

Review

Pain Ladder of the Palliative Care Center for Cancer Pain Management. A New Perspective from Turkey Based on EFIC Standards

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Abstract

It is known that the pathophysiology and treatment strategies of cancer pain, acute and chronic pain, which are not clearly classified in the traditional approach to pain management, are different. Cancer pain is the most common symptom seen after cancer diagnosis and 40% of cancer patients who have completed curative treatment experience chronic pain. Many physicians who encounter patients with intractable pain are known to be concerned about using potent opioids due to their potential side effects.

To be more successful against cancer pain, educational strategies to address concerns about treating pain with strong opioids should be planned and implemented regularly.

Palliative Care Centers in our country are key in the care of cancer patients and in the treatment of cancer pain. First of all, it is more appropriate that these centers are preferably under the responsibility of Anesthesiology and Reanimation specialists as stated in the law, and their knowledge and experience about the use of all analgesics, especially opioids, and their side effects will also provide a significant advantage.

In this article, we offer some recommendations for the implementation of the standards established by EFIC (The European Pain Federation) on the management of cancer pain in our country.

Keywords: Anesthesiology, Analgesia, Cancer pain, EFIC, Palliative care, Opioid, Oncology

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Cancer pain is the most common symptom when diagnosed with cancer. Regardless of cancer treatment, its prevalence is increasing. While 33-40% of cancer patients whose curative treatment is completed complain chronic pain, the daily activities of 5-10% are restricted due to chronic pain.^[1] In contrast, it was reported that 66% of 1.7 million European cancer patients experienced pain before death and 55% experienced moderate and severe pain.^[1,2]

Many methods and guidelines for cancer pain management have been published by the World Health Organiza-

tion since 1996.^[2-6] Despite guidelines published even in countries in Europe, there are obstacles to achieving good control of cancer-related pain. It is known that at least 1/3 of the patients do not pay enough attention to pain during regular oncological treatment, patients cannot reach the necessary analgesic treatment, and therefore cancer patients are exposed to pain for a longer time. Uncontrollable or inadequately treated pain causes physical and mental disorders, a decrease in quality of life and an increase in the number and variety of complaints.

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Addressing concerns about pain and potent opioids, providing strategies and educational materials to help patients improve treatment outcomes and should become a routine practice.^[7-9] This information and materials should include how to provide analgesia, its possible effectiveness, how to manage side effects, have more follow-up and how to seek help, especially outside office hours. Training in this area should include all members of the healthcare team, including doctors, nurses, pharmacists and other assistant healthcare professionals.

Screening of pain in cancer patients can be carried out using routine questions asked in patient evaluations. For example; Questions such as 'Have you ever experienced pain that interferes with your daily activities?' Or 'Does this pain interfere with your daily activities, for example, can you go to the toilet?' Or the numerical rating scale (NRS - Numering Raiting Scale) or the Visuel Analog Scale (VAS) such as paper or electronic questionnaires can be used. In addition, the severity, etiology, character and underlying mechanisms of the pain can be determined with bedside assessment and a strategy for the treatment of pain can be determined. Cancer pain, chronic pain, and acute pain are not clearly classified in traditional approaches to pain management. However, it is obvious that different treatment approaches should be used according to pain pathophysiology with current information.

The presence of metastases in patients with cancer pain increases the intensity of the pain. If the pain is severe, it makes pain treatment difficult. Thus, it should be calculated that the presence of metastasis in patients with cancer pain will increase the required analgesia step and opioid consumption. In terminal cancer patients, in the presence of severe pain, the main drug in analgesic treatment is strong opioids.^[2,10,11] Approximately 3.45 million Europeans are diagnosed with cancer each year and 66% of them live for at least 5 years. It is also estimated that 40% will live more than 10 years after diagnosis.^[2,12,13]

In this article, we aimed to discuss the applicability of 10 standards established by EFIC (The European Pain Federation) for the management of cancer pain in our country, problems and what can be done to solve them.

Standards

1th Standard: Pain should be screened routinely by Health Care Professionals whenever patients with a history of cancer are encountered.

Cancer is a disease with a dynamic course. Patients should be given adequate support in remission and progression periods from the moment they are diagnosed with cancer, and they should be questioned whether there is a pain

complaint during these periods and should be followed closely. It is important that physicians, nurses and other assistant healthcare professionals spare the necessary time for pain monitoring and treatment and make these efforts aware of the patient. Because patients with cancer pain are generally reluctant to express their pain, their attitude and behavior have been reinforced in this manner. Since patients generally focus on the treatment process of the primary disease, the pain symptom remains in the background. When the pain negatively affects the lives and daily activities of patients, they begin to express pain. Therefore, physicians, nurses and other assistant healthcare professionals should routinely screen for pain symptoms in periods when patients' pain is not in the foreground.

2nd Standard: When patients with cancer-related pain are seen by a healthcare professional, they should be able to perform a pain assessment that can classify the cause of the pain based on the ICD-11 taxonomy, determine the severity of the pain, and determine the quality of life.

According to the ICD-11 classification, chronic cancer-related pain (Fig. 1) is chronic pain caused by the cancer itself, or its metastases, or by treatments administered in cancer.^[14,15] It is different from pain caused by comorbid diseases. Pain should be carefully followed-up and monitored in patients with cancer. Because the intensity of the pain and a change in the condition of the pain may indicate that the initial disease may change. It is common for these pains to be simultaneous. For example; Postoperative pain may also develop in the same area after lobectomy or pneumonec-

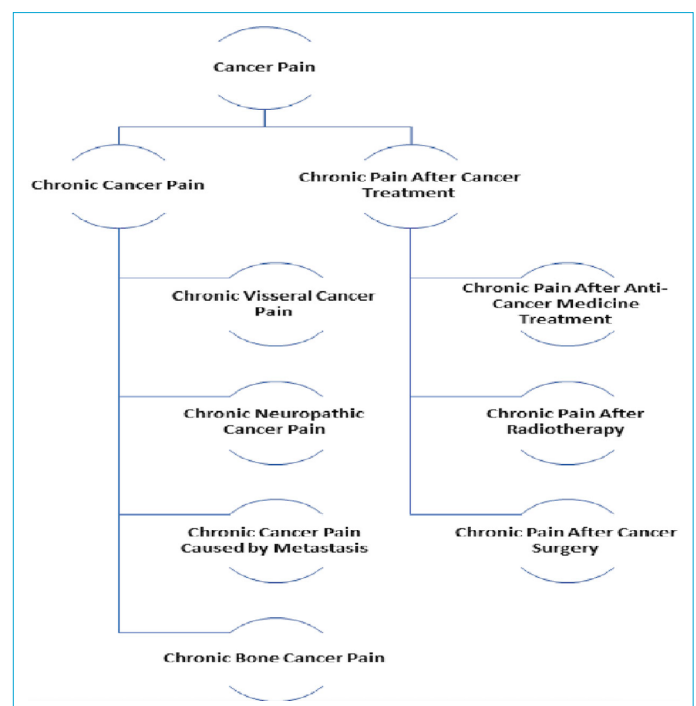


Figure 1. Cancer Pain According to ICD-11 Classification.

tomy due to lung cancer. In this case, the clinician should determine the treatment approach according to the cause of the predominant pain.

Cancer-related pain has multiple etiologies, including cancer itself (cancer pain) and cancer treatment, particularly surgery, chemotherapy (hormonal, biological and immunotherapy) and radiotherapy. It can originate from visceral, bone or nerve tissues and may have nociceptive, neuropathic or inflammatory mechanisms. At the same time, there may be temporary changes in the characteristics of the pain: Acute or chronic, continuous or episodic. Persistent cancer pain can induce neuroplasticity in the nervous system in some individuals, leading to the spread and expansion of chronic pain.

3rd Standard: A pain management plan that explains the causes of pain as well as the possible prognosis of the disease, the need for further investigations, multimodal treatment options, and includes the treatment preferences and goals of the patients should be agreed.

The goals of cancer-related pain management should be to reduce cancer pain, minimize the impact of pain on daily life and increase each patient's ability to cope with pain on their own.^[13,16,17] Most cancer patients with pain want to know the causes and treatment options of their pain and seek support in how to deal with their pain. Ongoing studies also reveal that pain is a very dynamic and complex period for patients and pain control is a trial and error process that requires continuous work.^[18] In this period, it would be appropriate to explain to the patients that it is aimed to completely eliminate the pain due to cancer but generally it is insufficient in this regard and the treatment goal is to reduce the pain to the level that the person can tolerate when '0 (zero)' pain is not reached. During this period, the patient should be given confidence from the first encounter with the patient. It is necessary to explain that there is a physician he/she can refer to when he has trouble coping with pain and he/she will have to come to the hospital many times due to this disease and he/she may need to have additional or the same examinations many times. Sometimes patients should be told what the primary disease is by their relatives. This situation causes the patients to be unwilling to have many advanced examinations related to the treatment.

Opioids, other analgesic and adjuvant drugs used in the medical treatment of cancer-related pain negatively affect the quality of daily life due to their effects on cognitive functions and other side effects.^[19,20] Patients generally try to balance the pain and side effects by reducing the analgesics they use. This way, they try to preserve their functionality as much as possible. While the drug exchange between pain and side effects is often applied by the pain physician,

if this balance cannot be achieved, patients should be informed and directed about interventional pain treatment methods. Of course, it is essential for the physician to have detailed information about interventional pain treatment methods in order to provide this guidance.

Anesthesiology and Reanimation specialists, Algology and Palliative Care physicians, relevant Surgeons, Medical Oncology specialists, Radiation Oncology specialists and primary care physicians can provide treatment to the cancer patient at the same time (Fig. 2). For this reason, it is imperative that all healthcare professionals serving patients with cancer-related pain evaluate patients and initiate evidence-based treatment or consult a competent specialist.

4th Standard: Patients should receive a personalized multimodal treatment that includes a combination of medications, non-pharmacological treatments, oncological practices, physical rehabilitation, and psychosocial or spiritual support, reducing pain and the impact of pain on daily life.

Limitations to patients' access to medicines and other interventions tailored to them must be removed. After the physician examines a patient with cancer pain and plans

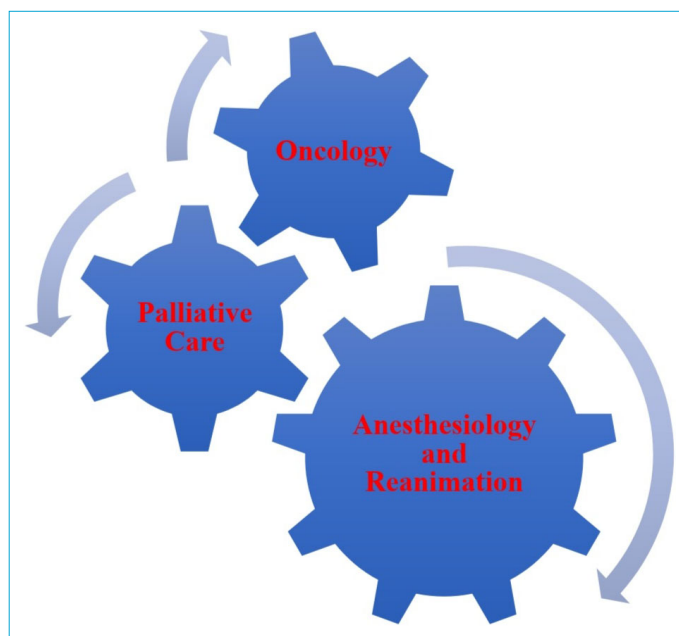


Figure 2. Gear wheel image showing the coordination of Anesthesiology and Reanimation, Palliative Care and Oncology Clinics.

In Palliative Care Centers, in the follow-up and treatment processes of cancer patients, not only the physician responsible for the Palliative Care Center, but also the physicians who are required to take part in the treatment of the primary disease and pathological process that cause pain. In this regard, the Medical Oncology specialist and the Anaesthesiology and Reanimation specialist should cooperate with the Palliative Care Center in the most appropriate way in the treatment of cancer.

his treatment, the patient should be able to access the prescribed medications within 24 hours. Buying the drug from the pharmacy should also be included in this period. Prescribers should follow local and national protocols or evidence-based guidelines for cancer-related pain management. Because these protocols and guidelines can only improve results.^[21] In addition, many new drugs that are not available in the country should be facilitated to help expand the physician's field of competence. For example, in the treatment of cancer pain abroad, the drug with the active ingredient Tapentadol helps to control the pain, while the drug with the active ingredient Naloxegol is used in the treatment of opioid-induced constipation.^[22-24] Ministry of Health officials should facilitate access for patients with cancer pain to such new drugs.

Although opioid analgesia is the main method in the management of cancer-related pain, it may not always be suitable for long-term pain management associated with cancer treatments (chemotherapy, radiotherapy or surgery) in the context of treated or remission disease and interventional methods may be needed.^[2] Access to oncological and surgical treatment options to control pain should be available locally in each country. For example, radiotherapy in bone metastases, spinal stabilization and surgical fixation of pathological fractures, vertebroplasty or palliative debulking surgery of the tumor.

5th Standard: Support and advice for self-management should be provided.

Self-management is the ability of a patient to manage pain, analgesic treatments and the physical and psychological consequences of living with cancer-related pain.^[24] This includes activities such as acquiring skills and the right information, managing practical tasks and emotions, solving problems and knowing what to do when symptoms worsen or need more help. Most patients need help with self-management. In the "home care" phase, it is important to provide adequate and appropriate analgesic treatment of patients and to prevent "break-through pain" in order not to interrupt self-management.

6th Standard: The pain management plan should be reviewed regularly to assess results and plan long-term care.

Many patients with cancer pain can also evaluate whether their pain is under control, their ability to perform daily activities, self-care without help and maintain their social relations with their family, friends and relatives. They even compare their residual pain and functional balances individually by comparing their lives before they got cancer over time.

Patients should know who is responsible for reviewing their pain management plans, when this review will take place and whether this will be done with face to face, by phone

or with digital technologies that are not very sophisticated for those of today's intellectual level.^[25] In addition, contact information should be easily accessible for support outside of working hours, weekend holidays and long-term national holidays and infrastructure should be prepared for this. It should not be forgotten that access to pain treatment is a fundamental human right was declared to the whole world in the Montreal Declaration on September 3, 2010 and our country also signed it.^[26]

7th Standard: If there is no immediate response to pain management or if there are unbearable side effects of analgesia with effective analgesia, patients should be referred for further expert advice and treatment.

If a patient with cancer pain is not well controlled despite initial treatment, or if the pain is defined as more complex than expected (severe uncontrolled pain is associated with severe drug-related side effects and extreme discomfort), patients should be referred for specialist support. Specialist support should be provided in certain residential areas in each country in the form of specialist multidisciplinary pain management services, oncology services including radiotherapy and palliative care services. It has been suggested by the IASP that access to advanced specialist services should be readily available within a week for cancer pain that does not respond adequately to existing treatments.^[27]

8th Standard: Health professionals treating cancer patients should receive continuing education and training to perform basic pain assessment, initiate basic pain management and learn the correct direction.

It is known that there is a lack of cancer pain diagnosis and pain management. This causes inadequate treatment of patients with increasing cancer pain day by day. For this reason, EFIC recommends the development of training programs on cancer pain and palliative medicine for all healthcare professionals involved in the care of cancer patients at medical, nursing colleges, undergraduate and graduate levels.^[1] Therefore, palliative care and cancer pain treatment should be specified in the core curriculum of Anesthesiology and Reanimation and appropriate education and training in these areas should be essential.

9th Standard: Service records and results should be reviewed regularly for all patients with cancer pain.

Regular review of treatment results for patients, non-steroidal anti-inflammatory drugs (NSAIDs), opioids, adjuvant drugs, their side effects, patient satisfaction, pain scores, applied interventional pain treatment methods and determining the improvement areas of the missing aspects of the services, enables control methods to focus on safety and effectiveness data.

10th Standard: Each EFIC section should have in place national evidence or consensus-based guidelines for cancer-related pain.

There are many international and national guidelines on cancer pain assessment and treatment, and these may not be appropriate for all countries. EFIC recommends that each country produce an appropriate treatment guideline for cancer-related pain that is relevant to the need and to the current setting, recognizing the differences in access to medicines and other treatments and respecting social and cultural identity.^[1] These rules can be adapted from existing international or national rules in other countries. The generation of warnings that can be understood by non-healthcare professionals should be considered.

In terms of our country, Palliative Care Centers are the key to the solution of cancer pain treatment. Palliative Care Centers should be handled with a holistic approach in the treatment of cancer pain. The fact that these centers should primarily be under the responsibility of Anesthesiology and Reanimation specialists, as specified in the law, will provide a significant advantage thanks to their knowledge and experience on the usage and side effects of all analgesics, especially opioids. In the first stage, it should be ensured that the medication and prescription need of the patients are easily met in Palliative Care Centers.

Our country should be divided into regions according to population density and transportation difficulties and reference centers should be established in each region. In addition to being centers where interventional pain treatments can be performed, these reference centers should be places where there are medical oncology specialists, radiation oncology specialists, spine surgery and other surgeries can be performed. Each Palliative Care Center should determine the services to be implemented by leveling in this respect, and patients should be referred to other centers where they can receive treatment for services that cannot be provided. These centers should be connected with each other so that it should be determined to whom, where, how and when patients will go for pain treatment. When the treatment is over or the follow-up phase is reached, the other center should be informed from the advanced center and the patient should be followed up. As health professionals, we must know and be aware of appropriate hospitals where a specific and multidisciplinary approach is at the forefront in the management of cancer pain. Referral routes to be established between oncology, pain and palliative care services should be determined in order to coordinate cancer pain treatment by considering the expectations of patients and families. Our country should be divided into regions according to population density and

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For patients with cancer-related pain in the last weeks or days of life, it is important to develop a specific treatment plan and anticipate the need for analgesics.^[28] Drugs aimed at treating opioid-related side effects such as laxatives, peripheral opioid antagonists and antibiotics should be available.

An instruction on how to establish and run Palliative Care services, dated July, 07, 2015 and numbered 253, was issued by the Ministry of Health.^[28] The purpose of this instruction is to identify and evaluate pain and other symptoms early in patients who experience problems due to life-threatening diseases, to relieve or prevent their pain by providing medical, psychological, social and moral support to these people and their family members and to act to improve the quality of life. It was stated that establishing Palliative Care Centers, determining their functioning, physical conditions, minimum standard of tools, equipment and personnel to be kept, duty, authorization and responsibilities of personnel and procedures and principles regarding the supervision of the application. It is also stated in this instruction that the responsible physician of the Palliative Care Centers should preferably be an Anesthesiology and Reanimation Specialist. Ministry of Health brought together the concepts of Pain and Anesthesiology and Reanimation Specialist in Palliative Care Centers.

There are 172 Palliative Care Center with 1930 beds in Turkey in the year 2016. These centers represent the total

number on the basis of provinces and districts. Information and guidance should be provided for patients with cancer pain to go to Palliative Care Centers in places where there is no Pain and Algology Center.

Each Palliative Care Center should be levelled for the treatment of Cancer Pain (Fig. 3). With this, it is aimed to standardize the pain treatments that can be received and reached by patients, taking into account the increasing variety of treatment over the years, similar to the analgesic step treatment performed by the World Health Organization. The treatment of the patient with cancer pain should be planned by an Anesthesiology and Reanimation Specialist after a correct and careful examination.

Palliative Care Level 1 Cancer Minimum requirements for pain treatment (Table 1): Anesthesiology and Reanimation Specialist should be able to perform the most appropriate and accurate pharmacological pain treatment, local anesthetics, steroid and/or opioid iv, spinal/epidural drug injections to appropriate patients, follow-up and monitorize the treatments applied in advanced centers, should be able to recognize adverse effects and complications of minimally invasive pain treatments, perform treatment and referral routes when necessary and implant a tunneled epidural catheter. When necessary, they should consider patients using Traditional and Complementary Medicine Practices.^[29]

Palliative Care Level 2 Cancer Minimum requirements for pain treatment (Table 1): In addition to the 1st level,

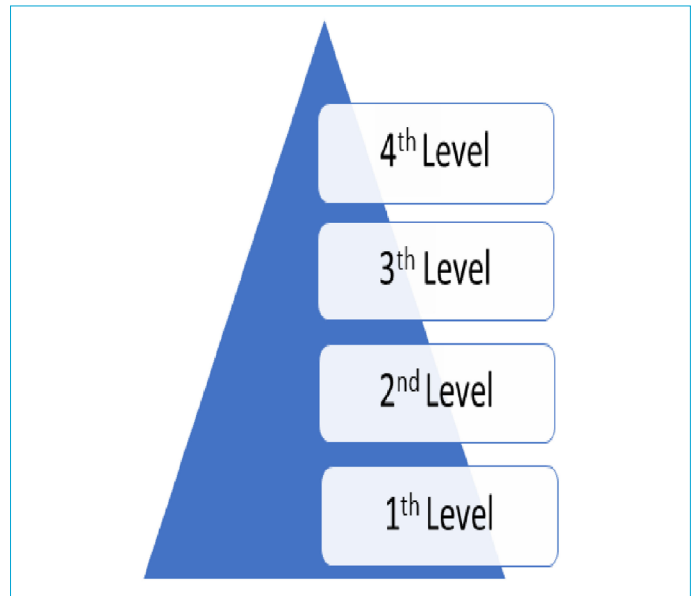


Figure 3. Level Principle in Palliative Care According to Cancer Pain Therapy.

the Anaesthesiology and Reanimation Specialist should perform diagnostic and neurolytic sympathetic block applications for stellate and impar ganglia which are easier than other sympathetic blocks, intravenous port implantations with spinal/epidural port/pump (subclavian and/or jugular vein).

Palliative Care Level 3 Cancer Minimum requirements

Table 1. Detail of the Minimum Requirements to be Achieved According to the Pharmacological and Interventional Pain Treatments of the Leveled Palliative Care Centers

	1 th Level Pain Therapy	2 nd Level Therapy	3 th Level Pain Therapy	4 th Level Pain Therapy
Non-Pharmacological Therapy*	+	+	+	+
Pharmacological Therapy**	+	+	+	+
Interventional Pain Treatment Methods				
Epidural Injections	+	+	+	+
Spinal Injections	+	+	+	+
Tunneled Epidural Catheters	+	+	+	+
Peripheral Blocks	-	+	+	+
Neurolytic Sympathetic Blocks	-	+	+	+
Epidural/Spinal Port Pump Implantations	-	+	+	+
Intravenous Port Implantations	-	+	+	+
Neurolytic Intrathecal Blocks	-	-	+	+
Percutaneous Cordotomy	-	-	+	+
Kyphoplasty/Vertebroplasty	-	-	+	+
Radiofrequency therapies	-	-	+	+
Spinal Cord Stimulator Implantations	-	-	+	+

* Traditional and Complementary Medicine applications such as Acupuncture, Aromatherapy, Herbal Remedies, Homeopathy, Hypnosis, Massage, Music Therapy, Cup Therapy, Reflexology, Relaxation.

** Treatments created based on the stepwise treatment principles of analgesia reported by the World Health Organization.

*** Practices in pediatric patient population.

for pain treatment (Table 1): In addition to the 1st and 2nd levels, Neurolytic Intrathecal Block, Percutaneous Cordotomy, Kyphoplasty/Vertebroplasty, Radiofrequency methods, all Neurolytic Sympathetic Ganglion Blocks (Stellate Ganglion Block, Splanchnic Block, Celiac Ganglion Block, Lumbar Sympathetic Block, Hypogastric Plexus Block, Impar Ganglion Block), advanced treatment methods such as Spinal Cord Stimulator implantation (pain due to slow-progressing solid tumors) should be performed or should be worked in coordination with the Pain or Algology centers where these treatments are performed.

Palliative Care Level 4 Cancer Minimum requirements for pain treatment (Table 1): Palliative Care Level 3 cancer can be classified as centers where pain treatments can be applied in the pediatric population.

Recommendations:

1. The side effects and complications of non-pharmacological, pharmacological and minimally invasive pain treatments applied at all levels should be recognized, treated when possible or the patient should be referred to higher level treatment centers.
2. Restrictions on adjuvant drugs, especially anticonvulsant drugs, should be removed in the treatment of neuropathic pain.
3. It should be ensured that many newly released opioid drugs and forms, specific antidote drugs against opioid side effects are provided to use in our country by the Ministry of Health or the barriers in front of them are removed (buprenorphine, naloxegol, tapentadol, intrathecal ziconotide, etc.).
4. As stated in the Palliative Care Instruction, both cancer pain treatments and palliative care services should be included in the Core Education Curriculum of Anesthesiology and Reanimation or related branches.
5. The supply of oral, parenteral, epidural, spinal drugs used in the analgesic treatment of the patient with cancer pain should be provided uninterruptedly and the drug-free period should be prevented.
6. In-service training process should be completed with the organization and coordination of Palliative Care physicians.
7. A national guideline for the rational use of analgesics should be developed.
8. A consensus should be established for experts dealing with palliative care and cancer pain to come together and share their experiences.
9. Each country should develop a mechanism by professional organizations or regulatory authorities to monitor and evaluate the implementation and use of nation-

al guidelines and European standards.

As a result, palliative care centers, which are widely available across the country, still do not provide the desired solution to patients with cancer pain. These centers should provide active polyclinic services in order to provide effective solutions in cancer pain and information and guidance should be provided for patients with cancer pain to go to palliative care centers in places where there is no pain center. We believe that the staged palliative care centers defined by us as a result of effective resource use with qualified physicians and healthcare professionals in our country, following the above recommendations, will play an important role in the struggle of cancer patients with pain.

Disclosures

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References

1. Bennett MI, Eisenberg E, Ahmedzai SH, Bhaskar A, O'Brien T, Mercadante S, et al. Standards for the management of cancer-related pain across Europe-A position paper from the EFIC Task Force on Cancer Pain. *Eur J Pain* 2019;23:660–8. [\[CrossRef\]](#)
2. Fallon M, Giusti R, Aielli F, Hoskin P, Rolke R, Sharma M, et al; ESMO Guidelines Committee. Management of cancer pain in adult patients: ESMO Clinical Practice Guidelines. *Ann Oncol* 2018;29(Suppl 4):iv166–91. [\[CrossRef\]](#)
3. Davies AN, Elsner F, Filbet MJ, Porta-Sales J, Ripamonti C, Santini D, et al. Breakthrough cancer pain (BTcP) management: a review of international and national guidelines. *BMJ Support Palliat Care* 2018;8:241–9. [\[CrossRef\]](#)
4. Swarm RA, Dans M. NCCN Frameworks for Resource Stratification of NCCN Guidelines: Adult Cancer Pain and Palliative Care. *J Natl Compr Canc Netw* 2018;16:628–31. [\[CrossRef\]](#)
5. Chou R, Gordon DB, de Leon-Casasola OA, Rosenberg JM, Bickler S, Brennan T, et al. Management of postoperative pain: a clinical practice guideline From the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council. *J Pain* 2016;17:131–57. [\[CrossRef\]](#)
6. Jara C, Del Barco S, Grávalos C, Hoyos S, Hernández B, Muñoz M, et al. SEOM clinical guideline for treatment of cancer pain (2017). *Clin Transl Oncol* 2018;20:97–107. [\[CrossRef\]](#)
7. Bennett MI, Bagnall AM, José Closs S. How effective are patient-based educational interventions in the management of cancer pain? Systematic review and meta-analysis. *Pain*

- 2009;143:192–9. [CrossRef]
8. Sheinfeld Gorin S, Krebs P, Badr H, Janke EA, Jim HS, Spring B, et al. Meta-analysis of psychosocial interventions to reduce pain in patients with cancer. *J Clin Oncol* 2012;30:539–47.
 9. Oldenmenger WH, Geerling JI, Mostovaya I, Vissers KCP, de Graeff A, Reyners AKL, et al. A systematic review of the effectiveness of patient-based educational interventions to improve cancer-related pain. *Cancer Treat Rev* 2018;63:96–103.
 10. Seamark DA, Williams S, Hall M, Lawrence CJ, Gilbert J. Palliative terminal cancer care in community hospitals and a hospice: a comparative study. *Br J Gen Pract* 1998;48:1312–6.
 11. WHO Guidelines for the Pharmacological and Radiotherapeutic Management of Cancer Pain in Adults and Adolescents. Geneva: World Health Organization; 2018.
 12. Ferlay J, Steliarova-Foucher E, Lortet-Tieulent J, Rosso S, Coebergh JW, Comber H, et al. Cancer incidence and mortality patterns in Europe: estimates for 40 countries in 2012. *Eur J Cancer* 2013;49:1374–403. [CrossRef]
 13. Minello C, George B, Allano G, Maindet C, Burnod A, Lemaire A. Assessing cancer pain-the first step toward improving patients' quality of life. *Support Care Cancer* 2019;27:3095–104.
 14. Bennett MI, Kaasa S, Barke A, Korwisi B, Rief W, Treede RD; IASP Task force for the Classification of Chronic Pain. The IASP classification of chronic pain for ICD-11: chronic cancer-related pain. *Pain* 2019;160:38–44. [CrossRef]
 15. Nugraha B, Gutenbrunner C, Barke A, Karst M, Schiller J, Schäfer P, et al; IASP Taskforce for the Classification of Chronic Pain. The IASP classification of chronic pain for ICD-11: functioning properties of chronic pain. *Pain* 2019;160:88–94.
 16. Rodriguez C, Ji M, Wang HL, Padhya T, McMillan SC. Cancer pain and quality of life. *J Hosp Palliat Nurs* 2019;21:116–23.
 17. Bennett MI. Mechanism-based cancer-pain therapy. *Pain* 2017;158(Suppl 1):S74–8. [CrossRef]
 18. Hackett J, Godfrey M, Bennett MI. Patient and caregiver perspectives on managing pain in advanced cancer: a qualitative longitudinal study. *Palliat Med* 2016;30:711–9. [CrossRef]
 19. Sloot S, Boland J, Snowden JA, Ezaydi Y, Foster A, Gethin A, et al. Side effects of analgesia may significantly reduce quality of life in symptomatic multiple myeloma: a cross-sectional prevalence study. *Support Care Cancer* 2015;23:671–8. [CrossRef]
 20. Dreidi MM, Hamdan-Mansour AM. Pain, sleep disturbance, and quality of life among palestinian patients diagnosed with cancer. *J Cancer Educ* 2016;31:796–803. [CrossRef]
 21. Raphael J, Ahmedzai S, Hester J, Urch C, Barrie J, Williams J, et al. Cancer pain: part 1: pathophysiology; oncological, pharmacological, and psychological treatments: a perspective from the British Pain Society endorsed by the UK Association of Palliative Medicine and the Royal College of General Practitioners. *Pain Med* 2010;11:742–64. [CrossRef]
 22. Smith HS, Zhang JM, Baccei ML. Pathophysiology of Pain. In: Smith HS, ed. *Current Therapy in Pain*. 1st ed. Philadelphia: Elsevier Inc; 2009.
 23. Schwittay A, Schumann C, Litzenburger BC, Schwenke K. Tapentadol prolonged release for severe chronic pain: results of a noninterventional study involving general practitioners and internists. *J Pain Palliat Care Pharmacother* 2013;27:225–34.
 24. Mesía R, Virizuela Echaburu JA, Gómez J, Sauri T, Serrano G, Pujol E. Opioid-induced constipation in oncological patients: new strategies of management. *Curr Treat Options Oncol* 2019;20:91. [CrossRef]
 25. ElMokhallalati Y, Mulvey MR, Bennett MI. Interventions to support self-management in cancer pain. *Pain Rep* 2018;3:e690.
 26. International Pain Summit of the International Association for the Study of Pain. Declaration of Montréal: declaration that access to pain management is a fundamental human right. *J Pain Palliat Care Pharmacother*. 2011;25:29–31. [CrossRef]
 27. Treede RD. The International Association for the Study of Pain definition of pain: as valid in 2018 as in 1979, but in need of regularly updated footnotes. *Pain Rep* 2018;3:e643.
 28. TC Sağlık Bakanlığı Sağlık Hizmetleri Genel Müdürlüğü. Palyatif bakım hizmetlerinin uygulama usul ve esasları hakkında yönerge. 07.07.2015. Available at: <https://shgm.saglik.gov.tr/Eklenti/38464/0/palyatif-bakim-hizmetlerinin-uygulama-usul-ve-esaslari-hakkinda-yonergedf.pdf> . Accessed Sep 22, 2021.
 29. Raphael J, Hester J, Ahmedzai S, Barrie J, Farquhar-Smith P, Williams J, et al. Cancer pain: part 2: physical, interventional and complimentary therapies; management in the community; acute, treatment-related and complex cancer pain: a perspective from the British Pain Society endorsed by the UK Association of Palliative Medicine and the Royal College of General Practitioners. *Pain Med*. 2010;11:872–96. [CrossRef]