Pain and dyspnea control in cancer patients of an urgency setting: nursing intervention results

Controle da dor e dispneia de pacientes com câncer no serviço de urgência: resultados da intervenção de enfermagem

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ABSTRACT

BACKGROUND AND OBJECTIVES: To outline best practices guidelines to control pain and dyspnea of cancer patients in an urgency setting.

CONTENTS: PI[C]O question, with resource to EBSCO (Medline with Full Text, CINAHL, Plus with Full Text, British Nursing Index), retrospectively from September 2009 to 2014 and guidelines issued by reference entities: Oncology Nursing Society (2011), National Comprehensive Cancer Network (2011; 2014) and Cancer Care Ontario (2010), with a total of 15 articles. The first stage for adequate symptoms control is systematized evaluation. Pharmacological pain control should comply with the modified analgesic ladder of the World Health Organization, including titration, equianalgesia, opioid rotation, administration route, difficult to control painful conditions and adverse effects control. Oxygen therapy and noninvasive ventilation are control modalities of some situations of dyspnea, where the use of diuretics, bronchodilators, steroids, benzodiazepines and strong opioids are effective strategies. Non-pharmacological measures: psycho-emotional support, hypnosis, counseling/training/instruction, therapeutic adherence, music therapy, massage, relaxation techniques, telephone support, functional and respiratory reeducation equally improve health gains.

CONCLUSION: Cancer pain and dyspnea control require comprehensive and multimodal approach. Implications for nursing practice: best practice guidelines developed based on scientific evidence may support clinical decision-making with better quality, safety and effectiveness.

Keywords: Cancer pain, Dyspnea, Nursing interventions, Urgency service.

RESUMO

JUSTIFICATIVA E OBJETIVOS: Delinear linhas orientadoras de boa prática no controle da dor e dispneia, de pacientes com doença oncológica em serviço de urgência.

CONTEÚDO: Pergunta PI[C]O, com recurso à EBSCO (Medline with Full Text, CINAHL, Plus with Full Text, British Nursing Index), retrospectivamente de setembro de 2009 até 2014 e guidelines emanadas por entidades de referência: *Oncology Nursing Society* (2011), *National Comprehensive Cancer Network* (2011; 2014) e *Cancer Care Ontario* (2010), dos quais resultou um total de 15 artigos. A primeira etapa para um controle adequado de sintomas é uma apreciação sistematizada. O tratamento farmacológico da dor deve-se reger pela escada analgésica modificada da Organização Mundial da Saúde, com inclusão da titulação, equianalgesia, rotatividade de opioides, vias de administração, condições dolorosas de difícil tratamento e controle de efeitos adversos. A oxigenoterapia e ventilação não invasiva são modalidades de controle de algumas situações de dispneia, onde a utilização de diuréticos, broncodilatadores, corticoides, benzodiazepínicos e opioides fortes são estratégias eficazes. As medidas não farmacológicas: apoio psicoemocional, hipnose, aconselhamento/treino/instrução, adesão terapêutica, musicoterapia, massagem, técnicas de relaxamento, apoio telefónico, reeducação funcional e respiratória aumentam igualmente os ganhos em saúde.

CONCLUSÃO: O controle da dor oncológica e dispneia exigem uma abordagem compreensiva e multimodal. Implicações para a prática de Enfermagem: linhas orientadoras de boa prática, desenvolvidas com base na evidência científica podem suportar uma tomada de decisão clínica com maior qualidade, segurança e efetividade

Descritores: Dispneia, Dor oncológica, Intervenções de enfermagem, Serviço de urgência.

INTRODUCTION

Globally, every year, there will be an additional 14 million new cases of people with cancer, and the expectation is that it will triple by 2030, also as a result of the survival[1]. Survivors continue to experience significant limitations compared to all those without a cancer history[2]. The presence of symptoms persists permanently, derived from the direct adverse effects of neoplasia, the treatment, the exacerbation and/or the development of new, recurrence-associated or a second cancer[3].

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Hospitals, particularly, the emergency service, continues to be one of the most used support systems[4]. Symptoms have been studied separately. However recent studies support the need for an integrative approach. Pain, dyspnea, fatigue, emotional stress arises simultaneously, and they are interdependent. This is where the designation of symptoms *cluster* comes from when two or more symptoms present an interrelation between, taking into account that they can share the same etiology and produce a cumulative effect on the person's functioning[5]. Pain gets a particular emphasis since it is an item present in all the multiple scales of symptoms assessment, besides being the most frequent reason to seek the emergency service, and the evidence also suggests that there is a predominance of improper analgesic control in this context[6]. The incidence of the pain at the beginning of the illness trajectory is estimated at 50%, and it goes to approximately 75% in the advanced stages, which means that the survivor does not have to cope with it only as the immediate result of the treatment[5]. In an advanced stage of the disease, dyspnea is one of the symptoms that take a particular relevance, often associated with pain (about 45%), representing a symptom *cluster* driver of greater anxiety and fatigue responsible for the demand for health care, making it crucial to have serious investments to control it[3-6]. In this sense, the purpose is to highlight the guidelines for good nursing practice in pain and dyspnea control in patients with cancer in the emergency service.

RESEARCH STRATEGY

As a starting point, the following initial question was elaborated in PI[C]O format: What are the good practice guidelines (Intervention) in the control of pain and dyspnea (Outcomes) in patients with cancer (Population) in the ER Setting? The electronic database used focused on EBSCO (Medline with Full TEXT, CINAHL Plus with Full Text, British Nursing Index). The keywords were searched in the following order: [guideline OR practice guideline OR evidence-based practice OR randomized controlled trial] AND [symptoms dyspnea control OR dyspneaOR tachypnea OR cheyne-stokes respiration OR respiratory sounds OR chronic pain OR cancer pain OR breakthrough pain] AND [oncology nursing OR emergency care OR acute care OR palliative care. The keywords were sought, retrospectively as of September 2009 to 2014, resulting in a total of 12 articles. In the inclusion criteria also encompasses the guidelines from reference entities on the subject: Oncology Nursing Society (2011), National Comprehensive Cancer Network (2014) and Cancer Care Ontario (2010). The exclusion criteria included all articles with unclear methodology, repeated in both databases (n=3), age below 18 years and date before 2009. In total, there were 15 articles, as shown in figure 1.

It was decided to follow the criteria approved by the Agency for Healthcare Research and Quality (AHRQ), expressed in the National Guideline Clearinghouse, with equally focus on oncology[7]. At the same time, complying with the rational of the National Comprehensive Cancer Network[8], in which for a safe and consistent application in clinical contexts, are only acceptable evidence levels considered to be of high quality, that is, up to 2[a] shown in table 1.

RESULTS

First, the results referring to cancer pain are presented, subdivided in the initial assessment, pharmacological and

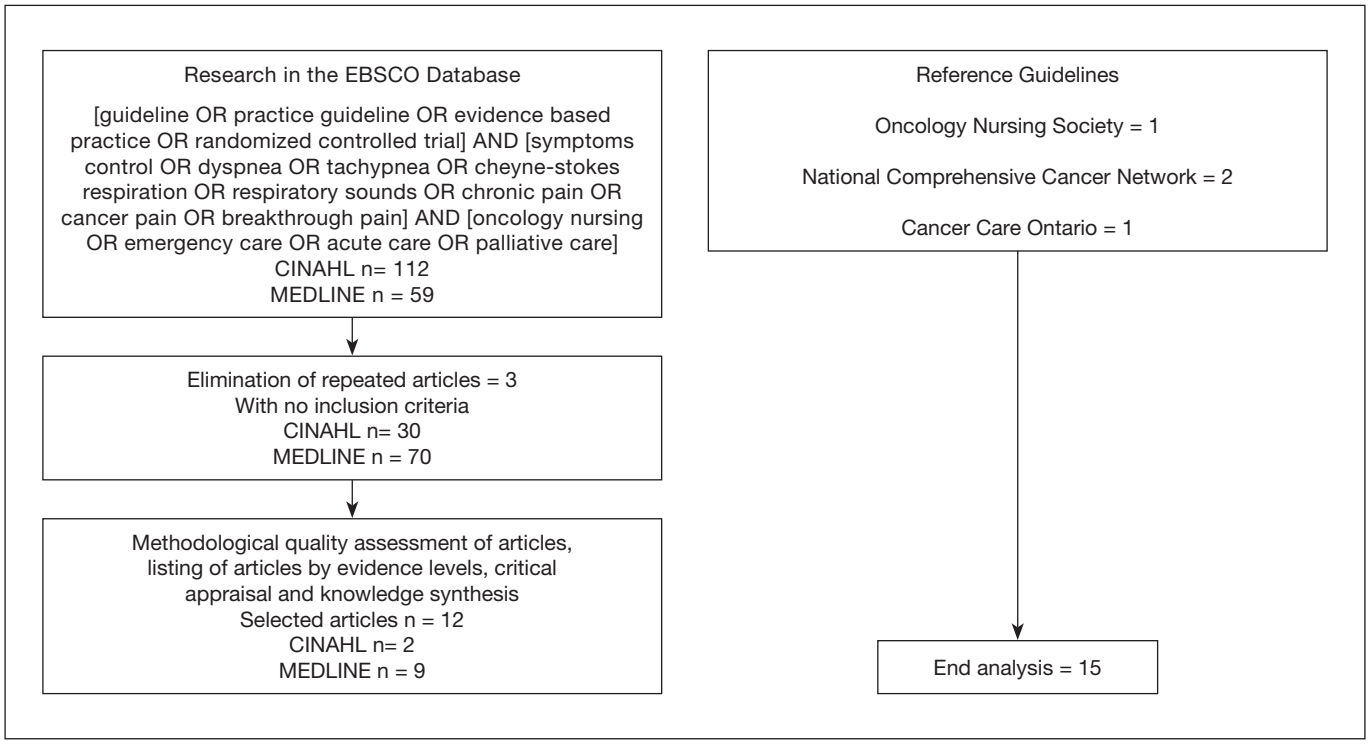

Figure 1. Process of research and article selection, in the period from 2009/01/01 to 2014/10/09

Table 1. Levels of evidence adapted[7]

Levels	Types of Evidence
1ª	High-quality evidence obtained from meta-analyses, systematic reviews of randomized clinical trials (RCT)
1b	Evidence obtained from at least one RCT
2ª	Evidence obtained from case-control studies of high quality or cohort, with a very low risk of bias and a high probability of causal relationship
2b	Evidence obtained from at least one other type of well-designed quasi-experimental study
3	Evidence obtained from well-designed non-experimental studies, with correlation studies or case studies
4	Evidence obtained from experts' opinion or recognized Identities/reputable authorities

nonpharmacological treatment, delivery path and control of adverse effects, where it is also included the recommendations found regarding nurses' education, as shown in table 2.

Also, regarding dyspnea control, the good practice begins with a structured initial assessment, which allows determining the need for oxygen therapy or noninvasive ventilation, as well as the pharmacological and nonpharmacological strategies most appropriate, as shown in table 3.

This way, it is possible to infer that, in spite of cancer pain and dyspnea present a close relationship, they require a specific and differentiated approach, with synergistic potential.

Table 2. Good practice guidelines for pain control of the person with cancer disease

Assessment of cancer pain	Use self-assessment tools	Revista's faces pain rating scale Wong-Baker faces pain rating scale Numerical rating scale Qualitative scale Edmonton symptom assessment scale Brief pain summary
	Use hetero-assessment tools	Pain assessment in advanced dementia Observer scale Portuguese version of the pain Behavioral Pain Scale
	Assess the characteristics of the cancer pain	Intensity Frequency Type of pain (somatic, visceral, neuropathic pain or mixed) Location and/or presence of irradiation Pain duration and pattern (continuous/end of dose/irruptive) Relief and exacerbation factors Response to current and rescue analgesic scheme Existence of other associated symptoms Interference in daily life activities
	Assess psychoemotional state	Degree of concern with the disease Degree of anxiety Previous diagnosis of depression and/or personality disorders Presence of suicidal ideation Presence of spiritual concerns
	Check for the existence of other comorbidities and/or addictive behaviors	
	Check for the completion of previous or current cancer treatments	
	Perform comprehensive analysis of the cancer pain etiology with analytical and imaging results	
Pharmacological treatment of cancer pain	Mild pain (WHO Step I – NRS 1-3)	Paracetamol (max dose: 4g/day NSAIDS: ibuprofen (max dose: 3200mg) and ketorolac (15-30mg EV 6/6h) maximum of 5 days Protonic pump inhibitors or H_2 receptor blockers in the treatment with NSAIDS Discontinue NSAIDS if the liver function increases 1.5 of the normal limit
	Mild or moderate pain (WHO step II - NRS 4-6)	Weak opioids: codeine (≤360mg/day) or tramadol (≤400mg/day: 100mg 4x/day) PO If inadequate control, use strong opioids in small doses: morphine (≤30mg/day), oxycodone (≤20mg/day) and hydromorphone (≤4mg/day)
	From moderate to severe (WHO step III - NRS 7-10)	Severe and unstable pain it is recommended fast absorption formulas Non-opioid pain relievers should be used simultaneously with opioids in continuous pain The regular dose of strong opioids may be increased in persons with continuous pain (no ceiling dose) Transdermal Fentanyl or buprenorphine are alternatives in the difficulty swallowing or grade 4 or 5 renal failure Tapentadol is a centrally acting opioid analgesic, recommended for neuropathic pain, with an initial dose of 50-100 mg PO, with a maximum dose of 500 mg/day every 12 hours

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Table 2. Good practice guidelines for pain control of the person with cancer disease – continuation

Pharmacological treatment of cancer pain	From moderate to severe refractory pain (WHO step IV – NRS 7-10)	Invasive techniques are recommended for severe pain 1) related to the innervation zones of nerve plexuses; 2) no response to opioid rotation; 3) with need for administration of higher doses of opioids; 4) significant adverse effects with conventional methods Not recommended in coagulopathy, immunosuppression and life expectation of fewer than 6 months The spinal pathways (epidural and subarachnoid) allows the neuroaxis blockade. In epidural, it is only necessary 20-40% of the systemic dose for equianalgesic. For the subarachnoid route, it should be used 10% of the opioid systemic dose The effectiveness of local administration of anesthetic agents is higher than in subcutaneous administration Morphine and local anesthetics, such as bupivacaine are the most recommended For visceral pain, it is recommended the use of sympathetic system blockade
	Titration	Performed with a supplementation of strong opioid (equivalent to 10-15% of the usual total dose) of the same drug, but always for quick action Oral or intravenous Injection is indicated for quick pain control Methadone has a variable half-life. Therefore titration is recommended during 5-7 days
	Rotation of opioids	For equianalgesic purpose, the full dose of opioids for 24 hours should be computed Take into consideration when it is not possible to achieve a satisfactory balance between pain relief and adverse effects Start with a lower dose than the one calculated by the equianalgesic tables Start only with transdermal opioids in pain reasonably controlled
	Neuropathic pain	Antidepressants and anticonvulsants are considered first-line adjuvants It is recommended the inclusion of anticonvulsants in neuropathic stabbing pain (like shock) under opioids: 1) carbamazepine (100 mg 2 x/day up to a maximum of 400 mg/day) attention only for pain in the head region up to 1200 mg/day 2) gabapentin (100 to 300 mg in a single dose at night to reduce sedation, it can be titrated to a maximum of 900mg-3600/day divided in 2 or 3 intakes) 3) pregabalin (start with a dose of 50mg 3x/day and increase to 100mg, up to a maximum of 600mg) Tricyclic antidepressants (amitriptyline) should be started at low doses 10-25mg/day up to 75mg (it must be titrated within 1 or 2 weeks to minimize side effects: sedation, dry mouth, and urinary urgency) Associate dexamethasone for bone, visceral and neuropathic pain in acute situations (4 to 8mg 2 to 3 x/day) Ketamine in low doses can produce analgesia and modulate central sensitization, hyperalgesia, and tolerance to opioids
	Visceral pain (Malignant Bowel Obstruction)	Octreotide subcutaneously or intravenously (0.1 to 0.2 mg 8/8h or 12/12h) to reduce gastrointestinal secretions Butylscopolamine and the steroids can be used in association, with food intervals and possible gastric intubation for decompression
	Breakthrough pain	It occurs when baseline pain is relatively controlled It reaches its peak at 5 minutes, with a short duration (between 30-60 min), occurring 3-4 times/day If it appears at the end of opioid half-life, one should not advance the next shot, but increase the dose of the long-acting regular opioid and/or reduce the interval between doses If the triggering stimulus is identified, it is recommended to use a prophylactic rescue dose (10-20% of the usual daily quick absorption dose), before this stimulus The need to use frequent rescue doses means that the regular dose schedule should be changed Strong opioids are recommended for 1st line treatment Opioid titration, the introduction of adjuvants and regular, timely intake are important control measures For rescue therapy, it is recommended fast-acting opioids Use the same fast-acting opioid and keep it in the long-acting formulation The efficacy of EV morphine compared to transmucosal fentanyl is superior to the 15 minutes. At 30 minutes, there is no statistically significant difference There is no equianalgesic dose for transmucosal fentanyl, thus it should start with low doses and be carefully titrated
	Delivery path	Preferably select oral administration, it reduces the incidence of adverse effects Subcutaneous administration is simple and effective for morphine, being the first choice when oral or transdermal options are not available EV may be considered when subcutaneous is contraindicated: anasarca, clotting disorders, peripheral hypoperfusion, need for infusion of high volumes or doses)

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Table 2. Good practice guidelines for pain control of the person with cancer disease – continuation

Pharmacological treatment of cancer pain	Control of adverse effects	Obstipation	Introduce laxatives during the administration of opioids Persistent obstipation requires the combination of laxatives with different modes of action Cleansing enemas or microclisteres as the last resource and in isolated situations In severe obstipation, it is recommended the exclusion of bowel obstruction In chronic obstipation, it is recommended opioid rotation Encourage rich fiber diet, adequate water intake, and moderate physical exercise
		Nausea and vomiting	Metoclopramide (10-15mg PO 3 x/day) or haloperidol (0.5-1mg PO 6-8hours) with attention to the occurrence of dyskinesia in prolonged use Identify the nausea etiology (CNS disease, chemotherapy, radiotherapy, and hyperkalemia) In persistent nausea/vomiting situation, consider the use of serotonin antagonists, like ondansetron or granisetron The use of dexamethasone and olanzapine may be considered 2.5-5mg, especially in cases of bowel obstruction
		Overdose/ sleepiness/ prostration	In renal failure grade 4/5 (glomerular filtration rate < 30 mL/min) administration of lower doses of opioids, followed by careful titration Adverse effects of chemotherapy, angiogenesis inhibitors: thrombocytopenia, coagulopathy, renal, hepatic and cardiovascular toxicity can be enhanced with simultaneous NSAIDS Adequate water intake to prevent the accumulation of serum metabolites, responsible for drowsiness and renal failure
		Respiratory depression	Monitor risk factors Administration of naloxone (0.4mg/1mL) in 10mL of saline solution and give 1-2mL for 30-60seg. It may be necessary to repeat since the opioids half-life is longer than naloxone (30-60minutos)
Non-pharmacological treatment of cancer pain	Individualization of nursing care Inclusion of the relevant person in the therapeutic plan Psychoemotional support Counseling/education for health self-management/health education opportunity Phone call follow-up Phone helpline Newsletter, with analgesic schema included Relaxation techniques and guided image Hypnosis Transcutaneous electrical nerve stimulation Therapeutic massage, application of heat Music therapy Nurse as case manager in therapy compliance		
Training in cancer pain	Evidence-based practice: integration of good practice guidelines Auditing and feedback on practices for cancer pain control		

NSAIDS = non-steroid anti-inflammatory drugs; NRS = Numerical rating scale.

Table 3. Good practice guidelines on dyspnea control of the person with cancer disease

Dyspnea assessment	Use the acronym O, P, Q, R, S, T, U, and V	Onset: Beginning, frequency, and duration Provoking / Palliating: relief and exacerbation factors Quality: description Region / Radiation: existence of association with other symptoms Severity: intensity Treatment: therapeutical regimen, efficacy, and adverse effects Understanding: understand the attributed etiology Values: dyspnea control objective
	Assess psychoemotional state Assess the existence of other comorbidities Use assessment tools that include dyspnea: Edmonton Symptom Assessment Scale, Hospital Anxiety and Depression Scale (HADS), Modified Dyspnea Index (MDI) Rule out the causes of undertreated dyspnea requiring pericardiocentesis, pleurodesis, thoracentesis, bronchoscopy, transfusion support or antibiotic therapy	
Oxygen therapy and non-invasive ventilation	Oxygen therapy with arterial blood gas with no hypoxemia or SpO_2> 90 is not recommended in refractory dyspnea In situations of hypoxemia associated with hemoglobin <10 g/L, chronic obstructive pulmonary disease or exacerbated smoking habits, oxygen therapy can be provided, preferably through nasal mask up to 2L/min The temporary use of non-invasive ventilation (CPAP and BiPAP) may be recommended to relieve serious, reversible conditions	

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Table 3. Good practice guidelines on dyspnea control of the person with cancer disease – continuation

Pharmacological strategies	The use of bronchodilators and/or diuretics in pulmonary stasis		
	Slight dyspnea (ESAS 1-3)	Opioids, with a careful titration	
	Moderate dyspnea (ESAS 4-6)	With no previous opioids	With previous opioids
		5mg of fast-acting PO morphine every 4 hours, with 2.5mg of rescue in case of refractory dyspnea after 2h	Increase 25% of the usual dose (consider the last 24h)
		3mg of SC morphine every 4 hours, with 1.5mg of rescue in case of refractory dyspnea after 1h	Rescue with 10% of the total dose of opioids in the last 24h, keeping the same pathway and dose. In oral administration, it can be repeated every 2 hours and in SC every 1 hour
		Benzodiazepines may be considered to control anxiety In COPD it may be beneficial to administer dexamethasone (8 mg/day) or prednisolone (50 mg/day) for 5 days Without COPD it may be beneficial to use of steroids for 5 days to stimulate the appetite or control pain Dyspnea accompanied by anxiety, nausea or agitation can justify the use of chlorpromazine 7.5-25 mg PO every 6 or 8 hours	
	Severe Dyspnea (ESAS 7-10)	With no previous opioids SC or EV administration of 2.5mg of strong opioid. If well tolerated, the dose can be repeated after 30 minutes	With previous opioids Administration of bolus of 10% of the total opioid dose in the last 24 hours, after performing the equianalgesic conversion from PO to SC or EV. If dyspnea persists, the dose can be increased to 25%
Nonpharmacological strategies	Control and dissociation of respiratory times Effective cough assisted training Positioning to reduce the work of breathing Apply cold therapy to stimulate the trigeminal nerve Consider the need to adopt healthy lifestyles Psychoemotional support Manage the anxiety of the patient/caregiver/family, exploring the meaning of dyspnea for the person, the disease and life expectation Relaxation and visualization exercises Consider adjustments in eating habits and water intake Education for self-management of the therapeutic regime Referral to other services/health professionals: pain care clinics, functional and respiratory rehabilitation, supportive care, mental and psychiatric health		

DISCUSSION

Pain assessment is considered the first step for an effective pain control that includes instruments of self and hetero-assessment that provides a more measurable dimension, where the person' statement is the gold standard in data collection. Pain characteristics, its influence on the psychoemotional state, on daily life activities, the existence of other comorbidities and/or addictive behaviors, previous or current cancer treatments, the analytical data and image related to the etiology of the pain are fundamental aspects in a comprehensive analysis of the person with cancer pain[8-11].

There are several studies proposing the selection of an analgesic regimen to manage cancer pain based on the intensity as described in the WHO modified analgesic ladder, which emphasizes the oral pathway as the preferred, regular prescription schemes and fixed time for pain control. The rescue doses should be added in episodes of intense pain, which appear despite the regular doses. The guidelines stress the importance of addressing the psycho-social stress, palliative intervention, and nonpharmacological strategies, being the latter aspects less valued in the articles found[9,10,12]. Ripamonti et al.[9] warn about the existence of randomized controlled trials (RCT) showing that low doses of morphine in mild to moderate pain is more effective and has fewer adverse effects when compared with the use of tramadol.

Opioids have different pharmacokinetic properties, as the speed in crossing the biological barrier, the passive and active diffusion, and yet being subject to genetic polymorphism of the individual. The success in the opioid rotation is approximately calculated by more than 50%[14] which is considered to be a useful technique in pain control that must meet the principles of equianalgesic dose[10,11,13].

Neuropathic, bone, visceral and breakthrough pain are difficult to control, and it is recommended the association of adjuvants[8-10,13]. Breakthrough pain has an oscillating prevalence between 19 and 95%, with significant impact on quality of life, being a painful condition difficult to control. At the same time, it is recognized the importance of oncology specialist nurses to increase the success of pharmacological interventions, notably through a battery of questions to establish the distinction between breakthrough and uncontrolled baseline pain, on the initial assessment[8,11].

In the control of adverse effects, the risk of opioid-induced respiratory depression is the most feared by healthcare professionals. Jarzyna et al.[15] recommends regular monitoring of the state of consciousness of the person, observing the individual,

iatrogenic, and pharmacokinetic risk factors. Gastrointestinal disorders are the most frequent adverse effects and require a multi-modal approach[8,9].

Regarding nonpharmacological strategies, patient-centric nursing care that emphasizes individualization and inclusion of a significant person improves health outcomes. Interventions directed to counseling, self-management education, training/education, phone call follow-up, health education and case management, interconnecting with other healthcare professionals and healthcare services increase treatment compliance and satisfaction with the healthcare[8,9,11,12,15]. Massage therapy, hot and/or cold therapy, positioning, hypnosis, transcutaneous electrical nerve stimulation (TENS) and music therapy are considered measures that power the pharmacological regimen[8,12].

With regards to cancer pain, audit implementation and feedback of written records in a group of 48 nurses, made it possible to increase the reporting of side effects (2-83%), the use of the pain measuring tools (22-75%) and the use of education/training strategies for self-care, including caregivers (0-47%)[16].

In the evaluation of the dyspnea, the literature suggests the use of the acronym, O, P, Q, R, S, T, U and V[17]. As for the assessment tools, it is recommended to include the Edmonton System Assessment Scale - HADS, Modified Dyspnea Index (MDI) and the validation for the Portuguese reality of the Numerical Rating Scale (NRS) for breathlessness, Modified Borg, and Chronic Respiratory Questionnaire[17]. Dyspnea etiology should be carefully investigated to determine the need for other complementary relief techniques[18].

LeBlanc and Abernethy[19] developed a study with 239 people with refractory dyspnea, in supportive care, with PaO_2>55mmHg, PCO_2<50mmHg and hemoglobin ≥10g/L on the advantages of giving or not oxygen, during 7 days, concluding that there is no significant statistical difference. Adverse effects increased in the group receiving oxygen therapy, such as xerostomia, irritation of the nasal mucosa and epistaxis. The use of non-invasive ventilation in reversible situations, oxygen therapy in situations of hypoxemia, bronchodilators, steroids, benzodiazepine, chlorpromazine, and diuretics are proved effective control measures[17-20].

In the dyspnea control, the use of strong opioids is a measure to consider, where the recommended dose varies according to the intensity and previous analgesic scheme, with or without opioids[17]. The literature does not recommend the use of nasal spray opioids or another type of drug in the treatment of dyspnea[18,20]. Nonpharmacological strategies directed to functional and respiratory rehabilitation, cold therapy, adoption of healthy lifestyle, self-management education/counseling, psychoemotional support, and relaxation/visualization exercises to control anxiety, and referral to other healthcare professionals/services provide a better control of dyspnea[17-21].

CONCLUSION

The efficacy of the pharmacological regimen and/or control of adverse effects can be powered by the simultaneous use of non-pharmacological techniques that contribute to reducing the intensity of the baseline pain and control exacerbations, improving comfort, well-being, reducing the level of anxiety, pain, and dyspnea that are results impacted by nursing care[22]. At the same time, the manifestation of a symptom rarely occurs in isolation, so both the assessment and the treatment require a comprehensive and multi-modal approach. The combination of two or more symptoms experienced at the same time can generate high levels of stress, which when undervalued or undertreated, can lead to the onset of burden symptoms. In this sense, the literature recommends the establishment of good practices guidelines for the symptomatic control, developed based on scientific evidence, for a more sustainable decision-making, where the nurse incorporates research results in his/her practice[11,12].

REFERENCES

1. World health Organization. Global battle against cancer won´t be won with treatment alone effective prevention measures urgently needed to prevent cancer crises. London: International Agency of Research on Cancer. 2014
2. Zucca AC, Boyes AW, Linden W, Girgis A. All´s well that ends well? Quality of life and physical symptoms clusters in long-term cancer survivors across cancer types. J Pain Symptom Manage. 2012;43(4):720-31.
3. Brant JM, Beck S, Dudley WN, Cobb, P, Pepper G, Miaskowski C. Symptom trajectories in posttreatment cancer survivors. Cancer Nurs. 2011;31(1):67-77.
4. Massa E. Análise da necessidade de recurso ao serviço de urgência de doentes oncológicos em cuidados paliativos. Instituto de Ciências Biomédicas Abel Salazar. Mestrado Integrado em Medicina. Lisboa. 2010.
5. Cleeland C, Sloan J. Assessing the symptoms of cancer using patient-reported outcomes (ASCPRO): searching for standards. J Pain Symptom Manage. 2010;39(6):1077-85.
6. Bharkta HC, Marco CA. Pain management: association with patient satisfaction among emergency department patients. J Emerg Med. 2014;46(4):456-64.
7. Heidenreich A, Bastian P, Bellmunt J, Bolla M, Joniau S, Mason M, et al. Guidelines on prostate cancer. Netherlands: Eur Assoc Urol. 2013.
8. National Comprehensive Cancer Network. NCCN clinical practice guidelines in oncology: adult cancer pain. Washington: National Comprehensive Cancer Network. 2014.
9. Ripamonti CI, Santini D, Maranzano E, Berti M, Roila F. Management of cancer pain: ESMO Clinical Practice Guidelines. Ann Oncol. 2012;23(Suppl7):vii139-54.
10. Yamaguchi T, Shima Y, Morita T, Hosoya M, Matoba M. Clinical guidelines for pharmacological management of cancer pain: the Japonese Society of Palliative Medicine recommendations. Jpn J Clin Oncol. 2013;43(9):896-909.
11. Wengström Y, Geerling J, Rustøen T. European Oncology Nursing Society breakthrough cancer pain guidelines. Eur J Oncol Nurs. 2014;18(2):127-31.
12. Vallerand AH, Musto S, Polomano RC. Nursing's role in cancer pain management. Curr Pain Headache Rep. 2011;15(4):250-62.
13. Caraceni A, Hanks G, Kaasa S, Bennett MI, Brunelli C, Cherny N, et al. Use of opioid analgesic in the treatment of cancer pain: evidence-based recommendations from the EAPC. Lancet Oncol. 2012;13(2):58-68.
14. Dale O, Moksnes K, Kaasa S. European Palliative Care Research Collaborative pain guidelines: opioid switching to improve analgesia or reduce side effects. A systematic review. Palliat Med. 2010;25(5):494-503.
15. Jarzyna D, Jungquist CR, Pasero C, Willens JS, Nisbet A, Oakes L, et al. American Society For Pain Management Nursing guidelines on monitoring for opioid-induced sedation and respiratory depression. Pain Manag Nurs. 2011;12(3):118-45.
16. Choi M, Kim HS, Chung SK, Ahn MJ, Yoo JY, Park OS, et al. Evidence-based practice for pain management for cancer patients in na acute care setting. Int J Nurs Pract. 2014;20(1):60-9.
17. Raymond V, Bak K, Kiteley C, Martelli-Reid L, Poling M, Cameron A, et al. Symptom management guide-to-practice: dyspnea. Canada: Cancer Care Ontario. 2010.
18. National Comprehensive Cancer Network. NCCN guidelines palliative care. Washington: National Comprehensive Cancer Network. 2011.
19. LeBlanc T, Abernethy A. Building the palliative care evidence base: lessons from a randomized controlled trial of oxygen vs. room air for refractory dyspnea. J Natl Compr Canc Netw. 2014;12(7):989-92.
20. Oncology Nursing Society. Putting evidence into pratice: Dyspnea. Pittsburgh: Oncology Nursing Society. 2012.
21. Farquhar MC, Prevost AT, McCrone P, Higginson IJ, Gray J, Brafman-Kennedy B, et al. Study protocol: Phase III single-blinded fast-track pragmatic randomised controlled trial of a complex intervention for breathlessness in advanced disease. Trials. 2011;12:130.
22. Doran D. Preface. In Doran D. (eds). Nursing-sensitive outcomes: state of the science. (pp. vii-ix). Suudbury, MA: Jones and Bartlett. 2003.