



SOCIAL AND BEHAVIORAL SCIENCES. Rehabilitation

ORIGINAL RESEARCH



## Significance of Palliative Care for the Quality of Life for Oncology Patients



Authors' Contribution:

- A – Study design;
- B – Data collection;
- C – Statistical analysis;
- D – Data interpretation;
- E – Manuscript preparation;
- F – Literature search;
- G – Funds collection

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**Background and Aim of Study:**

**Abstract**

Oncological diseases are one of the biggest problems that can cause irreparable harm to human health. The significance of various types' medical care on the quality of life for patients with malignant diseases remains an urgent research problem.

The aim of the study: to provide empirical data for the significance of palliative care in supporting the quality of life for patients with gastric cancer.

**Material and Methods:**

The study was conducted at the University Hospital of Heidelberg, Germany. A representative sample of the study subjects consisted of 378 patients diagnosed with gastric cancer. Comparative analyzes to approaches in cancer prevention, as well as 5-year survival among patients with gastric cancer in Germany, Bulgaria, Japan, and Singapore were used.

**Results:**

The majority of the patients in the study sample from Germany died in their homes or in hospices (91.2%), while only a small proportion died in the hospital (8.7%). Based on the international comparison, we concluded that in Bulgaria, the ongoing treatment and care of terminally ill patients differ significantly in terms of their scope, development level and impact on the patients. The 5-year survival rate for stomach cancer in Bulgaria is 3%, which is much lower than in Asian countries, where there is a significantly higher survival rate for this disease: Singapore 10-30%, Japan 12-35%.

**Conclusions:**

The significance of the palliative care to support the quality of life for oncological patients has been constantly increasing in recent years. Systemic and long-term palliative care provides the necessary support for quality of life and can affect the 5-year survival of oncological patients. This is confirmed by our study in Germany, where rates are 28-30%. The authors recommend providing professional, high-quality palliative care as needed to ensure quality of life for patients with malignant diseases.

**Keywords:**

palliative care, life quality, 5-year survival, patients, stomach cancer, mortality from gastric cancer

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## Introduction

Malignant diseases are one of the biggest problems of our time. In recent years, the frequency of their occurrence has increased significantly worldwide.

Stomach cancer is the fifth most common cancer in the world and the third most common cause of death due to cancer. The importance of palliative care for the duration and quality of life of gastric cancer patients is constantly increasing (Smyth et al., 2020).

Although the quality of their prevention and treatment have improved, the morbidity and mortality from gastric carcinoma in both sexes continues to raise with the increase in the life expectancy of the population. (Ilic & Ilic, 2022),

Gastric carcinoma cases burden modern society, with both the severity of their course and their high financial cost for the social system. This fact obliges us to continue to study the essential reasons for this and to try to actively counteract them, not only through primary and secondary prevention, but also through the prevention of the mental and social impacts of the disease (Hanuske, 1997).

Stomach cancer is the fifth most common cancer in the world. It is the third leading cause of death from cancer (after lung cancer and liver cancer), with, according to statistics from 2020, 750,000 deaths worldwide. It occurs twice as often in men than in women and occurs in more than half of cases in patients over 75 years of age (Lordick et al., 2011).

Most of the cases of this carcinoma are caused by factors such as lifestyle, including poor diet, smoking, obesity, alcohol use and infection with *Helicobacter pylori* bacteria (Deliyski, 2000).

Stomach cancer changes the lives of patients and of their relatives. The disease and its treatment can burden the patient not only physically, but also mentally (Ajani et al., 2010). Consequences of the disease include family problems, financial worries, professional and social burdens, early retirement. When stomach cancer is in an advanced stage, it most often cannot be removed and the treatment of cancer patients is palliative. Palliative care aims to alleviate the mental and physical suffering of the patients and are of great importance for the duration and quality of life of the patients (Harada et al., 2020).

The word "hospice" comes from the Latin "hospitium" and means guests of monasteries. The first hospices date back to the Middle Ages, when members of religious orders housed dying people, where they cared for them until they died. The actual concept of modern hospice care was built by two medical persons in the 1970s in Great Britain – Cecily Saunders and Elizabeth Kübler-Ross, who developed hospices with the effective treatment of pain as their main goal. Even at this early stage of development of care for dying patients, there is a developed sensitivity for preserving a dignified life, which is also related to the treatment of pain and other symptoms having a direct impact on the patient's quality of life in his last days. The first palliative care unit was built in 1975 at the Royal Victoria Hospital in Montreal, Canada.

Currently, there are departments of palliative medicine in over 50 countries around the world, including the USA, Germany, France and the Republic of Bulgaria. In some countries such as New Zealand, Sweden, Norway, Canada, Australia and Great Britain, there are even university departments of palliative medicine and specialization of palliative medicine doctors (Deliyski, 2000). It is interesting to note that in Great Britain there is an overall very well-developed teaching program in this medicine for all professional groups involved in palliative care. The integration of palliative medicine is so advanced in UK healthcare that more than 50% of patients who die from gastric cancer are cared for by specialist palliative care teams (Adolph et al., 2014).

In 2020, there are 51 registered palliative and hospice beds per 1 million inhabitants in the UK, 200-day hospices and 370 home care teams complement the palliative care system. In the United Kingdom, only a short time after the foundation of the hospice "St. Christopher" in 1975, the idea of hospice became a phenomenon, leading to numerous hospices being founded in the 1970s. Unlike the well-organized system in Great Britain, in other Western European countries, separate palliative wards and hospices were established for the first time in the 1980s, and a health system covering palliative medicine was established at first in 1990s.

It is difficult to give exact statistics for the different European countries. In general, it should be noted that especially in the years from 1990 to 2015, a significant number of palliative and hospice facilities were registered. In Sweden, the number of inpatient units increased from 2 to 22, and in 1994, and in Poland from 16 (1992) to 83 (1993). In France, their number increased from 6 (1992) to 30 (1994). Norway started very early with palliative medicine and the training and specialization of medical staff in this field was strengthened from the beginning on. Another important aspect in Norwegian healthcare is the introduction of the so-called "Supportteam" to support palliative cancer patients. From 1984 to 1996, the number of these hospital/home teams increased to 210. The first title of "professor" in the field of palliative medicine took place in Norway in 1994, and a year later, the first department for palliative care was established. In 1989, the European Association for Palliative Care (EAPC) was established and in 2004, it had already more than 50,000 collective members.

The World Health Organization (WHO) describes palliative medicine as treatment for patients with incurable, progressive and advanced disease with a limited life expectancy, for whom the main goal is to improve the quality of life. This definition limits palliative treatment options not only for malignant diseases (in this case stomach cancer), but also excludes many patients with chronic diseases and disabilities. Although alleviating pain is the task of all physicians, regardless of the type of disease and how advanced it is, palliative care clearly aims to mitigate suffering at the end stage, when the focus of treatment is entirely on



increasing and improving the quality of life, not the life extension. Focusing on pain control and symptom relief become the primary goal of therapy (Cunningham & Schulick, 2007).

Another very essential element of palliative medicine for patients with stomach cancer is communication with the seriously ill or dying patient and his relatives. Honesty in communication, delivering bad news, and grief support are examples of this. Thirdly, the ability of the patient to lead as normal life as possible, such as carrying out old habits that give him/her pleasure and maintaining contact with relatives, should be noted. Although palliative care, as defined above, is not limited to the treatment of patients with incurable gastric cancer, it should be noted that traditionally palliative care is established in the field of tumor diseases. Palliative care does not exclude chemotherapy, radiation therapy and/or surgical therapy. A condition for the implementation of these therapies is, however, that the benefits of these measures are greater than their potential adverse impact for patients (Kelsen & Atiq, 1993; Scarpi et al., 2019).

In summary, palliative medicine is characterized by the following points (Koizumi et al., 1999):

1. Comprehensive control of the patient's pain and symptoms.
2. Integrating the physical, social and spiritual needs of patients, relatives and the treating team, both during and after illness and death.
3. Accepting death as a part of life. When life ends, death should neither be hastened nor delayed. Palliative medicine rejects euthanasia.
4. Competence on the important issues of communication and ethics.

The task and aim of palliative medicine are to provide support to the patient suffering from stomach cancer so that he has the best possible quality of life until his end. This is possible thanks to the cooperation of capable palliative bases with family doctors, social care and hospital departments, as their main goal is to ensure optimal round-the-clock treatment of palliative ill patients. (Kilpatrick & Johnson, 1999; Kitzes & Anderson, 2003).

*The aim of the study.* To provide empirical data for the significance of palliative care for patients with gastric cancer. In particular, we focus on the analyses of the role of palliative care for improvement of the duration and quality of life of stomach cancer patients and discussed potential mitigation of the negative mental and social impacts of the disease.

## Materials and Methods

To address the research question, we used various empirical data as well as literature review.

Firstly, we performed descriptive statistics of data from an own study conducted with a total sample of 378 gastric cancer patients at the University clinic in Heidelberg in order to analyze place of death and potentially palliative care of stomach cancer patients.

Secondly, we compared prevention approaches as well as hospice and palliative care in eastern European

countries with Bulgaria as an example, western European countries with Germany as an example as well as more advanced world Asia countries, in particular Singapore and Japan.

Lastly, we analyzed available statistics about incidence, prevention, 5-year survival of stomach cancer in the selected countries.

## Results and Discussion

Table 1 presents the results about place of where the death of patients occurred. The data is collected in an own study conducted with gastric cancer patients. The results show that 345 deaths (91.2%) did not occur at the hospital. In other words, the majority of the patients died in their homes or in hospices.

**Table 1**  
*Place of Death of Patients with Stomach Cancer*

Parameters	Patients	
	people	%
Death occurred at home or in a hospice	345	91.2
Death occurred in the hospital	33	8.7
<b>Total</b>	<b>378</b>	<b>100.0</b>

Although the terms hospice care and palliative care are often used interchangeably, the main difference between the two should be noted. While palliative care has a broader scope, including patients with various diseases and needing long-term specialized and active general care for their physical, psychosocial and spiritual condition, hospice care is focused on patients in the terminal phase of their illness. It can be summarized that hospice care is part of palliative care with the important clarification that it includes the preparation of the patient and his family on topics related to the end of life and implies even more intensive care for the physical, psycho-social and mental condition of the patient in the last months of his/her life. This clarification also constructs one of the important moral questions faced by specialists caring for patients in a terminal stage, namely – is it necessary for the patient to know about the approaching death (Kern et al., 2007; Klaschik, 2009). According to the Law on Medical Institutions of the Republic of Bulgaria, a hospice is a medical institution “in which medical and other specialists carry out long-term medical monitoring, supporting treatment prescribed by a doctor for a person with chronic debilitating diseases and medico-social problems” (Methodist Le Bonheur Healthcare, n. d.). In contrast, in countries with better-developed services for terminally ill patients (USA, England, Austria, Germany, etc.), this definition focus on the concept of “hospice care”, which is aimed precisely at the nature of the care itself rather than the physical location where it is provided. This can be the patient's home or a specialist facility – the right to decide is in their hands and/or in the hands of the family when the patient is unable to decide for himself.



Differences in the handling of the concept itself could be considered as an indicator of the degree of development (or stagnation) of these concerns in the respective country, as they reveal the way in which a given phenomenon is thought of in a society (Arvanitis et al., 1990; Klaschik, 2009).

Comparing the different prevention approaches in Bulgaria and in the countries of Western Europe, we could conclude that in Bulgaria the ongoing treatment and care of the terminally ill differ significantly in terms of the scope of the patients, rates of development and effect on the patients.

The five-year survival rate in patients operated on for Ca ventricles shows significant differences according to the stage of the disease and is relatively low. The following

survival rates are typical for Japan (a country with a high mortality rate from stomach cancer): for advanced stages (IIIB and IV) it is between 5-17%, for potentially curable stages (IV-II-IIIa) it is between 18-35%, for early gastric cancer it is between 78-95%, with Japanese authors traditionally reporting higher survival for all stages (Krustev, 1980).

Table 2 shows that in countries like Japan, where 20 years ago the incidence per 100,000 people was 77 only with changes in diet, lifestyle, and environment, it has dropped to 42 per 100,000. This high survival rate in Japan is also due to the good palliative care (Japanese Gastric Cancer Association, 2021; Kato & Asaka, 2012).

**Table 2**

*Incidence, Prevention; 5-Year Survival of Stomach Cancer in Selected Countries*

Country	Incidence (per 100,000 people)	Preventive measures	Screening	5-year survival, %
Germany	13	Yes	Yes, active	28-30
Bulgaria	14	No	No	3
Singapore	37-39.2	Yes	Yes, active	10-30*
Japan	42	Yes	Yes, active	12-35*

Note. \*1<sup>st</sup> - stage up to 90%.

The 5-year survival rate from stomach cancer in Bulgaria is much lower than countries in Asia, where a significantly higher incidence per 100,000 population is observed. The reasons for this are complex. One of the suspected reasons may be insufficient provision and access to quality post-operative, long-term care and palliative care. Another reason could be the difficult access to the main method of detecting and proving gastric carcinoma, such as fibrogastroscopy and video-assisted fibrogastroscopy with biopsy. These highly specialized studies require precise, expensive equipment, which is still extremely insufficient in Bulgaria. In addition, this equipment requires highly specialized personnel with many years of experience, which currently only large oncology centers have.

This difficult access of the population to such specialists greatly complicates early detection, which subsequently determines the low 5-year survival rate. Just the opposite conclusion is necessary for countries like Japan and Singapore, which, despite their high morbidity per 100,000 people, are the undisputed champions in early detection, rapid complex treatment, good palliative care and many times higher 5-year survival rate (Methodist Le Bonheur Healthcare, n. d.).

### Conclusions

The significance of the palliative care for the quality of life with a diagnoses cancer of the stomach constantly increases during the past decades. It is possible that the good long-term palliative care can influence the 5-year survival rate of the cancer patients. Therefore, additional studies on this direction are necessary. By then, provision of an increasing, according to the needs, amount of good quality palliative care is recommended.

### Ethical Approval

The study protocol was consistent with the ethical guidelines of the 1975 Declaration of Helsinki as reflected in a prior approval by the Institution's Human Research Committee.

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