

How to organize gynecologic oncology in the future: Results of an international questionnaire

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A questionnaire was sent to 93 gynecologic oncologists from 54 countries about the way in which gynecologic oncology was organized in their country, or if the (sub)speciality was not yet recognized, how they thought it should be organized. The questionnaire was answered by 64 persons from 42 different countries. The subspecialty was recognised in 17 (41%) of the countries. Fifty-five respondents (86%) thought that gynecologic oncology should be a subspecialty of obstetrics and gynecology. The median duration of the gynecologic oncologic fellowship program was 30 months. Diagnosis and surgery accounted for about 58% of the duration of the program. In 52% of the answers from countries with board certification, the fellows had to pass a theoretical and practical examination, and in addition 22% of the candidates had to defend a thesis to qualify for certification. Training centers in countries that recognized gynecologic oncology had a median number of 142 new cases per year (for 1 fellow). The median number of gynecologic oncologists and fellows per 10⁽⁷⁾ inhabitants in countries with board certification in gynecologic oncology was 42 and 6, respectively. Finally, the important role of international societies (like the International Gynecologic Cancer Society and the European Society of Gynaecological Oncology) in supporting the countries without recognized Gynecologic Oncology was stressed by the respondents. The setting up of international standards for training programs, training centers, board certification, and the organization of international exchange programs for fellows seemed to be equally important, according to the questionnaire responses.

KEYWORDS: gynecologic oncology, organization, questionnaire, training.

The (sub)speciality gynecologic oncology has been officially recognized in some countries, but not in others. How gynecologic oncology should be organized in the future is a controversial issue: How many gynecologic oncologists and fellows are needed? How many new cases per year should a gynecologic oncologic training centre have? Should breast cancer be a part of gynecologic oncology? Should gynecologic oncology be a

subspecialty of obstetrics and gynecology? What is the role of international organizations like the International Gynecologic Cancer Society (IGCS) and the European Society of Gynecological Oncology (ESGO)? In order to get a better view we performed an international questionnaire on these issues.

Materials and methods

A questionnaire was sent on December 1, 1995 to 93 gynecologic oncologists from 54 countries. Whenever

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Table 1. International questionnaire on gynecologic oncology

PART A. For countries where gynecologic oncology is officially recognized as a (sub)speciality

1. Since when is gynecologic oncology officially recognized in your country?
2. Who recognized it? (multiple answers are possible)
 - Governmental health authorities
 - Medical order
 - Medical faculty
 - Scientific society
 - Other
3. To get the certificate of gynecologic oncology, is it necessary to be a specialist in obstetrics and gynecology?
 - Yes
 - No
4. How many years does the obstetrics and gynecology residency last?
5. Does a gynecologic oncology residency exist in your country?
 - Yes
 - No
6. How many months does this residency last?
7. Please point out the percentage which each area takes during the gynecologic oncology training. Establish a percentage as a function of the number of training weeks.
 - Diagnosis and surgical training: . . .%
 - Radiotherapy: . . .%
 - Chemotherapy: . . .%
 - Pathology: . . .%
 - Basic science and general aspects of cancer: . . .%
 - Other: . . .%
8. Does radiotherapy require:
 - Theoretical knowledge
 - Practical and theoretical knowledge
9. Does chemotherapy require:
 - Theoretical knowledge
 - Practical and theoretical knowledge
10. Does any knowledge evaluation (examination) exist?
 - No
 - Yes: Specify:
11. Are breast diseases, including cancer, part of the training?
 - No
 - Yes: Specify:
12. How many departments, services or units are recognized for gynecologic oncology training?
13. How many fellows in gynecologic oncology are there at this moment in training in your country?
14. How and when is there a certificate given?
 - After residency
 - After residency and a theoretical examination
 - After residency, an examination, and some years of clinical practice after the training
 - After residency, an examination, some years of clinical practice after the training and a thesis
 - Other
15. Is gynecologic oncology recognized at the university level?
 - No
 - Professors in gynecology oncology
 - Recognized by the medical faculty as an independent section or department
 - Other
16. Does there exist any fixed criteria to be recognized as a gynecologic oncologic training center?
 - No
 - Yes: Number of gynecologic cancer/year treated for first trainee:
Number of gynecologic cancers/year treated for second trainee:
 - Other
17. How many inhabitants does your country have?
18. Is the total number of (sub)specialists in gynecologic oncology that are or will be recognized limited?
 - No
 - Yes: How many:
19. Is gynecologic oncology in your country:
 - An independent specialty
 - A subspecialty of obstetrics and gynecology
 - Other
20. Comments.

Table 1. Continued

PART B. For the countries where gynecologic oncology is NOT officially recognized as a (sub)speciality.

1. Do you think that gynecologic oncology should be officially recognized in your country?
 - No
 - Yes: As speciality
 - Subspecialty of obstetrics and gynecology
 - Other
2. Who should recognize it? (multiple answers are possible)
 - Governmental health authorities
 - Medical order
 - Medical faculty
 - Scientific society
 - Other
3. Do you think that to get the certificate of gynecologic oncology, it is necessary to be a specialist in obstetrics and gynecology?
 - Yes
 - No
4. How many years does the obstetrics and gynecology residency last?
5. Does a gynecologic oncology residency exist in your country?
 - Yes
 - No
6. How many months do you think a residency in gynecologic oncology should last?
7. Please point out the percentage which each area takes during the gynecologic oncology training. Establish a percentage as a function of the number of training weeks.
 - Diagnosis and surgical training: . . .%
 - Radiotherapy: . . .%
 - Chemotherapy: . . .%
 - Pathology: . . .%
 - Basic science and general aspects of cancer: . . .%
 - Other: . . .%
8. Do you think radiotherapy requires:
 - Theoretical knowledge
 - Practical and theoretical knowledge
9. Do You think chemotherapy requires:
 - Theoretical knowledge
 - Practical and theoretical knowledge
10. Do you think a knowledge evaluation (examination) is necessary during or after the end of the training?
11. Do you think breast diseases, including cancer, should be part of the training?
 - No
 - Yes: Specify:
12. How many departments, services or units should be recognized for gynecologic oncology training in your country?
13. How many fellows in gynecologic oncology should your country have?
14. How and when should the certificate be given?
 - After residency
 - After residency and a theoretical examination
 - After residency and a practical and theoretical examination
 - After residency, a practical and theoretical examination, and some years of clinical practice after the training
 - After residency, an examination, and some years of clinical practice after the training and a thesis
 - Other
15. Should gynecologic oncology be recognized at the university level?
 - No
 - Professors in gynecologic oncology
 - Recognized by the medical faculty as an independent section or department
 - Other
16. Should there exist any fixed criteria to be recognized as a gynecologic oncologic training centre?
 - No
 - Yes: Number of gynecologic cancers/year treated for first trainee:
 - Number of gynecologic cancers/year treated for second trainee:
 - Other
17. How many inhabitants does your country have?
18. Should the total number of (sub)specialists in gynecologic oncology that are or will be recognized limited?
 - No
 - Yes: How many:

Table 1. Continued

19. Do you think that the support of an international society could help you get recognized gynecologic oncology as a (sub)speciality in your country?
No
Yes: By proposing international standards for training centers
By proposing international standards for residency
By proposing international standards for getting the certificate
By organizing exchange programs for trainees
Other
20. Comments.

possible the questionnaire was sent to two persons per country. The persons were selected from membership lists of the IGCS, the ESGO and the SGO (Society of Gynecologic Oncology). Most of the respondents were known by the authors as being actively involved in the treatment of gynecologic cancers in their country. The questionnaire was divided into two parts. The first part was to be filled in by gynecologic oncologists from countries where gynecologic oncology was officially recognized, and the second part by the persons from countries where the (sub)speciality was not officially recognized. In order to accept gynecologic oncology as recognized in a country, the (sub)speciality had to be officially recognized by the governmental health authorities, medical order, or medical faculty. For the group with officially recognized gynecologic oncology, the questionnaire asked what the actual situation was in their countries. In the other group it was asked how the respondents thought that gynecologic oncology should be organized in their countries. The questionnaire is presented in Table 1.

Results

The questionnaire was answered by 64 persons from 42 different countries (23 and 41 answers from countries with and without officially recognized gynecologic oncology, respectively) (Table 2). The subspecialty was recognized in 17 (41%) of the countries from which we received an answer. The year of official recognition varied from 1940 to 1995.

Fifty-five out of 64 respondents (86%) thought that gynecologic/oncology should be a subspecialty of obstetrics and gynecology (83% and 88% for countries with or without recognized gynecologic oncology, respectively). Four respondents from the former group and one from the latter mentioned that gynecologic oncology was or should be an independent speciality. Four respondents from countries where gynecologic oncology is not recognized suggested that gynecologic oncology should be a subspecialty of another speciality (oncology, 3; general surgery, 1). The duration of

the training in obstetrics and gynecology ranged from two to eight years (median 4.5 years).

Details on the gynecologic oncology training and rules for obtaining the board certification are summarized in Table 3. The criteria on gynecologic training centers and the number of gynecologic oncologists and fellows in gynecologic oncology are shown in Table 4. The median number of training centers, gynecologic oncologists and fellows per 10⁽⁷⁾ inhabitants for all respondents was 2.5, 23, and four respectively.

All persons from countries where the (sub)speciality was not recognized, except 1 (40/41), answered that an international organization could help to establish recognition of gynecologic oncology in their country. Most persons thought that an international organization could help in setting up standards for the training program, the training centers, the certificate, and the organizing of fellowship exchange programs (Table 5).

Discussion

Little is known about how gynecologic oncology is organized or how gynecologic oncologists think this (sub)speciality should be organized. In this study we tried to analyze these issues in 54 countries spread over the five continents. It should be mentioned, however, that all respondents were already interested in gynecologic oncology since they were chosen from the membership lists of the three major gynecologic cancer societies (IGCS, ESGO, SGO).

Gynecologic oncology was officially recognized as a (sub)speciality in 41% of the countries from which we received an answer. As expected, most of the respondents (86%) thought that gynecologic oncology should be a subspecialty of obstetrics and gynecology. This is in agreement with the policy adopted by, for example, the American Board of Obstetrics and Gynecology, the Royal Australian College of Obstetricians and Gynaecologists⁽¹⁾, and the European Union of Medical Specialists (UEMS)⁽²⁾. However, in a minority of countries (such as Denmark and Sweden) gynecologic oncologists are not performing surgery—only given radio-

Table 2. Overview of which countries received the questionnaire, which countries answered, and where the (sub)speciality of gynecologic oncology is recognized

Country	Number of questionnaires sent (N)	Number of received questionnaires (N)	Gynecologic oncology recognized
Australia	2	2	yes
Austria	2	2	no
Argentina	1	1	no
Belgium	2	2	no
Brazil	2	1	no
Canada	2	1	yes
China	2	1	yes
Chile	2	2	no
Columbia	2	1	yes
Costa Rica	1	1	yes
Croatia	2	—	—
Cyprus	1	—	—
Czechoslovakia	2	1	yes
Denmark	2	2	no
Egypt	2	2	no
El Salvador	2	1	no
Germany	2	2	yes
Greece	2	2	no
Finland	2	2	yes
France	2	2	no
Hong-Kong	2	—	—
Hungary	1	—	—
Iceland	1	1	yes
India	1	1	no
Indonesia	2	1	no
Iran	1	1	yes
Italy	2	—	—
Ireland	2	1	no
Israel	2	2	no
Japan	2	2	no
Jordan	1	—	—
Korea	2	—	—
Malaysia	1	—	—
Mexico	2	1	no
New Zealand	1	—	—
Luxembourg	1	1	no
Nicaragua	1	1	yes
Norway	2	2	no
Philippines	2	2	no
Poland	2	2	no
Portugal	2	2	yes
Puerto Rico	1	1	yes
Singapore	2	1	no
South Africa	2	2	no
Spain	2	2	no
Sweden	2	2	yes
Switzerland	2	—	—
Taiwan	2	—	—
The Netherlands	2	2	no
Turkey	2	2	no
United Kingdom	2	2	yes
United States	2	1	yes
West Indies	1	1	yes
Yugoslavia	1	—	—
TOTAL	93 (54 countries)	64 (42 countries)	Yes: 17; No: 25;—:12

therapy and/or chemotherapy. Obviously, these respondents did not think gynecologic oncology should be a subspeciality of obstetrics and gynecology, or that surgery should be part of the training.

The duration of the gynecologic oncologic fellowship program varied from six months to 60 months in countries where gynecologic oncology was officially recognized (median duration 30 months). Most of the

Table 3. Organization of gynecologic oncologic training and certificate in countries with officially recognized gynecologic oncology, compared with what the respondents from countries where the (sub)speciality is not recognized *thought* how it should be organized

	Gynecologic oncology recognized (respondents)	Gynecologic oncology not recognized (respondents)
Duration (months)*	30 (6-40)	24 (12-42)
Duration of areas of training* (% of weeks of training)		
Diagnosis & surgery	58% (0-80%)	51% (10-80%)
Radiotherapy	8% (0-25%)	9% (5-40%)
Chemotherapy	10% (5-52%)	10% (2-50%)
Pathology	5% (0-15%)	10% (0-20%)
Basic science & research	5% (0-30%)	10% (0-40%)
Other	14% (0-25%)	9% (0-10%)
Radiotherapy knowledge		
Theoretical	32%	17%
Theoretical & practical	64%	80%
Unknown	4%	3%
Chemotherapy knowledge		
Theoretical	5%	7%
Theoretical & practical	91%	90%
Unknown	4%	3%
Including breast cancer		
Yes	32%	60%
No	68%	35%
Unknown	—	5%
Examination		
Yes	77%	77%
No	18%	18%
Unknown	5%	5%
Certificate		
After residency	22%	17%
Residency + theoretical examination	17%	12%
Residency + theoretical and practical examination	17%	42%
Residency + theoretical and practical examination + clinical practice	13%	22%
Residency + theoretical and practical examination + clinical practice + thesis	22%	2%
Unknown	9%	5%

*Median (range)

respondents believed that the fellowship program should last for two to three years. Diagnosis and surgery accounted for about 60% of the duration of the fellowship program. The other 40% was divided mainly between radiotherapy, chemotherapy, pathology and basic research. It was interesting to note that according to 90% of the responses from countries where gynecologic oncology is recognized, chemotherapy should be learned both practically and theoretically. For radiotherapy the requirement of practical knowledge was somewhat lower (Table 3).

Breast cancer is presently treated by gynecologists in many countries. In this study it seemed that breast cancer was more often treated by gynecologists in countries where gynecologic oncology was not yet officially recognized (60%) than in countries with recognized Gynecologic Oncology (32%).

According to 22% of the answers from countries with board certification, the fellow was certified after the fellowship without any examination or clinical practice. According to 52% of the answers from these countries the fellows had to pass a theoretical and practical examination, and in addition 22% of the candidates had to defend a thesis to qualify for certification. In countries without certification the respondents did not seem to think that a thesis was of great importance (Table 3).

Gynecologic oncologic training centers need requirements in order to provide quality care, adequate fellowship training and sufficient material for clinical and basic research⁽¹⁾. Training centers in countries with board certification had a median number of 142 new cases per year (for 1 fellow). In countries without recognized gynecologic oncology the median number

Table 4. Criteria for gynecologic oncologic training centers, and number of gynecologic oncologists and fellows in gynecologic oncology in countries with officially recognized gynecologic oncology, compared with what the respondents from countries where the (sub)speciality is not recognized thought how it should be organized in their country

	Gynecologic oncology recognized	Gynecologic oncology not recognized
Criteria for training centers		
No	35%	13%
Yes	65%	87%
New cases/year for training center		
1 fellow	142 (26–300)	102 (20–350)
2 fellows	145 (31–600)	165 (200–700)
Training centers/10 ⁷ inhabitants*	2.5 (0–10)	2.5 (0.2–19)
Number of gynecologic oncologists limited		
No	56%	37%
Yes	44%	61%
Unknown	—	2%
Gynecologic oncologists/10 ⁷ inhabitants*	42 (20–110)	20 (10–130)
Fellows/10 ⁷ inhabitants*	6 (0–43)	3.5 (0.6–25)

*Median (range)

Table 5. How can an international organization help countries without an official recognition of the (sub)speciality of gynecologic oncology?

	N
Can an international organization help to recognize gynecologic oncology?	
Yes	40
No	1
How?	
Standards for training	25*
Standards for training centers	24*
Standards for the boards certification	23*
Exchange programs for fellows	25*

*Eight persons did not answer this question

of new cases which the respondents thought was necessary was lower (102 for 1 fellow). Hacker (3) considered that in order to provide necessary experience for fellowship training at least 250 new cases per year would be required.

As can be expected, the actual number of gynecologic oncologists and fellows per 10⁷ inhabitants was higher in countries with board certification in gynecologic oncology (median 42 and 6, respectively), compared with what the respondents from countries without recognized gynecologic oncology thought was necessary (median, 20 and 3.5, respectively). Based on the figures for western Europe about 3,000 new cases of gynecologic cancers (excluding breast cancer) are treated per year per 10⁷ inhabitants^(4–5). Furthermore, approximately 40% of the patients with cervical carcinoma are candidates for radical hysterectomy (Stage IB and IIA)⁽⁶⁾. When accepting that, for example, 30 gynecologic oncologists are needed per 10⁷ inhabitants, this would mean that every certified gynecologic

oncologist would treat approximately 100 new cases per year (if all cancers are treated by oncologists) and would perform about 13 radical hysterectomies for cervical carcinoma stage IB or IIA per year.

Finally, the respondents stressed the important role that international societies (like the International Gynecologic Cancer Society and the European Society of Gynaecological Oncology) can play in supporting countries without recognized gynecologic oncology. All persons, except 1, from these countries thought that international organizations could play a major role in helping to get the speciality recognized in their country. The setting up of international standards for training programs, training centers, board certification and the organization of international exchange programs for fellows seemed to be equally important according to the results of the questionnaire (Table 5).

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