

ORIGINAL ARTICLE

<https://doi.org/10.61910/ricm.v9i2.457>

Work overload and lack of professional experience: pressure injury as a challenge in managing patients in prone position during COVID-19

LARISSA VIANA ALMEIDA DE LIEBERENZ¹ , LARYSSA ARYADNE ALVES OLIVEIRA² , CARLA APARECIDA DE CARVALHO³ ,
CLARA BARBOSA MAGALHÃES⁴ , MIKAEL JAFFAR TANURE MACHADO⁴ , YAN GUALBERTO LOUREIRO⁵ ,
GLEISY KELLY NEVES GONÇALVES¹ ,

¹PROFESSOR AT THE FACULDADE CIÊNCIAS MÉDICAS DE MINAS GERAIS - BELO HORIZONTE, MG - BRAZIL

²NURSE AT THE FACULDADE CIÊNCIAS DA VIDA - SETE LAGOAS, MG - BRAZIL

³PROFESSOR OF THE NURSING COURSE AT THE FACULDADE CIÊNCIAS DA VIDA - SETE LAGOAS, MG - BRAZIL

⁴ACADEMIC OF THE PSYCHOLOGY COURSE AT THE FACULDADE CIÊNCIAS MÉDICAS DE MINAS GERAIS - BELO HORIZONTE, MG - BRAZIL

⁵MEDICAL STUDENT AT THE FACULDADE CIÊNCIAS MÉDICAS DE MINAS GERAIS - BELO HORIZONTE, MG - BRAZIL

CORRESPONDING AUTHOR: YAN GUALBERTO LOUREIRO, (+55) 35 98867-1768 - EMAIL: YANLOUREIRO2003@GMAIL.COM

ABSTRACT

Introduction: Pressure injuries are consequences of tissue damage to a patient's skin due to a long period spent in the same position, which is a problem when dealing with patients in intensive care units (ICUs). This situation has worsened due to the COVID-19 pandemic, amid the need to keep the patient in a prone position for long periods. Based on this reality, the question was asked: what are the challenges faced by the ICU healthcare team in managing patients in the prone position during COVID-19? **Methods:** Data was collected through interviews with 10 professionals from a multidisciplinary team, using a semi-structured script, and through non-participant observation of how care is provided to patients in the prone position. The data were investigated according to thematic content analysis - Bardin Analysis. **Results:** Two categories were listed after coding: "Challenges faced by the healthcare team in assisting patients in the prone position: reflections of the pandemic" and "Management of patients in the prone position and the imperative of pressure injuries." **Conclusion:** From this, it can be concluded that the main challenges are related to work overload and the lack of experienced professionals to manage patients in the prone position.

Keywords: Pressure injury; Prone position; Patient care team; Intensive care unit; Adverse events.

Abbreviations: intensive care units (ICUs);

INTRODUCTION

In 1976, Margaret Piehl first mentioned the use of the prone position (PP) or ventral decubitus and observed an improvement of up to 30 mmHg in the respiratory pattern of patients with Respiratory Distress Syndrome, when they underwent consecutive changes of decubitus between PP and supine position. The effectiveness of proning the patient was also demonstrated by the publication *Prone Positioning in Severe Acute Respiratory Distress Syndrome Patients*, which showed that PP promotes decompression of the lungs and allows for improved ventilation in patients¹. Based on such evidence, the American Association of Critical-Care Nurses, along with the Brazilian Association of Intensive Medicine, recommend that patients with respiratory distress syndrome remain in PP for at least 16 hours. In addition, according to clinical findings through monitoring, if necessary, the patient can be subjected to up to 30 hours in ventral positioning². Currently, PP has been widely used due to the high demand of patients using invasive mechanical ventilation (IMV) due to the COVID-19 pandemic, which triggers an acute inflammatory pulmonary reaction and leads to Severe Acute Respiratory Syndrome (SARS). This syndrome causes abrupt hypoxemia and generates, on average, 46% of deaths in the severe form of the disease¹. Thus, the prone position represents, hypothetically, a possibility of mitigating the chances of occurrences such as SARS and, consequently, death due to such pulmonary inflammatory reaction. Despite being a necessary and effective intervention, pressure ulcers can often be considered a complicating factor in patient care since they involve possible complications, such as complications in the management and performance of cardiopulmonary resuscitation (CPR) maneuvers in episodes of cardiopulmonary arrest (CPA), difficulty in puncturing venous access, whether peripheral or central, tissue ischemia, accidental extubation, and facial

edema, so that, to avoid them, the patient must be reassessed every six hours³.

Another frequent complication is pressure injury (PI), which occurs due to the patient remaining in the same position for a long time and difficulties in changing position to relieve pressure. In this regard, Pachá et al.⁴ emphasize that the care service of a multidisciplinary team is essential in prevention and treatment.

According to Mitchell and Seckel⁵, the guidelines for professionals to perform pressure ulcers did not include everyone who provided care to the patient. However, this guideline was revised and brought to light the autonomy and assiduous participation of each member of the multidisciplinary team: doctors, nurses, nursing technicians, and physiotherapists, to jointly structure a management plan for that patient subjected to such positioning to assist him/her fully. Therefore, it can be observed that the management of the patient in PP requires a specialized and multidisciplinary team, which together minimizes unexpected events through the development of protections, cushions, dressings, and checking of tubes and catheters, intending to provide an efficient service that directly impacts the prevention of complications, such as PU. PUs are processes of tissue damage to the patient's skin due to a long period of remaining in the same position. The emergence of such injuries occurs due to the influence of factors intrinsic and extrinsic to the situation, such as nutritional status, including obesity and malnutrition, comorbidities, dehydration, shear, and friction, in addition to the main cause, the lack of change in position⁷. Considering that PU is a potentially existing problem in ICU patients, it is clear that the team routinely intervenes in changing the positions of these patients to alleviate the impacts caused by the lack of mobility, avoiding this type of injury. Thus, the lower prevalence of PU in a given sector can qualify the care provided⁴.

Since the emergence of the new coronavirus and the use of PP by patients with SARS, many studies have been carried out. However, most of them address nursing care⁸⁻¹¹ and not the health team, which is the focus of the present study. Thus, considering that a patient can remain in PP for up to 30 consecutive hours, this study is relevant to understanding the perception and importance of preventing PU, intending to improve the quality of care.

Because of the scenario presented, this study aims to investigate and understand the challenges faced by the multidisciplinary team in managing patients in PP in the context of the COVID-19 pandemic and, based on this, develop strategies to prevent PU.

METHODS

Study design

This is a qualitative and interpretative case study since the research aims to deepen studies in a specific location, evaluate specific knowledge, and interpret behaviors carried out where the profession is practiced.¹² The study setting was the ICU of a medium-sized private hospital in a city in the interior of Minas Gerais, intended for the care of adult patients with serious clinical conditions, including COVID-19. The location has 10 beds and has a multidisciplinary team.

Participants

The research consisted of 10 participants: two (02) nurses, four (04) nursing technicians, two (02) doctors, and two (02) physiotherapists. Their ages ranged from 24 to 45 years. Three (03) participants were male and seven (07) were female. Regarding the time since professional training, a variation between five (05) and 20 years was observed, and the time working in the ICU varied between six (06) months and seventeen (17) years. The inclusion criteria considered were professionals who were part of the staff on the collection date and who had been allocated to the sec-

tor for at least six months so that they knew the reality of caring for people in PP. And as exclusion criteria: professionals who, at the time of data collection, were away from work for any reason.

Instruments

Two sources of evidence were used to collect data: non-participatory observation during care for prone patients diagnosed with COVID-19 and audio-recorded interviews guided by a semi-structured script. To conduct the research, observations were recorded in a field diary, without the observers interfering in the conduct of professionals in managing patients. Through the semi-structured interview, the professional found more possibilities to expose the reality experienced. A pre-test was carried out to validate the interview script, and no adaptations were necessary.

Procedures

The data obtained were analyzed using the thematic content analysis proposed by Bardin¹³. This can be defined as a set of methodological instruments constantly being improved and used to evaluate different sources of content, whether verbal or non-verbal¹⁴. After analyzing and reflecting on the data collected, a coding matrix was created, and after analysis, two final categories were identified: "Challenges faced by the health team in assisting patients in the prone position: repercussions of the pandemic" and "Management of patients in the prone position and the imperative of pressure injuries." The project was approved by the Ethics Committee via Plataforma Brasil (opinion number: 5,526,134). The Informed Consent Form (ICF) was given to the interviewees and read to them, and they signed two copies of the same content. The principles of resolution 466/2012 and 510/201629, which include ethical guidelines for research involving human beings, were respected, and anonymity was guaranteed by identifying the pro-

professionals as: P1 (Professional 1), P2 (Professional 2), and so on. Observation notes were identified as NO.

Statistical analysis

The statistical analysis of the study is based on the characterization of the sample and the thematic categorization of the collected data, providing a detailed understanding of the qualitative aspects of patient care in the prone position in the context of the pandemic.

RESULTS

The main challenges reported by the healthcare team interviewed regarding patient care in PP were changes in the scenario due to the COVID-19 pandemic, work overload, patient intolerance to PP, and lack of experience among professionals. On the other hand, the group reported that teamwork was strengthened, and new members began to be included in the healthcare team.

Another challenge mentioned by the interviewees was the lack of experience of some professionals in the sector. Although PP was known to most participants, it was not routine in the ICU. As a result, the risk of adverse events increased significantly.

DISCUSSION

Challenges faced by healthcare teams in providing care to patients in the prone position: effects of the pandemic

One of the challenges highlighted by the participants in the study is related to the change in the ICU scenario due to COVID-19. The ICU has undergone several transformations due to the public calamity situation resulting from the pandemic. In the ICU analyzed, it was possible to observe that COVID has significantly changed the routine of the sector, I believe that all sectors have intensified care, it was very different from anything we had experienced (P7).

All this transformation has caused an overload of work for the team and directly affected the provision of care by healthcare professionals. Thus, these professionals have faced overcrowding in hospitals, absenteeism of colleagues in the sector, and even rationing of supplies. This led to increases in working hours and greater demands for shifts to cover the shortage of staff 17. Professional 7 states:

The pandemic was something new, and at the same time it was something new that we had to learn to deal with, it also caused a huge overload in care, due to the demand from these patients (P7).

In addition to changing the entire flow and routines of the sector, the pandemic required an increase in the number of workers in the ICU and the inclusion of new professional categories in the team, due to the exacerbation of hospitalized patients. For example, the physiotherapist who, before the pandemic, worked shorter hours and did not assist all hospital sectors became essential in the care of COVID-19 patients. This can be seen in the statement of professional 2:

So, the prone position is the responsibility of the physiotherapist, of course, together with the medical team, to define whether it is necessary or not, but as a reference we have the perfusion or oxygenation index (P2).

This data corroborates the findings of Zambom and Gresik.¹⁹, who demonstrated the need for physiotherapist assistance to patients confined to bed. This professional will manipulate the patient through motor and respiratory exercises.

Monteiro et al.²⁰ state that the prone position has been highlighted due to the great recovery of individuals affected by COVID-19. This position is favorable to the alveolar expansivity. Once in the prone position, the patient has relief in the dorsal region, which allows greater oxygen flow and, consequently, respiratory improvement. The ICU team recognizes the im-

portance of the prone position in the care of patients with COVID-19:

The prone position, therefore, has undoubtedly greatly helped reduce mortality and increase survival expectancy (P2).

According to Moralez and Bermúdez (2020), PP increases patient survival by increasing alveolar activity, improving oxygen circulation in the body, increasing capillary permeability, and consequently, providing more nutrients in the bloodstream. However, it was noted that some patients do not tolerate PP, and their ventilatory parameters become hemodynamically unstable.

However, Guirra et al.²¹ argue that although PP is an instrument for improving alveolar expansivity, it can become a factor that undermines patient safety in terms of adverse events, which can trigger the exteriorization of tubes, probes, and the appearance of PU.

Another point observed in the research referred to the weight of the hospitalized patient since obese patients have a greater chance of worsening due to COVID-19. According to Borges et al.³, hospitalization of a COVID-19 patient with a BMI greater than or equal to 30 kg/m² increases the risk of mortality and the development of PU.

The patient's body type also interfered, such as the belly, how it looked when the patient was obese, and if they had to lift their torso, so this had to be taken into consideration (P3).

This difficulty was also reported by Araújo et al.¹ as a challenge for the team in providing care to obese individuals. Thus, it was observed that most patients allocated to the ICU were overweight, resulting in increased pressure on the patient's chest, increasing the risk of PU.

To prevent complications such as these, an organized and coordinated multidisciplinary team must assist unstable patients. As observed in the speech of professional ⁸:

In the ICU, if there is no teamwork, we cannot do anything. Everything must be done as a team, regardless of what we do (P8).

Therefore, with the instability of prone patients, the need for professionals from different specialties to work was perceived. Thus, there was an articulation of knowledge and a meeting through multidisciplinary work for the expected purpose: restoring the patient's health, as indicated by Huespe ¹⁵. This can also be noted with the participation.

The management of patients in the prone position and the imperative of pressure injuries:

PP is known to be effective for a positive pulmonary response. However, despite being efficient, it has become the main culprit for the appearance of adverse events in patients ²², such as PU, impaired nutrition, foul odor, and deformations of the face and chest, in addition to the difficulty in handling invasive devices. As identified by participant ¹⁰:

Regarding the adverse events of patient exposure in the prone position, our main position was skin rupture (P10).

It can be inferred that the most serious sequelae of pronation is the appearance of PU, in line with the findings of Lopes et al. ⁷ who state that the patient kept in the same position for consecutive hours can trigger cellular hypoxia, leading to injuries.

However, despite being a good option for some atelectasis, PP brought challenges related to the integrity of the patient's skin. In this sense, the risks and benefits of the position must be weighed, in addition to adjusting the procedures to reduce adverse events, as reported in the interview:

Then we dressed the wound, as it was indicated, for that type of wound, unfortunately it was a risk-benefit (P7).

In addition, the long stay of the patient in the prone position makes it impossible to perform basic care such as diaper changes and intimate hygiene, which results in skin damage. The care needed to be modified during the pandemic, as reported:

We ended up doing 36 hours of prone positioning with the patient and handling is very little, because you only move the head, you only rotate the head. So, this caused skin lesions due to this long time. So, over time we had to adapt the position better (P7).

In this sense, it can be observed that the prone position, when applied for prolonged periods, brings with it clinical problems, such as lesions resulting from this decubitus, generating a limitation of care and anxiety in the team when experiencing these situations².

Studies conducted by Singer, Pichard and Waele²³ demonstrated that patients in the prone position did not receive bed baths due to the need to remain in this position. Pereira and Nogueira²⁴ also discuss the importance of the nursing team in developing personal hygiene actions for patients allocated to the ICU with prolonged hospitalization and restricted handling.

In addition to odor, edema and facial deformations were shown to be another imperative in managing patients in the prone position. The study by Simão et al. (2021) identified that care for prone patients must be performed and supervised, as these patients will spend a long time with the weight of their body on a sensitive and injury-prone region, such as the face. Therefore, the multidisciplinary team must list a care plan that includes preventing or reducing pressure on these points and thus avoid facial deformations and edema in the eyelids, lips, and neck. Furthermore, a new condition experienced by the interviewees refers to the management of PUs related to medical devices, such as indwelling urinary catheters or central venous access. According to Galletto et al.²⁵, if there is no me-

ticulous care and prior knowledge of the correct management of materials and articles related to the care of this patient, the patient will be subject to injuries due to poor positioning. A similar situation was reported by participant P1:

A cushion was positioned at the patient's hip level, but no one had noticed that the indwelling urinary catheter was low, which caused another injury due to the pressure of the body between the catheter and the cushion (P1).

Guirra et al.²¹ show that PUs do not occur only as a result of shearing, friction, and exposure to a single positioning. Skin rupture can also arise because of improper handling by doctors, causing iatrogenesis by the multidisciplinary team.

In this sense, management aimed at preventing and/or minimizing the appearance of PUs is necessary, such as the use of cushions, special coverings (silicone-coated polyurethane foams), and the use of a pneumatic mattress to help distribute body pressure and avoid shear forces. However, even with the use of preventive measures, the appearance of PUs was observed, as reported by P1:

No matter how much we put a cushion and such, it still hurts, the hydrocolloid plate helped a lot at the beginning, then the transparent film, but it still hurts (P1).

All ICU beds had a pneumatic mattress, and coverings to protect bony prominences were available, although they were not the most suitable for preventing PUs, as they consist of hydrocolloid or transparent film, instead of foam.

Brant (2020) found that 37.5% of patients who used a pneumatic mattress had better pressure interruption and progression in treatment wound care. Alternating pressure points helps prevent PU. In addition, the lit-

erature suggests replacing hydrocolloid and transparent film with foams, such as polyurethane adhesive with silicone, which controls pressure, friction, and shear. However, pressure relief every two hours remains the most effective method.

Using prophylactic multilayer silicone foam dressings has become popular in preventing PU. Peko, Barakat-Johnson, and Gefen found that their use concealed tension in soft tissues, especially on the forehead, in up to 71%.

The lack of trained professionals impacts the prognosis of patients with PU. During bed overload, time for training was limited. The management of PU in prone patients in the ICU involves risks and benefits, with difficulty in handling, nutritional losses, foul odor, edema, surface deformations, and medical devices standing out as causes of PU. Changing the position, using a pneumatic mattress, and using appropriate coverings are recommended.

Limitations

The study has limitations, such as a small sample size and collection in a medium-sized private hospital in Minas Gerais, which may compromise the reproducibility of the results. In addition, semi-structured questionnaires may have generated recall bias

CONCLUSION

This study aimed to understand the challenges faced by the ICU healthcare team in managing patients in the prone position during the pandemic. Thus, it was possible to identify that these challenges were related to the change in the care scenario, work overload, lack of experienced professionals, need for new professionals, teamwork, patient intolerance to the prone position, obesity, and nutrition.

Regarding the management of patients in the prone position, assessing the risks and benefits of this positioning was necessary. The long stay in the position was a factor that made it difficult to provide care, personal hygiene, nutrition, and management of invasive medical devices such as probes and catheters. The prone position predisposed to PU, with foul odor, edema, and deformation of the face and chest. Given the importance of preventing PU in these patients, adopting a focused prevention strategy, including skin assessment and care, discharge and redistribution of pressure, and dressings for prevention, can contribute to reducing the incidence and prevalence of these largely preventable wounds. Thus, the assumptions of this research were confirmed since the participants reported difficulty in managing patients in PP. In addition, there was no training for the team regarding this procedure since, due to the pandemic, there was no time to train professionals.

One limiting factor of this study is the difficulty in conducting the interviews due to the adaptation of schedules resulting from the current COVID-19 pandemic. It is suggested for future research the longitudinal monitoring of these patients with PU due to PP both in the inpatient unit and after hospital discharge.

REFERENCES

1. Araújo MSD, Santos MMPD, Silva CJDA, Menezes RMPD, Feijão AR, Medeiros SMD. Prone positioning as an emerging tool in the care provided to patients infected with COVID-19: a scoping review. *Rev Lat Am Enfermagem*. 2021;29:e3397.
2. Santos VB, Aprile DCB, Lopes CT, et al. COVID-19 patients in prone position: validation of instructional materials for pressure injury prevention. *Rev Bras Enferm*. 2021;74(suppl 1):e20201185.
3. Borges DL, Rapello GVG, Deponti GN, Andrade FMDD. Posição prona no tratamento da insuficiência respiratória aguda na COVID-19. *ASSOBRAFIR Ciênc*. 2020;11(Supl1):111.
4. Pachá HHP, Faria JIL, Oliveira KAD, Beccaria LM. Pressure Ulcer in Intensive Care Units: a case-control study. *Rev Bras Enferm*. 2018;71(6):3027-3034.
5. Mitchell DA, Seckel MA. Acute Respiratory Distress Syndrome and Prone Positioning. *AACN Adv Crit Care*. 2018;29(4):415-425.
6. Oliveira VM, Piekala DM, Deponti GN, et al. Safe prone checklist: construction and implementation of a tool for performing the prone maneuver. *Rev Bras Ter Intensiva*. 2017;29(2).
7. Lopes TF, Fernandes BKC, Alexandre SG, Farias FS, Day TC, Freitas MCD. Medicines and its relation to the development of pressure injury in hospitalized-elderly people. *Rev Pesqui Cuid É Fundam Online*. Published online January 10, 2020:222-226.
8. Bargas-Munárriz M, Bermúdez-Pérez M, Martínez-Alonso AM, García-Molina P, Orts-Cortés MI. Prevention of pressure injuries in critically ill children: A preliminary evaluation. *J Tissue Viability*. 2020;29(4):310-318.
9. Kebapcı A, Kütük K, Eker E. Case study: An older COVID -19 patient in a Turkish intensive care unit with prolonged stay. *Nurs Crit Care*. 2022;27(5):628-634.
10. Moore Z, Patton D, Avsar P, et al. Prevention of pressure ulcers among individuals cared for in the prone position: lessons for the COVID-19 emergency. *J Wound Care*. 2020;29(6):312-320.
11. Rodríguez-Huerta MD, Díez-Fernández A, Rodríguez-Alonso MJ, Robles-González M, Martín-Rodríguez M, González-García A. Nursing care and prevalence of adverse events in prone position: Characteristics of mechanically ventilated patients with severe SARS-CoV-2 pulmonary infection. *Nurs Crit Care*. 2022;27(4):493-500.
12. Herrick JB. Selenium-tocopherol in veterinary medicine. *Vet Med Small Anim Clin VM SAC*. 1975;70(12):1455-1460.
13. Bardin L. *Análise de conteúdo*. Edições 70; 2011.
14. Guerra FM, Moreno-Dorado FJ, Jorge ZD, Massanet GM. Toward the synthesis of thapsigargin: enantioselective synthesis of 7,11-dihydroxyguaianolides. *Org Lett*. 2006;8(13):2879-2882.
15. Huespe IA, Marco A, Prado E, et al. Changes in the management and clinical outcomes of critically ill patients without COVID-19 during the pandemic. *Crit Care Sci*. 2021;33(1).
16. Malta DC, Szwarcwald CL, Barros MBDA, et al. A pandemia da COVID-19 e as mudanças no estilo de vida dos brasileiros adultos: um estudo transversal, 2020. *Epidemiol E Serviços Saúde*. 2020;29(4):e2020407.
17. Jensen BB, Pinheiro FG, Meireles SDF, eds. *A Pluralidade Do Conhecimento Na Saúde, Na Educação e Na Tecnologia*. Editora Poisson; 2021.
18. Nunes MR. A atuação do enfermeiro em unidade de terapia intensiva na pandemia de COVID-19: relato de experiência. *Rev Eletrônica Acervo Saúde*. 2020;12(11):e4935.
19. Zambom DDA, Nascimento AL, Gresik KRC. O PAPEL DO FISIOTERAPEUTA DENTRO DA EQUIPE MULTIDISCIPLINAR EM UNIDADES DE TERAPIA INTENSIVA. In: *Fisioterapia Na Saúde Coletiva: Perspectivas Para a Prática Profissional*. 1st ed. Editora Científica Digital; 2020:226-233.
20. Monteiro WLDS, Castro NSD, Oliveira PSD, Sobrinho NDP, Pereira GL. Medidas para prevenção de lesão por pressão associada à posição prona durante a pandemia de COVID-19: Revisão integrativa da literatura. *Res Soc Dev*. 2021;10(6):e7110614430.
21. Silva Bezerra Da Guirra P, De Souza Gomes J, Silva Biliu K, Vilanova MedVed I, Cunha De Almeida V. Manejo do paciente com COVID-19 em pronação e prevenção de Lesão por Pressão. *Health Resid J - HRJ*. 2020;1(2):71-87.

22. Scholten EL, Beitler JR, Prisk GK, Malhotra A. Treatment of ARDS With Prone Positioning. *Chest*. 2017;151(1):215-224.
23. Singer P, Pichard C, De Waele E. Practical guidance for the use of indirect calorimetry during COVID 19 pandemic. *Clin Nutr Exp*. 2020;33:18-23.
24. Pereira EDJ, Nogueira MS. Atuação do enfermeiro na prevenção da lesão por pressão em pacientes acamados: revisão de literatura. *Rev Eletrônica Acervo Saúde*. 2020;(49):e3332.
25. Galetto SGDS, Nascimento ERPD, Hermida PMV, Malfussi LBHD. Medical Device-Related Pressure Injuries: an integrative literature review. *Rev Bras Enferm*. 2019;72(2):505-512.
26. Di Piero KC, Pontes ARDS, Cardinelli CC. Espuma de silicone na prevenção de lesão por pressão por máscara PFF2 (N95) na pandemia de Coronavírus. *Res Soc Dev*. 2021;10(5):e47510515166.
27. Peko L, Barakat-Johnson M, Gefen A. Protecting prone positioned patients from facial pressure ulcers using prophylactic dressings: A timely biomechanical analysis in the context of the COVID-19 pandemic. *Int Wound J*. 2020;17(6):1595-1606.
28. Hotaling, Patricia; Black, Joyce. Ten top tips: palliative wound care. *Wounds International*, [S.l.], v. 9, n. 3, p. 16-20, 2018
29. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 466, de 12 de dezembro de 2012. Aprova as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. *Diário Oficial [da] República Federativa do Brasil*, Brasília, 12 dez. 2012 Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 510, de 7 de abril de 2016. Dispõe sobre os princípios éticos das pesquisas em ciências humanas e sociais. *Diário Oficial [da] República Federativa do Brasil*, Brasília, Seção 1. p. 44-46.

THE AUTHORS DECLARE THAT THERE IS NO
CONFLICT OF INTERESTS IN RELATION TO THIS ARTICLE.