

Attitude of Italian medical oncologists toward palliative care for patients with advanced cancer: results of the SIO project

Sandro Barni · Marco Maltoni · Guido Tuveri · Paolo Pronzato · Enrico Cortesi ·
Bruno Massidda · Giuseppe Colucci · Carmelo Iacono · Vito Lorusso ·
Cesare Gridelli · Enrico Aitini · Lucia Simoni · Riccardo Torta

Received: 30 January 2009 / Accepted: 15 September 2009 / Published online: 4 March 2010
© Springer-Verlag 2010

Abstract

Purpose The aim of this survey was to describe the attitude of Italian oncologists towards palliative care.

Methods A survey on palliative care was carried out among 400 Italian oncologists.

Results Seventy-two percent indicated that the management of patients with advanced stage cancer represents the majority of their practice. They are often involved in the management of pain (78%) and complications of chemotherapy (61%), and frequently, in the treatment of terminal

patients (60%). Only 8.5% reported having frequent collaboration with psychiatrists in support of emotional and psychological patients' disturbances. About 40% are often directly involved in the management of existential or spiritual distress. Discussions on euthanasia and assisted suicide, which are illegal in Italy, took place never (68%) or occasionally (27%).

Conclusions Respondents agreed that all oncology centres should have access to palliative care service. These results are in line with those of the European Society of Medical

S. Barni (✉)
Oncologia Medica, Azienda Ospedaliera Treviglio-Caravaggio,
Piazzale Ospedale, 1,
24047 Treviglio (BG), Italy
e-mail: sandro.barni@ospedale.treviglio.bg.it

M. Maltoni
Medical Oncology,
Forli, Italy

G. Tuveri
Medical Oncology,
Trieste, Italy

P. Pronzato
Medical Oncology,
Genova, Italy

E. Cortesi
Medical Oncology,
Rome, Italy

B. Massidda
Medical Oncology,
Cagliari, Italy

G. Colucci
Medical Oncology,
Bari, Italy

C. Iacono
Medical Oncology,
Ragusa, Italy

V. Lorusso
Medical Oncology,
Lecce, Italy

C. Gridelli
Medical Oncology,
Avellino, Italy

E. Aitini
Medical Oncology,
Mantova, Italy

L. Simoni
Medidata,
Modena, Italy

R. Torta
Clinical Psychology,
Turin, Italy

Oncology survey and may be usefully employed to improve the organisation of palliative care.

Keywords Survey · Advanced cancer · Palliative care · Psychological distress · End-of-life care

Introduction

Cancer care has greatly progressed in the last few years; however, cancer-related mortality remains high, and about 50% of patients with cancer develop advanced and incurable disease requiring only palliative care (PC). These patients present a major challenge to physicians because of physical symptoms [1–6] and psychological distress with anxiety, depression, suicidal ideation, etc. [7, 8]. Italy still shows figures of opioid consumption, which is considered to be an index of adequacy in pain treatment, which are much lower than the European average. Because of the complex care needed, these patients place a significant amount of stress on their families and on health operators [9–14]. The optimal care of these patients is therefore complex and requires a combination of medical and psychological approaches.

The European Society of Medical Oncology (ESMO) has set up a task force to improve the quality of supportive and palliative care delivered by oncologists in the world. A paper published in 2003, reported the results of a survey conducted among 895 members (83% European and 12% American) regarding their involvement in and attitudes toward palliative care of patients with advanced cancer [15]. The majority of respondents recognised the importance of PC and supportive care for patients with advanced cancer, but many admitted to be insufficiently prepared for these tasks and that the participation levels in supportive and palliative care were not optimal.

The present paper describes the results of a survey recently carried out in Italy among oncologists as a part of the “Suffering Is Over” (SIO) project using a modified version of the ESMO questionnaire. The aim of the survey was to describe behavioural attitude towards PC of a sample of Italian medical oncologists before attending the educational event.

Materials and methods

Between March 2006 and December 2007, 533 Italian medical oncologists participated in Continuing Medical Education meetings, which were part of the SIO project. The SIO project was an educational project regarding PC, which was specifically addressed to medical oncologists in order to improve their knowledge and practice in end-of-life treatment.

Before the training event, the oncologists were asked to complete a questionnaire which was adapted from the one used by the ESMO. The questionnaire is self-rated and gives the point of view of the respondent about his/her practice and attitude in relation to the supportive and palliative management of patients with advanced and incurable cancer. The modifications of the Italian version included an analysis of physician's institutions (university clinic, public hospital, NHS) in order to better reflect the local characteristics of the care of these patients in Italy. Two items were added, namely collaboration with a pain care medical specialist and with other oncologists. The questionnaire was therefore composed of a total of 45 items regarding four main areas: demographics (6 items), collaboration (9 items), direct administration of supportive and palliative care for patients with advanced cancer (16 items), and attitudes (14 items). Modifications in the attitude area regarded the items on the opinion of the respondents about the treatment of advanced cancer patients. Moreover, two items were specifically added: an indication of the type of pain which in the opinion of the respondents, made care more difficult and their preferred type of training on pain management.

All collected questionnaires were anonymous. Only descriptive statistics of data were employed to describe the resulting percentages and, where appropriate, ranges, median or mean, and standard deviation. Item frequencies were also stratified according to gender, years of experience (≤ 10 ; 11–20; >20 years), and type of institution (research vs. non-research practice). Since all items were compared, at each comparison, Bonferroni's correction for multiple comparisons was applied to the critical alpha value.

Results

Demographics

Of the 533 Italian medical oncologists who participated in the 18 Continuing Medical Education meetings of the SIO project, 400 (75%) participated in the survey. Among the respondents, 216 (54%) were male and 184 (46%) were female. The female age ranged from 25 to 58 years (median=39.5 interquartile range (IQR), 32–46) and the male age range was from 25 to 67 years (median=49.0 IQR, 42–53). The median duration of experience in oncology was 15 years (IQR 6–22 years). Questionnaires were collected in northern (46%), central (29%), and southern (25%) Italy. Nearly 70% of respondents work in a public hospital or in a university clinic and about 10% in the territorial National Health Service. The other 20% were active in the other types of institutions indicated in the questionnaire. The respondents' sample size covers $>20\%$ of

the total number of Italian medical oncologists associated with the Italian Association of Medical Oncologists. Their mean age and geographical distribution are comparable [16].

Seventy-two percent of the oncologists declared that the management of patients with advanced stage cancer involves most or a substantial proportion of their practice. In the treatment of patients with advanced stage cancer, 69% of them often or occasionally collaborate with a specialist in palliative care and 82% with a specialist in pain treatment, but 19% have no collaboration with a specialist in PC, and 8% have no collaboration with a specialist in pain treatment (Table 1). No statistically significant difference was observed in any collaboration with respect to gender or years of experience ($p>0.00625$, critical threshold corrected according to Bonferroni's criterion). However, when the type of institution was taken into account, a different approach to collaboration was observed as regards collaboration with palliative care nurse specialists, home hospice (palliative care) team, and inpatient hospice ($p<0.00625$). Respondents working in research hospitals collaborate less often with such roles than respondents who do not work in research hospitals (Table 2).

As shown in Fig. 1, the respondents are often involved in the management of pain (78%), nausea and vomiting (76%), constipation and diarrhoea (67%), fatigue (66%), dyspnoea (62%), complications of chemotherapy (61%), and treatment of terminal patients (60%).

Forty-two percent of participating oncologists reported collaborating frequently with a specialist on emotional and psychological disturbances. Collaboration with a psychologist is however slightly more frequent occurring often or occasionally for 60% of respondents. As a consequence, the oncologist is generally required to personally manage symptoms of anxiety and depression in these patients, while management of delirium is more often delegated to a psychiatrist, although 17% of oncologists stated that they also have to personally manage often this aspect.

Forty percent of respondents reported that they are often involved in the management of existential or spiritual distress. Similar results were obtained regarding the

discussion of end-of-life care with patients and the meetings with the families of terminal stage patients, while oncologists are often involved (60%) and occasionally involved (29%) in the treatment of these patients.

It is interesting to note that oncologists reported that their patients never (68%) or occasionally (27%) ask about euthanasia and/or assisted suicide.

No statistically significant difference was observed for all supportive and palliative care (listed in Fig. 1), due to years of experience or gender except for the management of nausea and vomiting; 80% of female oncologists often manage nausea and vomiting vs. 72% for male oncologists, and 13% of female oncologists occasionally manage this aspect vs. 22% for male oncologists ($p<0.0031$, critical threshold corrected according to Bonferroni's criterion). When the type of institution was taken into account, a different attitude to supportive and palliative care was observed (Table 3); again the collaboration with a hospice is less frequent in research centres.

Attitudes

Close to 70% of participating oncologists disagreed or strongly disagreed with the statement that palliative care begins where medical oncology ends (Table 4). Such disagreement was slightly more frequent in female than male oncologists (73% vs. 65%, respectively; $p=0.003$), whereas no difference was observed according to years of experience or type of institution. Only about 45% of respondents agreed that they had received good training in palliative care during their professional activity; 58% of respondents working in research centres disagreed or strongly disagreed vs. 34% of respondents working in non-research centres. The vast majority of respondents (85%) agreed or strongly agreed that all advanced cancer patients should receive concurrent palliative care even if they are receiving anti-tumour therapies. This was not dependent on gender, years of experience, or type of institution ($p>0.0038$).

As expected, the absolute majority of respondents (84%) agreed or strongly agreed that medical oncologists should

Table 1 Frequency (percent) of collaboration with other professionals when managing patients with advanced cancer

	Often (%)	Occasionally (%)	Never (%)	Missing (%)
A palliative care medical specialist	37.5	31.3	19.2	12.0
A pain treatment specialist	41.0	40.7	8.2	10.1
A palliative care nurse specialist	25.0	24.8	37.2	13.0
A home hospice (palliative care) team	39.8	30.8	21.3	8.1
An inpatient hospice	22.5	35.2	32.5	9.8
A psychiatrist	8.5	39.2	41.8	10.5
A psychologist	28.2	32.2	29.8	9.8
A social worker	17.5	39.7	32.5	10.3

Table 2 Frequency (percent) of collaboration with other professionals when managing patients with advanced cancer: research vs. non-research affiliation

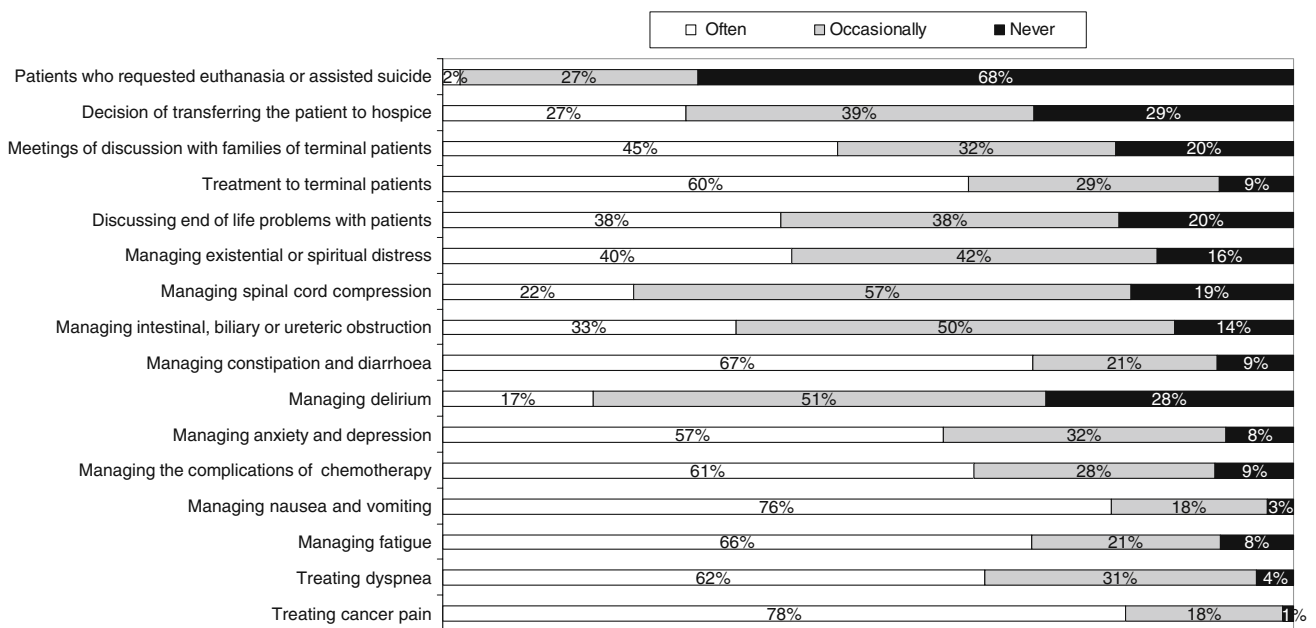
	Affiliation	Often (%)	Occasionally (%)	Never (%)	Missing (%)
A palliative care medical specialist*	Research	28.3	35.0	30.0	6.7
	Non-research	39.2	30.7	17.4	12.7
A pain treatment specialist*	Research	38.3	43.3	13.3	5.0
	Non-research	41.6	40.4	7.4	10.6
A palliative care nurse specialist**	Research	5.0	26.7	61.7	6.7
	Non-research	28.6	24.5	33.0	13.9
A home hospice (palliative care) team**	Research	21.7	45.0	26.7	6.7
	Non-research	43.1	28.3	20.3	8.3
An inpatient hospice**	Research	13.3	30.0	51.7	5.00
	Non-research	24.2	36.3	28.9	10.6
A psychiatrist*	Research	13.3	30.0	53.3	3.3
	Non-research	7.7	41.0	39.5	11.8
A psychologist*	Research	16.7	40.0	40.0	3.3
	Non-research	30.4	30.7	28.0	10.9
A social worker*	Research	13.3	33.3	50.0	3.3
	Non-research	18.3	40.7	29.5	11.5

**p* (Chi-square)>0.00625

***p* (Chi-square)<0.00625

have greater experience in the management of physical and psychological symptoms in advanced cancer patients, but only 40% of respondents declared themselves to be expert in their management. A majority (76%) of respondents

agreed or strongly agreed that they felt the need of help in pain management. A difference in the response pattern was observed according to the type of institution, but not in gender or years of experience. Respondents working in



Frequency (per cent) of direct administration of supportive and palliative care for patients with advanced cancer.

Missing answers are derivable as a difference of the answer percentages' sum from 100%

Fig. 1 Frequency (percent) of direct administration of supportive and palliative care for patients with advanced cancer. Missing answers are derivable as a difference of the answer percentages' sum from 100%

Table 3 Frequency (percent) of direct administration of supportive and palliative care for patients with advanced cancer: research vs. non-research affiliation

		Often (%)	Occasionally (%)	Never (%)	Missing (%)
Treating cancer pain*	Non-research	77.0	19.2	1.5	2.4
	Research	85.0	11.7	0.0	3.3
Treating dyspnea**	Non-research	65.8	27.4	4.4	2.4
	Research	41.7	53.3	1.7	3.3
Managing fatigue*	Non-research	67.0	21.2	7.4	4.4
	Research	63.3	21.7	11.7	3.3
Managing nausea and vomiting*	Non-research	75.8	17.7	3.0	3.5
	Research	76.7	16.7	3.3	3.3
Managing the complications of chemotherapy*	Non-research	60.5	28.3	8.6	2.7
	Research	63.3	23.3	10.0	3.3
Managing anxiety and depression*	Non-research	59.3	29.2	8.0	3.5
	Research	43.3	46.7	6.7	3.3
Managing delirium**	Non-research	19.2	52.8	24.5	3.5
	Research	5.0	41.7	48.3	5.0
Managing constipation and diarrhoea*	Non-research	67.0	21.5	8.6	3.0
	Research	70.0	16.7	10.0	3.3
Managing intestinal, biliary, or ureteric obstruction*	Non-research	33.9	49.6	13.3	3.2
	Research	30.0	51.7	13.3	5.0
Managing spinal cord compression*	Non-research	24.2	54.9	17.7	3.2
	Research	8.3	66.7	21.7	3.3
Managing existential or spiritual distress*	Non-research	41.0	41.3	14.8	3.0
	Research	33.3	43.3	20.0	3.3
Discussing end-of-life problems with patients*	Non-research	40.7	37.2	18.9	3.2
	Research	25.0	43.3	25.0	6.7
Treatment of terminal patients*	Non-research	62.2	27.4	8.0	2.4
	Research	48.3	36.7	11.7	3.3
Discussions with families of terminal patients*	Non-research	46.3	31.3	19.8	2.7
	Research	38.3	35.0	23.3	3.3
Decision to transfer the patient to hospice**	Non-research	28.6	41.3	25.4	4.7
	Research	20.0	26.7	48.3	5.0
Patients who requested euthanasia or assisted suicide*	Non-research	2.4	29.5	64.9	3.2
	Research	0.0	13.3	83.3	3.3

p* (Chi-square)>0.0031*p* (Chi-square)<0.0031

research centres seem to feel a greater need of training than those in non-research centres (Table 5).

More than 75% of respondents also agreed or strongly agreed with the following statements: all oncology centres should have a palliative care service (88%), pain is an important problem in our society (90%), and pain is an important problem in my hospital (82%). Other reactions agreeing or disagreeing with statements showed greater variability: *managing patients with advanced cancer and terminal patients depresses me* (56% disagree or strongly disagree), *I am usually successful in managing my patient's pain* (61% agree or strongly agree), *I feel emotionally burned out by having to deal with too many deaths* (58%

disagree or strongly disagree). This pattern did not differ according to age, years of experience, or type of institution.

About 33% of respondents reported being involved in the management of symptoms of patients with advanced stage cancer (palliative care), but not in the management of patients in the terminal stage (end-of-life treatment). In addition, 51% of respondents stated having a close relationship with the palliative care service or hospice in their region, while in 32% of cases, this close relationship does not exist.

Regarding the type of pain, more than 85% of respondents reported that management of post-operative, acute, visceral, and osteo-articular pain does not cause

Table 4 Attitudes of respondents towards statements on management of patients with advanced stage cancer and on their personal involvement in the care

	Strongly disagree (%)	Disagree (%)	Don't know (%)	Agree (%)	Strongly agree (%)	Missing (%)
Palliative care begins where medical oncology ends	24.0	44.8	5.2	17.0	4.0	5.0
I have received good training in palliative care during my professional life	10.0	27.5	11.5	33.3	11.2	6.5
All advanced cancer patients should receive concurrent palliative care even if they are receiving anti-tumour therapies	2.0	5.8	3.5	46.2	38.5	4.0
Medical oncologists should be expert in the management of the physical and psychological symptoms of advanced cancer	1.7	3.3	5.0	44.3	40.3	5.4
I am expert in the management of physical and psychological symptoms of advanced cancer	6.3	24.2	22.0	31.8	8.7	7.0
I feel the need of help in the management of pain	2.0	9.0	7.3	62.5	13.2	6.0
All oncology centres should have a palliative care service	1.2	3.3	3.3	43.3	44.7	4.2
Managing patients with advanced cancer and terminal patients depresses me	14.5	41.5	13.7	19.5	3.5	7.3
I am usually successful in managing my patient's pain	0.5	11.0	19.5	55.5	5.5	8.0
I feel emotionally burned out by having to deal with too many deaths	12.5	45.0	13.2	19.0	3.0	7.3
I deal with palliation in patients with advanced cancer (symptoms management), but not with palliation in terminal patients (end-of-life care)	13.2	37.0	6.7	28.0	4.8	10.3
I have a close working relationship with the palliative care (or hospice) in my region	11.0	21.5	6.7	32.0	19.0	9.8
Pain is an important problem in our society	1.5	1.2	1.3	31.0	59.5	5.5
Pain is an important problem in my hospital	1.7	4.0	4.0	42.3	39.5	8.5

difficulties, while treatment of neuropathic and psychological pain does cause difficulties for 58% and 49.5% of respondents, respectively.

A fair variability characterised the response to the question on training in pain management. More than 31% of respondents said they would prefer training consisting of clinical practices in specialised areas; 23% would also attend courses and lectures on the subject while 24% would prefer to attend courses and use textbooks and CDs. About 8% would combine stages and the use of textbooks and CDs.

Discussion

This first large Italian survey, which was conducted within an educational project about PC, represents a very helpful tool to improve knowledge in the practice and attitudes of Italian oncologists in supportive and palliative care of patients with advanced stage cancer. In practice, these results could help make it possible to identify the specific needs for education and training, areas requiring an improvement in the quality of care provided, in the establishment of palliative care services, and in the

collaboration between oncology and PC specialists. The results of this study should be useful not only for the scientific community but also for decision makers.

It may also be interesting to compare the results obtained with those of the survey carried out by ESMO [15] even if a slightly different questionnaire was employed. In addition, in the ESMO survey, a large sample was interviewed (895 from Europe, America, and Asia); on the other hand, the SIO survey took into account a large sample (400) from only one country. The results of both surveys should be taken with some reservation, since the oncologists who took part in both the Italian and ESMO surveys were not randomly involved. In particular, the respondents in the Italian survey were participating in an educational project about PC; therefore, they could be more sensitive to such a matter. Moreover, the organisation and the functioning of hospices and domiciliary palliative care in Italy and the other European countries cannot be fully compared. The fact, however, that the two surveys yield quite similar results strongly suggests that they give a real and reliable picture of practices and attitudes in the general oncological community.

Similar to the findings of the ESMO survey, more than 73% of the oncologists in the Italian survey reported that

Table 5 Attitudes of respondents towards statements on management of patients with advanced stage cancer and on their personal involvement in the care: research vs. non-research centres

		Strongly disagree (%)	Disagree (%)	Don't know (%)	Agree (%)	Strongly agree (%)	Missing (%)
Palliative care begins where medical oncology ends*	Non-research	22.4	45.1	5.9	17.7	4.4	4.4
	Research	33.3	41.7	1.7	13.3	1.7	8.3
I have received good training in palliative care during my professional life**	Non-research	9.4	24.2	11.5	35.1	13.3	6.5
	Research	13.3	45.0	11.7	23.3	0.0	6.7
All advanced cancer patients should receive concurrent palliative care even if they are receiving anti-tumour therapies*	Non-research	2.1	6.2	3.0	48.4	37.2	3.3
	Research	1.7	3.3	6.7	33.3	46.7	8.3
Medical oncologists should be expert in the management of the physical and psychological symptoms of advanced cancer**	Non-research	1.2	3.0	5.9	47.2	38.1	4.7
	Research	5.0	5.0	0.0	26.7	53.3	10
I am expert in the management of physical and psychological symptoms of advanced cancer**	Non-research	5.3	21.2	22.4	34.5	9.7	6.8
	Research	11.7	40.0	20.0	16.7	3.3	8.3
I feel the need of help in the management of pain*	Non-research	2.1	9.1	8.0	63.4	12.1	5.3
	Research	1.7	8.3	3.3	56.7	20.0	10.0
All oncology centres should have a palliative care service*	Non-research	0.9	3.2	3.5	44.3	44.3	3.8
	Research	3.3	1.7	1.7	38.3	48.3	6.7
Managing patients with advanced cancer and terminal patients depresses me*	Non-research	15.3	42.8	13.6	17.7	3.2	7.4
	Research	10.0	35.0	15.0	28.3	5.0	6.7
I am usually successful in managing my patient's pain*	Non-research	0.6	10.0	18.0	57.2	6.5	7.7
	Research	0.0	16.7	28.3	45.0	0.0	10.0
I feel emotionally burned out by having to deal with too many deaths*	Non-research	13.0	45.1	13.6	18.0	3.0	7.4
	Research	10.0	45.0	10.0	25.0	3.3	6.7
I deal with palliation in patients with advanced cancer (symptoms management) but not with palliation in terminal patients (end-of-life care) *	Non-research	14.2	37.2	6.8	26.6	5.0	10.3
	Research	8.3	36.7	6.7	35.0	3.3	10.0
Pain is an important problem in our society*	Non-research	1.8	1.5	1.5	33.6	56.3	5.3
	Research	0.0	0.0	0.0	16.7	76.7	6.7
Pain is an important problem in my hospital*	Non-research	2.1	4.1	4.1	42.8	38.1	8.9
	Research	0.0	3.3	3.3	40.0	46.7	6.7

p* (Chi-square)>0.0038*p* (Chi-square)<0.0038

the management of patients with advanced cancer represents most or a substantial proportion of their practice and that their involvement is generally devoted to the treatment of physical symptoms such as pain, fatigue, nausea and vomiting, complications of chemotherapy, constipation, and diarrhoea. Similarly, nearly 38% of Italian oncologists participating in our survey reported that they often collaborate with a specialist in palliative care (ESMO, 35%), and congruent proportions also appear for the other items with the only exception being in collaboration with social workers. It is important to note that the collaboration with a psychiatrist is present in only 8.5% of SIO oncologists vs. 28.5% of cases with a psychologist, meaning that the involvement of a psychiatrist is much less frequent than that of a psychologist. Therefore, the psychopharmacological intervention is managed by the oncologist in most of cases.

Differences are also present in the frequency of direct administration of supportive and palliative care for patients with advanced cancer. The results seem to suggest that, with the exception of fatigue, the ESMO respondents are more often directly involved in the management of clinical situations such as cancer pain, fatigue, nausea/emesis, and complications of chemotherapy.

Differences between the two surveys also exist in other aspects related to the physical and psychological support of terminal patients. The oncologists in the SIO survey are often or occasionally (89%) directly involved in the management of symptoms of anxiety and depression in these patients vs. 98% in the ESMO survey. Only treatment of delirium is more often directly managed by the SIO respondents in comparison with the ESMO respondents. The oncologists participating in the SIO survey are also more often involved in the management of existential or

spiritual distress, in the treatment of terminal patients, and in discussions with families of patients, while the ESMO survey respondents are more often involved in the discussion of the end-of-life care for dying cancer patients.

Interestingly, the SIO and the ESMO surveys give quite similar results on requests from patients regarding euthanasia and/or assisted suicide, never, 66% (SIO) and 62% (ESMO); occasionally, 27% (SIO) and 36% (ESMO); often, 2% (SIO) and 2% (ESMO). It is important to remember that both euthanasia and assisted suicide are forbidden by law in Italy. The above figures therefore refer simply to occasional requests received from patients and do not have any correspondence with any established clinical practice.

More than half of the respondents in the ESMO survey (53%) stated that they had received good training in palliative care during their professional activity while 45% of respondents in the SIO survey agreed or strongly agreed with this statement. Greater experience in the treatment of physical and psychological symptoms of patients with advanced stage cancer is however required by 85% of SIO respondents, 40% of whom state that they feel themselves to be expert in this area. Even if 60% of respondents in the SIO survey agree that they are generally successful in the treatment of pain, more than 75% also agree that they need more help in the management of pain. The vast majority of respondents to both surveys (85% SIO and 92% ESMO) agree that all advanced cancer patients should receive concurrent palliative care, even if they are receiving anti-tumour therapies.

The management of patients with advanced cancer does not have a depressive effect on 68% of the ESMO respondents and on 56% of the SIO respondents. A similar disagreement exists on the statement that the respondents feel themselves emotionally burned out by having to deal with too many deaths (58% in the SIO survey and 56% in the ESMO survey).

In conclusion, the vast majority of respondents participating in the Italian survey agreed that most or a substantial part of their practice is devoted to the management of patients with advanced stage cancer and that they frequently collaborate with specialists in palliative care and pain treatment. They are also involved in the treatment of the other symptoms more commonly present in this type of patient such as dyspnoea, constipation, diarrhoea, and in the treatment of terminal patients. However, 21% of oncologists agree or strongly agree that PC begins where medical oncology ends. There is still a long way to go in order to further reduce this proportion.

Collaboration with a psychiatrist is infrequent, while more frequent collaboration takes place with a psychologist. Therefore, oncologists frequently have to personally manage symptoms of anxiety and depression and of psychological and existential distress in these patients. It

might be interesting to investigate whether the simpler, but less effective use of tranquillizers is more common among oncologists than the use of antidepressants. In fact, this latter class demonstrates a larger spectrum of action (anxiety, mood, pain, etc.), but also requires greater psychopharmacological experience.

In Italy, euthanasia and/or assisted suicide are forbidden by law but respondents in the Italian survey declared that these subjects had often (2%) or occasionally (27%) been the object of discussion during conversations at the request of the patients. The fact that 4 years after the ESMO survey, the proportion of this type of request remains the same, may reflect the success of palliative care.

An important proportion of respondents think that they did not receive satisfactory training in palliative care during their university education in medicine or after graduation. This might be because this subject is not contemplated in the study program and they therefore believe they need greater experience in the treatment of physical and psychological symptoms in advanced cancer patients, especially in pain management. The vast majority of respondents also agree that all oncology centres should have a palliative care service, since pain represents an important problem both in society and in hospitals. More than 50% of respondents have a close relationship with this type of service or with hospices in their region.

Gender and years of experience do not seem to play a major role in the attitude toward care of advanced cancer patients. In fact, female oncologists are not more involved emotionally than their male counterparts nor do attitudes to end of life care, euthanasia, or assisted suicide depend on gender or years of experience in oncology. On the other hand, working in research centres seems to be associated with different organisational models (relationships with hospice or palliative care nurse specialist). Oncologists working in research centres report a high need of training.

The results of the ESMO and SIO surveys indicate that there are no substantial differences in clinical practice and attitudes toward palliative care among Italian and other European oncologists. Some minor differences appear, but whether such differences reflect actual differences in competence or cultural differences in self-reporting of one's own competency, it is not possible to tell. It is important to stress that a greater proportion of Italian oncologists, particularly if working in research centres, think that their training in palliative care is not completely satisfactory. This suggests the need for an improvement in training in this very important area. Also, a more widespread collaboration with specialists providing palliative care and pain treatment appears desirable. On the other hand, neither the Italian nor the European survey was addressed to palliative care specialists. Further studies specifically designed for such specialists may be useful in order to improve our

knowledge regarding the need for training and allow possible collaboration among specialists.

Acknowledgements Grunenthal Italy for the support of the SIO project; LG Consult for their logistic support. We thank Dorothy Campbell for revising and editing the text.

Conflict of interest The authors declare no conflict of interest.

References

- Zhukovsky DS (2000) A model of palliative care: the palliative medicine program of the Cleveland Clinic Foundation. A World Health Organization demonstrations Project. *Support Care Cancer* 8:268–277
- Ventafriidda V, Ripamonti C, De Conno F, Tamburini M, Cassileth BR (1990) Symptom prevalence and control during cancer patients' last days of life. *J Palliat Care* 6:7–11
- Henteleff PD (1991) Symptom prevalence and control during cancer patients' last days of life. *J Palliat Care* 7:50–51
- Donnelly S, Walsh D (1995) The symptoms of advanced cancer. *Semin Oncol* 22(suppl3):67–72
- Chang VT, Hwang SS, Feuerman M, Kasimis BS (2000) Symptom and quality of life survey of medical oncology patients at a Veterans Affairs Medical Center: a role for symptom assessment. *Cancer* 88:1175–1183
- Kutner JS, Kassner CT, Nowels DE (2001) Symptom burden at the end of life: hospice providers' perceptions. *J Pain Symptom Manage* 21:473–480
- Breitbart W, Rosenfeld B, Pessin H et al (2000) Depression, hopelessness, and desire for hastened death in terminally ill patients with cancer. *JAMA* 284:2907–2911
- Chochinov HM, Wilson KG, Enns M et al (1995) Desire for death in the terminally ill. *Am J Psychiatr* 152:1185–1191
- Scott G, Whyler N, Grant G (2001) A study of family carers of people with a life-threatening illness. 1: the carers' needs analysis. *Int J Palliat Nurs* 7:290–291
- Scott G (2001) A study of family carers of people with a life-threatening illness. 2: implications of the needs assessment. *Int J Palliat Nurs* 7:323–330
- Kristjanson IJ, Sloan JA, Dudgeon D, Adaskin E (1996) Family members' perceptions of palliative cancer care: predictors of family functioning and family members' health. *J Palliat Care* 12:10–20
- Vachon ML, Kristjanson IJ, Higginson I (1996) Psychosocial issues in palliative care: the patient, the family, and the process and outcome of care. *J Pain Symptom Manage* 10:142–150
- Bolmsjo I (2000) Existential issues in palliative care—interviews with cancer patients. *J Palliat Care* 16:20–24
- Kissane DW (2000) Psychospiritual and existential distress. The challenge for palliative care. *Aust Family Physician* 29:1022–1025
- Cherny RI, Catane R (2003) Attitudes of medical oncologists toward palliative care for patients with advanced and incurable cancer. Report on a survey by the European Society of Medical Oncology Taskforce on Palliative and Supportive Care. *Cancer* 98:2502–2510
- Associazione Italiana di Oncologia Medica (AIOM) (2006) *Il Libro Bianco dell'Oncologia Italiana—Terza Edizione*