



UPDATE OF INSTITUTIONAL PARAMETERS IN THE PERROCA PATIENT CLASSIFICATION SYSTEM: APPLIED METHODOLOGICAL STUDY

ATUALIZAÇÃO DOS PARÂMETROS INSTITUCIONAIS DO SISTEMA DE CLASSIFICAÇÃO DE PACIENTES DE PERROCA: ESTUDO METODOLÓGICO APLICADO

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RESUMO

Objetivo: Apresentar o processo de atualização dos parâmetros institucionais para a aplicação do Sistema de Classificação de Pacientes de Perroca. **Método:** Estudo metodológico aplicado, desenvolvido pelo grupo de trabalho responsável pelo gerenciamento da classificação de pacientes adultos internados em um hospital universitário de porte extra do Sul do Brasil. O estudo foi desenvolvido entre junho de 2024 e agosto de 2025 em seis etapas, incluindo: processo de revisão/atualização dos parâmetros; auditorias internas e externas de concordância entre avaliadores; revisão final e comunicação institucional com as instruções atualizadas, bem como o procedimento operacional padrão relacionado; e incorporação dos parâmetros atualizados ao prontuário eletrônico. **Resultados:** Embora a concordância classificação/estrato final entre as avaliações tenha sido satisfatória, as áreas de planejamento/coordenação do cuidado, investigação/monitoramento e educação para a saúde tiveram resultados negativos. Isso foi objeto da comunicação institucional para evitar a subjetividade na avaliação, a qual, pelo resultado das auditorias, tende a existir em algum nível. **Conclusão:** Apresenta-se um rol de parâmetros orientadores institucionais a cada um dos 36 itens do instrumento para a classificação de pacientes. Estes não substituem a escala original, mas corroboram a complexidade do hospital estudado e as inovações no trabalho contemporâneo da enfermagem.

Descritores: Sistemas de Classificação de Pacientes; Carga de Trabalho; Equipe de Enfermagem; Recursos Humanos de Enfermagem no Hospital; Avaliação em Enfermagem.

ABSTRACT

Objective: To present the update process of institutional parameters for applying the Perroca Patient Classification System. **Method:** Applied methodological study conducted by the working group responsible for managing the classification of hospitalized adult patients in a large university hospital located in southern Brazil. The study was carried out between June 2024 and August 2025 in six stages, including the process for revising and updating parameters; internal and external audits of inter-rater agreement; final review and institutional communication with the updated instructions and the related standard operating procedure; and incorporation of the updated parameters into the electronic health record. **Results:** Although the final classification/stratum agreement between evaluations was satisfactory, the areas of planning and coordination of care, investigation and monitoring, and health education presented negative outcomes. This was addressed in institutional communication to avoid subjectivity in assessment, which, according to the audit results, tends to occur at some level. **Conclusion:** An institutional guideline set is presented for each of the 36 instrument items used for patient classification. These guidelines do not replace the original scale but support the complexity of the studied hospital and the innovations within contemporary nursing practice.

Descriptors: Patient Classification Systems; Workload; Nursing Staff; Nursing Human Resources in Hospitals; Nursing Assessment.

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What is already known:

- Patient Classification Systems are essential instruments for measuring workload and determining nursing staff size.
- The application of Patient Classification Systems depends on the nurse's clinical judgment, which can lead to disagreements and subjectivity in the assessment process.

What this article adds:

- An updated set of institutional parameters is presented, related to the widely recognized Perroca Patient Classification System.
- The institutional parameters do not replace the original scale. However, they align with the reality of a highly complex hospital as well as innovations within nursing work processes.
- By incorporating more tangible parameters of work processes, classifying nurses can make less subjective judgments regarding each item in the Patient Classification System.

INTRODUCTION

Assessing patient care demands has been a work organization activity conceived since the professionalization of modern nursing. This care management practice is relevant for identifying clientele priorities and allocating resources required for care delivery. Therefore, the use of reliable instruments that underpin the assessment of patient complexity enhances accuracy in this process conducted by nurses⁽¹⁾.

Alongside the assessment of nursing care complexity and dependency levels, Patient Classification Systems (PCSs) are instruments capable of estimating nursing staff workload in continuous care units⁽²⁾. Although not fully sensitive in their entirety, due to the inherent complexity of the construct "nursing workload (NWL)"⁽³⁻⁴⁾, PCSs are internationally acknowledged as valid tools for both organizing direct care and determining nursing staff size⁽²⁻⁷⁾. The latter depends on measuring NWL^(1,8).

In Brazil, the Federal Nursing Council (*Conselho Federal de Enfermagem*, COFEN)⁽⁸⁾ currently identifies seven PCSs for use in healthcare institutions that deliver continuous care. The entity also recognizes the possibility of employing other PCSs, provided their scientific validation processes are ensured. This is relevant because, as with other measurement instruments, if a PCS does not precisely correspond to what it aims to evaluate or generates extensive ambiguity among different evaluating nurses, its purpose may not be achieved⁽⁹⁾, thereby consuming professionals' time without attaining satisfactory assessment outcomes⁽⁹⁾.

Usually, PCSs are presented in scale format and require the nurse's clinical judgment when classifying a patient under different direct and indirect care elements⁽³⁾. This implies the potential for subjectivity in assessment. Researchers⁽⁵⁾ from Finland concur with this notion, reporting that while investigating the validity and reliability of the RAFAELA® PCS - applied in Finland, Iceland, Norway, and Sweden - they concluded that maintaining satisfactory validity and reliability levels constitutes a major challenge. Alternatives to overcome such barriers include the continuous refinement of the PCS to ensure compatibility with contemporary nursing demands, as well as training and motivating nurses responsible for patient classification⁽⁵⁾.

A recent study⁽¹⁰⁾ investigated inter-rater agreement in the application of the Nursing Activities Score (NAS) by analyzing three different evaluator pairs: reference nurse versus intensive care unit nurses; reference nurse versus research assistant "1"; and reference nurse versus research assistant "2". Although the researchers concluded that the overall agreement level was satisfactory, the percentage of perfect agreement between the reference nurse (who also worked in the unit) and the other nurses in the study unit did not reach 70% of the total measures (n=88). Moreover, among the 23 NAS items, 14 achieved almost perfect or perfect agreement between the reference nurse and research as-

sistants, whereas only two items reached that level between the reference nurse and the other unit nurses⁽¹⁰⁾.

Based on these findings, the scientific literature supports that the assessment of NWL and patient classification is a procedure susceptible to subjectivity, thus compromising reliability^(1,5,9-10). This conclusion aligns with the authors' empirical observations as members of a working group responsible for training, monitoring, and improvement initiatives related to the PCS for hospitalized adults⁽¹¹⁾, which has been utilized for more than 10 years in a large hospital accredited by the Joint Commission International (JCI) since 2013. Nurses' frequent doubts, limited adherence to the classification process, and discrepancies in item interpretation within the PCS are frequently observed. Therefore, this study aims to present the process for updating institutional parameters for applying the Perroca Patient Classification System.

METHOD

Study type

This applied methodological study was based on the development of a technical and technological product. It was assumed that technologies and innovations encompass a range of activities with scientific, organizational, financial, or commercial characteristics. These are expressed through products, technological processes, and entirely new or improved services, considering technological innovation as implemented once applied in social practice or within a production process⁽¹²⁾. Thus, the institutional criteria for applying the Perroca PCS⁽¹¹⁾ were considered as the studied product, with relevance and innovation for implementation, given its direct impact on processes related to nursing staff estimation⁽¹⁾.

Setting

The study was conducted at *Hospital de Clínicas de Porto Alegre* (HCPA), in collaboration with the working group responsible for managing the Perroca PCS, already consolidated within the hospital. Specifically, the PCS is applied in 11 non-critical adult clinical and surgical inpatient units and partially in a protected environment unit comprising 29 beds, which admits both adults and children under 14 years of age. Altogether, these units include 460 beds, representing over 50% of the hospital's total (n=860). All units that apply the PCS, fully or partially, involve 156 staff nurses who were trained for using the Perroca PCS following the institutional routine.

Previous studies had established the routine for applying the Perroca PCS, defined scientifically for five consecutive days during the last full week (with no holidays) of each month⁽¹³⁾; as well as the parameters for completing the scale⁽¹⁴⁾, which are the focus of this update study.

Study protocol

The updating process of the product examined in this

study was developed in six stages. Each stage, along with its methodological procedures, responsible participants, and timeline, is presented in Chart 1 below.

Chart 1 - Stages of the review and updating process for institutional parameters related to the Perroca Patient Classification System (PCS). Porto Alegre, RS, Brazil, 2024-2025

Stage	Responsible Parties	Procedures	Period
1st Stage Revision and construction	Working Group responsible for managing the Perroca Patient Classification System (PCS) ⁽¹¹⁾ at the hospital. Group composition: two nurses from the Clinical Nursing Service, one of whom is the group coordinator; two nurses from the Surgical Nursing Service; one nurse from the Onco-hematology Nursing Service; one nurse from the Nursing Process Committee; one nurse from the Nursing Education Service; and two professors from the School of Nursing affiliated respectively with the Clinical and Surgical Nursing Services.	Item-by-item review of the current parameters ⁽¹⁴⁾ up to the revision reported herein. For this purpose, five meetings were conducted with the Working Group, lasting 2 hours each, totaling 10 hours of review. Each filling parameter was positioned side by side with its corresponding item in the original Perroca PCS and discussed extensively and collectively. Institutional changes such as updates to Standard Operating Procedures (SOP), acquisition of new technologies and/or care support equipment/devices, or workflow changes were especially considered when reviewing the parameters. It is emphasized that filling parameters do not replace or equate to original scale items. These are practical complements with institutional thematic elements meant to guide each classifying nurse. Updates were carried out in real time on a synoptic chart containing the “current” and the “updated” parameters. Such updates only occurred after consensus, following extensive group discussion and consultation of the scientific literature and/or other institutional work routines.	June to July 2024
2nd Stage Internal audits	Three nurses from the Working Group responsible for managing the Perroca PCS ⁽¹¹⁾ ; two nurses from the hospital’s Clinical and Surgical Units; and one nurse from the Protected Environment Unit.	A convergence audit of the newly proposed filling parameters was conducted during the conventional Perroca PCS application week. The scale oriented by the updated parameters was applied to the same patient by two nurses, one from the Working Group and another staff nurse.	August 2024
3rd Stage External audits	A Master’s student in Nursing and a final-semester undergraduate nursing student, both in a Clinical and Special Care Unit. Additionally, external audits were repeated in the same unit by eighth-semester nursing students during applied practice in Nursing Administration.	A new convergence audit cycle was performed using the PCS guided by the updated parameters. This time, no member of the working group or any nurse from the units applying the scale participated. As in the previous stage, data from this audit were analyzed by absolute and relative frequency (%).	October 2024, repeated in June 2025
4th Stage Final revisions and institutional communication	Working Group responsible for managing the Perroca PCS ⁽¹¹⁾ at the hospital.	Upon receiving the results of the internal and external inter-rater audits, the Working Group reviewed the updated material again and developed an educational announcement for nurses in the applying units with three goals: a) to avoid differences in understanding regarding each item and/or filling criterion; b) to disclose the parameter update within the electronic health record; and c) to disseminate the updated standard operating procedure (SOP) for classifying hospitalized adult patients. This material was distributed by the Nursing Directorate to all the hospital nurses.	August 2025
5th Stage Incorporation of filling criteria into the electronic health record	Nursing Process Committee (COPE).	The new parameters were incorporated into the electronic health record by nurses who work in the Nursing Process Committee (COPE), who have authorization to register data in the computerized system used by the Institution (AGHUse®). After these system updates, the new parameters became visible to clinical nurses for application of the scale.	August 2025

This study is part of a larger project titled “Quality and Human Resource Management in the Hospital Environment: Metrics, Methods, and Subjectivities,” approved by the Research Ethics Committee under protocol CAAE No. 47595221.5.0000.5327.

RESULTS

After the preliminary revision process, the working group conducted a first inter-rater agreement audit using the already updated parameters in the institutional application of the Perroca Patient Classification System (PCS). Fourteen duplicate assessments were performed (Table 1).

External audits took place in a single unit through 23 duplicate assessments (Table 2).

Following the conclusion of the agreement audits, the working group responsible for updating the PCS application

parameters developed institutional communication material for all hospital nurses, containing information about this revision process and the updated standard operating procedure (SOP) for patient classification (Figure 1).

Finally, the updated institutional parameters are presented in Chart 2 below. It is important to note that, due to character limitations in the electronic health record, parameters employ acronyms and abbreviations.

DISCUSSION

According to the audits conducted during the parameter update process subject to this study, although the final classification of patients, that is, the dependency stratum/level, achieved reasonable agreement among evaluators, some domains of the Perroca Patient Classification System (PCS) clearly require attention. Authors⁽¹¹⁾ have previously

noted that such divergence may arise when classifiers confront items with greater subjectivity.

Table 1 - Agreement among internal evaluators by domain of the Perroca PCS and hospital unit, and agreement in final classification. Porto Alegre, RS, Brazil, 2024

Perroca PCS Domain	Hospital Unit						Total PSC Domain	
	Clinical Inpatient Unit		Surgical Inpatient Unit		Protected Environment Unit		Agreement (Yes/No) n (%)	
Planning and care coordination	3	2	-	5	1	3	4 (29%)	10 (71%)
Investigation and monitoring	4	1	2	3	3	1	9 (64%)	5 (36%)
Body care	3	2	4	1	3	1	10 (71%)	4 (29%)
Skin and mucosa care	5	-	1	4	2	2	8 (57%)	6 (43%)
Nutrition	3	2	4	1	3	1	10 (71%)	4 (29%)
Locomotion	3	2	5	-	4	-	12 (86%)	2 (14%)
Therapeutics	1	4	3	2	4	-	8 (57%)	6 (43%)
Emotional support	2	3	4	1	2	2	8 (57%)	6 (43%)
Health education	3	2	4	1	2	2	9 (64%)	5 (36%)
Final agreement in patient classification by unit								
n (%)*	4 (80%)	1 (20%)	3 (60%)	2 (40%)	3 (75%)	1 (25%)	10 (72%)	4 (18%)

*positive agreement emphasized in bold for clarity.

Table 2 - Agreement among external evaluators by domain of Perroca PCS and agreement in final classification in a clinical and special care inpatient unit. Porto Alegre, RS, Brazil, 2024

Perroca PCS Domain	Agreement n (%)	Disagreement n (%)	Total n (%)
Planning and care coordination	17 (74%)	6 (26%)	23 (100%)
Investigation and monitoring	15 (65%)	8 (35%)	23 (100%)
Body care	20 (87%)	3 (13%)	23 (100%)
Skin and mucosa care	17 (74%)	6 (26%)	23 (100%)
Nutrition	16 (70%)	7 (30%)	23 (100%)
Locomotion	18 (78%)	5 (22%)	23 (100%)
Therapeutics	17 (74%)	6 (26%)	23 (100%)
Emotional support	17 (74%)	6 (26%)	23 (100%)
Health education	16 (70%)	7 (30%)	23 (100%)
Final classification agreement	14 (61%)	9 (39%)	23 (100%)

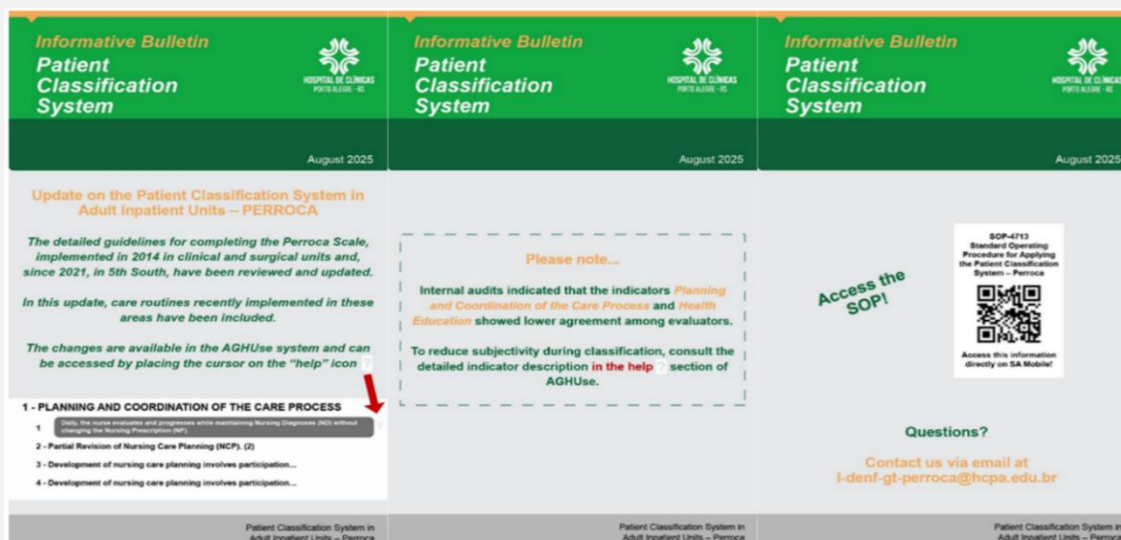


Figure 1 - Informative bulletin on the process of updating institutional parameters for applying the Perroca Patient Classification System. Porto Alegre, RS, Brazil, 2025

Chart 2 - Demonstration of the original version of the Perroca Patient Classification System and the complementary institutional parameters for its application. Porto Alegre, RS, Brazil, 2025

PATIENT CLASSIFICATION SYSTEM – PERROCA	
Original Scale ^{*(11)}	Revision 2024–2025
Guiding parameters for documentation at <i>Hospital de Clínicas de Porto Alegre</i> **	
1. PLANNING AND COORDINATION OF THE CARE PROCESS	
1. Maintenance of nursing care planning.	The nurse evaluates and progresses daily, maintaining the Nursing Diagnoses (ND), WITHOUT changing the Nursing Prescription (NP).
2. Partial revision of nursing care planning.	The nurse evaluates and progresses daily, WITH changes to the ND and NP.
3. Development of nursing care planning involves the participation of nursing team professionals or requires the allocation of intra-institutional resources.	The nursing team performs the patient's admission. Development or revision of ND and NP. Patient care involves other professionals of the institution, requiring telephone contacts by the nursing staff. Examples: death, care transfers (including Integrated Patient Transport Unit - UNIT), requests for professional consultation within the institution, requests for medical team evaluation in addition to routine visits, medical on call or TRR, case discussions among professionals (Rounds/Huddles).
4. Development of nursing care planning involves the participation of the multidisciplinary team or requires evaluation of extra-institutional resources.	The care plan requires the involvement of professionals or services outside the hospital. Examples: community health teams at discharge (counter-referral), exams and/or procedures at other hospitals.
2. INVESTIGATION AND MONITORING	
1. Vital signs (3 times a day); simple diagnostic tests (up to 15 minutes); clinical evaluation; verification of other anthropometric measures, measurement scales.	Up to 3 times a day: -Vital signs (BP, HR, RR, temperature, SPO2, and pain); -Tests (capillary blood glucose, reagent strip tests, <i>Chvostek</i> and <i>Trousseau</i> signs); -Scales: up to 2 applications/day; anthropometric measurement, weight and height using conventional scales WITHOUT nursing assistance.
2. Vital signs (3 times a day), airway clearing (up to 3 times a day); assistance with medium complexity diagnostic-therapeutic exams (15–30 min), measurement scales.	Up to 3 times a day: -Vital signs (BP, HR, RR, temperature, SPO2, and pain); -Tests (capillary blood glucose, reagent strip tests, <i>Chvostek</i> and <i>Trousseau</i> signs); -Upper airway suctioning (UAS); -Scales: up to 3 applications/day; -Anthropometric measures: weight and height with conventional scale WITH nursing assistance; -Sampling in catheter (except dialysis catheter).
3. Vital signs, measurement scales (4–6 times a day); airway clearing (4–6 times a day); assistance in medium complexity diagnostic-therapeutic exams (30–50 min); emergency care.	4–6 times a day: -Vital signs (BP, HR, RR, temperature, SPO2, and pain); -Tests (capillary blood glucose, reagent strip tests, <i>Chvostek</i> and <i>Trousseau</i> signs); -Upper airway suctioning (UAS); -Scales: 4 to 6 applications/day; -Anthropometric measures: weight and height using "eleve" type scale; -Hemodialysis catheter sampling; -Emergency care with or without medical activation (attending or on call); -Assistance in unit procedures (30–50 min). Examples: lumbar puncture, thoracentesis, paracentesis.
4. Vital signs, measurement scales (> 6 times/day); mechanical ventilation; assistance in diagnostic and therapeutic exams (> 50 min).	More than 6 times a day; -Vital signs (BP, HR, RR, temperature, SPO2, and pain); -Tests (capillary blood glucose, reagent strip tests, <i>Chvostek</i> and <i>Trousseau</i> signs); -Upper airway suctioning (UAS); -Scales, more than 6 applications/day; -Patients in mechanical restraint and/or overnight rounds; -Attendances in unit: TRR activation, cardiopulmonary resuscitation; -Assistance in unit procedures (>50 min), lumbar puncture, thoracentesis, paracentesis; -Care with noninvasive ventilation (BIPAP, CPAP) and telemetry monitoring.
3. BODY CARE AND ELIMINATIONS	
1. Self-sufficient.	Patient is independent for self-care and control of eliminations.
2. Requires guidance and/or supervision and/or nursing assistance for dressing, moving to the toilet, shower, oral hygiene, control of eliminations, shaving, and postoperative hygiene.	Patient performs self-care/body hygiene and control of eliminations, but requires help changing bed linen; performs body care partially; has control of eliminations; requires urine, stool, and/or sputum collection for exams; self-catheterization with supervision; preoperative shaving without help.
3. Nursing performs personal hygiene and comfort measures (up to 6 times/day): use of bedpan/urinal, diaper change, absorbent, emptying and/or changing collection bag, maintenance of catheter, drains, urinary devices/stomas.	Nursing action: Bed bath and/or applies skin degermant, and/or oral hygiene; Up to 6 times/day: diaper change, bedpan/urinal use, care of colostomy, ileostomy, nephrostomy, urostomy, indwelling and intermittent urinary catheter, fistulas, external urinary devices with diuresis measurement, manual washing of bladder catheter and/or continuous irrigation.
4. Nursing performs personal hygiene and comfort measures (>6 times/day): use of bedpans/urinals, diaper change, absorbent, emptying collection bag, maintenance of catheter, drains, urinary devices/stomas.	Nursing action: More than 6 times/day: diaper change, bedpan/urinal use; care of colostomy, ileostomy, nephrostomy, urostomy, indwelling and intermittent urinary catheter, fistulas, external urinary devices with diuresis measurement, manual washing of bladder catheter and/or continuous irrigation.
4. SKIN AND MUCOSA CARE	
1. Guidance and supervision of preventive measures for skin injuries.	Patient with intact skin and no therapeutic devices on the skin.
2. Preventive measures for skin injuries (massage, lotion application) up to 3 times/day; change of simple dressing in one or more areas (once/day).	Patient with therapeutic device on the skin; Up to 3 times/day: -Preventive measures for skin injuries (hydration, position change, use of foot protectors, cushions); Up to 1 time/day: -Simple dressing change (e.g., Grade I pressure injury) in one or more areas of the body.

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3. Preventive measures for pressure injury (4–6 times/day); change of simple or moderate complexity dressing in one or more areas (2–3 times/day); position change (up to 6 times/day).	4–6 times/day: -Preventive measures for skin injuries (hydration, position change, foot protectors); 2–3 times/day: -Change of simple or moderate complexity dressing (e.g., Grade II pressure injury or other subcutaneous tissue injury) in one or more areas.
4. Preventive measures for pressure injury (>6 times/day); dressing change of moderate complexity in one or more areas (>3 times/day) or high complexity dressing (once/day); position change (>6 times/day).	More than 6 times/day: -Preventive measures for skin injuries (hydration, position change, foot protectors, cushions); More than 3 times/day: -Change of moderate complexity dressing (e.g., Grade III pressure injury or other injury with abundant drainage) or; 1–2 times/day: -Nurse performs high complexity dressing in cavity wounds, with tissue involvement and/or bone exposure.
5. NUTRITION AND HYDRATION	
1. Self-sufficient.	Patient eats without assistance or prompting.
2. Requires guidance and/or supervision and/or nursing assistance to eat and/or drink fluids, control fluid balance.	Patient is preparing for exams, surgery, or on therapeutic NPO. Requires help to organize the environment for meals. Examples: moving the table, handing over utensils.
3. Requires nursing intervention (to perform) to eat and drink fluids and/or feeding via nasogastric tube (NGT) or nasocentral tube or stoma (up to 6 times/day).	Up to 6 times/day: -Nursing administers diet (intermittent or continuous) and water orally or via tube, gastrostomy or jejunostomy; -Care of open NGT in bottle (emptying and/or measurement); -Diet pauses/restarts via NGT 1 hour before and 1 hour after medication.
4. Nursing intervention to eat and drink fluids and/or feeding via NGT or nasocentral tube or stoma (>6 times/day); for handling peripheral or central catheters for nutrition and hydration.	More than 6 times/day: -Nursing administers diet (intermittent or continuous) and water orally or via gastrostomy or jejunostomy; -Parenteral nutrition and lipids; -Care of open NGT in bottle (emptying and/or measurement); pauses/restarting of diet via NGT 1 hour before and 1 hour after medication.
6. LOCOMOTION AND ACTIVITY	
1. Self-sufficient.	Patient ambulates without help. SAK less than 6.5 points.
2. Assistance for ambulation and/or encouragement, guidance and supervision for segmental movement, ambulation or using devices (orthoses, prostheses, crutches, canes, wheelchair, walker).	Patient with SAK greater or equal to 6.5 points.
3. Nursing action for ambulation up to 2 times/day, transfer from bed to chair and vice versa with assistance of 2 people, training for ambulation and daily activities, internal transport by nursing.	Up to 2 times/day: -Any type of patient or body segment mobilization carried out by up to 2 staff; -Internal transfers within the unit, preparation for transfer by UNIT.
4. Nursing assistance for ambulation more than 2 times/day: transfer from bed to chair and vice versa with assistance from more than 2 people, transport out of unit accompanied by nursing.	More than 2 times/day: -Any mobilization of patient or body segment by more than 2 staff; Examples: obese, confused or agitated patients, strict bed rest (severe thrombocytopenic, clinical or surgical indication), transport performed by the unit team to other sectors of the institution.
7. THERAPEUTICS	
1. Requires medication (1-3 times/day); infusion placement and change (1-2 times/day).	1-3 times/day: -Medication administered orally, intravenously, subcutaneously, and/or by tube or inhalation, and/or catheter flushing. 1-2 times/day: -Infusion placement or change such as intravenous therapy or other solutions.
2. Requires medication (4 times/day), infusion placement and change (3-4 times/day); care with nasogastric/nasocentral tube or stoma; oxygen therapy.	4 times/day: -Medication administered orally, intravenously, subcutaneously and/or by tube, inhalation, catheter flushing. 3-4 times/day: -Infusion placement/change; -Continuous care with oxygen therapy by nasal catheter/cannula, Venturi or Hudson masks.
3. Medication (6 times/day); infusion placement and change (5-6 times/day); pre-exam medication; care of peripheral catheter; blood products, cytostatic drugs, plasma volume expanders, peritoneal dialysis.	5-6 times/day: -Medication administered orally, intravenously, subcutaneously, catheter flushing, by tube, inhalation; 5-6 times/day: -Infusion placement/change, exam preparation (laxatives, enema, mannitol); packed cells, platelets or chemotherapy drugs; peritoneal dialysis care in the unit; respiratory, skin, enteric or contact precautions.
4. Medication (>6 times/day); infusion placement and change (>6 times/day), use of vasoactive drugs or others requiring special care; care with epidural catheter and hemodialysis control.	>6 times/day: -Medication administered orally, intravenously, subcutaneously, by tube and/or inhalation; More than 6 times/day: -Infusion placement/change, use of drugs requiring monitoring during administration; care with central catheters, including PICC.
8. EMOTIONAL SUPPORT	
1. Patient/family requires conversation support due to everyday concerns about disease, treatment and hospitalization.	Guidance as per routine.
2. Patient/family requires conversation support due to anxiety, distress or continuous requests/complaints.	Patient/accompanying person is anxious, confused, demanding, has difficulty waiting for care.

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3. Patient/family requires conversation and psychological support due to apathy, hopelessness, decreased interest in activities, or increased frequency of anxiety symptoms.	Patient/family requires constant emotional and/or psychological support from the health team.
4. Patient/family requires repeated conversation and psychological support, refuses health care, psychosocial issues.	Patient/accompanying person does not accept care and/or interferes with treatment. Family abandonment situation, discharge difficulties due to family or social problems.
9. HEALTH EDUCATION	
1. Patient/family guidance at admission.	Patient/family requires routine guidance; admission between hospital inpatient units.
2. Patient/family guidance before/after surgery, procedures, test results, discharge guidance.	Guidance for routine for external patients or those from other places except inpatient units (e.g., Emergency, ICU, UCC, Hemodynamics, CCA).
3. Guidance: patient/family with communication difficulties and/or resistance to information. From other cultures, difficulty comprehending managing equipment and/or special materials.	Guidance for patient/family: -Multiple demands for guidance; education for managing equipment and/or special materials and hospital care (tracheostomy, dressings, tubes, drains, suctioning, hygiene and comfort). -Communication difficulties (blind, deaf, mental disorders, language disturbances). -Guidance on chemotherapy, radiotherapy phases, hematopoietic stem cell transplantation.
4. Guidance to patient/family on self-care, training for managing equipment and/or special materials at home and performing specific procedures (dressings, peritoneal dialysis, etc.).	Guidance and referrals for discharge, regardless of device use.

*Some items in the original scale have been synthesized or abbreviated without altering content or meaning. This results from the format in which the scale was incorporated into the electronic health record at the institution studied, which imposes a character limit. **The authors chose to describe the parameters updated in this study exactly as included in the electronic record of the institution under investigation. Readers may request clarification regarding abbreviations and/or other information that may not be immediately understood.

Beyond the subjectivity involved in applying an instrument for care dependency assessment, it is important to consider the significant number of nurses who are potential classifiers (n=156). We believe this reaffirms the relevance of the updated institutional parameters, since although these do not replace the essence of each original scale item⁽¹¹⁾, these parameters may provide each nurse with more concrete elements to support decision-making for faithful classification.

PCSs are instruments intended to capture nursing care demands of a particular clientele. Indeed, this directs nurses to identify elements that are not always fully objective or even easily capturable⁽³⁾, contrasting with elements identified by clinical severity scores based solely on objective criteria, which may also influence nursing workload⁽¹⁵⁾.

A study⁽¹⁶⁾ conducted in Brazil's Midwest region indicated that agreement on each PCS item among nurse classifiers was a timely factor for effective implementation of the instrument in routine work. In part, this may explain the results of the agreement audits performed here, since classifications occurred among internal and external evaluators without any prior agreement regarding the understanding of each PCS item and corresponding institutional parameter.

The update process for institutional parameters in applying the Perroca PCS involved clear modernizations in nursing work processes. For example, the Integrated Transport Unit (*Unidade Integrada de Transportes*, UNIT), recently available at the institution for intra-hospital patient transfer, is an advancement for the profession given that movements and transports represent significant time demands in nurses' work shifts⁽¹⁷⁾.

The Perroca PCS, used at our institution for over a decade, has transcended Brazil and reached other countries such as Turkey⁽²⁾. Given the internationally recognized status of the hospital studied, we believe the updated parameters presented herein may serve as an invitation for nurses from various origins to increasingly equip themselves with strate-

gies capable of reflecting their teams' work demands.

This study has a highly applied character and hence presents limitations related to statistical rigor, notably the absence of a better-sized sample for calculating agreement audits and a lack of more robust analyses. Nevertheless, the potential contribution of this research remains significant.

CONCLUSION

This article presents a set of institutional parameters for each of the 36 items in applying the widely recognized Perroca PCS, which has been utilized in the study setting for over a decade. These parameters do not replace the original scale, which should be understood as the conceptual source of each evaluative item to classify patients.

The use of institutional parameters aims to exemplify concrete elements of nursing work processes in a highly complex and large hospital organization, seeking to mitigate subjectivity in evaluation by multiple nurse classifiers. Thus, the parameter set may serve as guidance and/or complement in interpreting each aspect of care dependency assessed, including similar contexts to the one studied. Despite this, agreement audits on patient classification among evaluators in this study demonstrate that full agreement remains a challenge.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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