is key. In view of the increasing number of female cancer physicians, gender balance should also be taken seriously when nominating members of the faculties. The GI faculty could act as a pioneer in this process.

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