Original Article

PALLIATIVE MEDICINE

Palliative Medicine
2018, Vol. 32(1) 46–58

DOI: 10.1177/0269216317731571
journals.sagepub.com/home/pmj
SAGE

Is early integration of palliative care feasible and acceptable for advanced respiratory and gastrointestinal cancer patients? A phase 2 mixed-methods study

Massimo Costantini[1], Giovanni Apolone[2], Silvia Tanzi[3], Francesco Falco[4], Ermanno Rondini[5], Monica Guberti[6], Silvia Fanello[5], Silvio Cavuto[7], Luisa Savoldi[7], Roberto Piro[4], Daniela Mecugni[8] and Silvia Di Leo[9]

Abstract

Background: There is evidence that early integration of palliative care improves quality of life, lowers spending and helps clarify preferences and goals for advanced cancer patients. Little is known about the feasibility and acceptability of early integration.

Aim: Assessing feasibility of early integration of palliative care, and exploring concerns perceived and problems encountered by patients, relatives and oncologists.

Design: A phase 2 mixed-methods study (ClinicalTrials.Gov:NCT02078700).

Methods: Oncologists of two outpatient clinics offered a specialised palliative care intervention integrated with standard oncological care to all consecutive newly diagnosed metastatic respiratory/gastrointestinal cancer patients. We interviewed samples of patients, relatives and oncologists to explore strengths and weaknesses of the intervention.

Results: The intervention was proposed to 44/54 eligible patients (81.5%), 40 (90.1%) accepted, 38 (95.0%) attended the first palliative care visit. The intervention was completed for 32 patients (80.0%). It did not start for three (7.5%) and was interrupted for three patients who refused (7.5%). The Palliative Care Unit performed 274 visits in 38 patients (median per patient 4.5), and 24 family meetings with relatives of 16 patients. All patients and most relatives referred to the usefulness of the intervention, specifically for symptoms management, information and support to strategies for coping. Oncologists highlighted their difficulties in informing patients on palliative intervention, sharing information and coordinating patient's care with the palliative care team.

Conclusion: Early integration of palliative care in oncological setting seems feasible and well accepted by patients, relatives and, to a lesser extent, oncologists. Some difficulties emerged concerning patient information and inter-professional communication.

Keywords

Cancer, palliative care, phase 2

---

[1] Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy
[2] Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy
[3] Palliative Care Unit, Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy
[4] Pulmonology Unit, Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy
[5] Oncology Unit, Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy
[6] Department of Health Professions, Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy
[7] Department Infrastructure Research and Statistics, Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy
[8] Surgical, Medical and Dental Department of Morphological Sciences related to Transplant, Oncology and Regenerative Medicine, Università degli Studi di Modena e Reggio Emilia, Modena, Italy
[9] Psycho-Oncology Unit, Arcispedale Santa Maria Nuova-IRCCS, Reggio Emilia, Italy

Corresponding author:
Massimo Costantini, Arcispedale Santa Maria Nuova-IRCCS, Viale Umberto I, 50, 42123 Reggio Emilia, Italy.
Email: massimo.costantini@asmn.re.it

What is already known about the topic?

- There is evidence from randomised trials about the effectiveness of an early integration of palliative care for advanced cancer patients.
- Problems encountered by patients, relatives and professionals in dealing with offering/receiving early integration of palliative care are often reported, but not well explored.

What this paper adds?

- In this unselected series of consecutive advanced cancer patients, early integration of palliative care after diagnosis was feasible (the intervention was proposed to over 80% of eligible patients), and well accepted by patients and relatives (over 90% accepted the intervention).
- All interviewed patients and most relatives referred to the usefulness of the intervention with specific reference to symptom management, information and support to strategies employed to cope with illness.
- Most interviewed oncologists highlighted their difficulty in informing patients on palliative intervention, sharing information and coordinating patient's care with the palliative care team.

Implications for practice, theory or policy

- An early integration of palliative care is proposed to advanced cancer patients with a high degree of satisfaction from patients and relatives.
- An honest presentation of the early palliative care intervention and its goals was well accepted by patients, relatives and, to a lesser extent, oncologists. The initial perplexity disappeared after the first visit.

Introduction

The World Health Organization advocates that palliative care principles 'should be applied as early as possible in the course of any chronic, ultimately fatal illness'.[1] The difference with previous recommendations is substantial, as the role of palliative care was limited to patients not responsive to curative therapy during their last period of life.

The rationale of the current recommendation relied on the recognition that palliative care had the potential to improve the quality of life (QOL) of patients and their relatives during the whole trajectory of an incurable disease, through an effective management of psychological and physical symptoms, an effective communication and support in the decision-making process.

The results of randomised trials[2–7] showed the effectiveness of early integration of palliative care in improving QOL[3,5,6] and satisfaction with care of advanced cancer patients,[7] reducing treatment aggressiveness[8] and consumption of resources[3] at the end of life and increasing survival in selected studies.[3,5] The American Society of Clinical Oncology guidelines recommend that advanced cancer patients, with a prognosis of 6 to 24 months, should be early referred to interdisciplinary palliative care teams concurrently with active treatment.[9] One trial was also recently performed in 21 Italian centres. It randomised 217 advanced pancreatic patients to receive systematic early palliative care or palliative care on demand.[6,8]

There are challenges in transferring this evidence into clinical practice that limit a wider implementation.[10] First, early integration is a complex intervention requiring a clear definition of what it is and which components are the 'active ingredients'.[11] In published randomised trials, the interventions differed in timing, modality and duration.[2–6] Second, the concept of integration was poorly defined. A systematic review identified 38 clinical, education, research and administrative indicators to assess the level of integration,[12] but only some studies have explored the opinions of patients,[13–15] relatives[13] and health professionals.[16,17] Third, this intervention should be generalisable across different settings, but, as all complex interventions, it is highly sensitive to the context where it is delivered. It follows that studies of the experiences of the different 'actors' involved in the integration process could provide useful information on both strengths and weaknesses of early integration, and offer suggestions on how to generalise the approach.

The aim of this study was to assess the feasibility of early integration of oncology and palliative care in advanced cancer patients. We also aimed at exploring the experience of patients, relatives and oncologists, with specific reference to the concerns perceived and the problems encountered.

Patients and methods

According to the Medical Research Council framework, for complex interventions,[18,19] this is a mixed-methods phase 2 study on early integration of palliative care in advanced cancer patients.[19]

Settings and population

The study was performed at Santa Maria Nuova Hospital in Reggio Emilia, Italy, a 900-bed public research hospital, accredited as a Clinical Cancer Centre by the Organisation of European Cancer Institutes.

Patients with a new diagnosis of cancer are referred to the outpatient clinics of the Oncology Department (all cancers) and the Respiratory Disease Department (respiratory cancers). During the first visit, the physician communicates the diagnosis and proposes a therapeutic plan. For the purpose of this article, all these physicians are referred as 'oncologists'.

The Palliative Care Unit is a specialised hospital-based unit with no beds. It was established in April 2013 with a remit of specialist consultations in wards and in a clinic for oncological outpatients and their relatives. At present, it includes two senior physicians and two advance practice nurses, dedicated full-time to hospital palliative care. A patient or a family member can self-refer to the unit, but usually consultations are requested by a hospital physician according to the patient needs. A psychologist is involved in weekly team meetings and in the care of patients and relatives with severe psychological suffering. The team uses the Edmonton Symptom Assessment Scale[20] and the Palliative Care Outcome Scale[21] for clinical purposes.

Population in study

All patients with newly diagnosed respiratory (lung, pleural) or gastrointestinal (pancreas or stomach) cancer admitted to the two Departments were consecutively screened for their eligibility.

Eligibility criteria included a new diagnosis of cancer (non–small-cell lung cancer or small-cell lung cancer, stage IIIb–IV; mesothelioma, stage III–IV; pancreas, stage IV; gastric, stage IIIb–IV), age >18 years, no specific therapy for any cancer during the previous 12 months, a performance status (measured with the Eastern Cooperative Oncology Group (ECOG) scale) between 0 and 2, and the ability to fill in a questionnaire.

The early palliative care intervention

Oncologists were asked to offer to all consecutive eligible patients the participation to the study that included the early palliative care intervention integrated with standard oncological care. Patients who gave their consent were referred to the palliative outpatient clinic.

The intervention was provided by the Palliative Care Unit through periodical consultations, the first within 30 days from the consent. Subsequently, patients were scheduled monthly, although differences were allowed according to the patients' needs. The team also considered family meetings to improve communication among the patient, family members and health professionals, for sharing patient status, goals of care and planning.[22]

The unit provided consultations also during hospital admissions. Patients were followed until death, referral to community teams, refusal or other reasons. More specifically, the goals of integrating palliative care earlier during the disease included the following:

- A specific attention to individual preferences for information, including patient prognostic understanding/awareness;
- A prompt physical and psychological symptom detection and management;
- A continuous explanation of treatment goals and support to patient decision making;
- Elements of advance care planning, progressively introduced, according to the patients' wishes;
- The possibility for relatives to meet the professionals.

The intervention was introduced to patients and relatives using the words 'specialised palliative care' and 'specialised palliative care physician/nurse'. The team explained the nature of the intervention and its goals by explicitly stressing the difference with an intervention focussed on the last days/weeks of life. Some sentences used for this communication are reported as Supplementary Material.

Integration with the oncological teams was planned through the whole disease trajectory. Although we did not have a specific structure for liaising with the oncologists, meetings and case conferences were performed periodically with specific attention to critical turning points such as periodical re-assessments, disease progression and major modification of the therapeutic plan. Whenever possible, the two teams had preliminary discussions to reach a shared clinical proposal to the patient to the maximum extent possible. All disagreements were negotiated within the meetings.

The quantitative assessment

We consecutively registered all newly diagnosed respiratory and gastrointestinal cancer patients, eligible patients (and reasons for ineligibility), patients who were asked to participate to the study (and reasons for not) and patients who accepted to participate (and reasons for not).

We registered all visits with patients and relatives. Information about hospital admissions, chemotherapies and referral to community services were collected from medical records. The information provided to the patient during the first visit, with specific attention to the diagnosis disclosure, and the poor prognosis, referred to the impossibility for the patient to recover from the disease, were reported in medical records.

We assessed the feasibility of the intervention by estimating the proportion of cancer patients who accepted to participate and attended the first palliative care visit. According to the study protocol, we planned to recruit 40 consecutive eligible study participants. We considered the feasibility of the intervention to have been addressed with an acceptance proportion higher than 65%.

Patient-reported outcome measures

Two questionnaires were proposed to the patients, after the consent (t0), at 42 ± 7 days (t1) and at 84 ± 7 days (t2) after t0. QOL was measured with the validated Italian version of the Functional Assessment of Cancer Therapy–General (FACT-G) which assesses four dimensions, physical well-being (seven items, score 0–28), social-family well-being (seven items, score 0–28), emotional well-being (six items, score 0–24), functional well-being (seven items, score 0–28), and allows to calculate a FACT-G total score (27 items, score 0–108). For lung cancer patients, we also administered the FACT questionnaire addressing seven symptoms specific for these patients, and we could estimate three more scales, the Lung Cancer Subscale (seven items, score 0–28), the Trial Outcome Index (21 items, score 0–84) and the Functional Assessment of Cancer Therapy–Lung (FACT-L) total score (34 items, score 0–136). For all FACT scales, higher scores indicate a better QOL.

Mood was assessed with the validated Italian version[23] of the 14-item Hospital Anxiety and Depression Scale (HAD) which assesses symptoms of anxiety (seven items, score 0–21) and depression (seven items, score 0–21). For both scales, a high score indicates a high level of distress. For each scale, we reported mean, standard deviation and the proportion of patients scoring >7, which is suggestive of anxiety or depression.

Statistical methods

We included all data collected until 1 September 2016. We calculated mean and standard deviations for each QOL dimension at t0, t1 and t2, and we estimated the mean difference between t1, t2 and paired data collected at t0. For each comparison, t tests for paired data were performed and p values calculated accordingly. The corresponding 95% two-sided confidence intervals were calculated relying on t distribution.

The qualitative assessment

Consent for qualitative assessment was requested to a consecutive series of six patients and six relatives (from patients not previously selected) who had attended at least three visits in the outpatient clinic, and to a sample of six oncologists.

The method followed for qualitative assessment was the Framework Method,[24,25] which is particularly suitable for helping inter-professional and interdisciplinary research team in analysing and managing qualitative data. Researchers use this method to address research questions concerning the meaning people give to their experience, allowing a comprehensive thematic analysis which can be shared and discussed within the research team. Its main feature is to provide the researchers with a matrix which is used to analyse the data and highlight differences and/or commonalities within resulting themes.[24]

Data collection

Information was gathered through semi-structured interviews exploring the experience of the different 'actors' of the intervention, that is, patients, relatives and the oncologists involved in the study.

Interviews with patients and relatives focussed on perceived benefits and concerns of the early intervention. Interviews with oncologists focussed on exploring strengths and weaknesses of the intervention with reference to both the respondents' view on patients' and family caregivers' experience, and their own role within the study, including specific tasks they are required to perform.

A member of the research team (S.D.L.) developed the interview guide. Anonymity and non-traceability criteria were duly presented to all interviewees. Explicit permission was requested for the interview to be audio-recorded. Interviewers were two nurse managers (M.G. and D.M.) and one psychologist (S.D.L.) with expertise in palliative care, but not involved in the implementation of the intervention.

Data analysis

Tape recordings of the interviews were transcribed verbatim, and then analysed using thematic analysis to explore the content and context of responses.[26]

In the first step, one researcher (S.D.L.) developed a coding framework covering themes congruent with the structure of the interview guide. Two researchers (M.G. and D.M.) independently analysed the transcripts and categorised all potentially relevant segments of the text. Throughout an iterative process, they inductively identified several sub-themes. In the second step, the two researchers compared the categorisations, reconsidered and discussed any difference in interpretation to reach an agreement, and to develop a unique preliminary categorisation. Finally, a third researcher (S.D.L.) revised both the transcripts and the preliminary categorisation, regrouped and renamed some themes and sub-themes highlighting commonalities and differences between the perspectives of the three 'actors' enquired. The supervision of an external auditor contributed to assuring the methodological rigour of the analysis.

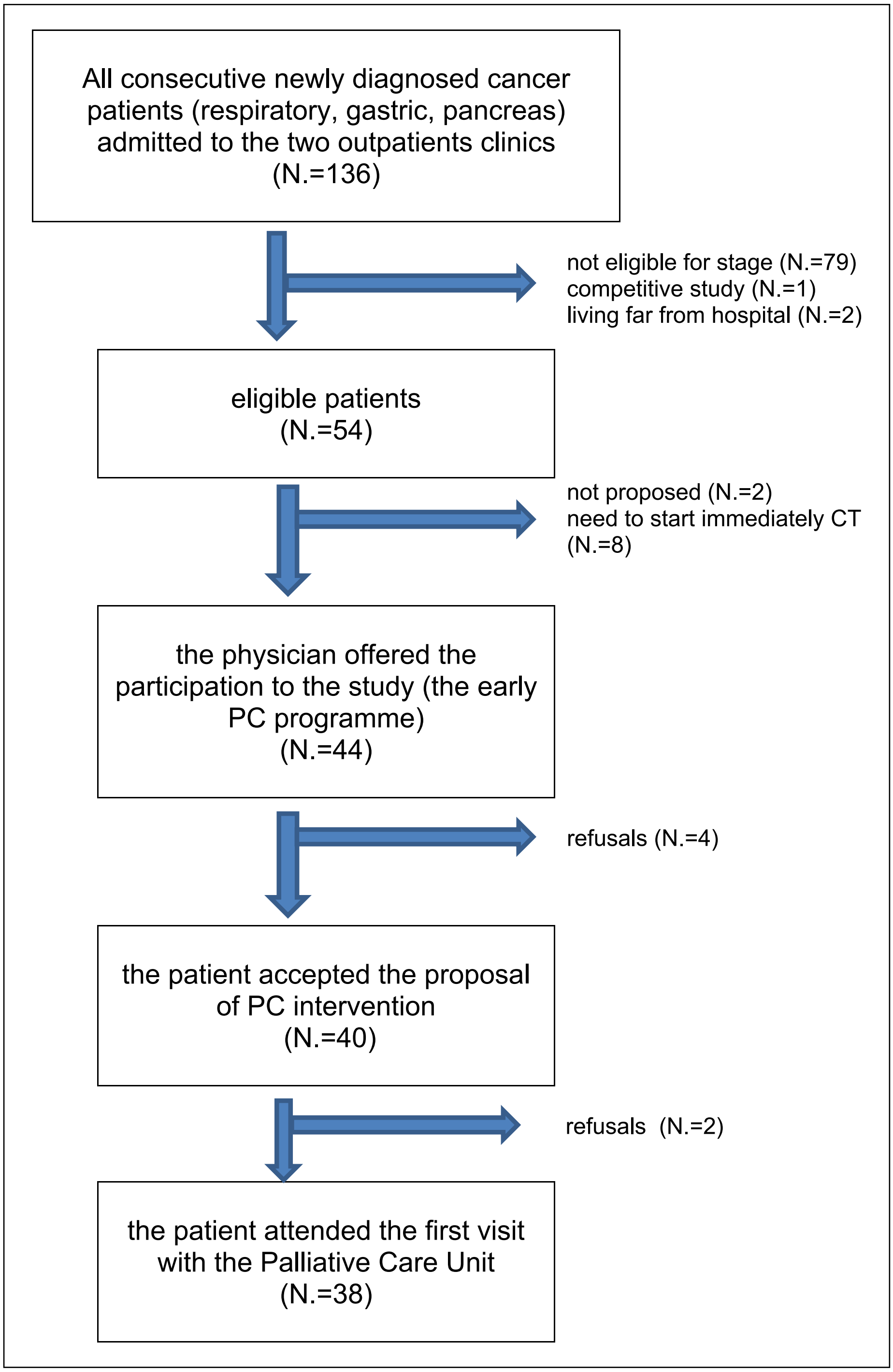

Figure 1. Flow chart of the study.

The Ethics Committee of Reggio Emilia approved the study protocol (code 148/2012, 18 June 2013).

Results

From 1 July 2013 through 30 April 2014, 136 consecutive newly diagnosed cancer patients were assessed for their eligibility (Figure 1). Eighty-two patients were ineligible, mainly due to the early stage of their illness ($N = 79$). The palliative care intervention was proposed to 44 of the 54 eligible patients (81.5%), 40/44 (90.9%) signed the informed consent and 38/40 (95.0%) attended the first visit with the Palliative Care Unit at a median (range) interval from diagnosis of 4 (1–13) days. Overall, 38/54 (70.4%) eligible patients were proposed the intervention and attended the first visit.

Table 1. Patient characteristics at diagnosis ($N = 40$).

Age (years)		
Mean ± standard deviation	67.7 ± 12.6	
Median (range)	69 (36–84)	
	N	%
Gender		
Males	25	62.5
Females	15	37.5
ECOG performance status		
0	17	47.2
1	12	33.3
2	7	19.4
Unknown	4	
Primary tumour		
Non–small-cell lung cancer	27	67.5
Small-cell lung cancer	2	5.0
Mesothelioma	1	2.5
Gastric	3	7.5
Pancreas	7	17.5
Stage		
III	2	5.0
IV	38	95.0
Chemotherapy		
Yes	34	85.0
No	6	15.0
Department		
Oncology	17	42.5
Respiratory disease	23	57.5
FACT-G dimensions (% below the median)		
Physical well-being	4	10.8
Social-family well-being	7	18.9
Emotional well-being	9	25.0
Functional well-being	29	80.6
HAD scales (% with score >7)		
Anxiety	14	35.0
Depression	7	17.5

ECOG: Eastern Cooperative Oncology Group performance status; HAD: Hospital Anxiety and Depression Scale (a score >7 is suggestive for a possible case of depression or anxiety); FACT-G: Functional Assessment of Cancer Therapy–General (the lower the score the worse the quality of life).

We consecutively recruited a higher proportion of respiratory cancer patients ($N = 30$; 75.0%) as compared with gastrointestinal ($N = 10$; 25.0%). Most patients were in stage IV (95.0%) with a good performance status (ECOG 0–1 = 80.6%). Six patients (15%) did not start any chemotherapy (four respiratory and two gastrointestinal). ECOG scores at enrolment were missing for four patients, but according to the clinical documentation, it was possible to estimate the ECOG between 0 and 1 (Table 1).

The palliative care hospital intervention was completed for 32 patients (80.0%). Twenty-five patients were referred to community services (18 to domiciliary teams, 7 to the inpatient hospice); seven patients died in hospital followed by the Palliative Care Unit (Table 2). The intervention did not start for three patients (7.5%) and was interrupted because three (7.5%) decided not to participate after they signed the consent. Other reasons include a sudden and unexpected home death, and one patient who deceased in another hospital without a Palliative Care Unit. The intervention, in agreement with the oncologists, was suspended for two patients who had stable disease.

Table 2. Output of hospital palliative care intervention.

Output	*N*	%
Completed as expected		
Transition to palliative home care	14	35.0
Transition to generalist home care	4	10.0
Transition to inpatient hospice	7	17.5
Deceased in hospital followed by the Palliative Care Unit	7	17.5
Not completed as expected		
Sudden home death	1	2.5
Deceased in hospital not followed by the Palliative Care Unit	1	2.5
Early interruption for change of hospital	1	2.5
Early interruption for refusal	1	2.5
Temporarily suspended for stable disease	2	5.0
Never started	2	5.0
Total	40	100

The Palliative Care Unit performed 274 outpatient visits with 38 patients (median per patient 4.5; range 0–27) and 24 family meetings with relatives of 16 patients (median per patient 0; range 0–4; Figure 2). Overall the unit performed 312 visits/meetings (mean for patient: 7.8). During the study period, the 40 patients experienced 62 hospital admissions, and the unit could perform one or more consultations for 39 (62.9%) of them.

Eight deaths occurred during the QOL assessment, six before the second assessment and two within the third assessment. Patients compliance, defined as received/expected questionnaires, at t0, t1 and t2 was 37/40 (92.0%), 29/34 (85.3%) and 24/32 (75.0%), respectively. Reasons for non-compliance were refusals ($N = 5$), poor clinical condition ($N = 5$), change of residence ($N = 3$) or staff error ($N = 3$).

The distribution of the FACT-G scores shows a stability over time for all dimensions but for physical well-being (Table 3), that showed a significant deterioration at the second assessment (mean: −2.4; 95% confidence interval = −4.6 to −0.3; $p = 0.027$) and at the third assessment (mean: −2.3; 95% confidence interval = −4.4 to −0.1; $p = 0.037$) as compared with baseline. No significant changes were observed for the depression HAD subscale, while a significant improvement in the anxiety subscale was observed at the second assessment (mean: −1.7; 95% confidence interval = −2.9 to −0.4; $p = 0.010$) and at the third assessment (mean: −2.1; 95% confidence interval = −3.8 to −0.5; $p = 0.014$) as compared with baseline.

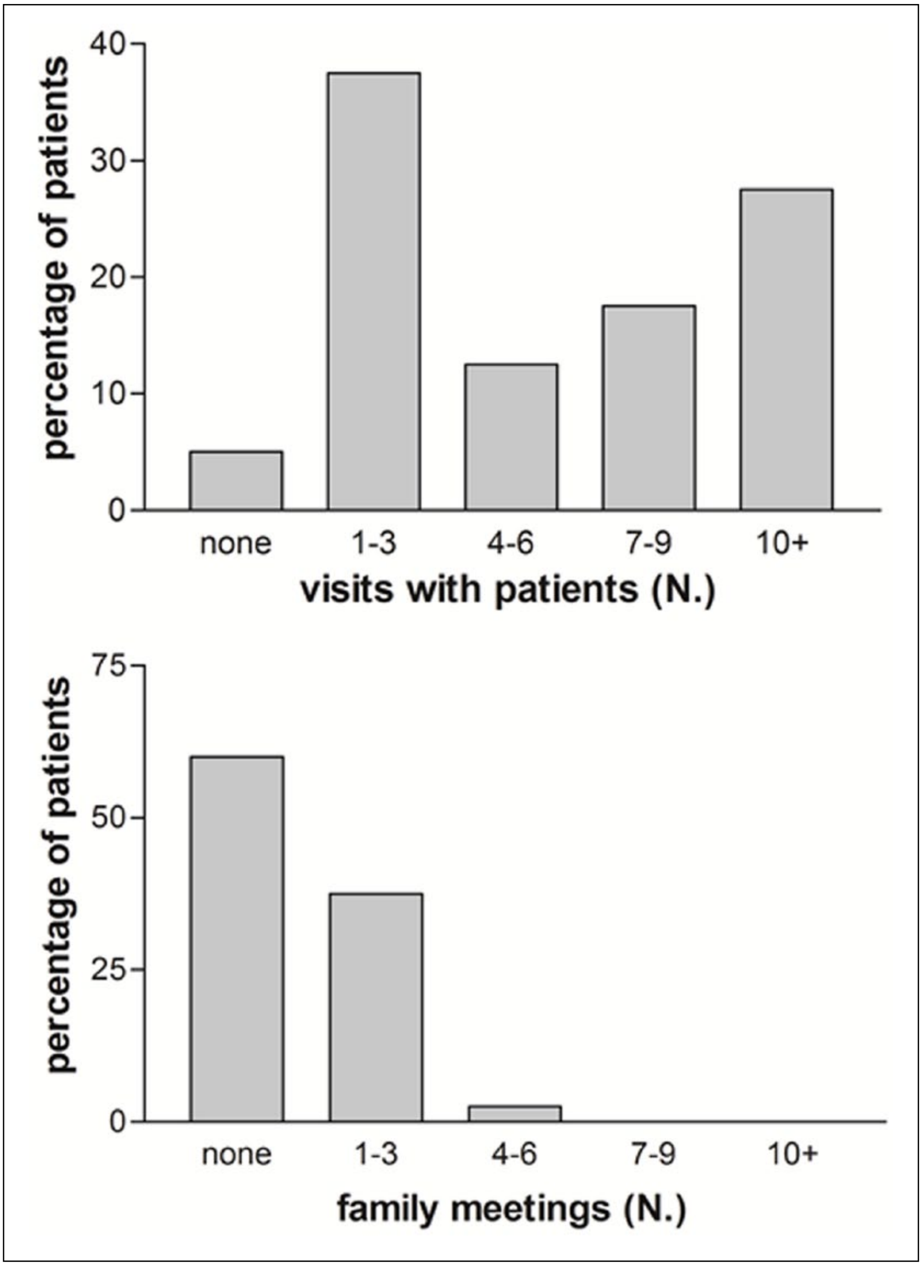

Figure 2. Palliative care visits and family meetings during the study period.

According to what was reported in the medical records, of the 38 patients that received the first visit, 36 (94.7%) were informed about their cancer diagnosis and 34 (89.5%) about the lack of available curative treatment.

The qualitative assessment

We interviewed six patients, six relatives and six oncologists. One patient refused to be interviewed and was replaced with the following eligible subject. Patients' and relatives' interviews lasted between 6 and 20 min (mean: 11), physicians interviews between 10 and 29 min (mean: 20).

Three themes and 14 interrelated sub-themes were identified (Table 4) and are described below, pointing out commonalities and differences between the views of patients, relatives and physicians.

Perceived benefits and strengths of the intervention

Improved symptom control. All respondents reported that the early palliative care intervention allowed better symptom control. Patients highlighted this point even when their symptoms were only partially relieved:

Table 3. Quality of life assessment.

All patients	Range	Assessment			Difference between assessments			
		Baseline (t0)	t0 ± 42 days (t1)	t0 ± 84 days (t2)	(t1 – t0)		(t2 – t0)	
		(*N* = 37)	(*N* = 29)	(*N* = 24)	(*N* = 29)		(*N* = 24)	
		Mean ± SD	Mean ± SD	Mean ± SD	Mean (95% CI)	*p* value	Mean (95% CI)	*p* value
FACT-G								
Physical well-being	0–28	20.2 ± 5.4	18.4 ± 5.0	18.8 ± 5.0	−2.4 (−4.6 to −0.3)	0.027	−2.3 (−4.4 to −0.1)	0.037
Social-family well-being	0–28	18.9 ± 4.1	19.3 ± 4.2	19.5 ± 4.7	0.7 (−1.0 to 2.5)	0.409	1.0 (−0.8 to 2.7)	0.260
Emotional well-being	0–24	15.6 ± 3.9	15.9 ± 3.9	16.3 ± 4.5	0.2 (−1.5 to 1.9)	0.814	1.2 (−0.3.to 2.6)	0.107
Functional well-being	0–28	10.4 ± 5.9	11.6 ± 4.8	12.8 ± 4.8	0.7 (–0.9 to 2.3)	0.409	1.5 (−0.9 to 3.9)	0.212
FACT-G total score	0–28	65.0 ± 13.8	65.1 ± 12.8	68.1 ± 14.2	−0.8 (−5.4 to 3.7)	0.705	−2.1 (−3.0 to 7.2)	0.409
HAD								
Anxiety scale	0–21	6.6 ± 2.9	5.7 ± 2.9	5.4 ± 4.4	−1.7 (−2.9 to −0.4)	0.010	−2.1 (−3.8 to −0.5)	0.014
Depression scale	0–21	5.4 ± 3.0	6.4 ± 3.4	6.0 ± 3.5	−0.4 (−1.1 to 2.0)	0.562	−0.3 (−2.0 to 1.5)	0.760
Lung cancer patients		(*N* = 26)	(*N* = 21)	(*N* = 19)	(*N* = 21)		(*N* = 19)	
Lung cancer scores								
FACT-L scale	0–136	82.1 ± 16.7	84.3 ± 16.0	87.2 ± 16.7	0.1 (–0.7 to 7.6)	0.974	2.5 (−4.4 to 9.5)	0.451
Lung Cancer Subscale	0–28	16.2 ± 3.7	16.8 ± 3.8	17.0 ± 4.0	0.5 (−1.2 to 2.1)	0.560	0.6 (−1.0 to 2.3)	0.414
Trial Outcome Index	0–84	47.4 ± 13.0	47.9 ± 11.8	50.3 ± 10.3	−1.6 (−6.9 to 3.7)	0.534	−0.3 (−4.4 to 9.5)	0.990

FACT-G: Functional Assessment of Cancer Therapy–General (for all the FACT scales the higher the score, the better quality of life); HAD: Hospital Anxiety and Depression Scale (for both HAD subscales, the higher the score, the higher the distress); FACT-L: Functional Assessment of Cancer Therapy–Lung; SD: standard deviation; CI: confidence interval.

Table 4. Themes and sub-themes identified through qualitative analysis of the interviews by respondent groups.

Themes and sub-themes	Patients	Family members	Oncologists
Perceived benefits/strengths			
Improved symptom control	X	X	X
Being reassured by a physician dedicated to symptom control	X	X	X
Honest information about illness	X	X	X
Time for the patient	X	–	X
Psychological support	X	X	–
Practical support	X	X	X
Improved communication skills	–	–	X
Perceived concerns/weaknesses			
Less useful in absence of symptoms	X	–	X
Too much early palliative care	–	–	X
Too many information about illness	–	–	X
Problems in communication with relatives	–	X	–
Difficult communication between professionals	–	–	X
Suggestions for improvement			
Making the intervention available to other patients	X	X	X
Introducing the intervention permanently in hospital clinical practice	X	X	X

> There is nothing to do with asthenia … but anyway there is the chance to call the service at any time. (Patient)

Both patients and oncologists connected such a benefit to early referral, and the subsequent possibility to timely recognise and address problems related to cancer illness:

> I am in favour to this type of service, I am convinced, because most of the problems we experienced were sorted out, or at least were tackled quickly, immediately. (Oncologist)

Being reassured by a physician dedicated to symptom control. All respondent groups viewed the palliative doctor as a reassuring presence for his or her expertise in symptoms' control:

> I am sure that psychological support is very important. When you know that you can count on … When you receive accurate information on side effects and that there is a remedy for these too, this immediately reassures you. (Patient)

Relatives emphasised this issue, and explained how palliative doctors were effective in alleviating patient and relatives' anxiety:

> It was a positive surprise. In fact, we could face the doctor, she gave us some useful advices … Even if at the beginning one worries to hear the word 'palliative care'. But the support was effective, both for me and my wife. (Relative)

Honest information about illness. All respondents unanimously expressed the advantages of providing honest information about illness to patients and relatives. Patients reported on the relevance of receiving from the palliative doctor explanations concerning causes of their symptoms and treatments available to alleviate them. One patient emphasised her satisfaction about the possibility to discuss preferences and wishes on the place of care, after been informed by the palliative doctor on her poor prognosis:

> I had to deal with a big problem, the consultation with another oncologist … Both my mother and my husband wished I asked for consultation all around … I did not want to do this because, first, I trust the doctors … second, I have a 4 months old daughter, and I thought 'I want to spend time at home!'. The physician explained to my mother that another consultation would have been useless, and that solved the problem.

Relatives appreciated that information regarding expected changes in patient clinical condition and measures to adopt for coping with them were constantly updated:

> I received all information with a very soft approach … When I asked not to tell the truth to my uncle, they explained to me pros and cons. (Relative)

According to the oncologists, the process of shared decision making during palliative care consultations made the communication between oncologists, patients and relatives easier:

> Before this study, the relatives used to send emails like 'can we meet outside and alone?' Now it happens less frequently, and they often ask about the disease in presence of the patient. This is an achievement. (Oncologist)

Time for the patient. Patients and oncologists perceived time availability in consultations as a crucial aspect. Some patients referred to be surprised in seeing the palliative doctor not in a hurry. Oncologists reported they were not able to dedicate as much time to patients as palliative physicians, and therefore, they could not address relevant issues for the patients such as giving prognostic information.

Psychological support. All respondents highlighted the focus of palliative care intervention on the patient as a whole person. Patients felt themselves fully listened to by palliative doctors:

> You do not feel like a number, you feel like a person! And that is important. (Patient)

Practical support. All respondents reported the palliative doctors' availability and flexibility, for example, they were perceived as capable to organise clinical consultations with the oncologists, and available to be contacted by phone or email for any problem or question. Readiness of palliative colleagues to respond to both patient and relative practical needs was also recognised by oncologists. Family caregivers perceived the coordination between palliative physicians and colleagues from other disciplines:

> My wife appreciated the team organisation very much, and the work done by the team. (Relative)

Improved communication skills. Because of their active participation in the various steps of the intervention and the coordination with palliative physicians, oncologists referred to feel more confident and less resistant to communicate about illness when they had to introduce the early intervention to eligible patients and during the whole care process. The acquired confidence and skills were attributed to the consultations with their palliative colleagues, and the possibility to see how communicating on a bad prognosis was possible.

Perceived concerns and weaknesses

Less useful in absence of symptoms. Some patients expressed their perplexity towards the intervention, since they felt themselves quite well, and without physical symptoms. Some oncologists expressed similar considerations and highlighted how some asymptomatic patients mainly perceived palliative care consultations as an additional, unnecessary burden:

> Given that the patient did not experienced major problems, for her attending the visits was a burden. She perceived it as an unnecessary additional task. (Oncologist)

Too much early palliative care. Oncologists reported their difficulty in introducing palliative care during the first visit, together with giving information on cancer diagnosis, stage of illness and care plan:

> It may be too early to refer the patient to the Palliative Care Unit before the start of chemotherapy. Because there is always some hope, expectations. (Oncologist)

Some oncologists felt too busy and not skilled enough to perform such communication tasks. They did not feel confident in coping with patients' emotional reactions to this information. Some reported not to have intentionally used the word 'palliative', others that they had desisted from proposing the study to patients whose relatives were against the patient being fully informed about their illness.

Too much information about illness. According to some oncologists, palliative colleagues tended to deliver too much information to patients about their illness, sometimes 'destroying' their hopes:

> I agree about delivering the information, but may be … disclosing too early what the natural history of the disease will be, and the problems that could occur … well, perhaps it is too much. (Oncologist)

Problems in communication with relatives. One family caregiver expressed some disappointment about the communicative approach the palliative doctor had with her and her husband. She perceived the approach as indelicate, and that the physician did not consider the deep discomfort caused by such communication:

> … (the palliative doctor) asked my husband about who was his trusted person, in case he would not have been able to take decisions himself. He said 'my wife'. When I heard him saying this … I was petrified. (Relative)

Problems in communication between professionals. Some oncologists reported they really did not know which of their patients were involved in the intervention; others complained that their palliative colleagues did not update them about these patients, particularly with reference to prognostic information:

> Some patients do not want to know details about their condition. It occurred that the communication with the patient was not shared with us oncologists … We should share a common line to follow, from the beginning. (Oncologist)

Suggestions for improvement

All patients and most family caregivers suggested that the intervention should be available to all patients who could benefit from it. Oncologists suggested to regularly introduce such intervention in hospital clinical practice together with palliative physicians, and by improving communication between professionals during the whole care process.

Discussion

Main findings of the study

The results of this study show that an early integration of specialised palliative care after the diagnosis of advanced cancer is feasible and well accepted by patients, relatives and, to a lesser extent, oncologists. In this consecutive series of advanced cancer patients, oncologists proposed the early integration to over 80% of eligible patients, and over 90% accepted the intervention. Compliance with proposed visits was highly satisfactory, and the intervention was completed as expected for 80% of the patients. Overall, over 70% of eligible patients were proposed the intervention and attended the first visit with the Palliative Care Unit.

Strengths and weaknesses of the study

The compliance at the proposal was rather high also considering the burden of filling in many questionnaires (two for clinical purpose and two for the planned assessment). This burden might have influenced the willingness of some patient to participate to the study, independently by what they thought about the early palliative care intervention.

The early palliative care intervention was modulated according to the patient needs. With a virtually complete follow-up, it is possible to estimate that an early intervention requires, on average, about seven to eight visits/meetings per patient plus consultations during hospital admissions. A *Lancet* Editorial,[27] commenting a cluster-randomised trial on early palliative care,[4] objected that, for a matter of costs and for the scarcity of specialists, it is unrealistic to provide early palliative care to all advanced cancer patients. Although the objection is reasonable, our results suggest that an early intervention is feasible, in terms of resources and expected output, at least for the hospitals that already have a specialised team. This is in line with the evidence reported in the literature.[28] An efficient integration of early palliative care into comprehensive cancer care requires both specific training of oncologists and the need for additional expertise offered by palliative care physicians.[29] Future research is needed to identify subgroup of patients that could benefit more from early intervention.[27]

Our findings show that an early palliative care intervention is acceptable for both patients and relatives. While patients and relatives were frightened when it was introduced, they also reported that the explanation of the rationale of the intervention partially reassured them. A qualitative study on patients and relatives involved in the Canadian cluster trial reported a similar initial negative feedback about the introduction of an intervention named 'palliative care'.[14] A debate is ongoing about the term 'palliative care', and a change of name to 'supportive care' was proposed.[30,31] In our research, we discussed about the best way of introducing the intervention, as we dealt with the negative stigma of a poor prognosis associated with this expression. We decided to provide an honest communication, that is, we always used the term 'palliative care' and, during the first visit, we openly discussed this stigma with patients and relatives. Some reported a kind of diffidence and perplexity that seemed to disappear in the following days/weeks. Only two patients prematurely interrupted the visits. Although some oncologists complained about the difficult task of introducing the intervention just during the first consultation, where patients are dealing with distressing information, the high rate of proposals and of acceptance partially contradicts this view. We therefore argue that both patients and relatives, after an initial hesitation, fully understand the potential benefits of the intervention.

The early integration between oncologists and palliative professionals was associated with the provision of an early communication about diagnosis and prognosis. Such findings are substantially unusual for the Italian context.[32,33] It was estimated that only 37% of Italians deceased of cancer in 2002 had received information about diagnosis, and only 13% about the poor prognosis of their disease.[32]

This study shows that communicating bad news to advanced cancer patients is possible also in 'difficult contexts', when it is performed by skilled professionals. We observed a significant decrease of patients' anxiety and no changes in patients' depression in the 3 months after diagnosis. Interviewed patients and, to a lesser extent, relatives seemed to appreciate the palliative care physicians' availability to deliver open and honest communication about illness, and to be regarded as whole persons. Oncologists, conversely, seemed not to share this view, disagreeing in some cases towards the amount of information delivered to patients. Strengthening coping and cultivating illness understanding and prognostic awareness in a responsive and time sensitive approach is recognised as important component of palliative care visits and, as reported by Jacobsen et al.,[11] the earlier and longer relationship between physicians and patients may allow the time and opportunity to face such complex issues.

Oncologists reported that participating in the intervention has improved their communication skills. They also referred difficulties in communicating with their palliative care colleagues and in delivering care in coordination with them. In opposition, relatives openly mentioned collaboration and communication between professionals as a strength of the intervention itself.

A few reasons could explain such oncologists' perceived difficulties. The mandate to develop and implement the early integration of oncology and palliative care was given a few months after the Palliative Care Unit was established within the hospital. We started being involved in multidisciplinary tumour boards and implementing several educational programmes on palliative care for all professionals. The unit is active only 5 days a week, and it was placed far from the Oncology department, making it difficult for palliative care professionals to be embedded in the oncology clinic. Communication and coordination between palliative care and oncology is also demanding, due to the lack of a common documentation system.

A small, but not negligible, proportion of patients were symptomatic for physical symptoms at diagnosis. The proportion of patients with HAD scores potentially evocative of anxiety and depression are rather similar to those reported in the Temel study.[3] These results confirm the high physical and psychological distress suffered by metastatic cancer patients at diagnosis. All interviewed patients, relatives and oncologists perceived a benefit of the specialised intervention, in terms of improved symptom control, and of advantages related to the reassuring attitude and the prompt availability of a team concerned towards the management of physical suffering. The partial discrepancy between quantitative and qualitative assessment could be explained by the different construct of the two assessments, the former being more focussed on how the patient was really affected by the symptoms and the latter being more influenced by how the patient was satisfied with symptoms control.

This is a feasibility study performed on a small sample of subjects, where a consecutive series of unselected newly diagnosed advanced cancer patients were recruited. The lack of a control group makes the evaluation of the effect of the intervention impossible. Nevertheless, we gathered both quantitative and qualitative data, and interpreted such rich amount of information as a whole. Only patients and relatives with at least three visits were interviewed. These selection criteria were aimed at including patients and relatives informed and aware about the palliative care service. This may have biased the results towards a higher degree of acceptability of the service.

Conclusion

This study strongly suggests that early integration between oncology and palliative care is feasible, and well accepted by patients, relatives and, to a lesser extent, professionals. Qualitative evaluation has indeed identified some critical points concerning patient information and inter-professional communication. The stigma associated with the terms palliative care should be taken into consideration although the change of name cannot be considered an effective strategy. These aspects need specific attention. The introduction of the intervention from the oncologists and subsequently from the palliative physicians should be performed in a sensitive mode, taking the time required for dealing with patients' and relatives' concerns and worries.

Acknowledgements

The authors thank patients, relatives and physicians who participated to this study; the four nurses who administered the questionnaires (Cristina Autelitano, Matteo Seligardi, Maura Rovatti and Stefano Botti) and Luca Ghirotto for his valuable contribution in critically revising this manuscript.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship and/or publication of this article: This work is part of the Programma di Ricerca Regione Emilia Romagna-Università, Ricerca per il Governo Clinico, 2010–2012 (3b211-19 to M.L.).

References

1. Sepúlveda C, Marlin A, Yoshida T, et al. Palliative care: the World Health Organization's global perspective. *J Pain Symptom Manage* 2002; 24(2): 91–96.
2. Bakitas M, Lyons KD, Hegel MT, et al. Effects of a palliative care intervention on clinical outcomes in patients with advanced cancer: the Project ENABLE II randomized controlled trial. *JAMA* 2009; 302: 741–749.
3. Temel JS, Greer JA, Muzikansky A, et al. Early palliative care for patients with metastatic non-small-cell lung cancer. *N Engl J Med* 2010; 363: 733–742.
4. Zimmermann C, Swami N, Krzyzanowska M, et al. Early palliative care for patients with advanced cancer: a cluster-randomised controlled trial. *Lancet* 2014; 383: 1721–1730.
5. Higginson IJ, Bausewein C, Reilly CC, et al. An integrated palliative and respiratory care service for patients with advanced disease and refractory breathlessness: a randomised controlled trial. *Lancet Respir Med* 2014; 2(12): 979–987.
6. Maltoni M, Scarpi E, Dall'Agata M, et al. Systematic versus on-demand early palliative care: results from a multicentre, randomised clinical trial. *Eur J Cancer* 2016; 65: 61–68.
7. McDonald J, Swami N, Hannon B, et al. Impact of early palliative care on caregivers of patients with advanced cancer: cluster randomised trial. *Ann Oncol* 2017; 28(1): 163–168.
8. Maltoni M, Scarpi E, Dall'Agata M, et al. Systematic versus on-demand early palliative care: a randomised clinical trial assessing quality of care and treatment aggressiveness near the end of life. *Eur J Cancer* 2016; 69: 110–118.
9. Ferrell BR, Temel JS, Temin S, et al. Integration of palliative care into standard oncology care: American society of clinical oncology clinical practice guideline update. *J Clin Oncol* 2017; 35(1): 96–112.
10. Hui D, Elsayem A, De la Cruz M, et al. Availability and integration of palliative care at US cancer centers. *JAMA* 2010; 303: 1054–1061.
11. Jacobsen J, Jackson V, Dahlin C, et al. Components of early outpatient palliative care consultation in patients with metastatic nonsmall cell lung cancer. *J Palliat Med* 2011; 14: 459–464.
12. Hui D, Kim YJ, Park JC, et al. Integration of oncology and palliative care: a systematic review. *Oncologist* 2015; 20(1): 77–83.

13. Hannon B, Swami N, Rodin G, et al. Experiences of patients and caregivers with early palliative care: a qualitative study. *Palliat Med* 2017; 31: 72–81.
14. Zimmermann C, Swami N, Krzyzanowska M, et al. Perceptions of palliative care among patients with advanced cancer and their caregivers. *CMAJ* 2016; 188(10): E217–E227.
15. Maloney C, Lyons K, Li Z, et al. Patient perspectives on participation in the ENABLE II randomized controlled trial of a concurrent oncology palliative care intervention: benefits and burdens. *Palliat Med* 2013; 27(4): 375–383.
16. Bakitas M, Lyons KD, Hegel MT, et al. Oncologists' perspectives on concurrent palliative care in a National Cancer Institute-designated comprehensive cancer center. *Palliat Support Care* 2013; 11(5): 415–423.
17. Back AL, Park ER, Greer JA, et al. Clinician roles in early integrated palliative care for patients with advanced cancer: a qualitative study. *J Palliat Med* 2014; 17(11): 1244–1248.
18. Campbell M, Fitzpatrick R and Haines A. Framework for design and evaluation of complex interventions to improve health. *BMJ* 2000; 321: 694–696.
19. Creswell J and Plano Clark VL. *Designing and conducting mixed methods research*. 2nd ed. Thousand Oaks, CA: SAGE, 2011.
20. Moro C, Brunelli C, Miccinesi G, et al. Edmonton symptom assessment scale: Italian validation in two palliative care settings. *Support Care Cancer* 2006; 14(1): 30–37.
21. Costantini M, Rabitti E, Beccaro M, et al. Validity, reliability and responsiveness to change of the Italian palliative care outcome scale: a multicenter study of advanced cancer patients. *BMC Palliat Care* 2016; 15: 23.
22. Cahill PJ, Lobb EA, Sanderson C, et al. What is the evidence for conducting palliative care family meetings? A systematic review. *Palliat Med* 2017; 31(3): 197–211.
23. Costantini M, Musso M, Viterbori P, et al. Detecting psychological distress in cancer patients: validity of the Italian version of the Hospital Anxiety and Depression Scale. *Support Care Cancer* 1999; 7: 121–127.
24. Gale NK, Heath G, Cameron E, et al. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Meth* 2013; 13: 117.
25. Pope C, Ziebland S and Mays N. Analysing qualitative data. *BMJ* 2000; 320: 114–116.
26. Braun V and Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006; 3(2): 77–101.
27. Block SD and Billings JA. A need for scalable outpatient palliative care interventions. *Lancet* 2014; 383: 1699–1700.
28. Gaertner J, Bernd-Oliver M and Radbruch L. Resource allocation issues concerning early palliative care. *Ann Pall Med* 2015; 4(3): 156–161.
29. Abrahm JL. Integrating palliative care into comprehensive cancer care. *J Natl Compr Canc Netw* 2012; 10(10): 1192–1198.
30. Fadul N, Elsayem A, Palmer JL, et al. Supportive versus palliative care: what's in a name? A survey of medical oncologists and midlevel providers at a comprehensive cancer center. *Cancer* 2009; 115(9): 2013–2021.
31. Dalal S, Palla S, Hui D, et al. Association between a name change from palliative to supportive care and the timing of patient referrals at a comprehensive cancer center. *Oncologist* 2011; 16(1): 105–111.
32. Costantini M, Morasso G, Montella M, et al. Diagnosis and prognosis disclosure among cancer patients. Results from an Italian mortality follow-back survey. *Ann Oncol* 2006; 17: 853–859.
33. Apolone G, Corli O, Greco MT, et al. Factors influencing the decision to take or reject opioids for cancer pain: are we on target? *Ann Oncol* 2008; 19: 1021–1022.