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# Skin lesions in newborns in the hospital setting: type, size and affected area\*

LESÕES DE PELE EM RECÉM-NASCIDOS NO AMBIENTE HOSPITALAR:  
TIPO, TAMANHO E ÁREA AFETADA

LESIONES DE PIEL EN RECIÉN NACIDOS EN EL ÁMBITO HOSPITALARIO:  
TIPO, TAMAÑO Y ÁREA AFECTADA

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## ABSTRACT

Skin lesions can occur in newborns (NBs) at the Neonatal Intensive Care Unit (NICU). The objective of this study was to identify skin lesions in newborns hospitalized at a NICU, considering the type, affected area and size. This prospective, descriptive, quantitative study was performed from March to May 2007 at a public institution in Fortaleza, Ceará, Brazil. The sample consisted of 137 newborns, 36 (26%) of which had lesions. Results: hematomas (24; 46%), erythemas (9; 18%), excoriations (6; 12%), ecchymoses (5; 10%), pustules (3; 6%) and others (4; 8%). Regarding the affected area: 40% were < 1cm<sup>2</sup>. As for the size: 68% measured between 1 and 2cm. Geographic form (38%) and localized distribution (92%) prevailed. As to the affected region, the distribution was: limbs (27; 52%), trunk (12; 24%), head (8; 16%) and others (4; 8%). In conclusion, the most common skin lesions are hematomas and the limbs are the most affected area.

## KEY WORDS

Infant, newborn.  
Neonatal nursing.  
Ecchymosis.

## RESUMO

Lesões de pele podem ocorrer em recém-nascidos (RNs), na Unidade de Terapia Intensiva Neonatal (UTIN). Objetivou-se identificar lesões de pele em recém-nascidos internados em uma UTIN, considerando tipo, área afetada e tamanho. Estudo prospectivo, descritivo, quantitativo, realizado de março a maio de 2007, em uma instituição pública de Fortaleza-CE, Brasil. A amostra foi composta de 137 recém-nascidos, destes 36 (26%) apresentaram lesões. Resultados: hematomas (24; 46%), eritemas (9; 18%), escoriações (6; 12%), equimoses (5; 10%), pústulas (3; 6%) e outras (4; 8%). Quanto à área: 40% eram < 1cm<sup>2</sup>. Quanto ao tamanho: 68% tinham entre 1 e 2cm. Predominou a forma geográfica (38%) e distribuição localizada (92%). Quanto à região afetada: membros (27; 52%), tronco (12; 24%), cabeça (8; 16%) e outras (4; 8%). Concluiu-se que as lesões de pele mais presentes são os hematomas e a área mais afetada é a dos membros.

## DESCRIPTORES

Recém-nascido.  
Enfermagem neonatal.  
Equimose.

## RESUMEN

Las lesiones de piel pueden afectar a los recién nacidos (RNs), en la Unidad de Terapia Intensiva Neonatal (UTIN). Se objetivó identificar lesiones de piel en recién nacidos internados en una UTIN, considerando tipo, área afectada y tamaño. Estudio prospectivo, descriptivo, cuantitativo, realizado de marzo a mayo de 2007, en una institución pública de Fortaleza-Ceará-Brasil. La muestra se compuso de 137 recién nacidos, de los que 36 (26%) presentaron lesiones. Resultados: hematomas (24; 46%), eritemas (9; 18%), escoriaciones (6; 12%), equimosis (5; 10%), pústulas (3; 6%), otras (4; 8%). En cuanto al área, 40% eran < 1cm<sup>2</sup>, respecto al tamaño, 68% eran de entre 1 y 2 cm. Predominó la forma geográfica (38%) y la distribución localizada (92%). En cuanto a la región afectada: miembros (27; 52%), tronco (12; 24%), cabeza (8; 16%) y otras (4; 8%). Se concluyó que las lesiones de piel más habituales fueron los hematomas, y el área más afectada fue la de los miembros.

## DESCRIPTORES

Recién nacido.  
Enfermería neonatal.  
Equimosis.

\* Taken from the thesis "Skin lesions in newborns at the Neonatal Intensive Care Unit", Graduate Nursing Program, Federal university of Ceará, 2008. <sup>1</sup> RN. Ph.D. Student, Graduate Nursing Program, Federal University of Ceará. Nurse at the Teaching Maternity Assis Chateaubriand. Member of the Research Project Health of the Mother-Child Binomial/SABIMF/UFC. Fortaleza, CE, Brazil. fernanda.fontenele@oi.com.br <sup>2</sup> RN, Ph.D. Post-Doctoral degree from University of Victoria School of Nursing, Canada. Associate Professor, Nursing Department, Federal University of Ceará. CNPq researcher. Coordinator of the Research Project Health of the Mother-Child Binomial/SABIMF/UFC. Fortaleza, CE, Brazil. cardoso@ufc.br

## INTRODUCTION

In neonatal care, the maintenance of skin integrity is a source of concern for caregivers, as skin lesions predispose newborn infants (NI) to infection risk, can cause sequelae and irreversible scars. This demands constant skin assessment for nursing care to prevent lesions<sup>(1)</sup>. During hospitalization, infants can be submitted to certain procedures, which can contribute to the occurrence of skin lesions. Lesion is a damage; harm; act or effect of injuring, general term given to all pathological organ and tissue alterations; bang; bruise<sup>(2)</sup>. It can be closed, without any interruption, or open, with interruption.

Newborn skin lesions are quite common, both in healthy NI who spend little time in the postpartum period, and on the skin of infants needing hospitalization at neonatal intensive or semi-intensive care units, due to some disease. This theme is considered with great caution as, when epidemiological studies related to this problem are proposed, it is unavoidable for the nursing and medical team in care of care for these NIs to be afraid of accusations with medical-legal repercussions<sup>(3)</sup>. Some studies on this theme have been accomplished though, as well as a larger number of relevant publications and the challenge of discussing this problem at some scientific events, justifying the acknowledged relevance of this theme in the neonatal context.

At birth, the skin represents 13% of the body surface, which is highly representative for a newborn, as any alteration in that organ means an alteration in the development of its functions. Moreover, the skin surface is used together with other findings to determine the infant's physical maturity<sup>(4)</sup>.

NI affected by skin lesions demand more time from professionals than other infants. Nursing care quality delivered to NI is fundamental and determinant in these patients' clinical evolution. A nursing team prepared to act in this scenario is paramount. The specificities of care delivery at neonatal units turn care more complex, justifying the need for nursing care planning to respond to service demands<sup>(1)</sup>.

Great concern with this membrane is expressed which, still developed, has peculiar characteristics and excessive sensitivity. No matter how simple and routine the delivered care may seem, between the infants' admission and discharge, the NI are submitted to a range of procedures, using life-support devices, which demand the application of care, including: installment of catheters; capillary, venous and arterial punctures; probes, placement of adhesive devices, use of sensors, placement of electrodes, body hygiene, dressing change, position change, among others. All of these situations represent aggravating factors for the appearance of lesions, due to their repetitive frequency during hospitalization<sup>(5)</sup>.

It is known that neonatal units have distinct and fundamental routines that facilitate the development of their activities and aim for the NI's recovery. The researchers alert to the need, however, to develop routines adapted to the care clients. Lesions are not easy to deal with and demand special care from caregivers, as well as rapid decision-making, effective intervention and precise attitude. This factor should not demotivate professionals working in this area though. On the opposite, it turns into a challenge for the neonatal team to take care of skin lesions, i.e. to deliver efficient care, in neonatal practice based on scientific literature, with in-depth contents on newborns' skin and its distinct characteristics. Hence, knowledge on the physiological aspect is fundamental, which represents fundamental contents to plan excellent care.

Getting to know the skin microbiota; identifying types of skin integrity alterations; knowing the main dressings' indications and action mechanisms (papain, hydrocolloid, hydrogel, calcium alginate, semipermeable membranes or films, Essential Fatty Acids); evaluating the skin, characteristics and indicating appropriate dressings; performing actions needed to take care of observed lesions, among others, are fundamental knowledge for nurses since the start of their academic education<sup>(6)</sup>.

In this context, the researchers believe that the results of this research, focusing on skin lesions, can contribute to improve NI care quality, in view of this need for this membrane's perfect condition with a view to the satisfactory development of the organism and effective functional re-establishment of the NI.

In neonatal care, the maintenance of skin integrity is a source of concern for caregivers, as skin lesions predispose newborn infants (NI) to infection risk, can cause sequelae and irreversible scars.

## OBJECTIVE

To identify skin lesions in newborns hospitalized at a Neonatal Intensive Care Unit, considering the type, affected area and size.

## LITERATURE REVIEW

Skin is the mantle that covers the organism, essential for life, which covers organic components from the external environment. It is a complex structure, comprising different kinds of tissue, arranged and interrelated so as to harmoniously adapt to the performance of its functions. Great variations are found along its extent, according to the body segments, sometimes more flexible and elastic, sometimes more rigid; with folds, joint and muscle alterations, sebaceous hair and sweat orifices<sup>(7)</sup>.

The skin comprises three tissue layers: epidermis: the outer layer, which lives in constant regeneration, composed of keratinocytes, Merkel cells, Langerhans cells and monocytes. Dermis: second tissue layer, located immediately

below the epidermis, composed of dense fibro-elastic stroma, with nervous vascular structures, adnexal organs, sebaceous and sweat glands and hair follicles. Hypodermis: deepest skin layer, located below the reticular dermis, of variable thickness, composed exclusively of adipose cells, collagen and blood vessels with a larger caliber than those in the dermis.

Due to the chemical, physical and biological properties of the different skin structures, as an involving and isolating membrane, the skin performs important functions: protection, immunological protection, perception, hemo-regulation, thermoregulation, secretion, metabolic and social<sup>(7,8)</sup>.

### **The newborn's skin**

Skin care is a critical component in neonatal care. It is coherent for nurses to know the anatomical and physiological characteristics of newborns' skin, besides knowing how to characterize and describe the detected lesions<sup>(4,8)</sup>.

At birth, some NI have reddish and very thin skin, sometimes even showing the blood vessels, evidencing its fragility. Others' skin is covered by a waxy white material, the vernix caseosa, produced by epidermal cells and sebaceous secretions, composed of water, cutaneous residues (remains) and a considerable amount of estrogen. The vernix is considered a protection against lesions and has a lubricant function, also helping at the moment of birth, allowing the infant to become slicker, as well as an antibacterial function, preventing infections, maceration by amniotic fluid and traumas, with a pH level between 6.7 and 7.4. It should not be removed, but left to disappear spontaneously<sup>(7,9)</sup>.

The main dermal barrier is the layer of keratinocytes that exists on the surface. Keratinization starts at 24 weeks of pregnancy, but is not complete until close to birth. The barrier property of infants' skin below the gestational age of 34 weeks can be delayed by 14 to 21 days of maturation. This maturation can be even more delayed in case of dermal injuries<sup>(9)</sup>.

Due to the anatomical and physiological peculiarities of the infants' skin, making them susceptible to the development of skin injuries, keeping it intact is something special, as it preserves protection functions and decreases the risk of infections deriving from hospitalization.

Nurses can detect many cutaneous alterations during different activities, including hygiene, catheter passage and physical examination. It is important for these professionals to be able to describe the detected lesions, considering their characteristics<sup>(8)</sup>. The ability to adequately assess a tegumentary alteration is an important nursing skills<sup>(10)</sup>. Therefore, it is fundamental to classify and describe it precisely. Therefore, professionals should pay attention to any type of lesion, no matter how small, as well as to registers, which are of utmost importance to monitor the NI's treatment.

## **METHOD**

A prospective, quantitative, exploratory and descriptive study was carried out at a Neonatal Unit of a federal public institution in Fortaleza-CE, Brazil, a tertiary institution with two NICUs, totaling 21 beds.

According to data by the institution's Information Technology Sector, in the first four months of 2006, 205 newborns were registered. Based on these data, non-probabilistic convenience sampling was calculated with 137 infants, independently of gestational age, who were hospitalized at one of the Neonatal Intensive Care Units during the data collection period and whose parents accepted their inclusion in the study. Thirty-six of these infants presented skin lesions. As all parents accepted, none of the NI was excluded.

The variable *skin lesion in newborns* was chosen, with a 10% prevalence level P. A 3% sample error and 5% significance level were considered ( $p = 0.05$ ). The following formula for finite populations was applied:

$$n = \frac{t_{5\%}^2 \times P \times Q \times N}{e^2(N-1) + t_{5\%}^2 \times P \times Q^2}$$

A form was applied, with relevant aspects on the identification of the lesion. Data were collected between March and May 2007, through direct observation of the newborns during body hygiene, diaper, probe, eye cover change: removals: of semipermeable membrane, elastic and/or Micropore adhesive bandage, electrodes, hydrocolloid fixed directly on the infants' skin, during punctures, among other procedures.

Consequently, when identified, the lesion was observed first by visual perception and then with the help of a magnifying glass, in environmental light, with fluorescent lamps at all units and windows favoring the presence of natural light inside the premises. For the sake of a better description, the lesion size was measured: linear. When identified, the greatest length and width of the lesion were measured (in centimeters) with the help of a ruler.

The collected data were processed, discussed and analyzed in detail in accordance with relevant literature and presented as tables and graphs, with absolute and relative frequencies. When possible, means and standard deviations were calculated. Statistic Package for Social Science - SPSS 13.0 was used for statistical treatment.

The parents were contacted when they arrived to visit their children, so as to inform them about the study objectives, method and importance of their child's participation, justifying the advantages for the infants. Data protection and reliability were guaranteed, as well as anonymity and secrecy of the provided information, guaranteeing the right to exclude their child from the research at any time if they wanted to. The social relevant of the research was clarified, as well as the absence of risks, also informing that there

would be no charge whatsoever for the responsible family members and/or NI, guaranteeing equal consideration of involved interests, without losing the sense of its socio-humanitarian destination.

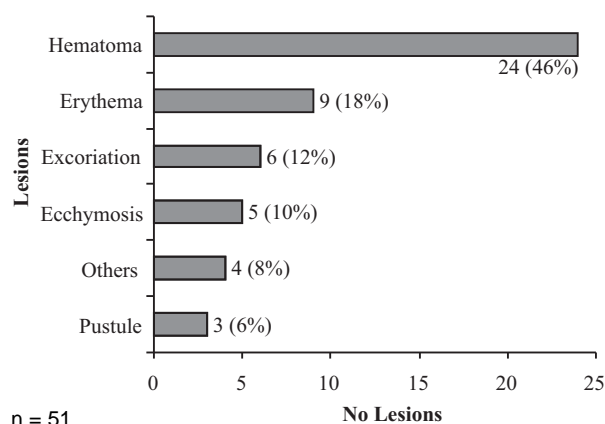
To prove the parents' consent with their child's participation, they were asked to sign an informed consent term to formalize the participation. Approval for the research was obtained from the Institutional Review Board (CEP) and the unit head was asked for authorization before entering the field (CEP Process No 1106/2005).

## RESULTS

### Types of lesions

Out of 137 newborns hospitalized during the data collection period, 36 NI (27%) showed 51 lesions, with some infants presenting more than one lesion, and an average hospitalization period of 42 days.

In Graph 1, a general view is provided on the number and type of lesions evidenced during data collection.

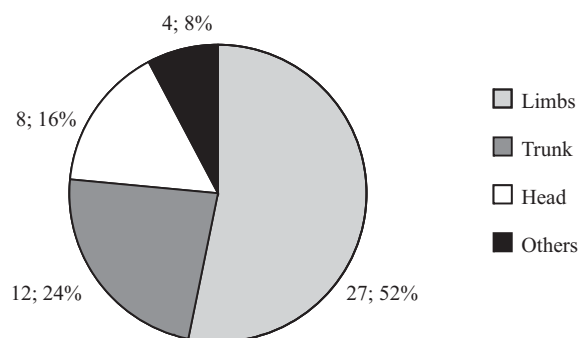


**Graph 1** - Classification of newborns' skin lesions - Fortaleza, CE - March/May - 2007

Hematoma predominated with 24 cases (46%), followed by nine (9) cases of erythema (18%), six (6) cases of excoriations (12%), five (5) cases of ecchymosis (10%) and three (3) cases of pustules (6%). Registers were also found of four (4) other lesions (8%) of lesser proportions: two (2) cases of scaling (4%), one (1) lesion characteristic of myelomeningocele (2%) and one (1) characteristic of gastroschisis (2%).

### Lesion sites

Graph 2 displays the sites where skin lesions occurred in this study.



**Graph 2** - Distribution of body regions where lesions occurred - Fortaleza, CE - March/May - 2007

According to the data, limbs were the most affected lesion regions with 27 cases (52%), followed by the trunk with 12 cases (24%), the head with eighth (8) (16%), besides some regions with lower rates, considered in the category *others*, with four (4) cases (8%).

### Lesion size

Another aspect of great interest for nurses dealing with skin lesions is their size. This information enhances the NI's situational assessment. Table 1 shows a comparison of the lesion sizes found, according to whether they are calculated on the total area (cm<sup>2</sup>) or greatest extent (base or height), in cm:

**Table 1** - Characteristics of lesions in terms of size - Fortaleza, CE - March/May - 2007

Size	No	%	Mean(± Standard Deviation)
<b>Total Area</b>			
< 1cm <sup>2</sup>	20	40.0	1.5 (± 1.0)
1 – 2 cm <sup>2</sup>	17	33.0	
> 2 cm <sup>2</sup>	14	27.0	
<b>Largest based on height</b>			
< 1cm	10	20.0	1.48 (± 0.68)
1 – 2 cm	35	68.0	
> 2 cm	6	12.0	

n = 51

In line with previous data, in terms of lesion area, most lesions were < 1cm<sup>2</sup>, totaling 20 cases (40%), followed by 17 cases of lesions between 1 and 2cm<sup>2</sup> (33%), mean = 1.5 and SD = 1.0, and also 14 lesions measuring more than 2cm<sup>2</sup>. It is interesting to observe the description of lesion size when considering their extent. A significant predominance of lesions between 1 and 2cm (35 - 68%) is observed, decreasing to 10 cases < 1cm (20%) and 6 cases > 2cm (12%).



### Lesion forms and distribution

The main forms and distribution of the identified lesions should also be discussed. Together with lesion size, they provide the initial prognosis, accomplished by nurses. These forms and distribution are shown in Table 2.

**Table 2** - Lesion characteristics in terms of form and distribution - Fortaleza, CE - March/May -2007

Characteristics	No	%
<b>Form</b>		
Geographical	20	38.0
Circinatum	11	22.0
Figured	7	14.0
Dotted	5	10.0
Miliary	3	6.0
Serpiginous	2	4.0
Linear	2	4.0
Arched	1	2.0
<b>Distribution</b>		
Localized	47	92.0
Generalized	3	6.0
Disseminated	1	2.0

n = 51

The geographical form was the most identified type in lesions affecting 20 NI (38%); followed by the circinatum form, identified in 11 NI (22%); the figured form was evidenced in seven (7) NI (14%); the dotted form in five (5) (10%); the military in three (3) (6%); serpiginous and linear two (2) (4%), respectively, and arched in one (1) NI (2%). Regarding the lesions' distribution, three classifications were observed, with a predominance of 47 localized lesions (92%); only three generalized lesions (6%) and one disseminated lesion (2%).

### DISCUSSION

The hematomas were empurpled, without any infection process. Due to the need for venous punctures and laboratory test collections that needed blood, often daily, considering the fragility of the NI's venous network, this ends up favoring the appearance of hematomas, even when post-puncture compression is done. It should be highlighted that, in most hematomas, no type of drainage is needed<sup>(9)</sup>.

The identified erythemas were reddish, characterized burns, were less numerous but nevertheless fundamental for the NI's prognosis.

Excoriations are traumatic lesions with superficial loss of the epidermis only, which can cause severe problems for the NI, including infection. Congenital or acquired neonatal infections are a great concern for professionals, as these can evolve to severe infections of difficult therapeutic control<sup>(1)</sup>. Great attention is needed especially for this type of lesion, as prevention is paramount.

Whenever there are lesions with interruptions, this opens a door for different options, such as infections, discomfort, pain, which can end up impairing the NI's treatment. Research documents that newborns have all functional and neurochemical components needed for the reception and transmission of painful stimuli<sup>(11)</sup>.

Ecchymoses are characterized by empurpled stains that sometimes cause apprehension and doubts among parents due to their color, mainly depending on their extent. Pustules, on the other hand, are lesions with purulent contents, characterizing signs of infection. *Others* were considered lesions that were less frequent: two (2) cases of scaling and two (2) of lesions characteristic of congenital malformations (myelomeningocele and gastroschisis).

Scaling is a common finding in NI when considering different degrees and locations. Infants frequently present skin lesions, whether congenital, transitory or due to infection, among others<sup>(12)</sup>. It is a fact that these lesions are explicit today at many neonatal units, given their delicacy. It is important, however, to disseminate them with a view to further knowledge on the intensity and extent of the situation and the possibility of pertinent interventions.

A study with similar findings on NI's skin integrity, carried out in São Paulo, assessed the skin of 121 neonates, revealing NI who developed the most frequent types of skin lesions identified: Ecchymoses (50.9%), perianal erythemas (28.6%), moniliasis (8.3%), with an average longer hospitalization time than infants without lesions<sup>(1)</sup>. Another study carried out in the South of Florida, involving 1056 NI, found the presence of perianal lesions (0.6%), traumatic lesions (1%), scaling (13%), petechiae (2.4%) among others<sup>(12)</sup>.

A bibliographic research on bathing and skin colonization of NI is highlighted here. The study revealed that any cleaning agent, including tap water, entails consequences for the infant's skin surface. Bathing with soap leads to an increase in skin pH, which interferes in physiological protection (acid mantle), provoking a change in the composition of the cutaneous bacterial flora and in the activity of epidermis enzymes. Another consequence is the dissolution of epidermal surface fat, which influences hydration conditions and predisposes to skin dryness and scaling<sup>(13)</sup>.

In an investigation of literature on commonly affected skin lesion sites in NI in Fortaleza-CE, a research appointed the face (34%), front (29%), upper limbs (13%), abdomen (8%), lower limbs (8%), ear and gluteus (4%) respectively, as regions where lesions occurred<sup>(9)</sup>.

The importance of knowing these lesions also involves adequate orientation to infants' parents, who often get apprehensive when seeing some lesion on their child's skin.

In NI, the intravenous route is the most used to administer the treatment chosen. In view of the need for a permeable intravenous route, arm, leg and foot veins are constantly used as a first choice, due to their easy access and better visualization of peripheral veins. Nurses should al-

ways supervise and orient their team, verifying fixation sites and always observing venous access permeability while an intravenous route is needed.

After birth, preterm newborns require hospitalization at an NICU, and one of the first medical and nursing acts performed is to guarantee venous access. If the infant is very small and conditions are generally satisfactory, traditional access is usually attempted. Accesses can cause lesions, ranging from ecchymosis to eschar<sup>(3)</sup>.

Frontal lesions can cause permanent scars, entailing esthetic problems that will affect the child in the future. Lesions in extremities like feet and hands can affect other structures and cause alterations in extremity movements.

Also due to the need for daily monitoring of laboratory tests and the lack of a venous network, puncture sites are weakened, despite the rotation in collection sites. Upper limbs are the first sites chosen for laboratory test collection, followed by lower limbs, which confirms the number of lesions observed.

The *others* category covers the perianal region, where chafes were evidenced in this sample. Perianal chafes stand out because it is irritable and painful lesions, in constant contact with urine and feces and occluded by discardable diapers<sup>(9)</sup>. Nursing care quality is emphasized in view of the need for delicate care, extremely strict in terms of NI intimate hygiene to put in practice prevention levels.

A study on the development of lesions due to diaper irritations found the largest number of lesions in the perianal region. Clinical signs of irritated skin are common in the area where diapers are used, which are progressively developed during the first month after birth<sup>(14)</sup>. Countless factors are thought to be involved in the appearance of these lesions. Some studies mention the use of broad-spectrum antibiotics as an aggravating factor in skin dermatites, increasing the contamination ratio by *Candida albicans*<sup>(15)</sup>.

During the adaptation phase to extra-uterine life, the NI show risk of developing traumas and cracks in the skin barrier, deriving from routine care like bathing, skin disinfection and removal of adhesives<sup>(16)</sup>. Consequences of routine bathing include dryness, irritation and destabilization of vital signs and temperature. Besides, rubbing the skin is very painful for newborns<sup>(17)</sup>.

In infants, due to the immaturity of skin attachments, particularly the lack of sebaceous glands and the fat layer, the skin surface becomes more susceptible to dryness and fungal infections<sup>(18)</sup>.

After birth, significant environmental and behavioral factors can affect skin structure and function. These factors include environmental temperature changes, alterations in the dryness and moisture of the skin surface and intermittent contact with the friction of clothes, blankets and diapers<sup>(16)</sup>. The frequent use of a heating source can cause skin dryness and scaling. Like handling, the removal of adhesives and electrodes favors skin cracks and ulcerations.

None of newborns' skin lesions should be underestimated, even when the size seems small. In most cases, it is a causal factor of many complications. It is important to observe the measures of the lesion area, when possible with photographic records. In the analysis of the abovementioned data, some mistakes can be made in lesion measurement, due to the specificity of the procedure. Measuring the area can be inefficient in neonatology, due to the lack of homogeneity in the injuries. It is inferred that measuring the largest base or height is the best option for this procedure at the neonatal unit.

In this perspective, it was verified that skin lesions in newborns are still a reality at the NICU, despite so many specific material resources for neonatology. Despite all care taken with the newborns' skin, concrete data were evidenced through the presented variables. It should particularly be taken into account that all factors mentioned, as a whole, compose a complex system and predispose to the occurrence of lesions. A lesion cannot be analyzed separately. Instead, a range of factors needs to be considered in this process.

Therefore, the skin care and preservation process with regard to lesions in newborns is constant and singular. Nurses should be aware that, independently of the newborns' IG, type, location and causal factor, skin lesion can imply cross-infection, longer hospital stay, greater care complexity and, consequently, potential changes in the newborns' health, turning into a critical component of nursing care.

## LIMITATIONS

This paper presents data observed during the research at the neonatal unit and through patient files. Some visible lesions were not mentioned in the newborns' files, which can indicate omission of important information. This could be observed if a research team observed all work shifts uninterruptedly, providing reliable data registers.

## IMPLICATIONS FOR PRACTICE

The researchers hope that, after scientific evidence with reliable arguments, professional can use the produced data to elaborate care plans that develop protective behavior for newborns' health, taking care of the skin, prioritizing lesion prevention and maintenance of these newborns' skin integrity, at all institutions working with neonatology.

## CONCLUSION

The research comprised 137 newborns, 36 (26%) of whom displayed skin lesions, totaling 51 lesions. Hematomas (46%) predominated, followed by erythemas (18%), excoriations (12%), ecchymoses (10%), pustules (6%) and

others (8%). Limbs were the most evidenced areas (52%), followed by trunk (24%), head (16%) and others (8%). As for the lesion size, most lesions measured between 1 and 2cm (68%), although lesions smaller than 1cm (20%) and larger than 2cm (12%) also occurred.

These data reveal a reality Neonatal Intensive Care Units cannot ignore in view of the clients' characteristics, encouraging the search for new care strategies, which improve care for the newborns' skin. The data appoint the need for further discussion on this theme and research in this care area.

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