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NURSING DIAGNOSES AND INTERVENTIONS IN PATIENTS WITH CHRONIC WOUND IN PRIMARY AND SECONDARY CARE

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ABSTRACT

Objective: To identify nursing diagnoses and interventions related to patients with chronic wound produced by a specific system in primary and secondary care. **Method:** Descriptive study conducted between July and October 2022. We used data from the Systematization of Nursing Care in Wounds–anagerial (SAEFg) system. The study was approved by the Ethics and Research Committee, under Opinion no. 4.329.008/2020. **Results:** There were 314 records of diagnoses and 1,300 of nursing interventions. The main nursing diagnoses were: venous ulcer (17.6%), impaired wound healing and anxiety (7.6%), risk of falling (7.1%), risk of infection (6.7%), and pruritus (6.4%). The interventions were: prescribe/guide leg elevation (9.3%), guide not to scratch or use abrasive products (8.3%), examine skin conditions (7%), and describe/document wound characteristics (5.5%). **Conclusion:** The main nursing diagnoses and interventions were about tegumentary, emotional and risk aspects such as fall and infection. The highest occurrence of records was in secondary care.

DESCRIPTORS: Nursing process. Enterostomal therapy. Wounds and injuries. Nursing diagnosis.

DIAGNÓSTICOS E INTERVENÇÕES DE ENFERMAGEM EM PACIENTES COM FERIDA CRÔNICA NA ATENÇÃO PRIMÁRIA E SECUNDÁRIA

RESUMO

Objetivo: Identificar os diagnósticos e as intervenções de enfermagem relacionados a pacientes com ferida crônica produzidos por um sistema específico na atenção primária e secundária. **Método:** Estudo descritivo, quantitativo, realizado entre julho e outubro de 2022. Utilizaram-se os dados do sistema Sistematização da Assistência de Enfermagem em Feridas – gerencial (SAEFg). O estudo foi aprovado pelo Comitê de Ética em Pesquisa sob Parecer nº 4.329.008/2020. **Resultados:** No total, foram 314 registros de diagnósticos e 1.300 de intervenções de enfermagem. Os principais diagnósticos de enfermagem foram: úlcera venosa (17,6%), cicatrização da ferida prejudicada e ansiedade (7,6%), risco de queda (7,1%), risco de infecção (6,7%) e prurido (6,4%). As intervenções foram: prescrever/orientar a elevação das pernas (9,3%), orientar não coçar ou usar produtos abrasivos (8,3%), examinar condições da pele (7%), descrever/documentar as características da ferida (5,5%). **Conclusão:** Os principais diagnósticos e intervenções de enfermagem versaram sobre os aspectos tegumentares, emocionais e de riscos como queda e infecção. A maior ocorrência de registros foi na atenção secundária.

DESCRITORES: Processo de enfermagem. Estomaterapia. Ferimentos e lesões. Diagnóstico de enfermagem.

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DIAGNÓSTICOS E INTERVENCIONES DE ENFERMERÍA EN PACIENTES CON HERIDAS CRÓNICAS EN ATENCIÓN PRIMARIA Y SECUNDARIA

RESUMEN

Objetivo: Identificar los diagnósticos de enfermería y las intervenciones relacionadas con los pacientes con herida crónica producidas por un sistema específico en Atención Primaria y Secundaria. **Método:** Estudo descritivo, realizado entre julho e outubro de 2022. Se utilizaron los datos del Sistema "Sistematización de la Asistencia de Enfermería en Ferias - gerencial (SAEFg)". El estudio fue aprobado por el Comité de Ética e Investigación con el Dictamen nº 4.329.008/2020. **Resultados:** Hubo un total de 314 registros de diagnósticos y 1.300 de intervenciones de enfermería. Los principales diagnósticos de enfermería fueron: úlcera venosa (17,6%), deterioro de la cicatrización y ansiedad (7,6%), riesgo de caídas (7,1%), riesgo de infección (6,7%) y prurito (6,4%). Las intervenciones fueron: prescribir/guiar la elevación de las piernas (9,3%), guiar para no rascarse ni utilizar productos abrasivos (8,3%), examinar las condiciones de la piel (7%), describir/documentar las características de la herida (5,5%). **Conclusión:** Los principales diagnósticos e intervenciones de enfermería fueron sobre aspectos tegumentarios, emocionales y de riesgo como caídas e infecciones. El mayor número de registros se produjo en la atención secundaria.

DESCRIPTORES: Proceso de enfermería. Estomaterapia. Heridas y lesiones. Diagnóstico de enfermería.

INTRODUCTION

Systematized nursing care for patients with chronic wounds in health services is essential for successful treatment and healing. Among these services, primary and secondary health care stands out, as they represent the main gateway for patients with wounds to the health care network[1].

In these services, the nurse is responsible for assessing the injured person for determining and indicating technologies for prevention and treatment. In addition, it plays a leading role in elaborating and implementing protocols and clinical evidence in health services[2].

To this end, nurses organize and systematize their work based on the assumptions of the nursing process, which consists of a methodological instrument that guides care and is described in five distinct stages: investigation or data collection, nursing diagnosis, planning or nursing prescription, implementation of interventions and evaluation of results[3,4].

These actions subsidize the organization and management of care3, giving nurses greater autonomy, security, clinical and critical reasoning and improving the quality of care[5]. However, the incompleteness of the execution of the nursing process is observed in clinical practice, justified by complicating factors, including the absence of instruments and protocols that direct the collection and recording of patient data[3,6,7].

An essential strategy for recording care actions is incorporating computerized technologies for data production in connection with patient records. This computerization provides a better structure for documenting the nursing process[8]. It provides better accuracy in the preparation and execution of the care plan and, consequently, facilitates data collection compared to manual records[9].

Data generation in these systems can automatically compile care indicators, such as the frequency of a specific event, rate of risk diagnosis and prevention of complications for patients[10]. Many systems are designed to meet demands to support the execution of the nursing process in several areas, especially concerning the elaboration of diagnoses and interventions[11,12].

In this perspective, knowing the diagnoses and nursing interventions recorded and grouped in computerized systems is essential to evaluate the care provided. The mapping of these steps make it possible to identify the patients' main nursing problems, the precision of the care plan and, consequently, the skills and opportunities for improvement related to the nurse's performance[13].

However, the fragmented use of the nursing process is observed in clinical practice without taxonomies to determine diagnoses and support in choosing nursing interventions. This fact results in nurses' absence of records and specific documentation in their care[14,15].

Thus, this study sought to answer the following guiding question: what are the nursing diagnoses and interventions related to patients with chronic wounds registered in a specific primary and secondary health care system? This study aimed to identify nursing diagnoses and interventions for patients with chronic wounds registered in one primary and secondary care system.

METHODS

The present is a descriptive study conducted using a quantitative approach and using secondary data from primary and secondary care services in the State of Minas Gerais (MG), Brazil.

The study data were extracted from a bank prepared previously for a doctoral thesis that generated the Systematization of Nursing Care in Wounds – managerial system (*Sistematização da Assistência de Enfermagem em Feridas – gerencial/* SAEF-g). It was conceived and developed to systematically evaluate and document nursing care provided to patients with chronic wounds. The SAEF-g provides 45 diagnoses and 136 nursing interventions as a professional choice, which are in line with the International Classification for Nursing Practice (*Classificação Internacional para a Prática de Enfermagem*-CIPE).

The system was used in clinical practice in four services, two in primary care and two in secondary health care, within 60 days. The analysis of the SAEF-g database took place from August to October 2022.

The SAEF-g bank contained a record of 142 consultations, including nursing admissions (first consultation) and evolutions, distributed in 62 in primary care and 80 in secondary care. The variables analyzed were the records of nursing diagnoses and interventions.

To understand the clinical variables is crucial to notice that the average age of the patients was 64 years. All had one or more associated diseases, mainly arterial hypertension and diabetes mellitus. The etiologies of the wounds were predominantly venous or arterial, and the median duration of the injury was 2.5 months in primary care and 17 months in secondary care.

Data referring to diagnoses and nursing interventions stored in the SAEF-g were exported to Excel software and organized in diagnostic and intervention worksheets in a coded way. Then, they were analyzed in Excel using descriptive statistics. Those interventions are common to two or more nursing diagnoses were grouped.

The study that generated the database used in the preparation of this research was approved by the Research Ethics Committee of the Federal University of Minas Gerais under Opinion nº 4.329.008/2020.

RESULTS

A nurse followed up on two patients for 60 days, totaling 16. The mean age of the patients was 64 years. All patients had one or more associated diseases, mainly hypertension and diabetes mellitus (Table 1).

At least one patient (12.5%) was identified in primary care with diseases such as osteopenia, cardiac arrhythmia and smoking. In secondary care, in the same proportion, patients with sickle cell disease, Behcet's disease, chronic venous insufficiency, chronic renal insufficiency, psoriatic arthritis, generalized anxiety disorder and obesity were identified.

The median time of the injury of the patients was ten months (minimum one and maximum 144), 2.5 months in primary care and 17 months in secondary care. Two patients, one from each point of care, had more than one lesion.

In the 60 days of use of the SAEF-g in clinical practice, 314 records of nursing diagnoses were made, 113 (36%) in primary care and 201 (64%) in secondary care.

Table 1. Clinical characteristics of patients in primary and secondary healthcare (n = 16). Belo Horizonte (MG), 2022.

Variable	Primary care n = 8 n (%)	Secondary care n = 8 n (%)	Total n = 16 n (%)
Associated diseases€			
Arterial hypertension	6 (75)	5 (62.5)	11 (68.7)
Diabetes mellitus	5 (62.5)	2 (25)	7 (43.7)
Food restriction due to illness			
Yes*	4 (50)	3 (37.5)	7 (43.7)
No	4 (50)	5 (62.5)	9 (56.3)
Have a disease that delays wound healing			
Yes&	8 (100)	5 (62.5)	13 (81.2)
No	0 (0)	3 (37.5)	3 (18.7)
Continuous use medications€			
Anticoagulants	1 (12.5)	2 (25)	3 (18.7)
Anti-inflammatories	2 (25)	1 (12.5)	3 (18.7)
Antihypertensives	6 (75)	5 (62.5)	11 (68.7)
Hypoglycemic agents	4 (50)	3 (37.5)	7 (43.7)
Outros£	4 (50)	5 (62.5)	9 (56.2)
Medications for sporadic use€			
Analgesics	5 (62.5)	6 (75)	11 (68.7)
Antibiotics	2 (25)	2 (25)	4 (25)
None	1 (12.5)	0 (0)	1 (12.5)
Wound etiology			
Venous	1 (12.5)	6 (75)	7 (43.7)
Arterial	3 (37.5)	0 (0)	3 (18.7)
Surgical	0 (0)	1 (12.5)	1 (6.2)
Traumatic	2 (25)	0 (0)	2 (12.5)
Neuropathic	1 (12.5)	0 (0)	1 (6.2)
Leg ulcer/sickle cell disease	0 (0)	1 (12.5)	1 (6.2)
Diabetic foot ulcer	1 (12.5)	0 (0)	1 (6.2)

€Variables that allowed marking more than one option; *food restrictions due to associated disease: sugars, salt or fats; &diseases that delay the wound healing process: high blood pressure, diabetes, sickle cell disease, peripheral vascular disease, chronic venous insufficiency and smoking; £others: antilipemic, vasodilators, antipsychotics, antidepressants, antiarrhythmics, corticoids and antineoplastics.

Of the 45 diagnoses available in the SAEF-g, 24 (53.3%) were listed by primary and secondary care professionals, 16 (35.5%) by only one, and five diagnoses were not used. The most frequent nursing diagnoses were: venous ulcer, impaired wound healing, anxiety and risk of falling (Table 2).

Table 2. Frequency of records of nursing diagnoses in primary and secondary health care (n = 314). Belo Horizonte (MG), 2022.

Nursing Diagnosis	Primary care (113) n (%)	Secondary care (201) n (%)	Total (314) n (%)
Venous ulcer	3 (1)	52 (16.6)	55 (17.6)
Impaired wound healing	8 (2.5)	16 (5.1)	24 (7.6)
Anxiety	8 (2.5)	16 (5.1)	24 (7.6)
Risk of falling	3 (1)	19 (6.1)	22 (7.1)
Risk of infection	1 (0.3)	20 (6.4)	21 (6.7)
Pruritus	10 (3.2)	10 (3.2)	20 (6.4)
Altered blood pressure	7 (2.2)	8 (2.5)	15 (4.8)
Lack of family support	9 (2.9)	2 (0.6)	11 (3.5)
Sadness	6 (1.9)	4 (1.3)	10 (3.2)
Arterial ulcer	9 (2.9)	1 (0.3)	10 (3.2)
Impaired tissue integrity	1 (0.3)	8 (2.5)	9 (2.9)
Peripheral edema	3 (1)	4 (1.3)	7 (2.3)
Impaired mobility	5 (1.6)	1 (0.3)	6 (2)
Skin pain	3 (1)	3 (1)	6 (2)
Risk of injury	2 (0.6)	4 (1.3)	6 (2)
Impaired therapeutic adherence	1 (0.3)	4 (1.3)	5 (1.6)
Impaired gait	2 (0.6)	3 (1)	5 (1.6)
Impaired heart rate	5(1.6)	-	5 (1.6)
Impaired tactile perception	5 (1.6)	-	5 (1.6)
Hopelessness	2 (0.6)	2 (0.6)	4 (1.3)
Diabetic ulcer	3 (1)	1 (0.3)	4 (1.3)
Traumatic wound	4 (1.3)	-	4 (1.3)
Odor	-	4 (1.3)	4 (1.3)
Surgical wound	-	4 (1.3)	4 (1.3)
Altered peripheral vascular function	3 (1)	-	3 (1)
Impaired self-esteem	2 (0.6)	1 (0.3)	3 (1)
Stress	1 (0.3)	2 (0.6)	3 (1)
Impaired self-image	1 (0.3)	1 (0.3)	2 (0.6)
Allergy	1 (0.3)	1 (0.3)	2 (0.6)
Infection	1 (0.3)	1 (0.3)	2 (0.6)
Low knowledge of health	2 (0.6)	-	2 (0.6)
Impaired treatment attitude	-	2 (0.6)	2 (0.6)
Impaired respiratory condition	-	2 (0.6)	2 (0.6)
Self-care deficit	-	2 (0.6)	2 (0.6)
Impaired social condition	1 (0.3)	-	1 (0.3)
Pressure injury	1 (0.3)	-	1 (0.3)
Lack of confidence in care delivery	-	1 (0.3)	1 (0.3)
Impaired skin integrity	-	1 (0.3)	1 (0.3)
Mixed ulcer	-	1 (0.3)	1 (0.3)

With regard to nursing interventions, in 60 days, 1,300 records were identified in the SAEF-g, 388 (29.8%) in primary care and 912 (70.1%) in secondary care. Of the 136 interventions available in the SAEF-g, 111 (81.6%) were listed by professionals in both primary and secondary care. The most frequent interventions were: prescribing/guidance on leg raises,Guidance on nails cut/not scratching/using abrasive products on the skin, Examining skin conditions (color, temperature, humidity, integrity and turgor) (Table 3).

Table 3. Frequency of records of nursing interventions in the Systematization of Nursing Care for Wounds – managerial (SAEFg) in primary and secondary health care (n = 1.164). Belo Horizonte (MG), 2022.

Nursing interventions	Primary n = 363 (%)	Secondary n = 801 (%)	Total n = 1.164 (%)
Prescribing/guidance on leg raises	13 (1,1)	94 (8,1)	108 (9,3)
Guidance on nails cut/not scratching/using abrasive products on the skin	36 (3,1)	61 (5,2)	97 (8,3)
Examining skin conditions (color, temperature, humidity, integrity and turgor)	21 (1,8)	60 (5,2)	81 (7)
Describing/documenting wound characteristics	15 (1,3)	49 (4,2)	64 (5,5)
Assess the presence of edema	9 (0,8)	54 (4,6)	63 (5,4)
Evaluate the evolution of wound healing	12 (1)	37 (3,2)	49 (4,2)
Monitoring/assessing infection	8 (0,7)	37 (3,2)	45 (3,9)
Guiding/suggesting walking shoes	22 (1,9)	18 (1,5)	40 (3,4)
Forward to medical care Y/N	17 (1,5)	20 (1,7)	37 (3,2)
Guidance on prevention of ulcer recurrence	8 (0,7)	26 (2,2)	34 (2,9)
Assess wound for dressing decision	8 (0,7)	26 (2,2)	34 (2,9)
Assess the presence of pulses	13 (1,1)	22 (1,9)	34 (2,9)
Instructing wound care and treatment	4 (0,3)	27 (2,3)	31 (2,7)
Examine feet and legs at every return	18 (1,5)	12 (1)	30 (2,6)
Tracking/advising on fall risk	5 (0,4)	25 (2,1)	30 (2,6)
Welcoming the patient according to their needs	10 (0,9)	17 (1,5)	27 (2,3)
Monitoring vital signs	16 (1,4)	11 (0,9)	27 (2,3)
Assess peripheral tissue perfusion	9 (0,8)	17 (1,5)	26 (2,2)
Identifying/encouraging the patient to explain anxieties and sadness	9 (0,8)	16 (1,4)	25 (2,1)
Assessing the occurrence of trauma	9 (0,8)	15 (1,3)	24 (2,1)
Guidance on changes in sensitivity and new injury	9 (0,8)	14 (1,2)	23 (2)
Advice on the use of elastic stockings	2 (0,2)	21 (1,8)	23 (2)
Advice on the organization of the home environment	3 (0,3)	18 (1,5)	21 (1,8)
Forwarding to a multidisciplinary team	16 (1,4)	2 (0,2)	18 (1,5)
Evaluate/do debridement Y/N	2 (0,2)	15 (1,3)	17 (1,5)
Identify the cause of itching	8 (0,7)	8 (0,7)	16 (1,4)
Guidelines to rest	8 (0,7)	6 (0,5)	14 (1,2)
Assessing the risk of ineffective capillary perfusion	2 (0,2)	12 (1)	14 (1,2)
Monitoring wound edges	3 (0,3)	10 (0,9)	13 (1,1)
Encouraging activities for the well-being	3 (0,3)	7 (0,6)	10 (0,9)
Stimulate/motivate self-care	1 (0,1)	9 (0,8)	10 (0,9)
Assess/explain the intensity and cause of pain	6 (0,5)	4 (0,3)	10 (0,9)
Promote/encourage hope and potential	6 (0,5)	3 (0,3)	9 (0,8)
Guiding/making available on the health situation	7 (0,6)	2 (0,2)	9 (0,8)
Checking the understanding of the guidelines	2 (0,2)	7 (0,6)	9 (0,8)
Prescribe/apply moisturizer (skin and peri-wound)	5 (0,4)	3 (0,3)	8 (0,7)
Discuss the co-responsibility in the treatment	5 (0,4)	1 (0,1)	6 (0,5)
Establishing a trusting relationship with the patient	2 (0,2)	3 (0,3)	5 (0,4)
Guiding/teaching adaptation techniques	1 (0,1)	4 (0,3)	5 (0,4)
Encouraging adherence to treatment	1 (0,1)	3 (0,3)	4 (0,3)
Assess attitudes toward the therapeutic record	2 (0,2)	1 (0,1)	3 (0,3)
Investigating factors that increase pain	2 (0,2)	1 (0,1)	3 (0,3)
Use pressure relief support surface	2 (0,2)	1 (0,1)	3 (0,3)
Instruct skincare	2 (0,2)	1 (0,1)	3 (0,3)
Encourage the patient to monitor the pain	1 (0,1)	1 (0,1)	2 (0,2)

The prescribed nursing interventions were generally consistent with the determined diagnoses but presented some inconsistencies. For example, of the total number of patients with leg ulcers (n = 13), only four in secondary care had a record of performing the ankle-brachial index (ABI). Although six patients had leg ulcers in primary care, ABI documentation was not identified. Likewise, there was no prescription/application of compression therapy for these patients.

It was observed that patients with neuropathic ulcers or diabetic foot (n = 2) did not have a record of the specific evaluation of the feet in terms of pain, tactile and sensitivity perception. There was a record of wound infection and indicators of critical colonization, but investigation using laboratory tests, wound swabs, culture and antibiogram was not documented.

DISCUSSION

The recording of the nursing process in caring for patients with wounds, especially nursing diagnoses and interventions, still occurs in a fragmented and incipient way[14], especially in primary and secondary health care. In this study, however, there was a significant number of these records in 60 days, which may be due to the use of a computerized system, the SAEF-g, which has structured and parameterized forms for data collection, diagnoses and interventions of nursing.

Computerized systems optimize the work process and offer an accessible and dynamic language for the team concerning diagnostic terminologies, helping the professional to make a decision[16,17]. Still, they do not replace the critical thinking or clinical reasoning of nurses[18].

It was observed in this study that the most frequently identified diagnoses were venous ulcer, impaired wound healing, anxiety, risk of falling, risk of infection and pruritus. To a lesser extent, there were diagnoses such as impaired skin integrity. The findings may be related to possible difficulties of professionals in performing certain stages of the nursing process, especially in determining diagnoses[17].

According to the taxonomy, factors such as knowledge and understanding of the concepts and definitions of nursing diagnoses may result in the eligibility of a diagnosis that is not the most assertive or accurate. Accordingly, it is highlighted that some nursing diagnoses and interventions have characteristics and components in common, which can interfere with determining the diagnosis and, consequently, the volume of records.

The data corroborate those of other studies that mainly identified impaired wound healing, anxiety and risk of infection. In line with the risk of falling found in this study, impaired walking is observed in the literature. In turn, disagreeing with the findings, tissue integrity and impaired skin were the main diagnoses[19,20].

Interventions based on guiding the elevation of the legs and cutting the nails, not scratching the skin, not using abrasive products on the skin, examining skin conditions, describing the characteristics of the wound, guiding and suggesting shoes for walking, examining the feet, legs and each return had a higher frequency. This fact may be related to the characteristics of the patients treated, most of whom are diabetic or have lesions of venous etiology.

In addition, it was found that more complex interventions or those that require a more dynamic and contextualized assessment of the patient's clinical condition, such as the evaluation of edema, perfusion, changes in sensitivity or indication of health technologies for managing the injury, were more implemented at the level of secondary attention.

The interventions identified in this study converge with the findings of the scarce national literature. An integrative review study signaled that care for skin lesions, assessment of risk factors for skin lesions, care for intact skin and patient mobilization care are the most common groups of interventions in health services[21].

In this context, it is worth highlighting the interventions implemented in single care; it appears that secondary health care registered some interventions that depend on solid knowledge, decision-making, and autonomy on the nurse's part, considering the wound's etiology. However, actions that permeate the use of light technologies were not registered in primary care, such as keeping the wound moist and providing guidance on risks and preventive measures. Thus, it is essential to rescue the assumptions of primary care as a gateway to health services, whose main mission is the prevention of diseases and health problems, using light technologies, especially health education.

In this conception, a review study pointed out the factors that complicate care for people with wounds in primary care. He concluded that assistance is carried out empirically and without the use of protocols and identified the scarcity of adequate resources to carry out the treatment of wounds, as well as the insufficient knowledge of professionals about the treatment, the conduct, the choice of dressing and the assistance provided to patients, associated with the lack of training of professionals and deficiencies in their training process[15].

It should be noted that the interventions presented in this study derive from professional registration in a specialized system. The absence of registration does not result in the omission of wound care since the nursing process in the units did not have this technological component.

It was observed that the highest number of nursing interventions and diagnoses was identified in secondary care. This fact can be explained by the complexity of this sector, its specificity and the fact that it has specialized professionals, in this case, the stomal therapist nurses.

These professionals have qualified knowledge and specific skills for assessing and treating patients with wounds. They are professional care managers who can operationalize different approaches in the treatment and execution of the transition of care to the patient with a wound[22-24].

Regardless of health care, the nursing process must be carried out by nurses, especially data collection and judgment of problems, in a coherent and critical manner[24]. Therefore, this study provides an overview of the execution of the steps, diagnosis and intervention that may reflect the clinical practice of different professionals and promote reflection on the aspects that involve prescription and care planning.

Another critical point is that the execution of the nursing process confers autonomy on the nurse. It enables safe, broad and assertive care, and its systematic documentation enables the generation of data that allows the evaluation of results, management and improvement of the quality of care.

This study presents a limitation because the professionals were not previously trained and familiarized with the international classification (CIPE) taxonomy. Furthermore, focusing the nursing process on determining nursing diagnoses and interventions is not widely consolidated practice in Brazilian primary and secondary care services.

CONCLUSION

This study identified that nursing diagnoses and interventions focused mainly on integumentary and emotional aspects, such as sadness and anxiety, and risks, such as falls and infections. The highest occurrence of records was in secondary care, and it was possible to identify the most recurrent records in the SAEF-g documented by nurses.

AUTHORS' CONTRIBUTION

Formal Analysis: Garcia TF, Alonso CS and Borges EL; **Conceptualization:** Bezerra ISN, Frota RRA, Garcia TF, Alonso CS and Borges EL; **Data curing** Garcia TF, Alonso CS and Borges EL; **Methodology:** Garcia TF and Borges EL. **Writing - First Version:** Bezerra ISN, Frota RRA and Garcia TF; **Writing – Revision and Editing:** Garcia TF, Alonso CS and Borges EL; **Supervision:** Garcia TF; **Validation:** Garcia TF, Alonso CS and Borges EL; **Visualization:** Bezerra ISN, Frota RRA, Garcia TF, Alonso CS and Borges EL.

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Data is available on request to curators.

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