Development and implementation of a nursing patient history in Pediatric Intensive Care

Constituição e implantação do Histórico de Enfermagem em Terapia Intensiva Pediátrica

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Abstract

Objective: To develop and implement a nursing patient history planning care in pediatric intensive care.

Methods: A qualitative and descriptive study, with support of a bibliographical research and convergent care, conducted in the pediatric intensive care unit of a university hospital, involving the participation of 13 nurses. Group meetings, workshops and participant observation were the methodological resources for conducting the research.

Results: Fourteen Basic Human Needs and scientific evidence underpin the development of the nursing patient history, composed of seven blocks arranged in a checklist format with open spaces for recording complications and nurse impressions. An instruction guide was provided to facilitate its use. Implementation was preceded by a test phase and historical validation.

Conclusion: The instrument was developed based on scientific evidence, and included contributions from the nurses. The participatory involvement of nurses favored the implementation and use of the nursing patient history in care practices.

Keywords
Nursing process; Pediatric nursing; Nursing care; Intensive care units

Descritores
Processos de enfermagem; Enfermagem pediátrica; Cuidados de enfermagem; Unidades de terapia intensiva

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Introduction

The nursing patient history (NPH) is one part of the initial step of the nursing process (NP), also known as investigation. It is an essential tool for data collection, necessary for identification of current or potential problems of the patient, aimed at identifying needs and the planning of care, preventing possible complications.\(^{(1,3)}\)

The NPH should be administered on the first contact with the client, i.e., the admission, as the information obtained therein drives the planning of all other steps of the nursing process. Thus, it is essential that such information is the most accurate and reliable possible; otherwise, the whole process can be affected, failing to meet needs not identified by the incomplete NPH.\(^{(1,3,4)}\)

Whereas the nursing process adds quality to care, increases the visibility and recognition of nursing, and supports the reflection and evaluation of care practices of the profession,\(^{(5)}\) and that this method is a requirement of the Federal Council of Nursing (COFEN ) for healthcare practices, it is necessary for nursing services to invest in the development and validation of tools that meet their peculiarities in order to guide and standardize the operation of the nursing process steps, since the absence of such tools may hinder the implementation of this methodology of care.\(^{(6)}\)

Supported in this statement, and in the methodological resource of Care Convergent Research (CCR), the research question guide can be replaced by a hypothesis statement.\(^{(7)}\) Therefore, the involvement of pediatric intensive care unit (PICU) nurses, combined with technical and scientific meetings, will provide for the search for and development of knowledge, skills and competencies required for the theoretical foundation that will subsidize the development and implementation of the NPH in the care.

The relevance of this study lies in the assertion that the nurses’ knowledge, both in depth and breadth, will directly influence the use of systematic care, improving technical and scientific skills, and will identify the needs of hospitalized PICU children and their families, adopting the habit of agile reasoning in decision making, to achieve the goals of scientific nursing care. As the pediatric unit is integrated within a university hospital, the implementation of Standardized Nursing Care (SNC) will bring benefits, not only to professionals and patients, but also to the faculty and students who work in this scenario.

The research objectives were: to develop the PNH to support the NP, as it is applied to the children and adolescents hospitalized in intensive care; and, to implement the PNH in the PICU of a university hospital in northeastern Brazil.

Methods

This was a descriptive, qualitative study, conducted in the PICU of a university hospital, located in northeastern Brazil. Participants included 13 nurses (81.2% of the unit’s nurses), with experience ranging from two to 29 years, mostly women (84.6%), chosen intentionally, using as inclusion criteria being a nurse and working as a nurse in the PICU. This unit has an installed capacity of ten beds for the care of children from 29 days to 16 years of age. Three nurses did not participate in the research, due to one being on leave during the study period, and the other two being novice professionals, working in the unit during the last month of data collection.

Our objective was that the product of this research would provide an immediate impact on nursing care activities in the PICU This specificity was found in the Care Convergent Research (CCR) that is, to maintain, throughout its process, a close relationship with care, in order to find alternatives to solve or minimize problems, make changes and/or introduce innovations in the practice context where the investigation occurs.\(^{(7)}\) One of the identity indicators of this research mode is that the issue should emerge from clinical practice. Thus, one of the researchers is a clinical nurse from the context in which the research was conducted, and experienced the need to implement the standardization of the nursing care in the care of crit-
ically ill children. The strategies used for the data collection that could motivate the clinical nurses for being proactive subjects in developing the instruments for their work process also contributed to the method to be chosen. This condition is consistent with the CCR, which aims for a theoretical articulation with healthcare practice, enabling the nursing professional to provide care, teach and to research in associate way, as in the CCR “the professional emphasizes the thinking and doing”, i.e., “he thinks as he is doing it, and does it while thinking about it”.(7)

In an operational way, the CCR research process involves five stages: design, instrumentation, questioning, analysis and interpretation.

In the design stage, the area of interest, and the research theme were selected, which in the CCR should emerge from the daily professional practice of the researcher, from questions about their care process, problems found, changes that can be performed, and innovations that can be introduced in the context of practice.

The instrumentation aimed to guide the researchers in methodological decisions making, such as the choice of the research site and participants. Therefore, the physical space should be the same as the care practice, where the research problems were identified, i.e., the place that the nurse meets with seriously ill children and adolescents. In the questioning phase, strategies for obtaining the information were established, enabling the convergence of research on patient care. So, the strategies used were: development of study and discussion groups, which were formed in dynamic spaces for data collection, from the revelations of professional experience, testimonials and proposals of the participants, emerging topics for discussions and subsequent development; individual meetings with participants who, due to personal impossibilities, ceased to participate in group meetings; literature to support the construction of the NPH; workshop for the development of instruments that facilitate the application of the NP; participant observation, in order to thoroughly identify the characteristics of the phenomena, and how they occur.

In the CCR, the phases of questioning and analysis occur in a very articulate way, and sometimes simultaneously. Thus, the data collection process and the product development were supported by 14 group meetings, 16 individual meetings, and by participant observation conducted from June of 2013 to May of 2014. With this strategy, overlap exist between care activities and research, and the construction of knowledge, were established as required by the CCR method.(7)

These meetings were recorded and at the end of each one, synthesis was made of the nurses’ contributions for the development of the NPH, as well as the limitations of knowledge of these actors on the systematic process of care, based on the theoretical framework of Wanda Horta. The data produced in these meetings were grouped into three dimensions: limitations for the standardization of nursing care in the context of the PICU; their contributions for the development of the PNH; elements to strengthen the implementation of the first stage of the NP. For recording the data produced by the participant observation, a field diary was used. This moment was characterized as a direct contact of the researcher with the researched object, in which the interactive processes between theory and practice occurred, in order to transform or implement actions in the research scenario.(8) During the meetings and workshops, only researchers and participants were present, but during participant observation, other people were introduced in context, as these observations were made during the normal care practices of the nurses.

At this stage, the standardized NPH was identified for all hospital services that did not meet the specific practice of the context of the PICU. Thus, the bibliographical research was the resource used for the development of the NPH, and occurred in parallel with the nurses’ activities.

For the last phase of the CCR, or the interpretation stage, a thorough intellectual work by the researcher was required, which results from synthesis processes (associations and variations in in-
formation), theorizing (relationships recognized in the synthesis process), and transfer (socialization of natural results and adaptations).

Specifically for the development of the NPH, research activities were performed in seven steps: searching for scientific evidence; formulation of history items; preliminary analysis of the instrument; validation of the history; review; testing; preparation of the final version; and implementation of the NPH in the unit.

The stage of searching for scientific evidence was supported by evidence-based nursing - EBN, which is the application of valid and relevant information, based on research, for nurse decision-making and aims to achieve improved methods for quality of care. Therefore, EBN refers to the incorporation of the best evidence in the decision-making of the nurse, aiming to “facilitate the transfer of the clinical uncertainty for the clinical decisions, with the incorporation of research evidence in the decision-making process”.

Searching for scientific evidence to develop the NPH was accomplished by means of bibliographical research in the integrative modality, providing a synthesis of relevant research knowledge, enabling significant incorporation in clinical practice, and determines the current knowledge on a specific theme as it is conducted in order to identify, analyze and summarize the results of independent studies on the same subject, contributing to a possible impact on the quality of care.

The bibliographic research was implemented in six steps: a) development of the guiding question (what is the best evidence to support the development of the PNH for the PICU?); b) searching or sampling the literature using the keywords, nursing process, standardization of nursing care, and nursing patient history in the following sources: LILACS (Literatura Latino-Americana e do Caribe em Ciências da Saúde), MEDLINE (Medical Literature Analysis and Retrieval System Online), CEPEn (Catálogo de Teses e Dissertações do Centro de Estudos e Pesquisas em Enfermagem) and CAPES - Bank of Theses and Dissertations, complemented by manual searches in journals, texts and published books. Searching was not possible in CEPEn using the keywords set in the inclusion criteria, because this database separates and organizes the content of theses and dissertations by annual volumes, and does not have a tool for keyword searches. Therefore, the best strategy was to download the volumes published between the years 2000 and 2012, and then read all the titles and abstracts of the theses and dissertations. This temporal cut was the same used for articles, theses and dissertations, except for books, where that demarcation of time was not evident. The reading of the titles and abstracts of papers was performed, as an electronic search was completed. Those who were selected according to the content of interest were added to an Excel spreadsheet. Next, full text articles were downloaded, when they were available in the electronic databases. The texts identified, but not fully available, were located in other databases (portals of scientific journals); c) data collection was supported by an elaborate instrument for the specific purposes of this research, in order to ensure that all relevant data from selected publications were extracted, and to guarantee the accuracy of the information, and working as a data record. For organization and compilation of the data and scientific evidence for the construction of the NPH, 159 data collection instruments were completed; d) critical analysis and synthesis of studies was performed in a descriptive way, allowing for observing, counting, describing and classifying the data, with the intention of clustering the published knowledge, aimed toward organization and data reduction; e) discussion of the results from the analysis and synthesis; the data were compared and then the scientific evidence was identified; f) presentation of the integrative review of texts.

The body of the research consisted of 29 publications: three theses; 12 dissertations; nine articles; and five books. From this process, 14 pieces of evidence that supported the construction of the instrument were identified, presented in order of frequency, as follows: the PNH, when supported by the Theory of Basic Human Needs of Wanda Horta, should be structured from the
individualization of the psychobiological, psychosocial and psychospiritual dimensions; supporting the PNH in a nursing theory; to be adjusted to the context of practice; the PNH must be clear, concise, objective and without repetition, avoiding a long instrument; containing identification data, current clinical history, medical diagnosis, previous clinical history; adopting the check-list format; defining/knowing the nursing theory that supports the nursing process; providing spaces for recording complications, observations and nurses’ impressions of other relevant data; this PNH is individual and must have information that allows for immediate care; avoiding an instrument from the biomedical and epidemiological risk model; physical examination should be organized in the head-to-toe fashion, presenting data on vital signs and laboratory tests; using instruments such as scales for sedation (Ramsay), coma (Glasgow) and evaluation of mucocutaneous integrity (Braden); including items that address therapeutic support devices used by children/adolescents; and developing instruments applicable in conjunction with the multidisciplinary team.

The study was registered in Brazil under the Platform Presentation of Certificate number to Ethics Assessment - Certificado de Apresentação para Apreciação Ética (CAAE) 14068213.5.0000.5086.

Results

Once the bibliographic evidence was obtained, the process of developing the PNH for the PICU began, by means of the formulation of topics and items grounded in the Theory of Basic Human Needs of Wanda de Aguiar Horta, according to the psychobiological, psychosocial and psychospiritual dimensions. Vital signs and physical examination were included in the respective needs of the theoretical framework, according to the head-to-toe method.

The first item of the PNH was determined by generic data (identification), the previous and the current clinical history. Most of the information on that instrument was in a checklist format. However, in some items and topics, free space was reserved for description of the data. The specific characteristics of children and adolescents were considered, as well as the contexts of family and pediatric intensive care. Efforts were concentrated on making the instrument clear, objective and without repetition of information.

Regarding coma, sedation and pressure ulcer risk scales, space was designed to record the scores for each of these, instead of presenting the total score. This option is justified because their content would occupy large space, resulting in too long of an instrument.

The NPH for the PICU (Annex) was developed and structured in seven blocks, distributed in two pages:

- Identification: includes identifying data of the children, adolescents and companions;
- Antecedents: Investigate the background of the child/adolescent regarding the presence of some baseline disease, childhood diseases, previous hospitalizations, medication use, as well as family history and lifestyle habits;
- Current disease history: consists of the detailed record of the history of the present illness of the child/adolescent, describing the reasons for seeking health services, and the onset of signs and symptoms, as well as containing data from the disease and current treatment;
- Psychobiological needs: it was decided to contemplate this block, all physiological needs, as described in Wanda Horta’s theory, grouped into 12 topics, which were organized as follows: oxygenation; hydration/nutrition/elimination/electrolyte regulation; neurological regulation exercise and physical activity/mobility/sleep and rest/corporal mechanics/locomotion; cardiovascular; body care/physical and mucocutaneous integrity; shelter/environment; thermoregulation; immune regulation; treatment; sensory organ perception; and pain;
• Psychosocial needs: the requirements of the psychosocial dimension were organized and grouped into five topics: love/gregariousness; communication/care/health education; acceptance/self-esteem/self-realization/self-image; recreation/leisure/sociability/participation/creativity/freedom; space;
• Psychospiritual needs: the building of this block accounted for the need to know the aspects of religiosity of the child/adolescent/family, detailing beliefs practiced, as some religious doctrines establish for their followers to reject certain therapeutic procedures or foods that are believed to be unclean;
• Other relevant data and nurses’ observations: this block is an open space for free text writing, where any relevant data not previously included, as well as the observations of nurses, must be recorded.

The items described in the NPH were the product of the formulation process, followed by analysis and review of the content of each element of the instrument as explained below:
• In the analysis and review of the NPH, orthographic and corrections obtaining agreement were made, eliminating repeated items and included other important ones. Modifications were made in all blocks of the NPH, either by exclusion, addition or correction of any item to meet the standards of objectivity and clarity of this work tool. At this stage, a review of the structure and organization of the blocks was performed, formatting and distributing the items so that the instrument layout would be harmonious and pleasant, providing a good impression, and stimulating in the nurse the desire to introduce it into the care practices;
• The first version of the NPH was referred to an expertise group consisting of five professors of higher education (three with doctorates, two with master’s degrees) in public institutions, with experience in standardization of nursing care and pediatric intensive care. All the professors proposed changes, adjustments, inclusion or exclusion of items. A total of 22 amendments were suggested, and each professor offered between two and nine contributions. With the considerations, suggestions and questioning of the experts, the NPH was revised, and its second version was presented;
• The second version was presented to the nurse manager and Board of Nursing, which authorized the testing of the instrument by nurses from the PICU. Thus, the NPH was given to the nurses, in addition to a copy of the Instruction Guide for its use, which was developed in parallel to the process of reviewing and obtaining the second version of the instrument. Nurses considered this guide to be a positive and facilitating factor for obtaining complete and reliable data for careful planning, as it clarified the items of the instrument and specified the information that must be investigated. The test phase for the instrument enabled the verification of its applicability in clinical practice, and enabled the evaluation of each item, as the nurses recorded their impressions, identifying dubious, repeated, displaced, missing and/or inconsistent items;
• At the end of the test phase of the NPH, a workshop with the nurses was conducted, in order to develop the final version. During the workshop, 14 suggestions were presented, discussed and deliberated, of which five related to changes of instrument items, five for inclusion of items, and four for exclusion of items. The product of this workshop contributed to the development of the final version of the NPH. The nurses agreed to use this tool as a first step of the NP in the unit.
• In order for nurses to officially implement this in the unit, the approval of the hospital nursing managers was requested. After agreement by the Nursing Board to implement the tool, the Nursing Coordination of the unit communicated by internal memo addressed to the unit nurses; from a particular date, all admitted children should have their data collected with the support of the NPH, developed specifically for the PICU.
Thus, the NPH was implemented four days after the completion of the workshop that defined the final version.

**Discussion**

Critically ill children have multiple and complex needs, which makes it difficult to cover all care required in a data collection instrument applicable in clinical practice. However, a strong scientific base and contributions of nursing experts were used to develop an instrument that meets most of the nursing care requirements in the PICU.

The NPH developed and implemented in the PICU constitutes a milestone for nursing in this service, since it is the first stage of the NP; and the information collected and the needs identified at this stage are essential for the proper direction and development of the other stages.

The developed NPH has as a differentiator, in relation to other published instruments, the fact that its structure fully covers all dimensions and needs determined by the Theory of Basic Human Needs of Wanda de Aguiar Horta, and it has used scientific evidence, and contributions of experts and bedside nurses in the development of the instrument, making it possible to observe the specificities of the hospitalized child, considering the family and the PICU context, with the possibility of the nurse glimpsing the perspective of extended care that transcends the biological, technological and automatic dimension, which are strongly present in the context of intensive care.

During the test phase of the instrument, the nurses reported that they invested 30 minutes to two hours to collect the data. According to them, one of the reasons for the delay in the completion, were the various interpolations of other members of the healthcare team about the meaning and purpose of this activity, or the required attention of nurses in order to perform other activities, sometimes beyond their professional competence. This role conflict deviates the nurse’s accomplishment of her duties, leading her to reorganize occasional care activities over those of integral care, which drives her away from the holistic care proposed by the NP.\(^{(11)}\)

Another reason indicated by the nurses for the delay in data collection was the need to use the guide for the use of the NPH countless times, in order to seek answers and clarifications of questions that appeared during the process. However, subsequent applications of the NPH was made as soon as the doubts became smaller or even non-existent, given that nurses have incorporated the content, a fact that contributed to greater agility. This situation was expected, since according Wanda de Aguiar Horta,\(^{(4)}\) nurses will find it easier and will spend less time on this activity, the greater their familiarity with and ability to use the NPH. However, constant support and the use of support tools are crucial strategies for high quality of NP documentation.\(^{(12)}\)

**Conclusion**

This research has enabled advances in the organization, process, planning and qualification of care in the nursing records, a product of development and implementation of the NPH in the PICU. The proactive process assumed by the clinical nurses in the instrument development, allowed for the exchange of experiences, reflections and important contributions to its implementation in daily care practices. This process required commitment and dedication of the researchers to raise awareness, engage and obtain cooperation and availability of nurses during the steps of the process. It was also strategic to transform the form and content of nursing care in the PICU, and thus govern the orchestration of care in defense of life and scientifically based nursing, in which the nurse acts as she thinks, plans and meets the general and specific needs of the seriously ill child and his family.

The methodology proposed by the Convergent Care Research, resulted in modifications from prescriptive and authoritarian practice of
the protocols and standards to a collective, participatory, reflective and complementary development of the actors.

A political action is suggested in the context of nursing management, in which the research was conducted, to open doors and windows of opportunities for scientific nursing and, consequently, for qualification of the care practices.

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Collaborations
Santos DMA and Souza MGF declare that they contributed to the project design, analysis and data interpretation, to the article writing, relevant critical review of the intellectual content, and final approval of the version to be published. Paiva MVS and Santos AT collaborated in the steps of analysis, data interpretation, relevant

References
APPENDIX 1. Nursing patient history of the PICU of the University Hospital of the Federal University of Maranhão

UNIVERSIDADE FEDERAL DO MARANHÃO
COMPLEXO HOSPITALAR UNIVERSITÁRIO
NURSING PATIENT HISTORY FOR PEDIATRIC INTENSIVE CARE UNIT

1. IDENTIFICATION
Name: ................................................................. Bed: ............ Hospital ID: ......................, DOB: / /...
Age: ........... Sex: ( ) M ( ) F Color/race: ................................ Admit to hospital: / / / Admission to the PICU: / / / At: ...... h. ABO Group: ........... Goes to school/day care? Yes ( ) No ( )
Education: ........................................... Mother’s name: .................................................................
Origin: ..............................................................................................................................................
Address: ..........................................................................................................................................
Companion during hospitalization: ........................................ Kinship: .........................................................

2. ANTECEDENTS
Underlying disease: Diabetes ( ) Hypertension ( ) Congenital ( ) Other: ........................................
Childhood diseases: ...........................................
Previous hospitalizations? Yes ( ) No ( ) reason: ..........................................................................................................................
Medication in use? Yes ( ) No ( ) reason: ..........................................................................................................................

3. CURRENT DISEASE HISTORY
Main complaint: ..........................................................................................................................................
Onset of signs/symptoms: ..........................................................................................................................
Disease progression: ..........................................................................................................................
Current treatment: ..........................................................................................................................

4. PSYCHOLOGICAL NEEDS

4.1 OXYGENATION
RR: .................. Th: Symmetric ( ) Asymmetric ( ) Type: Barreled ( ) Elliptical ( ) Pectus excavatum ( ) Pectus carinatum ( ) Kyphosis ( ) Scoliosis ( )
Respiratory pattern:
Superficial ( ) Deep ( ) Eupnea ( ) Tachypnea ( ) Bradypnea ( ) Hypertension ( ) Hypotension ( )
Nasal flaring ( ) Apnea ( ) Intercostal retractions ( ) Subcostal retractions ( ) Accessory muscles ( )
Ventilation:
Spontaneous ( ) Venturi Mask ( ) NIPPV ( ) Invasive ( ) Non-invasive ( )
Ventilation frequency ( ): .................... L/min
Pulmonary auscultation: Vesicular murmurs ( ) Adenoidal sounds ( )
Cough: Yes ( ) No ( ) Productive ( ) Non-productive ( ) Characteristic of secretion: ..............................................
Sialorrhea ( )

4.2 HYDRATION/ NUTRITION/ ELIMINATION/ HYDRO-ELECTROLYTE REGULATION
Turgor: Preserved ( ) Decreased ( ) Edema ( ) Characteristic: .............................................................
Tenting ( ) Palpation ( ) Mucous membranes: Hydrated ( ) Dry ( ) Ruddy ( ) Blanched ( )
Appetite: Normal ( ) Increased ( ) Decreased ( ) Does not apply ( )
Receives food: Yes ( ) Not ( ) Type/route and administration/volume/interval: ..........................................................

4.3 SLEEP AND REST / CORPORAL MECHANIC / LOCOMOTION

4.3.1 GLASGOW SCALE
GLASGOW Scale value: ...........points Impaired ( ) reason: ..........................................................................

4.3.2 RAMSAY SCALE
RAMSAY scale value: ...........points Does not apply ( )
Level of consciousness:
Sedated ( ) Drowsy ( ) Alert ( ) Oriented ( ) Disoriented ( ) Confused ( ) Unconscious ( )
Unconscious ( ) Comatose ( )
Fontanel:
Normal ( ) Convex ( ) Depressed ( ) Tense ( ) Anterior: Open ( ) Closed ( )
Posterior: Open ( ) Closed ( )
Pupils:
Myotic ( ) Mydriatic ( ) Isocoric ( ) Anisocoric ( ) Photo reactive ( ) Fixed ( )
Activity:
Active ( ) Hypoactive ( ) Reactive to manipulation ( ) Reactive to pain ( ) Unresponsive ( )
Mobility:
Hypotonia ( ) Hypertonia ( ) Dyskinesia ( ) Spasms ( )
Seizure ( ) Type: ........................................ Limb movement and flexion ( ) Sudden movements ( )
Sleep: Regular ( ) Irregular ( ) Crying ( ) Agitation ( ) Wakefulness ( )

4.4 CARDIOVASCULAR
Peripheral perfusion: Preserved ( ) Decreased ( ) Pulse: Full ( ) Filliform ( ) Regular ( ) Uneven ( )
Heart sounds ( ) Arhythmia ( ) Bradycardia ( ) Tachycardia ( ) Heart Sounds ( )
Devices and drains: .............................................................................................................................
4.5 BODY CARE/PHYSICAL MUCOCUTANEOUS INTEGRITY / PHYSICAL SAFETY

Hygiene: Satisfactory () Unsatisfactory () Odor: .................. Last shower: ..................
Oral Hygiene: Satisfactory () Unsatisfactory () Gingivitis () Cavities () Coated tongue () Dentition: Full () Incomplete ()
Scalp: Clean () Dirty () Pediculosis () Injuries ()
Skin: Integrity () Normal color () Pale () Hyperemia () Cyanotic () Jaundice () Class: ..................
Mucocutaneous injuries? Yes () No () Appearance / Quantity /Location: ...........................................................

Type of venous access: PAV () CVC () PICC () Venous Dissection () Access Characteristic: ..................

Physical Safety: Risk of infection () Risk of Falling () Risk of aspiration () Risk of pressure ulcer () Braden Q ........... points

4.6 SHELTER/ENVIRONMENT
Accommodation unit: Warmed crib () Bed () Isolation: Yes () No () type: ...........................................................

4.7 THERMOREGULATION
Ax: ........... ºC Normothermia() Hypothermia() Hyperthermia() Tremors() Chill(s) Sweating()
Body heating () Type: ...........................................................

4.8 HORMONAL REGULATION/CELL GROWTH/SEXUALITY
CBG: ................ mg / dl Hyperbilirubinemia () Weight: ........... kg Height: ........... cm z-scores: ...........
BMI: ........... Head circumference: ........... cm Chest circumference: ........... cm Abdominal circumference: ........... cm
Changes in development? Yes No ()
Which? ...........................................................
Puberty: Yes () No () Characteristic: ...........................................................
Normal genitals? Yes () No () Changes: ...........................................................

4.9 IMMUNOLOGIC REGULATION
Allergies Yes () No () Specify: ...........................................................
Immunosuppressant diseases Yes () No () Specify: ...........................................................
Autoimmune diseases Yes () No () Specify: ...........................................................
Complete immunization schedule? Yes () No () Delayed: ...........................................................

4.10 THERAPEUTIC
Medicines () Imaging/ laboratory exams / () .................... ..................................................
Surgeries () Specialists ()

4.11 PERCEPTION OF THE SENSORY ORGANS
Eyes: Symmetric () Asymmetric () Blinking reflex: Present () Absent () Focuses / look at objects / people? Yes () No ()
Ocular secretion? Yes () No ()
Verbal report of pain? Yes () No ()
Pain localized? Yes () No ()
Facial expression of pain: ...........................................................

4.12 PAIN
Locates painful stimulus? Yes () No ()
Verbal report of pain? Yes () No ()

5. PSYCHOSOCIAL NEEDS

5.1 LOVE/ GREGARIOUSNESS
Mother-child bond: Established () Fragile () Parents visit() Comfort with parental touch ()
Family demonstrate love, affection and delicacy () Family Type: Nuclear () Extended () Reconstituted () Separated parents ()
Support network: ...........................................................

5.2 COMMUNICATION / ATTENTION / HEALTH EDUCATION
Gestures/ body communication / () Verbal communication: Normal () Impaired () Reason: ..................
Parental knowledge about the disease / therapy: Satisfactory () Unsatisfactory () Therapeutic Segment: Suitable () Inadequate ()

5.3 ACCEPTANCE / SELF-ESTEEM / SELF-REALIZATION / SELF-IMAGE / EMOTIONAL SAFETY
Confidence () Confrontational () Emotional Stability () Emotional instability () Aggressiveness ()
Anxiety () Fear () Acceptance of physical modification () Resilience ()

5.4 RECREATION / SPORTS / SOCIALITY / PARTICIPATION / CREATIVITY / FREEDOM
Social interaction: Satisfactory () Unsatisfactory () Participation of social groups () Easy to establish ties ()
Practice of recreational activities () Specify: ...........................................................
Disruption of ties () Specify: ...........................................................

5.5 SPACE
Residence: Private () Leased () Other () Number of residents / Rooms: ........... Home type: ...........................................................
Masonry () Adobe () Wood () Other () Area: Urban () Rural ()
Piped water? Yes () No () Electricity? Yes () No () Garbage collection? Yes () No () Sewage system? Yes () No ()

6. PSYCHOSPIRITUAL NEEDS
Catholic () Evangelic () JW () Adventist () Other () What: ........... None ()
Frequency of participation in religious activities: ........... Need the presence of spiritual leader? Yes () No ()
Desire to be baptized? Yes () No ()

7. OTHER RELEVANT DATA AND NURSES' OBSERVATIONS

DATE: / /
TIME: / 
NURSE: / 
COREN: / 

Legend: N/A (not applicable); NV (Not verified); RF (refers to the family); RP (refers to the patient)