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ORIGINAL RESEARCH

General practitioners' participation in cancer treatment in Norway

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ABSTRACT:

Introduction: General practitioners (GPs) participate in a patient's cancer care to different extents at different times, from prevention and diagnosis to treatment and end-of-life care. Traditionally, the GP has had a minor role in cancer treatment. However, oncological and surgical services frequently delegate limited cancer treatment tasks to GPs,

especially in rural areas far from hospitals. The aim of this study was to explore the extent of GPs' participation in cancer treatment in Norway.

Methods: This study was an observational questionnaire study. In 2007, the chief municipal medical officer in all 93 municipalities in North Norway and a 25% random sample (85 municipalities) in South Norway was asked to identify up to five GPs who had recently participated in local treatment of cancer patients, and to forward a patient questionnaire to them.

Results: Seventy-eight GPs in 49 municipalities returned completed questionnaires for 118 patients, most of them with progressive disease and living in rural areas. All the GPs reported substantial participation in therapeutic tasks for this select group of patients. Not counting palliative treatment, 64% of the GPs participated in cancer treatment either directly, or indirectly through referrals. Twenty patients received chemotherapy; they belonged to no particular diagnostic category. Eighty-eight percent of the GPs prescribed some kind of palliative medicine, such as analgesic, antiemetic, anxiolytic or antidepressant. Morphine was prescribed equally often by GPs and hospitals. Eighty-one percent of GPs reported having had a thorough conversation with the patient about the patient's condition and circumstances.

Conclusion: In this group of GPs, participation rates were high for most of the therapeutic and communicative tasks suggested in the questionnaire. GP participation is feasible not only in palliative care, but also in some aspects of oncological treatment and in clinical follow-up. Communication with both patient and hospital seemed good in this local setting. GPs are important helpers for some cancer patients.

KEYWORDS:

cancer, continuity of patient care, family practice, general practice, Norway, palliative care, patient care, primary health care.

FULL ARTICLE:

Introduction

For a patient living through cancer, the participation of their general practitioner (GP) in care varies during the disease's course[1,2]. The GP has an important role in understanding and exploring symptoms to distinguish cancer from non-cancer[3,4] and in palliative care at the end of life[5,6]. Traditionally, hospital doctors perform the treatment of cancer. However, especially in rural and remote areas, some treatment has been decentralised to GP surgeries and rural hospitals[7,8]. Many patients want their GP to take an active part in the cancer therapy[9]. Also, GPs have an important role in psychosocial care and care for side effects of treatment[10,11]. Supporting patient and family, translating information into lay language and being a mediator between patient and specialist care are also important GP tasks[10,12]. In areas with long distances to hospital, patients could save travel time if GPs performed more tasks[12].

The interface between secondary and primary care has long been recognised as a critical point regarding quality of care[13]. Communication between lines of health care is often found wanting[14]. Especially important when sharing care is timeliness of specialists' communications to GPs[10,12]. In addition to questions arising during the active phase of cancer treatment, GPs deal with an increasing number of survivors who need assistance based on a profound understanding of cancer sequelae and of possible complications of treatment[15]. Given their often long-lasting and close relationships with their patients, GPs are in a position to accompany them throughout the whole process of cancer care[5,16]. However, such longitudinal involvement has been relatively uncommon[17].

The aim of this study was to explore how Norwegian GPs participated in different kinds of cancer treatment, and for what forms of cancer. Furthermore, the authors asked what kind of communication the GPs had with patients and hospital doctors, as well as with local health personnel and patients' relatives. Finally, the authors wanted to discuss what is feasible and appropriate.

Methods

The chief municipal medical officer in 178 Norwegian municipalities in April 2007 received an invitation letter together with enclosed letters to GPs containing self-explanatory four-page questionnaires (Appendix I), modified from a previous study[18]. The medical chief was asked to identify up to five GPs who might have participated in local treatment of cancer patients in 2006–07 and to forward the questionnaire to them. Thus, the intention was to recruit a rather select group of GPs who had experience from work with cancer patients. All 93 municipalities in North Norway and a 25% random sample (85 municipalities) in South Norway received the invitation. Treatment intention could have been curative or palliative. The anonymous patient could be alive or dead at the time of reporting. In addition to marking pre-defined answers, the GPs were encouraged to give free-text commentaries.

Participating GPs received no remuneration, only a certificate attesting the approximate time they had spent answering the questionnaire. In Norway, such participation in research contributes a limited number of points for the compulsory recertification of GP specialty every fifth year.

Statistics

Chi-square analysis and Mann–Whitney *U*-test were used to examine differences between groups. Significance level was $p<0.05$.

Ethics approval

The survey protocol was accepted by the Data Inspectorate of Norway (Project 12962) and ethical approval for the project was given by the Regional Committee for Medical and Health Research Ethics of Northern Norway (P REK Nord 44/2005). Only the individual GP knew the identity of any single patient.

Results

Seventy-eight GPs from 49 (28% of invited) municipalities returned completed questionnaires for 118 patients. The GPs were 36% women and 64% men with an average age of 47 years and an average GP experience of 16 years. Mean age and sex distribution were very close to those of all Norwegian GPs[19]. There was no difference in participation between north and south. There was a non-significant tendency that GPs in the south had worked a little longer in general practice then GPs in the north – median 20 years and 14.5 years, respectively. Only six of the municipalities were towns with more than 20 000 inhabitants, which means that the majority of patients lived in rural communities or small towns quite far away from hospitals. However, a few localities had rural hospitals[14], and most other places had rooms reserved for terminal or other temporary patients in the local nursing home.

The 118 patients comprised 59 women and 59 men. Overall mean and median age was 63 years, median age for women was 61 years and for men 63 years. One patient was a child, and the oldest patient was aged 89 years.

Table 1 shows cancer diagnosis by site, with digestive organs as the major localisation of cancer. All major forms of cancer were represented. Sixty percent of the patients were alive at the time of registration, 16% were in the terminal stage and 12% were in a good condition without ongoing treatment. For 20% of the patients the intention of treatment was curative and the GPs reported that life expectancy at the beginning of treatment was more than 6 months for 63% of the patients. One-third of the patients waited more than 4 weeks before treatment started. The clinical status had been declining for 80% of the patients.

Table 2 shows how the GPs participated in drug and adjuvant treatment of cancer patients. Not counting palliative treatment, 64% of the GPs participated either directly, or indirectly through referrals, in cancer treatment. Seventeen percent of all the GPs participated in administration of chemotherapy, while more than half of the GPs referred patients to other investigations or treatment. The 20 patients who received chemotherapy belonged to no particular diagnostic category, nor were there sex or age differences. Eighty-eight percent of the GPs prescribed some kind of palliative medicine to the patients, especially analgesic and antiemetic drugs. Anxiolytic or antidepressive drugs were prescribed to about half of the patients. Morphine was prescribed equally often from GPs as from hospital. Alternative or complementary medicine was discussed infrequently. Two-thirds of the GPs treated their patients for complications of cancer treatment, with advice from the hospital in 70% of the cases. GPs were involved in the treatment of worsening

or relapse for 74% of the patients, most often in cooperation with hospital doctors. For treatment of other disease after cancer was diagnosed, the GPs had contact with the hospital in 41% of the cases. GPs treated patients in several locations, and 59% had some treatment at home. One-third of the GPs reported responsibility for coordinating home care, and two-thirds contributed to different kinds of administrative help.

Table 3 gives an overview of the communication between GP and patient, and of cooperation with the hospital. Almost one-third of the GPs contributed to informing the patient about their diagnosis, and 81% reported having had a thorough conversation with the patient about the patient's condition and circumstances. Other health professionals and family/friends were important in the care of most patients. In this local setting, a high proportion of the GPs reported that they had had written and/or oral communication with hospital doctors. During the terminal stage most patients were treated at home or at a nursing home; of the patients who died, less than half died at home. The GPs had contact with the family in 72% of the cases after a patient died.

Table 1: Patient characteristics and cancer diagnoses by anatomical site (*n*=118)

Patient characteristic	*n* (%)
Sex	
Male	59 (50)
Female	59 (50)
Patient age	
1–49 years	17 (14)
50–69 years	60 (51)
≥70 years	41 (35)
Cancer by anatomical site	
Mouth, pharynx	3 (3)
Digestive organs	42 (36)
Respiratory organs	17 (14)
Skin	1 (1)
Mesothelioma, soft tissues	3 (3)
Breast	9 (8)
Female genital organs	11 (9)
Male genital organs	15 (13)
Urinary organs	5 (4)
Central nervous system/eye	6 (5)
Lymphoid and haematopoietic tissue	5 (4)
Other and unspecified	1 (1)
Intention of treatment	
Curative	24 (20)
Palliative	87 (74)
Don't know	7 (6)
Patient life expectancy at beginning of treatment (*n*=116)	
<6 months	42 (36)
>6 months	74 (63)
Waiting time before treatment started	
<1 week	25 (21)
1–2 weeks	16 (14)
2–4 weeks	28 (24)
>4 weeks	38 (32)
Don't know	11 (9)
Primary treatment terminated (*n*=112)	
Yes	81 (69)
No	31 (26)
Cancer had poor outcome	
Yes	94 (80)
No	14 (12)
Don't know	10 (9)
Condition of patient	
Good, no ongoing treatment	14 (12)
Ongoing treatment	38 (32)
Terminal stage	19 (16)
Deceased	47 (40)

Table 2: General practitioner participation in drug and adjuvant treatment of cancer patients (*n*=118)

Description of participation	*n* (%)¶
GP participation in treatment/follow-up† (*n*=75)	
Administration of chemotherapy	20 (17)
Referred to other investigation/treatment (related to disease development)	55 (47)
Referred to adjuvant treatment (radiation, physiotherapy, psychotherapy)	40 (34)
Palliative treatment prescribed by GP† (*n*=103)	
Analgesic	75 (64)
Antiemetic	67 (57)
Antipruritic	15 (13)
Anxiolytic/antidepressive	49 (42)
Other (hormones, blood transfusion, parenteral nutrition, dietary supplements)	52 (44)
Did patient need morphine for pain? (*n*=117)	
Yes	62 (53)
No	55 (47)
If yes – who prescribed morphine?† (*n*=62)	
GP	39 (63)
Doctors at hospital	41 (66)
Pain specialists	6 (10)
If yes – when was morphine prescribed?† (*n*=62)	
Before terminal stage	50 (81)
During terminal stage	26 (42)
GP treated patient for complications of cancer treatment	
Yes	76 (65)
No	42 (36)
If yes – contact with the hospital? (*n*=74)	
Yes	53 (70)
No	21 (28)
Place of treatment (outside hospital)† (*n*=111)	
Nursing home/infirmary	47 (42)
At home	65 (59)
At the GP surgery	56 (50)
GP involvement in the treatment of worsening or relapse (*n*=107)	
Yes, alone	8 (7)
Yes, in cooperation with hospital	72 (67)
No	27 (25)
GP discussed possibility of alternative treatment (homeopathy, acupuncture, etc.)	
Yes	16 (14)
No	102 (86)
GP treated patient for other diseases (after cancer was diagnosed)	
Yes	72 (61)
No	46 (39)
If yes – contact with the hospital? (*n*=71)	
Yes	29 (41)
No	42 (59)
Who follows the patient now?† (*n*=80)	
Doctors at the hospital	55 (69)
GP	68 (85)
Another doctor	6 (8)
GP involvement in any administrative process (sick leave, disability pension, financial support) (*n*=115)	
Yes	73 (63)
No	42 (37)
GP responsibility for coordinating home care	
Yes	43 (36)
No	75 (64)

† Selection of more than one answer was possible, except for yes/no questions.
¶ Percentages are in relation to all 118 patients, except when the question concerns only a subgroup of patients. In some cases, answers are missing (*n*, shown in table).
GP, general practitioner.

Table 3: Communication between general practitioner and patient, and cooperation with hospital (*n*=118)

Description of participation	*n* (%)¶
GP participation in treatment/follow-up† (*n*=75)	
Administration of chemotherapy	20 (17)
Referred to other investigation/treatment (related to disease development)	55 (47)
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If yes – when was morphine prescribed?† (*n*=62)	
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GP discussed possibility of alternative treatment (homeopathy, acupuncture, etc.)	
Yes	16 (14)
No	102 (86)
GP treated patient for other diseases (after cancer was diagnosed)	
Yes	72 (61)
No	46 (39)
If yes – contact with the hospital? (*n*=71)	
Yes	29 (41)
No	42 (59)
Who follows the patient now?† (*n*=80)	
Doctors at the hospital	55 (69)
GP	68 (85)
Another doctor	6 (8)
GP involvement in any administrative process (sick leave, disability pension, financial support) (*n*=115)	
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GP responsibility for coordinating home care	
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† Selection of more than one answer was possible, except for yes/no questions.
¶ Percentages are in relation to all 118 patients, except when the question concerns only a subgroup of patients. In some cases, answers are missing (*n*, shown in table).
GP, general practitioner.

Discussion

Main findings

The study demonstrates that some rural and small-town GPs contributed considerably to cancer care in their patients' local communities. Most of the patients reported here had progressive disease. Thus, not only the GPs, but also the patients, belonged to a rather select group of cancer patients with a higher than usual need for GPs' services. For this group, GP participation was substantial not only in palliative care, but also in some aspects of oncological treatment

and in clinical follow-up. Most patients received morphine or other analgesic drugs, and the GP had the possibility of both monitoring day-to-day needs and providing prescriptions. The contact with specialist services seemed to be good and useful in most cases. Chemotherapy should and would not be initiated by a Norwegian GP without an initiative and a treatment protocol from an oncologist. Initiation of palliative treatment as well as treatment of complications or disease progression would regularly be discussed with a hospital specialist before the GP acts. After such treatment has been initiated, the GP is more free to adjust dosages.

We may assume that the patient work and the contact with specialists contributed to gradually increased knowledge and skills regarding cancer. Some free-text comments from the GPs supported this. From the GPs' viewpoint, the communication with the patient also seemed good in this local setting, and there was contact with the family in the majority of cases, both before and after a patient had died. The authors do not have data about the experiences of patients or family carers. However, offering cancer treatment locally is based on an agreement between the patient, the hospital and the local clinicians; the GP and the community nurse, often also an oncology nurse. With local treatment, patients avoid strenuous travelling and might stay in closer contact with their family. The close contact with their local GP and nurses can be a bonus, too.

Less than half of the patients died at home. In recent years, palliative beds in local aged care facilities or in small community hospitals[20] have become common places to transfer a terminally ill patient when treatment at home becomes difficult. These palliative units aim for sustained contact between patient and family and continuity of care by local GPs and nurses.

Discussion within the context of the literature

Within the treatment time sequence, GPs may seem to have no role as long as the primary cancer treatment is going on. However, some treatments go on for months, and most patients would appreciate coming home and receiving some of the treatment locally. Pathmanathan et al[21] found it safe to administer chemotherapy regimens to rural patients, without increased morbidity or mortality. In rural areas of Australia, GPs have also administered chemotherapy, and the likelihood of this increased with remoteness[22]. This has also been shown in the northernmost, sparsely populated country of Norway[23]. In the present study, the GPs reported no problems related to chemotherapy administration in 20 patients living far from hospital services. However, shared care with good communication between primary care and hospitals is necessary in these cases and seems to have been practised. Detailed and timely communication with specialists, particularly about treatment regimens and follow-up care, is often emphasised when GPs are asked how they can contribute to ensure optimal patient outcomes[24]. A Canadian study[25] has shown that women caregivers in rural areas experience considerable challenges in relation to patients with advanced cancer, and that preservation of hope is a crucial factor.

Cancer care may demand quite intensive patient contact over an undetermined time period, and most GPs in one study wanted to limit such a workload to the cases they actually dealt with[26]. Patients emphasise the GP's continuity of care and good information that is patient-centred and holistic[27]. After treatment, their main concern is recurrent disease, and they may doubt that their GP has sufficient expertise to conduct follow-up[28,29]. Two recent studies from Estonia and France showed that most patients preferred to discuss their cancer-related problems with oncologists, but that patients also contacted their GPs during cancer care, in France often during the initial therapeutic phase of cancer[30,31]. Geographical questions were not raised in these studies. Altogether, these studies seem to reflect the patients' well-founded beliefs that a specialist knows more about cancer than a GP, and that a worsening of the condition may be discovered and treated more quickly and appropriately in the hospital. Patients without a trusting relationship with their GPs might doubt their ability to discover and react appropriately to symptoms and signs indicative of cancer. However, for important forms of cancer such as breast cancer and colon cancer, studies have shown that shared care between hospital and GP is acceptable to patients and GPs[32-34], and guidelines increasingly recommend delegation of specified follow-up elements to GPs. Close contact with a GP during and after cancer treatment could give good possibilities of discussing personal preferences and therapeutic options.

After the primary treatment has been terminated, studies have suggested that, for most patients, GPs temporarily are less important. Two randomised studies found no effect on quality of life of increased involvement of the GP during this phase[35,36]. It is possible that many patients need to feel they are regaining health and want to minimise contact with health services beyond regular controls, most often offered in hospital. This does not mean that the GP is superfluous at this time. Patients may still need the GP for other ailments. For cancer, shared care already from the time of initial treatment is appreciated by patients[36] and becomes important with time[14]. Often, survivorship poses new medical problems where the GP becomes increasingly important[37,38], and GPs can contribute to detection of recurrences[39]. To some extent, re-establishment of the contact between patient and GP can be helped by a proactive attitude of the GP[40]. A model for pro-active cancer care in primary care has been tested in the UK, helping to structure consultations and cover psychosocial areas[41]. The present study seems to testify that the need for contact with a GP usually increases if the cancer progresses and the patient approaches end-of-life care. The GP then gets important challenges concerning skills, patient–doctor communication and collaboration with other health personnel[42].

Strength and limitations of findings

It may be considered as a major limitation that several years have passed since the answers were collected. The article is the last in a series of four articles in a study entitled ‘Optimization of cancer diagnosis and treatment in family practice’, and it has taken time to analyse and write the articles. Previous articles have dealt mainly with the diagnosis part[39,43,44]. However, geographical conditions have not changed in Norway, and the authors do not think the practice described has changed much since data was collected. It may be seen as an advantage that findings can now be discussed on the background of several recent publications.

Both patients and GPs are special in this study. Patients generally belonged to the unfortunate group with progressive disease, and most of them lived in rural communities or small towns. They belong to a group of patients who have a greater than usual need for GP services. This article presents ideas about how to deal with such patients, allowing them to remain as much as possible in their home and local environment. Only a minority of GPs in each municipality were expected to have been active in recent local cancer care. The local chief medical officer was therefore asked to help select GPs who had been involved in such care, and to send them a request to participate in this study. This may be considered a strength of the study if it means that these GPs were devoted to their tasks and thus gave examples of dedicated care. It is not known to what extent these GPs had previous experience with cancer treatment. However, because most of them worked in remote areas with access to rural hospital beds, this is probable for many of them. Most doctors also had long experience as GPs. Because this study aimed for answers from GPs who had practical experience with cancer treatment, the low response rate is less important.

The information was collected retrospectively in a questionnaire, mainly with pre-selected categories where recall may be imperfect and answers may not fit in the categories offered. However, cancer patients in poor condition are not frequent in a GP practice and are often well remembered by the GP. GPs probably also consulted their medical record notes when completing the questionnaires, as suggested in the letter to the GPs in Appendix I. Free-text comments did not suggest difficulties in reporting. Altogether, the findings gave a coherent picture of dedicated GPs working with very ill patients staying close to their home. In retrospect, it would have been interesting to know more about how the GPs cooperated locally with other health professionals, such as cancer nurses and community nurses.

Conclusion

This study contributes a description of many types of cancer care performed in general practice, in patients with quite advanced disease. Through this, it also contributes an increased understanding of what is feasible and appropriate GP work for such patients. In this select group of GPs, participation rates were high for most of the therapeutic and communicative tasks suggested in the questionnaire, and there was an obvious need for such services. In spite of some understandable skepticism on the part of patients, studies have shown that a close contact with a local GP during and after cancer treatment may be beneficial from many points of view. The optimal way to organise cancer care may vary in different kinds of communities, and more research about this, and about the GP’s role, is pertinent. The

closeness of the GP to the patient probably was important when a patient's clinical condition changed. Challenges may be most complex but at the same time most interesting in communities far from hospitals.

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APPENDIX I:

Letter and questionnaire sent to general practitioners

Dear general practitioner Tromsø, date

General practitioners participate actively in the diagnostics and the follow-up of cancers, but traditionally they play a modest role in the treatment of cancer.

This is about to change to some degree. It will reduce travel time for many patients who live far from the hospital and recent studies have shown that some cancer treatment – relieving symptoms as well as some parts of active cancer treatment - can be performed adequately in general practice.

We wish to map the cancer treatment performed by general practitioners and we ask for your participation. We wish to look into which types of treatment cancer patients receive in primary health care, in their homes and in institutions such as nursing homes and infirmaries.
What does the treatment consist of, where does it take place, how is it organized? How do cooperation and communication with other instances in the health care system take place? What appears to be appropriate and what might be done differently?

If you have participated in such treatment – palliative and/or curative in 2006-7 – we ask you to help us with this survey. We ask you to fill out the attached 4-pages patient form for a patient you have been involved in the treatment of. It is no requirement that the patient is still alive. You can base your answers on your work as a general practitioner, nursing home doctor or as a "combi doctor". The patient's journal from a doctor's office or from a nursing home should be available when you fill out the form for the patient. Completion of the form takes around 10-30 minutes per patient. We attach two patient forms in case you have more than one patient.

The patient form is self-explanatory. Mark the selected answer(s). There are also a few free text fields. We would like you to complete the form electronically through the following internet link: http://uit.no/med-befolkning/6676/7, but if you prefer to complete the form on paper instead, that's okay.

The patient form(s) can be returned in the attached self-addressed envelope.

Please feel free to contact one of us by phone or by e-mail (tommy.thorsen@c2i.net or knutarne.holtedahl@ism.iut.no) if you have any questions or if you want to discuss details. If you haven't participated in cancer treatment, we would be grateful if you can find a colleague who can participate.

The Norwegian Medical Association's central board will soon consider if participation in this type of project should merit in relation to the specialty in general practice. We have asked that one form completed counts one hour of continuing education.

Best regards

Knut A. Holtedahl
Project manager
Tel 99749370

Tommy A.G. Thorsen
Researcher
Tel 41335523

CANCER TREATMENT IN GENERAL PRACTICE
(cancer and general practice)

1- Date of completion (ddmmyyyy) | | | | | 2 | 0 | 0 | 7 |

2- Municipal number: <municipal number>

INFORMATION ABOUT THE PRACTITIONER

3- Doctor's sex **(F or M)** ☐

4- Doctor's age in years ☐☐

5- Year of final university examination (yyyy) ☐☐☐☐

6- Graduated at:

7- I work in: **(only one mark)**

Southern-Norway: ☐
Northern-Norway: ☐

8- Number of years in general practice: ☐

9- I accept to be contacted by a researcher if supplementary information is needed.
(mark) ☐

Norway: ☐

8- Number of years in general practice: ☐

9- I accept to be contacted by a researcher if supplementary information is needed.
(mark) ☐

10- I accept to be contacted by a researcher if a more detailed interview is needed.
The interview will last around 30 min.
(mark) ☐

11- Name and address are necessary if continuous education credits are wanted.

Name:
Address:

If you marked in question 9, we also ask:

Telephone: work:	cell phone:
E-mail:	

IN ADVANCE
THANK YOU
FOR YOUR COOPERATION

PATIENT FORM

12- Patients' birth date (ddmmyy) ☐☐☐☐☐☐

13- Patients' sex **(F or M)** ☐

14- Year of first contact with patient (yy) ☐☐

15- Month and year of cancer diagnosis (mmyy) ☐☐☐☐

16- Actual cancer: **(only one mark)**

- Recently discovered cancer: ☐
- Recently receding cancer: ☐
- Stable cancer: ☐
- Progressive cancer: ☐

17- Actual cancer: clinical diagnosis

☐

18- Histological diagnosis (as exact as possible)

☐

19- Date of last contact with the patient (ddmmyy) ☐☐☐☐☐☐

20- Is the patient now : **(only one mark)**

- — well and without ongoing cancer treatment? ☐
- — under treatment for cancer? ☐
- — in terminal phase? ☐
- — dead? ☐

TREATMENT / FOLLOW-UP:

21- The intention of the treatment: **(only one mark)**

- — Curative ☐
- — Palliative ☐
- — Don't know ☐

22- Your evaluation of the patients' life expectancy at the start of treatment.

(only one mark)

- — Less than 6 months ☐
- — More than 6 months ☐

23- How long was the waiting time before the treatment started? **(only one mark)**

- — less than a week ☐
- — 1-2 weeks ☐
- — 2-4 weeks ☐
- — more than 4 weeks ☐
- — don't know ☐

24- Is the primary treatment finished? **(only one mark)**

YES ☐
NO ☐

25- Have you treated the patient for side-effects or complications due to the cancer treatment? **(only one mark)**

YES ☐
NO ☐

If YES: — did you then contact hospital doctors?

YES ☐
NO ☐

26- In the treatment/follow-up of the patient, did you participate in: **(more than one option may be selected)**

- — the administration of the chemotherapy ☐
- — the referral to or did you carry out other examinations to follow the cancer progression (metastases) ☐
- — the referral to adjuvant therapy (palliative radiation therapy, physiotherapy, psychotherapy, etc) ☐

26- In the treatment/follow-up of the patient, did you participate in: **(more than one option may be selected)**

— the administration of the chemotherapy ☐
— the referral to or did you carry out other examinations to follow the cancer progression (metastases) ☐
— the referral to adjuvant therapy (palliative radiation therapy, physiotherapy, psychotherapy, etc) ☐

27- If palliative treatment, what did you prescribe? **(more than one mark may be appropriate)**

— Pain therapy ☐
— Against nausea ☐
— Against pruritus ☐
— Anti-anxiety/Antidepressant drugs ☐
— Other treatment (hormones, blood transfusions, artificial nourishment, food supplement) ☐
— Not relevant ☐

28- Place of treatment outside of the hospital **(more than one option may be selected)**

— Nursing home/sykestue ☐
— At home ☐
— At your office ☐

29- Who is following the patient now?

— Hospital doctors ☐
— You ☐
— Another doctor ☐
— Don't know ☐

30- Did you help the patient socially/administratively in connection with the cancer (in ex. medical certificate, covering expenses, social insurance benefits)?

(only one mark)

YES ☐
NO ☐

If YES: How?

31- Were you at any time responsible for coordinating home care?

(only one mark)

YES ☐
NO ☐

If YES: How?

32- Have you treated the patient for other diseases after the cancer diagnosis?

(only one mark)

YES ☐
NO ☐

If YES: Did you find reasons to contact a hospital doctor?

YES ☐
(only one mark) **NO** ☐

33- Has the cancer developed poorly for the patient?

(only one mark)

YES ☐
NO ☐
DON'T KNOW ☐

If YES: Have you participated in treatment of worsening?

(only one mark)

— Yes, alone ☐
— Yes, in cooperation with hospital doctors ☐
— No ☐

34- Have pains resulted in the prescription of opiates for home use?

(only one mark)

YES ☐
NO ☐

If YES: Who prescribed the morphine? **(more than one option may be selected)**

— No ☐

34- Have pains resulted in the prescription of opiates for home use?

(only one mark)

YES ☐
NO ☐

If YES: Who prescribed the morphine? **(more than one option may be selected)**

— you ☐
— a hospital doctor ☐
— pain-team ☐

-and: At what time? **(more than one option may be selected)**

— before the terminal phase ☐
— during the terminal phase ☐

COMMUNICATION WITH PATIENT, COLLEAGUES, FAMILY:

35- Who told the patient of the diagnosis? **(more than one option may be selected)**

— you ☐
— another doctor ☐
— another person ☐

(Which other person?): ☐

— don't know ☐

36- Have you, at any time during the illness, had a thorough conversation with the patient about how she/he is feeling (was feeling) medically, socially and emotionally? **(only one mark)**

YES ☐
NO ☐

37- Is the word "cancer" used in conversations between the patient and yourself? **(only one mark)**

YES ☐
NO ☐
DON'T KNOW ☐

38- Did the patient discuss with you the possibility of alternative or complementary treatment (in ex. homeopathy, acupuncture, etc.) **(only one mark)**

YES ☐
NO ☐

39- Cooperation and communication **(more than one option may be selected)**

— In writing with hospital ☐
— Verbally with hospital ☐
— Nursing home/nursing home doctor ☐
— Interdisciplinary collaboration meeting ☐
— With next of kin ☐

40- Who has participated, except you and hospital staff, in caring for the patient? **(more than one option may be selected)**

— no one ☐
— other health personnel ☐
— social worker ☐
— family, neighbors, friends ☐
— patient union ☐
— don't know ☐

41- If this patient is or was in the terminal phase, where did the terminal care take place? **(more than one option may be selected)**

— at home (not in an institution) ☐
— in a nursing home or infirmary ☐
— at the hospital ☐
— in a special section for palliative treatment ☐
— not relevant ☐

42- If the patient died: Did the patient die at home?

(mark only one)

YES ☐
NO ☐
Not relevant ☐

43- Have you been in contact with the family after the patient died? **(only one mark)**

YES ☐
NO ☐
Not relevant ☐

YES	☐
NO	☐
Not relevant	☐

44- Your comments about the follow-up of the patient after the primary treatment: