Abstract

**Objective:** To synthesize scientific literature published on the control of pain, exudation, odor and bleeding of neoplastic wounds.

**Methods:** This is an integrative review of the literature in the databases CINAHL, ScIELO, MEDLINE, LILACS and Portal of Periodicals of CAPES with articles that approached the theme. Twenty-two articles were included, of which 18 were written in the English language and three in the Spanish language, published between 2004 and 2016.

**Results:** From the articles studied, categories were constructed: Interventions for pain control; Interventions for the control of exudate; Interventions for the control of odor and Interventions for the control of bleeding.

**Conclusion:** Most of the studies were bibliographical research originating from opinions of authorities and/or reports of committees of experts in the area. Therefore, it is urgent to carry out randomized clinical trials.

Keywords

Cutaneous Ulcer; Injuries; Injuries; Nursing Oncology; Nursing Care.

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Introduction
In general, the process of carcinogenesis is responsible for uncontrolled cell proliferation, in which the cutaneous integrity is often broken and there is infiltration of malignant cells into the skin structures, causing the formation of neoplastic wounds. Those wounds can be treated as long as the cancer is in the initial phase and has healing possibilities. However, when the pathological process is advanced, the treatment of that type of cancer is not the most indicated; the conduct given those lesions is solely palliative, focusing only on the control of physical and psychosocial symptoms. [1-5]

Even with positive perspectives in general medicine and drug discoveries, both for cancer in general, as for its specificities, in 2015, the National Cancer Institute (INCA) estimated there will be about 596,070 new cases of the disease by 2016 and 2017. For INCA, in Brazil, the most common cancers are: non-melanoma skin cancer (175,760 thousand), prostate (61,200 thousand), breast (57,960 thousand), colon and rectum (34,280 thousand), lung cancer (28,220 thousand) and stomach (20,500 thousand). Similarly, the World Health Organization (WHO) projected some prospects for such disease, but drew attention to a serious situation: one expects 27 million new cases of cancer by 2030 worldwide and 17 million deaths from the disease, being developing countries the most affected, including Brazil. [6]

A more serious fact in the disease is that, according to researchers [3-5, 7-10] on the theme, from 5% to 10% of oncological patients probably develop wounds, whether due to primary tumor or metastatic tumors. The neoplastic wounds that affect the skin constitute not only an additional injury in the life of the oncological patient, because they progressively disfigure the body, become friable, painful, secretive, release a foul smell and often contribute to mutilation; those wounds affect psychological and social factors, which may interfere in interpersonal relationships with the medical staff, the family members and even the social circle.

Nevertheless, the subject-illness-care dynamics in relation to neoplastic wounds extends the problem to a more serious psychosocial ‘circumference’. It goes beyond the concrete factor of the disease; it is a constant visible reminder of the patient’s incurable pathology, poor prognosis and curative therapeutic failure and, most of the time, brings in his/her discourse in the relational environment of treatment, the condition, *sine qua non*, of the approaching death. [3-5, 11-15] Given such situation, the patient with that disease needs not only a drug treatment, but also professionals who act more empathically, especially represented by the nurse.

The nurse is an active member of a multiprofessional team, and is generally responsible for performing the treatments that require physical, affective and social contact. In this condition, nurses shall perform the dressing, since it is up to professionals in that area to develop skills and abilities that allow them to know and identify individual and/or social characteristics of patients with neoplastic wounds, in addition to implementing specific care related to them. In this sense, performing an effective, comfortable and aesthetically acceptable patient dressing is a challenge for the nurse, which would be contributing both to a more pleasant presentation of the patient in relation to his/her social image, as well as to satisfaction and awareness of what it is to be well treated.

In this perspective, not only the nurse’s technical and scientific knowledge is relevant, but also an emphasis on humanistic processes of interpersonal relationship. Emphasizing such conditions for the professional is to value a much greater knowledge on the properties, characteristics and classification of neoplastic wounds. If, on the one hand, technical-scientific knowledge supposes concrete subsidies to the treatment and to plan Nursing actions, considering the available and necessary human and material resources, on the other hand, developing
educational actions directed to the patient and carer can generate quality of life and work, capable of promoting significant improvements in the physical, psychological and social dimensions.

With this, it is important to know the scientific evidence on the interventions to control the main signs and symptoms of neoplastic wounds. Therefore, the following guiding question for this study emerged: what is the scientific production published in the literature on pain, odor, exudation and bleeding control of neoplastic wounds?

In this sense, the objective of this study is to synthesize scientific literature published on pain, odor, exudation and bleeding control of neoplastic wounds.

Method
In order to reach the objective, one chose the method of integrative review of the literature, since it presents the synthesis of multiple published studies, allows identifying, evaluating and synthesizing the knowledge produced on a specific area of study, aiming at the search of scientific evidences and the deepening of the subject for the clinical practice. [16]

In order to elaborate this review, the following steps were taken: identification of the guiding question of the research and study objective, establishment of inclusion and exclusion criteria for sample selection, literature search, data evaluation, data analysis, discussion and presentation of results.16

For the search in the literature, initially, there was identification of the theme and formulation of the guiding question. In this review, the guiding theme was control of pain, odor, exudate and bleeding control of neoplastic wounds. The following research question was used: What is the scientific production published in the literature on pain, exudate, odor and bleeding control of neoplastic wounds?

The PICO (Patient, Intervention, Control, Outcome) strategy was used to search for articles, which enabled the process of finding appropriate answers to the doubts arising from the practice. The components were described as follows: P - Patients with neoplastic wounds; I - Treatments available for pain, bleeding, exudate and odor control; C - Relation of benefit between existing treatments and/or no treatment; O - Pain, bleeding, exudate and odor control.

For the articles selection, one used the access to the Portal of Periodicals of the Coordination of Improvement of Higher Education Personnel (CAPES), in addition to the following databases: LILACS (Latin American Literature in Health Sciences), MEDLINE (National Library of Medicine and National Institutes of Health), CINAHL (Cumulative Index to Nursing and Allied Health Literature), SciELO (Scientific Electronic Library Online). The search in several databases aimed at broadening the scope of research and minimizing bias.

The articles were collected from October 2014 to November 2016, using the following keywords: “neoplastic wounds”, “tumor wounds”, “malignant wounds”, “vegetative wounds”, “cancer lesions”, “neoplastic lesions”, “tumor lesions”, “malignant lesions”, “malignant vegetative lesions”, “neoplastic ulcers”, “oncological ulcers”, “malignant ulcers”, “tumor ulcers”, “treatment”, “therapy”, “therapeutic modality”, “signs control”, “symptom control”, “signs and symptom control”, which were combined using the Boolean operator AND.

The following inclusion criteria were adapted: articles that addressed the treatment of neoplastic wounds and that answered the guiding question of this study; complete articles; available for free and electronically; in English, Spanish; published between 2004 and 2016. The exclusion criteria were: thesis, dissertations, monographs, course papers, case reports, experience reports, manuals, reviews, previous notes, editorials, letters to the editor, articles that did not contain abstracts available, duplica-
te publications and articles in vernacular language, since one observed, in preliminary readings, that the references contained in the national publications were from other countries.

For analysis and subsequent synthesis of the articles that met the inclusion and exclusion criteria, a form was used that was completed for each article of the final sample of the study. The form provided information on: 1) **Author**: identification data; 2) **Article**: title, journal’s name, year of publication, country of origin, field of knowledge; 3) **Methodology**: study sample, location and type of study; 4) **Main findings**.

The first selection of articles was carried out through the CAPES Portal and resulted in 669 studies (237 in CINAHL, 234 in SciELO, 105 in MEDLINE and 93 in LILACS) and was conducted by reading the abstracts, and the second selection, after reading the article in its entirety. From the fulfillment of the inclusion and exclusion criteria, there were 22 articles, distributed as follows: one in the LILACS database, two in SciELO, six in MEDLINE and 13 in CINAHL.

Fourteen researchers conducted the reading of the material, independently. The discussion phase of the main results found in the articles occurred through successive analysis and reflections about their contributions to clinical practice.

The interventions were grouped into four categories of assistance, were presented in the form of frames, analyzed according to their contents and discussed in a descriptive way.

**Results**

Among the 22 analyzed articles, 18 were published in English and three, in Spanish. As for the authorship, there was participation of professionals from different areas of knowledge; however, nurses participated in all articles. As for the year of publication, there was predominance in the years of 2006 and 2014 with four published articles each.

England had the highest concentration of articles, with six published articles. Another relevant factor was the greatest number of publications in periodicals destined to the wounds specialty, a fact already expected since both the physiopathology of neoplastic wounds as part of the therapeutic modalities for signs and symptoms control of those lesions closely associate with that specialty. Nevertheless, there were publications developed in dermatology, oncology and palliative care that reinforce the multidisciplinary interest on the subject.

Studies were classified into levels of evidence:

- **Level I**: evidence comes from systematic review or meta-analysis of all relevant randomized controlled trials or from clinical guidelines based on systematic reviews of randomized controlled trials;
- **Level II**: evidence derived from at least one well-delineated randomized controlled trial;
- **Level III**: evidence obtained from well-delineated clinical trials without randomization;
- **Level IV**: evidence from well-delineated cohort and case-control studies;
- **Level V**: evidence from a systematic review of descriptive and qualitative studies;
- **Level VI**: evidence derived from a single descriptive or qualitative study;
- **Level VII**: evidence from the opinion of authorities and/or expert committee reports.

Thus, the selected studies obtained the following classification according to the level of evidence: three were classified in Level I, five, in Level II and 14, in Level VII.

**Discussion**

The studies included in this review addressed measures to control signs and symptoms of neoplastic wounds in several anatomical regions. Next, **Frame 1** shows the interventions for pain control according to articles included in this integrative review.

Oncological patients always report pain as one of the worst aspects of life, especially in those with malignant skin wounds, affecting their quality of life. Various factors cause pain in the person with
neoplastic wound, including tumor pressure against adjacent structures, nerve damage caused by tumor enlargement and extension, edema resulting from decreased capillary permeability, nerve endings of the skin, infections, and Removal of coverages, especially those that adhere to the fragile surface of the lesion. [3-5, 21, 24]

In this context, assessing the intensity of pain and determining the underlying pathophysiological mechanism (nociceptive or neuropathic) are essential interventions in order to define the most appropriate treatment options. [3-5, 25]

Generally, patients with neoplastic wounds present mixed-pain conditions, in which the nociceptive and neuropathic components are present. For this reason, the World Health Organization recommends the Analgesic Pain Ladder as a guide to evaluate and treat that symptom, which uses non-opioid analgesics and non-steroidal anti-inflammatory drugs individually or in combination for pains considered mild. If the pain persists, weak opioids may be added and, in case there is therapeutic failure to relieve pain with the aforementioned combinations, strong opioids are used. [3-5, 25]

In addition to non-opioid analgesic, non-steroidal anti-inflammatory drugs and opioids, study [18] emphasized analgesic effect in patients with neuropathic pains when associated with adjuvant drugs, such as antidepressants, anticonvulsants and gabapentin.

It is important to emphasize that, in addition to the previously mentioned drugs, studies have been recommending some important measures to reduce pain, such as cleaning the lesion through irrigation or with Metzembaum tweezers [20], in order to avoid further tissue trauma. Furthermore, careful selection of covers with atraumatic and non-adherent interfaces have been widely used, in order to limit damage to the skin and, therefore, reduce pain at the time of dressing removal. [1] Another aspect worth highlighting is keeping the lesion bed moist, as it not only reduces the adherence of the dressing, but also protects the exposed nerve endings. [7, 21, 24]

Some studies [1, 3-5, 17, 22-23] highlight that local and systemic anesthetic agents present pain relief when conventional non-opioid and opioid analgesic treatments are refractory. Local anesthetics, such as lidocaine or the combination of lidocaine and benzocaine, may be injected around a nerve to produce nerve block, or topically applied to the wounds prior to dressing removal. Inhalational anesthetics contain 50% oxygen and 50% nitrous oxide, which provide rapid relief of pain, do not have long-term side effects; however, they have a short half-life. They are usually used during painful procedures, such as cleaning and dressing on extensive wounds.

Other options for pain relief are topical opioids and ibuprofen-based toppings. Opioids, such as morphine, oxycodone and meperidine macerated and mixed with hydrogel or saline solution placed on the lesion, are being widely used and have succeeded in ulcerated wounds. On the other hand, the ibuprofen-based toppings have been highlighted as clinically useful and safe, since, besides reducing pain, they reduce the inflammatory process of the lesion. [1, 3-5, 7, 18-19, 21, 23]

Study [17] stated having succeed in controlling pain by applying topical opioids (morphine tablet macerated and mixed with some hydrogel), ibuprofen-impregnated dressing, topical anesthetic (EMLA), and nitrous oxide in patients with neoplastic wounds. The results indicated that the topical use of opioids is safe because of the low doses used and the systemic absorption is minimal as well as the toxicity.

If there is therapeutic failure in all of the aforementioned measures, the palliative care team may consider analgesia associated with sedation and/or anti-algic radiation therapy. [2, 21]

Pain management is complex because it involves not only the pain itself, but also anxiety, anguish and apprehension related to the dressings. [17] In this sense, studies [19-20] emphasize the importan-
ce of complementary therapies in the treatment of pain in neoplastic wounds. Complementary therapies include massages, acupuncture, aromatherapy, relaxation therapy, psychotherapy among others.

**Frame 2** shows the interventions to control exudate, according to the articles included in this integrative review.

Exudation of neoplastic wounds relates to tumor inflammatory process, vasodilation and increased permeability of blood vessels within the tumor and secretion of vascular permeability factor by tumor cells. [1, 3-5, 17, 19, 24, 28]

Neoplastic wounds generally have large amounts of exudate and, when not effectively controlled, can serve as a culture medium for microorganism proliferation, which contributes to the development of bad odors and maceration of peripheral skin, which, in turn, contribute to the extension of the lesion. [1, 3-5, 17, 19, 28]

Moreover, excessive amounts of exudate may exceed the primary and secondary coverages, soiling the patient’s clothing, causing significant psychosocial problems for the patient, so the control of that symptom becomes urgent. [1, 3-5, 17, 19, 28]

In order to avoid bacterial proliferation, infectious process and bad odor, authors [20] have recommended cleaning the lesion with medicinal liquid soap or Polyhexamethylene biguanide (PHMB) [17] or using Octenisept-saturated gauzes [26] as the primary cover of exudative lesions that present an infectious process and a foul odor, since they observed a significant reduction of those signs and symptoms present in the wounds of the research subjects.

Unfortunately, despite technological advances in wound management, there are still no ideal dressing protocols for neoplastic wounds and the most advanced products and coatings available on the market do not fit the sizes and configurations of those lesions. Moreover, those products and coverages were developed with the objective of promoting moisture at the bed of the lesion and healing, and, therefore, are not suitable for neoplastic wounds, since those lesions do not present therapeutic possibilities of cure and healing, besides already being excessively humid. [28]

Some researchers [17-19, 21, 24, 27-28] have emphasized the hydration balance theory to facilitate exudate control and maintenance of wound bed moisture at an appropriate level, taking into account the specificities of each lesion. For this, it is necessary to use, *a priori*, non-adherent primary coverage, comfortable and able to release excess moisture to the secondary coverage; and, *a posteriori*, a highly absorbent, comfortable and aesthetically acceptable secondary cover as far as possible.

The coverages should be selected according to the amount of exudate produced by the lesion. Thus, authors [1, 3-5, 17-19, 24, 27-28] recommend for mildly exudative lesions, silicone covers, hydrogel, amorphous hydrogel and hydrocolloids; and hydrofibers, alginates, foams and collecting bags (colostomy-type) for wounds with high production of exudate. [1, 3-5, 17-19, 24, 27-28]

Patients with highly exudative lesions that overflow the secondary covering, soiling their clothes and causing embarrassment, can benefit by using menstrual absorbents [21] and/or superabsorbent pads. [17]

In addition to those products and coverages, study [21] recommends the use of starch copolymer, since its chemical composition - the starch - retains the exudate, preventing return to injury, and absorbs up to ten times the weight of the cover and leaves no residue when the cover is saturated.

Studies [18, 24] have been researching and recommending the use of 0.05% arsenic trioxide gel to control some symptoms of neoplastic wounds, especially exudate and odor. They based on a pilot study [30], which found that 0.05% arsenic trioxide gel applied one hour prior to radiotherapy and removed five minutes prior to radiation exposure for five weeks resulted in a reduction in the size of vegetative wounds, disappearance of superficial le-
sions, significant exudate reduction, odor reduction and pain control. Despite the small number of the sample, the results were positive in all subjects, who reported improvement in quality of life.

Another modality applied to control the symptoms of neoplastic wounds is electrochemotherapy, which consists of administering cisplatin followed by local application of electroporation impulses. Authors [29] observed increasing evidence of the efficacy of electrochemotherapy in terms of tumor volume reduction and a significant decrease in exudate and bleeding and, to a lesser extent, odor.

Frequent dressing changes can cause lesions in the periphery and consequent wound extension. In view of this scenario, authors19 recommend protecting this skin with silicone coatings, zinc oxide based products, hydrocolloid powders, creams with no alcohol in their chemical composition (barrier cream).

Frame 3 shows interventions to control odor, according to the articles included in this integrative review.

Odor in neoplastic wounds is the product of the final metabolism of anaerobic and aerobic bacteria, volatile fatty acids, such as acetic acid and putrescine and cadaverine gases, eliminated by the interaction of those bacteria, which colonize those lesions. [1-5, 18-19, 22, 24, 31, 34]

In this sense, it is worth mentioning that some factors influence the final metabolism of those bacteria, such as: necrotic tissue serving as growth medium; saturated fluid coverings and fragments of devitalized tissues and extension of ulcerated lesions with formation of fistulas. [28]

The odor causes a negative impact on the individual’s quality of life, as well as on family and caregivers, since it causes feelings of disgust and, with that, social isolation, humiliation and anguish. [1-5, 19, 22, 24]

In addition to the psychological and social repercussions, the foul odor triggers nausea to the patient him/her, which can trigger a progressive worsening of his/her nutritional status, progressing to the anorexia-cachexia syndrome, which will leave him/her in a state of major physical weakness. [1-5, 19, 22, 24]

Cleansing agents, such as chlorhexidine, octenisept and PHMB, are important products that help removing bacteria and reducing the foul odor of neoplastic wounds, since they present bactericidal and bacteriostatic action. Currently, they have been used in clinical practice, besides being widely recommended by specialists in the field of dermatology and stomatherapy, as well as regulatory departments for epidemiological actions and sanitary surveillance recognized nationally and internationally. [3-5, 17, 20, 26, 31]

For the treatment of foul odor in neoplastic wounds, metronidazole used systematically and/or topically has been referenced as gold standard, since it has efficacy in the relief of that symptom. Metronidazole is an imidazole that prevents bacterial replication through DNA binding. [1-5, 18-19, 21-22, 24, 31-32, 33-34]

Systematic reviews of the literature and other studies [33-34] highlight, besides metronidazole, to control odor, the use of activated charcoal [1, 18-19, 22, 32], curcumin ointment [18, 24, 29] and primary coverage impregnated with sodium chloride. [18, 21]

In this sense, it is worth mentioning the pharmacological action of the coverages recommended by the aforementioned study, namely: activated charcoal, curcumin ointment and sodium chloride impregnated coating.

Activated charcoal has been recommended [18, 33-34] to control odor in chronic wounds, such as neoplastic ones, since it presents bactericidal action, thus eliminating odors.

Curcumin is a phytochemical that exhibits pharmacological activities against cancer, yet unconfirmed by randomized scientific studies in humans. In preclinical animal tests, curcumin has shown chemo-preventive, anti-inflammatory and antineoplastic activities, since it acts by binding directly to
DNA and RNA and, from that interaction, inhibits tumor proliferation, metastases and angiogenesis, in addition to inducing apoptosis. [18, 34-36]

The primary coating impregnated with sodium chloride is a product with 100% cotton impregnated with crystals of sodium chloride, which creates a hypertonic medium, stimulating wound cleaning, removing excessive fluid and reducing interstitial edema. One believes that the hypertonic medium reduces the potential for bacterial proliferation. [18, 21, 34]

Another coating that has been recommended because of its ability to reduce bad odor is the dressing impregnated by ions or silver nanocrystals, which act as an antimicrobial barrier, releasing silver ions faster than ordinary silver. It is effective against more than 150 pathogens including *Pseudomonas, MRSA* and *VRE*. [17, 24, 31-32]

The iodine cadexomer has been investigated [21, 31] and used for the treatment of exudative neoplastic wounds that exude bad odor. It consists of crosslinked polysaccharide starch formed by microparticles containing 0.9% elemental iodine, which, in contact with the exudate, forms a gel, keeping the moist environment on the surface of the lesion. Its ability to absorb high levels of exudate reinforces the argument for its use in neoplastic wounds.

Research [38] performed using primary coverage of ionized hydrogel and hydrocellular foam as secondary coverage in patients with neoplastic wounds observed a significant reduction of exudate and odor, in addition to the relief of pain episodes mentioned by patients. The ionized hydrogel is a gel whose pharmacological purpose is to maintain the surface of the lesion wet and absorption of high levels of exudate.

Essential oils are generally used in aromatherapy and, currently, have been used in the topical treatment of neoplastic wounds with a foul odor, since they have been achieving therapeutic success in controlling that symptom. That effect results from the complex nature of the constituents of those oils - polyphenols, terpenoids and flavonoids -, which present antimicrobial, phagocytic and cicatricial activity when used directly in the wound [19, 24, 35-36]. It is noteworthy that robust clinical studies have not yet been performed using essential oils; however, authors [35-36] have reported positive results from the use of those oils in eradicating bad odor from neoplastic wounds.

Frame 4 shows the interventions to control bleeding, according to articles included in this integrative review.

Bleeding in neoplastic wounds relates to adjacent pathophysiology and factors associated with malignancy, such as thrombocytopenia and disseminated intravascular coagulation (DIC). [1-5, 7, 18, 21, 24] Bleeding becomes common due to tumor growth and angiogenesis, leading to a physiological imbalance, leading to ruptures of the main capillaries located in the tumor. Besides those ruptures, the bleeding also occurs due to radiotherapy treatments and removal of dressings. [7]

In this sense, it is recommended, as a priority, using non-adherent coatings, such as silicone, in order to avoid adhesion on the lesion bed and possible bleeding during dressing changes. Non-adherent dressings are applied directly over the lesion bed and do not cause significant traumas at the time of removal, and require secondary coverage. Other important factors that should be emphasized to prevent bleeding are irrigation with saline solution from the previous dressing (when adherent coverings are used) and wound cleaning with the irrigation technique. [1-5, 7, 18, 21, 24, 29]

However, since neoplastic wounds are friable, the health professional can use several modalities, depending on the degree of blood flow that the lesion is presenting (spontaneous or profuse, for example). In that sense, a variety of hemostatic agents can be applied topically and/or systemically to control bleeding, which vary according to the application and pathophysiological mechanisms. [1-5, 7, 18, 21, 24, 29]
Thus, hemostasis is the combined effect of several mechanisms that prevent or limit bleeding after injury to a blood vessel. In this concept, two basic functions of hemostasis incorporate: restraint, which is preventing bleeding and fluidity, that is, preventing thrombosis, allowing free circulation of liquid mass. One uses hemostatic to cease hemorrhage in clinical practice, which constitutes a heterogeneous set of measures that include physical, chemical and biological actions that, associated with the physiological mechanisms, enable stopping the bleeding.

In this context, for minor bleeds, studies recommend local pressure and the use of ice packs directly on the lesion [7, 18, 21, 24], and sclerosing agents, such as directly applying silver nitrate to small-bleeding blood vessels. [1, 19, 21-22.24]

On the other hand, for moderate bleeding, studies repair natural hemostatic dressings, such as calcium alginate [1, 3-5, 17-19, 21, 24]; sodium alginate [1]; collagen-based dressing and oxidized regenerated cellulose [1, 19, 21, 24]; coagulant agents, such as surgical hemostatic sponges [1-5, 21-22, 24] and topical thrombin [1, 7, 22, 24]; astringent solutions, such as sucralfate paste (dilution mode: 1 macerated tablet of sucralfate in 5 ml of SS 0.9%) [1, 3-5, 7, 21, 24]; alum solution applied directly on the lesion or gauze saturated with the solution [1]; vasoconstricting agents, such as adrenaline, applied on the lesion after dilution or putting gauze saturated with the diluted solution in direct contact with the lesion. [2-5, 19, 21-24]

In the case of profuse bleeds, studies recommend antifibrinolytic agents, such as tranexamic acid, aminocaproic acid and coagulation factors, such as vitamin K, which can be used in a systemic way [1-5, 22, 24]; therapeutic embolization; intra-arterial infusion of chemotherapeutic agents [1, 19, 21-22, 24]; bleeding vessel suture; laser treatment and/or electric cauterization of the vessel [1, 19, 24] and anti-hemorrhagic radiotherapy in ulcerous wounds. [1-5, 21-22-24]


A massive bleeding is very painful for the patient and his/her family, not only because of the bleeding, but especially because the profuse loss of blood can cause the patient’s impending death. In this sense, a strategic plan should be developed along with the patient and his/her family when considering such event as a possibility. After a careful assessment of the patient’s circumstances, the plan should include: an explanation of the possibility of profuse bleeding for caregivers and family; guidelines about the attitudes that the family should perform at the moment of bleeding; leaving near the patient’s bedside dark-colored towels and a basin [2, 24, 41]; preparing an emergency kit, including sedative drug; access to the emergency transport service and open communication lines with appropriate specialized centers where emergency can be quickly called. [7]

**Conclusions**

The interest in neoplastic wounds is still scarce, as some scholars have tried to discover, through their research problems, measures that may contribute to the comfort and improvement of the quality of life of patients suffering from those wounds, at any stage, considering the demographic and social varieties relevant to each group.

Based on the exposed, the evaluated studies demonstrated the use of a variety of products, substances and coverage that are being researched and used for the treatment of neoplastic wounds. Those researches are relevant because they seek alternatives that contribute to control pain, exudate, odor and bleeding of neoplastic wounds, providing comfort and dignity to oncological patients, especially those who are at the end of life.
In general, most of the studies analyzed in this integrative review of the literature were bibliographic researches originating from opinions of authorities and/or report of committees of specialists in dermatology and/or stomatherapy; therefore, they are not sources of evidence applicable to the clinical practice, but rather, evidence demonstrating the need for randomized clinical trials.

It is important to develop studies whose results may give health professionals, especially nursing professionals, the elaboration and implementation of protocols to control signs and symptoms of neoplastic wounds, aiming to provide advanced cancer patients a comprehensive, dignified and respectful care to improve their quality of life.

References


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