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Management of cancer pain in Primary Care in Poland

Abstract

Cancer pain remains a big challenge to modern medicine. General Practitioners (GPs) supported by Palliative Care teams play a key role in the care of terminally ill cancer patients. The quality of pain management depends very much on GPs' knowledge and skills.

The aim of this study was to assess GPs' knowledge about pain management.

The questionnaire with clinical situations based on recommended guidelines connected with pain management was sent to all GPs within the Kujawsko-Pomorski and Podlaski provinces.

The response rate was 51%. The GPs in Kujawsko-Pomorski province had better access to palliative care for their patients. In the whole sample, the median of appropriate responses to eight questions equalled 4. The biggest percentage of correct answers (85.6%) was given to question concerning the characteristic of neuropathic pain. Besides, more than 50% of correct answers were given to questions which concerned the breakthrough pain (54.4%) and pain management of an unconscious patient (56.9%). The lowest percentage of correct answers (24.6%) concerned the conversion of oral to subcutaneous opioids in case of vomiting and reappearance of intensive pain.

The results of this study indicate a considerable difference between the official guidelines and every day practice of pain management.

The results underline also the need for changes in vocational training of general practitioners, with special emphasis on pain management in terminally ill patients.

Key words: cancer pain, opioids, General Practitioners, Pain managements, Cancer Pain Guidelines

Introduction

Cancer pain remains a big challenge to modern medicine. General Practitioners supported by Palliative Care teams play a key role in the care of terminally ill cancer patients. The quality of pain management depends very much on their collaboration [1–4].

Since 1980 Palliative Care in Poland has been a wide voluntary movement connected with the Catholic Church [5]. In the nineties these activities were introduced into the formal National Health Care Sys-

tem. Some universities implemented Palliative Care into their curriculum [6]. Since 1999 Palliative Medicine has been recognized as a specialty for doctors and nurses. For many years terminally ill patients were exclusively cared for by hospice teams without primary care involvement. Unfortunately, that system was not able to cover all needs, and especially in the countryside access to the hospice services was limited. That is why a great expectation was connected with the health care system reform which started in 1999 in Poland when general practice as a

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separate specialty had been launched. The GPs, trained according to European standards, replaced generalists without specific training for primary care [7]. Till now more than 6000 GPs have been educated but the need is almost for 20 000. The vocational training in general practice includes palliative medicine, so every GP has a chance to gain knowledge, skills and attitudes toward pain management in terminally ill patients. Additionally, many Palliative Care centres offer a wide range of courses for GPs involving different aspects of palliative care. In 2001 Polish guidelines for pain management were published [8]. They were prepared among other by The College of Family Doctors in Poland and The Polish Society of Palliative Care.

Recently, primary care has started to play a more important role in the care of terminally ill patients. GPs in Poland, as in other countries, serve as the first contact with the medical system and cooperate with palliative care teams, especially in home care. Average general practice covers around 2500 souls. Within this population 4–5 patients will die each year

from cancer. Annually 87 360 patients die from cancer in Poland, for the total population of 38 mln [9].

Skills and attitudes of the GPs toward cancer pain were studied in different countries [10–12]. Until now there have been no similar studies conducted in Poland. We considered this kind of study necessary before changing educational programmes for GPs.

Method

The study was approved by the Bioethical Committee of the Collegium Medicum Nicolaus Copernicus University in Toruń.

Questionnaire and design

The questionnaire with clinical situations connected with pain management was designed especially for the purpose of the study (Table 1). All these situations were prepared on the basis of recommended guidelines [8, 13, 14] The questionnaire was tried out by asking 7 GPs and 3 palliative med-

Table 1. Multiple choice questionnaire on pain management by general practitioners

Questions	Answers (correct are underlined)
1. Burning pain on touch is characteristic for:	<ul style="list-style-type: none"> · nociceptive pain · <u>neuropathic pain</u> · bone pain · ischemic pain
2. A patient after mastectomy for breast cancer reports ipsilateral persistent burning pain on touch around the arm and in upper thorax. Tumor recurrence is excluded. The specific pain management you will start with:	<ul style="list-style-type: none"> · <u>amitriptyline</u> · tramadol · paracetamol · morphine
3. A patient with breast cancer secondaries in the femur complains of pain in his leg. He receives morphine sulphate (MST) tablets 60 mg bd. In this situation the most appropriate is:	<ul style="list-style-type: none"> · <u>start with diclofenac 150 mg per day and refer to radiotherapist</u> · start with biphosphonates or diclofenac 150 mg per day · increase of slow-release morphine and control visit after two days · start with diclofenac and refer to physiotherapist
4. The most appropriate management of the breakthrough pain in a patient receiving morphine sulphate (MST) 60 mg bd is:	<ul style="list-style-type: none"> · oral Tramadol 100mg · increase of slow-release morphine to 60 mg tds · single extra dose of morphine sulphate (MST) 30 mg · <u>oral administration of immediate release morphine sulphate 20 mg</u>
5. A patient with advanced cancer is becoming unconscious and dying. Oral administration of drugs becomes impossible. What would you do?	<ul style="list-style-type: none"> · stop morphine · change oral morphine to a transdermal fentanyl patch · <u>start with subcutaneous administration of morphine</u> · explain family that unconscious patient does not feel the pain
6. A patient receiving slow-release morphine (MST) 60 mg bd started vomiting several days ago. The pain has returned. What is the most appropriate?	<ul style="list-style-type: none"> · increase of slow-release morphine to 100 mg twice daily · discontinue oral morphine and start with a transdermal fentanyl patch 25mcg/hour · <u>discontinue oral morphine and start with subcutaneous administration of morphine 10 mg every 4 hours</u> · discontinue oral morphine and start with subcutaneous administration of morphine 20 mg every 4 hours
7. What should you order anticipating constipation during morphine therapy of pain?	<ul style="list-style-type: none"> · bisacodyl and glycerin suppositories every three days · <u>docusate and senna every day</u> · docusate and senna if necessary · enema and liquid paraffin if necessary
8. What should you do if patients complain of nausea during oral morphine therapy?	<ul style="list-style-type: none"> · stop oral morphine and start with a transdermal fentanyl patch · stop oral morphine and start with subcutaneous administration of morphine · <u>add metoclopramide to oral morphine</u> · add ondansetron to oral morphine

icine specialists who resided outside the study area to fill them. This yielded improvement of three issues. The questionnaire was sent to 384 GPs in two Polish provinces. To improve response rates the doctors were reminded about the questionnaire after four weeks.

Setting and Sample

The study was conducted within the Kujawsko-Pomorski (KPP) and Podlaski (PP) provinces, inhabited by 3.27 million people, which constitutes 8.6% of the Polish population [9]. The research covered all GPs from these provinces ($n = 384$), who were a minority of primary care doctors (around 1600, mostly without specific training for primary care). Demographics of the sample are summarized in Table 2.

Statistical analysis

Statistical analysis was made using statistical software STATISTICA PL 5.0 for Windows. The results were presented as patient number (n), and percentage (%). Normal distribution of variables using Kolmogorow-Smirnow test was assessed. Statistical significance of differences between respective patient groups was estimated using multi-divided tables method and Chi-squared test.

Results

The response rate was 51%. Of the 384 samples, 195 questionnaires were returned, of which 123 (49% response rate) were from the PP and 72 (53% response rate) from the KPP. The GPs in KPP had better access to palliative care for their

Table 2. Characteristics of studied GPs

Characteristic	Number (%)
Province	
Kujawsko-Pomorskie (KPP)	123 (63.1)
Podlaskie (PP)	72 (36.9)
Gender	
Male	52 (26.7)
Female	143 (73.3)
Age (years)	
≤ 35	25 (12.8)
36–50	122 (62.6)
> 50	48 (24.6)
Work experience (years)	
< 5	105 (53.9)
≥ 5	90 (46.1)
Place of work	
Private practice	145 (74.4)
Public ambulatory care	50 (25.6)
Access to palliative care centre	
Yes	117 (60)
No	78 (40)

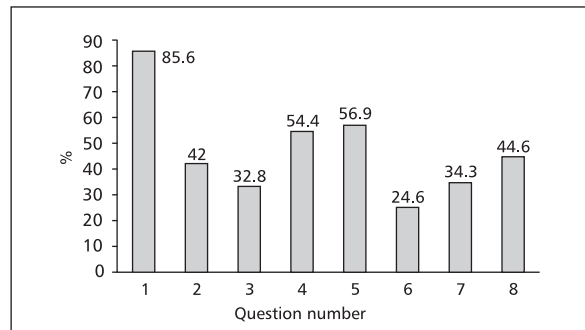


Figure 1. Percentage of correct answers to respective questions. (Text of questions is presented in Table 1)

patients ($p = 0.001$). In the whole sample, the median of appropriate responses to eight questions equalled 4. The biggest percentage of correct answers (85.6%) was given to question 1 (Table 1), concerning the characteristic of neuropathic pain (Fig. 1). Besides, more than 50% of correct answers were given to questions 4 and 5, which concerned the breakthrough pain (54.4%) and pain management of an unconscious patient (56.9%).

The lowest percentage of correct answers (24.6%) concerned the conversion of oral to subcutaneous opioids in case of vomiting and reappearance of intensive pain (Table 1, question number 6).

Two thirds did not know that pre-emptive prescription of laxatives is mandatory when starting opioid therapy and pointed out different therapies only if necessary (Table 1, question number 7).

Only one third chose NSAIDs and radiotherapy as the methods of bone pain management due to metastases (Table 1, question number 3).

As the median of correct answers amounted to 4, we tried to find factors which differentiated the two groups of doctors, one which obtained less than 4 points and the other at least 4 (Table 3). It showed that GPs with better knowledge concerning management of cancer pain were significantly more often younger. In addition, this group referred more frequently to the palliative care centres. GPs who worked shorter than 5 years achieved slightly better score than those who worked longer.

Discussion

The central findings of this study are that the majority of GPs are not familiar with the management of cancer pain. It is difficult to compare the results from other countries because of differences in methodology and study population. Nevertheless, the overall percentage of correct answers less

Table 3. Comparison of demographics in GP groups who obtained less or at least four points (multidivided tables analysis)

Parameters	< 4 points n = 89 n (%)	≥ 4 points n = 105 n (%)	P value
Gender			
Male	24 (27)	27 (26)	0.84
Female	65 (73)	78 (74)	
Age (years)			
≤ 35	5 (5,6)	20 (19)	0.01
36–50	56 (63)	65 (62)	0.89
> 50	28 (31)	20 (19)	0.054
Work experience (years)			
< 5	42 (47)	62 (59)	0.081
≥ 5	47 (53)	43 (41)	
Place of work			
Private practice	68 (76)	78 (75)	0.79
Public ambulatory care	21 (24)	27 (25)	
Access to palliative care centre n (%)			
Yes	46 (51)	74 (70)	0.002
No	43 (49)	31 (30)	

than 50% suggests the knowledge about cancer pain management among GPs in Poland is lower than in Italy, UK or USA [10–12].

The lowest number of correct answers was given to a question about the change of route administration of morphine from oral to subcutaneous in case of vomiting and reappearance of intensive pain. Most doctors decided the best choice was the introduction of transdermal fentanyl, which is not contraindicated but the most appropriate was the choice of a rapidly acting drug like subcutaneous morphine. This is probably due to availability issues and not knowledge issues. Or it may reflect the preferences in opioid prescriptions with TTS fentanyl as the most popular strong opioid among Polish GPs. It may also show the difficulties in the overall assessment of a real clinical situation.

The problem was also correct procedure for breast cancer secondaries in the femur and the choice of radiotherapy. It may reflect the thinking that advanced cancer precludes indication for radiotherapy. It may also indicate, especially in rural and semirural areas the limited access to oncological services. The insufficient knowledge about the indications for palliative radiotherapy was found in other studies [15]. They showed that physicians who were more familiar with common indications for palliative radiotherapy were significantly more likely to refer patients for radiotherapy.

There is a significant correlation of knowledge with age. Worse results were obtained among older GPs. The schedule of vocational training was the same regardless of age. Does it mean the younger

doctors spend more time reading books and journals or asking questions to the specialists? One study showed that Polish doctors with long experience in primary care consider their knowledge as sufficient. The longer a GP worked, the better self-assessment of knowledge there was [16]. On the other hand, many GPs pointed out the lack of knowledge in pain management and some aspects of palliative care. They were aware of limitations and postulate further education in palliative care [16, 17].

Like in other studies, ours show that interaction with regional palliative care centres may stimulate the GPs to improve their knowledge of pain symptom control [18–20]. The GPs learn a lot from the interactions with these centres. GPs should be familiar with the management of more common pain control problems.

The research supports the idea of more intensive education of GPs in pain management and suggests that the present teaching methods should be reviewed. This should be done at three levels: undergraduate, vocational and continuous medical education [21]. It was found that the lower level of knowledge was characteristic of those GPs working in areas without educational centres in palliative care. Distance learning might be a good complement to traditional educational methods for these GPs [22].

We recognise that the results are compromised by the low response rate. The response rate of 51% was lower than in comparative studies conducted in the United States (64%) [11], Italy (65%) [12], or in United Kingdom (73%) [10]. We believe that the low response rate did not affect the results of the study since the groups of respondents and non-respondents were similar in terms of province and gender. The study group consisted of three times more women than men. This phenomenon reflects the factual situation in the profession and is a result of the feminization process occurring in the medical field.

Conclusion

The results of the presented study indicate a considerable difference between the official guidelines and every day practice of pain management.

The results underline also the need for changes in vocational training of general practitioners, with special emphasis on pain management in terminally ill patients

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