COMPLICATIONS IN THE NEWBORN IN INTRA-HOSPITAL TRANSFER OF ROOMING

INTERCORRÊNCIAS AO RECÉM NASCIDO NA TRANSFERÊNCIA INTRA-HOSPITALAR DO ALOJAMENTO CONJUNTO

COMPLICACIONES EN EL NACIENDO EN TRASLADO INTRAHOSPITALARIO DE ALOJAMIENTO CONJUNTO

Paolla Amorim Malheiros Dulfe, Rosane Cordeiro Burla de Aguiar, Valdecyr Herdy Alves, Diego Pereira Rodrigues

ABSTRACT

Objective: Identifying the causes of transfers of newborns in Rooming to the Neonatal Unit; describing nursing care to newborns in Rooming that needed to be submitted to transfer to the Neonatal Complex. Method: a descriptive and exploratory study of quantitative and qualitative approach, with eight nurses of Rooming, through documentary analysis of the survey of bank records by applying a checklist about the line of nursing care and semi-structured interviews. The research project was approved by the Research Ethics Committee, Protocol N. 0199.0.258.000-11. Results: after analyzing, two categories emerged << The complications in the newborn in rooming from nursing care >>; << Nursing care in the transfer of the newborn to rooming >>. Conclusion: The discrepancy between the records and the speech is evident. The nursing record ensures the continuity and quality of care, being an important indicator. Descriptors: Nursing; Nursing Care; Rooming.

RESUMO

Objetivos: identificar as causas das transferências dos recém-nascidos em Alojamento Conjunto para a Unidade Neonatal; descrever os cuidados de enfermagem aos recém-nascidos em Alojamento Conjunto que necessitaram ser submetidos à transferência para o Complexo Neonatal. Método: estudo descritivo e exploratório, de abordagem quantitativa e qualitativa, com oito enfermeiros do Alojamento Conjunto, mediante análise documental de levantamento no banco dos prontuários com aplicação de um check list sobre a linha de cuidados de enfermagem e entrevista semiestruturada. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, Protocolo n. 0199.0.258.000-11. Resultados: após a análise, emergiram duas categorias << As intercorrências do recém-nascido no alojamento conjunto e os cuidados de enfermagem provenientes >>; << Cuidados de enfermagem na transferência do recém-nascido em alojamento conjunto >>. Conclusão: a discrepância entre os registros e o discurso é evidente. O registro de enfermagem garante a continuidade e a qualidade da assistência prestada, sendo um importante indicador. Descritores: Enfermagem; Cuidados de Enfermagem; Alojamento Conjunto.

RESUMEN

Objetivos: identificar las causas de las transferencias de los recién nacidos en el alojamiento conjunto para la Unidad Neonatal; describir los cuidados de enfermería al recién nacido en alojamiento conjunto que debían presentarse a la transferencia al Complejo Neonatal. Método: estudio descriptivo y exploratorio de abordaje cuantitativo y cualitativo, con ocho enfermeras del Alojamiento Conjunto a través del análisis documental de la encuesta de los registros médicos mediante la aplicación de una lista de verificación sobre la línea de la atención de enfermería y entrevistas semi-estructuradas. El proyecto de investigación fue aprobado por el Comité de Ética de la Investigación; Protocolo 0199.0.258.000-11. Resultados: después del análisis, emergieron dos categorías << Las complicaciones en el recién nacido y el alojamiento conjunto y la atención de enfermería >>; << Cuidados de enfermería en el traslado de los recién nacidos en alojamientos conjuntos >>. Conclusión: la discrepancia entre los registros y el discurso es evidente. El registro de enfermería asegura la continuidad y la calidad de la atención, siendo un importante indicador. Descriptores: Enfermería; Cuidados de Enfermería; Alojamiento conjunto.
INTRODUCTION

The neonatal health represents the major component of infant mortality rate in Brazil, since the post-neonatal components are easier modified by order of global factors related to the condition of life of the individual. Neonatal mortality, in turn, is mainly attributed to complications from pregnancy and childbirth directly related to quality of health care given to the binomial in pregnancy and childbirth cycle.

The neonatal mortality rate is about 60-70% of total infant deaths featuring serious public health problem and is an important indicator of quality care. It is also known that most death is characterized by early and preventable diseases.1

The hospital unit presents itself as an important component in the care network, since about 98% of births have occurred in hospital settings, where such care can and should be developed with full ownership and meeting the demands.1,2 The reduction in neonatal mortality rates have occurred gradually. However, their rates are still high and, given its importance, numerous efforts have been developed to decrease its having been included as one of the millennium goals in the commitment of the United Nations (UN).3

The Unified Health System (SUS) must have trained professionals for assistance to the newborn (NB), the objective of risk reduction and promotion of effective care, whether in the rooming unit or neonatal intensive care units, direct care units of the newborn. It then shows how important is the assistance given to these babies in rooming suggesting that its deficit may trigger a cascade of interventions initiated by the transfer of the same to the neonatal unit complex. Thus, it is important to mention that 90% of newborns do not have any difficulty during the transition from intrauterine to extrauterine life. However, the remaining 10% require skilled care, often linked to a technological apparatus for vital maintaining.4

Based on the overall evaluation and classification of the newborn and considering all the circumstances of birth associated with previous and/or observed pathologies, the neonatologist doctor will determine the location for the accommodation of the newborn after birth; it may be the rooming, intermediate neonatal unit or neonatal intensive care. Although the assessment is dynamic and dependent on the clinical condition of the patient, there are some pre-established criteria in the literature that indicate the route to certain sectors and the need for more specific care.

Among the featured are included gestational age less than 34 weeks old, weighing less than 1800g; maternal bleeding in the third trimester, congenital anomalies and surgical implication; infections, Rh incompatibility, delayed intrauterine growth, hypoglycemia, seizures, maternal drug use, demand of oxygen therapy, cardiac arrhythmias, and Apgar score less than 5 at the 5th minute. Such conditions, alone, already indicate the importance of the professional route of the patient to the Intensive Care Unit. Already,4,5 through Ordinance nº 1016, 1993, neonates over 2000g, Apgar score greater than 6 at the 5th minute and more than 35 weeks of gestational age, in addition to clinical and psychological possibility of continuous maternal contact with infants are able to remain in Rooming System. As stated, the conduit ends up being defined by constant evaluation of a set of factors that will guide both the referral of the newborn after birth as their stay in this sector; intra -hospital transfer may occur.

This type of transfer does mention of intersectoral transport carried out in a tertiary health center itself. The definition is used only in patients hospitalized in a neonatal unit and that are transported to the performance of any surgical or diagnostic procedure within the hospital premises or in local referred.6 However, it is understood that it is not only in the inpatient neonatal unit that moves within the hospital, but that this concept covers any displacement that makes the newborn in the hospital unit comprising courses of birth room/rooming, birth room/intermediate unit, birth room/intensive care unit, rooming/intermediate unit, rooming/intensive care unit, and even intensive care unit/intermediate unit and intermediate vice versa unit.

When approached, newborns at risk, the intra-hospital transport occurs predominantly between the delivery room and neonatal units of intermediate or intensive care beyond the neonatal and complex diagnostic or surgical center.7 In this sense, the nurse must be able to promote nursing care, executing individualized care and planning.8

OBJECTIVES

• Identifying the causes of transfers of newborns in Rooming to the Neonatal Unit.
• Describing the nursing care for newborns in rooming that needed being subjected to transfer to the Neonatal complex.

English/Portuguese
J Nurs UFPE on line., Recife, 8(3):514-22, Mar., 2014
METHOD

This is a descriptive and exploratory study, of quantitative and qualitative approach, since the adoption of this design is based on the concept that a quantitative study can generate questions that can be deepened by qualitative research, and vice versa.7,9

This research was conducted in Rooming (AC) of the Maternity University Hospital Antonio Pedro (HUAP), linked to the Federal Fluminense University (UFF). The study population was composed of eight (08) working in the maternity nurses, obtaining the following inclusion criteria: 1) on-duty nurses, 2) journeymen nurses, 3) coordination of nursing and 4) performance in both work shifts.

The methodological process for data collection consisted of two stages. The first consisted of document analysis through the survey database of high-risk maternity of HUAP referring to the 1700 births in the period 2008-2011. The study period corresponded to the implementation of the admission and discharge module in the sector concerned with consequent power of the database used in this study. There were elected newborns with birth at HUAP of 2008-2011, of both sexes, who had built AC drive for Neonatal Complex during hospitalization resulting in a total of 46 neonates, 30 in the neonatal intermediate unit (IU-Neo) and 16 in the neonatal intensive care unit (ICU-Neo). The variables of interest were: place of hospitalization after birth, transfer to ICU NBs AC-Neo, and transfer of NBs of AC to IU-Neo, diagnosis of newborns transferred, the period of the birth intra-hospital transfer and total time of hospitalization.

The research took place in medical records of NBs involved applying the checklist on the line of nursing care to the newborn during the time of admission, continued hospital stay and in-hospital transfer being rooming always the sector of origin. After analyzing these records and, based on criteria established previously described, were listed six babies. Such data generated concerns about what was happening in the care of such babies process suggesting the need to search for more information. So, gave up the second stage of the study conducted through semi-structured interviews focusing on the process of care for the newborn in rooming.

Data collection occurred from June to August 2012 and the participants had the identity kept confidential through the use of alpha-numeric code (E₁, E₂, E₃, ..., Eₙ). The interviews were recorded on a digital device with the permission of the participants, transcribed by the researcher and deleted after its contents are validated by the respective respondents, supporting the literature which states that electronic recording the most reliable method to accurately reproduce the responses to each question.10

After the documentary analysis, application of checklist, transcription and validation of the interviews, the material was submitted detailed reading to facilitate the understanding and interpretation of the data then were analyzed quantitatively and qualitatively. For the quantitative data we used simple statistical analysis and tabulation for the survey in Microsoft Office Excel, version 2007 for Windows program while qualitative, thematic11 analysis were analyzed by its various phases: pre-analysis, material exploration, processing of results, inference and interpretation.12 aiming to compare the data obtained by the questionnaires, with the process of care for newborns in conjunction Accommodation.

Data analysis rise to the emergence of themes titled "The problems in the newborn rooming and care from nursing" and "nursing care in transferring the newborn in rooming".

The research project was approved by the Ethics and Research Committee, Faculty of Medicine HUAP; protocol under the: 05570312.0.0000.5243, provided in accordance with resolution 466/12 of the National Health Council (CNS). All respondents signed an informed consent form (ICF) confirming their participation in research.

RESULTS AND DISCUSSION

The data showed predominance of nurses with the following profile: females (87,7%), aged between 40-50 (100%), average of 21,6 years of action in the profession, experts (75%), with average weekly workload of 49 hours/week and average monthly income of 13 minimum wages.

Regarding the characterization of the scene showed the increasing trend of births over the years, it starts with 389 births in 2008 and is realized with 508 births in 2011. However, in 2009 there was a slight decrease compared to the previous year totaling 373 births, seen in Figure 1.
When analyzing the types of births, we found a predominance of operative births at the expense of vaginal births, most likely sustained by interventional characteristic of high-risk service offered.

Gradually, this prevalence will be confirmed by increasing the number of cesarean deliveries and reducing the number of vaginal births over the years by printing more and more characteristic of the tertiary institution concerned.

Healthy newborns born and remain in this condition during the hospital stay, 48 hours, accommodated in the rooming system are not effectively admitted in the hospital. To do so, they need to present significant complications that require need for exams, medications or treatments. So that a neonate has generated a number of records it must meet one of these conditions. Otherwise, all standard procedures will be performed and described throughout the patient chart, even though specific forms for the neonate.

In the context of maternity HUAP, then we have the description of hospitalizations of newborns in AC, IU and IU-Neo and ICU-Neo sectors. The service to customers at higher risk would assume that ICU-Neo would be extremely high when compared to other sectors. However, there is a larger volume of admissions at IU-Neo AC followed throughout the period, as Figure 2.

The complications in the newborn in rooming and from nursing care

When identified the diagnoses presented by infants transferred from the rooming system for neonatal complex, it is important to emphasize that most of the children studied had more than one diagnosis recorded justifying the total of 13 occurrences for only 06 neonates. Consequently, we have an average of more than two diagnoses for newborns, as figure 3.

Analyzing the occurrence of diagnoses in newborns transferred from rooming to the neonatal complex of HUAP, through CID, the relevant CIDs were P704, P022 and P081 - other neonatal hypoglycemia, respiratory distress syndrome of the newborn and other large newborns for gestational age. It can be inferred close relationship between the diagnosis of a large newborn for gestational age (LGA) with the occurrence of neonatal hypoglycemia since birth weight is the high reflection of the lack of adequate glycemic control, very common in neonates women with gestational diabetes mellitus (GDM). Thus, through a retrospective study of 157 pregnant women with GDM in monitoring was related to the higher value of the two-hour blood glucose in oral glucose tolerance test 75g and late initiation of treatment with consequent lower number of queries, as
elements of a greater relationship with the occurrence of LGA newborns in pregnant women such.\textsuperscript{13}

From the point of view of the experience of nurses as the most frequent complications in newborns at term in rooming were cited jaundice, hypoglycemia, and neonatal sepsis, besides the difficulty incorrect handle or grip. Jaundice is common disease with high incidence in newborns,\textsuperscript{4,5} however not appear pointed in the group studied, highlighting the diagnostic raised are targeted to infants in the rooming that needed to be transferred to the neonatal complex. Thus, the non-occurrence of jaundice in the study group does not reflect the absence of pathology in the rooming; it is assumed that your only control is still done in this sector without generating demand transfer, as well as complications related to breastfeeding. As hypoglycemia and neonatal sepsis, these pathologies have also seen their occurrences in the official records.

When asked to describe how the process of nursing care to the newborn is, the term rooming when one of the complications addressed is identified by the nurse, the subjects alluded to guidance to parents by the multidisciplinary team regarding the treatment to be employee and subsequently conducting contact with the neonatologist on call for reporting of complications, according to the following reports:

- **Orienting the mother and baby to treatment (E1)**
- **Orientation of the multidisciplinary team, mainly the nursing. (E2)**
- **I provide all the support to parents, trying to reassure and gain reassurance to the mother (…) (E6)**
- **Contact neonatologist on duty to report the occurrence to the appropriate action (E3)**

There is therefore a gap in reports of nursing time of identification of uneventful until just before the transfer. In the meantime there is the essential need of evaluation of newborns by nurses and nursing intervention against the complications presented in order to attempt to stabilize the newborn - with consequent prevention of neonatal transfer complex.

However, it is important to emphasize that, in legal terms, the responsible for transferring is the chief doctor of the unit in which the patient lies. About legality, the mother has the legitimate responsibility for the newborn and allows inter-hospital transfer, as well as performing procedures in which authorization is required. The team needs to be composed of a pediatrician or neonatologist and nurse or nursing assistant with knowledge and practice in the area to enable effective performance in case of complications such as physiological or clinical changes, and complications in equipment and/or transportation team. The family is fully involved in this process and, after stabilization of the patient, the staff must inform it about the clinical condition of the newborn, and about the place of transfer.\textsuperscript{6}

Thus, the nurse has the responsibility to pay attention and qualified unified in order to reach the goal of preventing the transfer to other sectors, as this directly affects the health of newborns.

\begin{itemize}
  \item **Nursing care in the transfer of the newborn to rooming**
\end{itemize}

Even going through rigorous medical evaluation in the delivery room and only after they are ranked to remain stable in the rooming-in system, with the passage of time some newborns do not show satisfactory progress needing to be reassessed by the healthcare team and often generate demand for intra-hospital transfer for a sector of higher complexity to meet more adequately the health needs of their way.

The occurrence of in-hospital transfer to the neonatal complex can occur at any time of hospitalization, as well as the return of this newborn baby to stay together when there is a medical indication. It was found that the intra-hospital transfers originated the housing sector for complex neonatal give up on average around the second day, with a peak on the first day of life, as in figure 4:
During the intra-hospital transfer of the newborn to the neonatal rooming complex it was found that the registration of nursing is focused on description of complications (83.3%), evaluation by a physician (66.7%) and annotation transfer site (50%). However, no evaluation of the newborn by professional nurses that describes how the state of health of this child at that time.

Further emphasizing the issue of nursing reports in the medical records, 16.7% did not have any information, whether the evaluation of the neonate, the problem or the intra-hospital transfer. The way the infant is transported and the responsibility that professional does not appear in any of the records. Professionals emphasized the routing of medical records and documentation of the newborn during intra-hospital transfer, however, although given its importance, only 37.5% had complications and the registration of transfer in the evolution of nursing the newborn rooming-in, as per the following reports:

Separating the NB documentation and forward with the newborn to the sector. (E4)
Registration of the evolution of nursing (...) referral of the newborn documentation. (E1)
Registration on single record, reasons and conditions for newborns to neonatal transfer complex (...) routing records. (E3)
Forwarding medical records, prescriptions and tests. (E5)
Evolution of complications and transfer to the Neonatal Unit. (E8)

The quality of nursing services includes not only nursing education, the process of restoring the health of the client or, where this is not possible, the improvement of living conditions, the guidelines regarding self-care, simplification of procedures and safety nursing, but also the result of hospital product, measured by the quality of the documentation and registration of all nursing actions. I.e, the recording quality of care actions reflects the quality of care and productivity at work. And, based on these records, you can permanently build better healthcare practices, and implement actions aimed at improving operational results. In this sense, the failure of the record relevant information directly affects the quality of care provided by health institutions, in addition to not adequately perform the actions of its professional practice.

Intersectoral communication with employees of the target sector emerged in the speech of nurses rooming as an antecedent transfer key element aiming to confirm the courtesy wave and the transmission of information about the history and clinical condition of the neonate.

Communication with the neonatal unit. (E1)
Report to industry officials regarding the transfer. (E4)
Report to the transfer unit. (E5)
Contact the nurse in the Neonatal Unit to pass the case with newborn baby and need to transfer to the neo. (E8)

It is essential to have institutional protocols that standardize the care to be provided, as well as nursing actions regarding the transfer of patients between sectors of the institution, in order to ensure safe nursing care risks or damage caused by negligence, malpractice or recklessness. And communication is extremely important in order to bring a qualified and comprehensive care to avoid the possible risks and damage the health of the newborn, including prolongation of hospitalization, as shown in Figure 5.
Ordinance nº 1016, of August 26th, 1993, in which the basic rules for the implementation of the rooming system are adopted, are provided 48 hours of hospitalization for both mother and baby due to the high educational level and the importance of this period in detecting neonatal pathologies. This demonstrates the need for adaptations to meet the demand of newborns in order to promote an efficient and skilled care.

However, after the transfer of these neonates to neonatal complex, it can be seen a significant increase in hospital stay with an average of 9.67 days. This fact leads to greater exposure of newborns to hospital infections, generates increased for Health Facilities and promotes disorder in the household costs. Among the many implications on quality of life of the newborn, the environment of the neonatal intensive care unit further generates impacts on their mental development due, mainly, of sounds and noises, lighting and excessive manipulation by health professionals.

At this time of change and uncertainty, it is of utmost importance to active participation and intervention of nursing and multidisciplinary team as a whole providing maximum possible support and information about the new health condition of the newborn, given the importance of taking account of psychosocial parents and family at this stressful time. And so was observed in the reports of nurses:

*Maternal and family orientation. (E1)*

*Guidance and explanation to the mother and family why the transfer requirement. (E2)*

*Orientation to the mother about the need to transfer the newborn to neonatal complex. (E3)*

The separation of the mother-child binomial during this period generates interference in the attachment process and may affect their relationship in the future. It adds even idealization of the couple and the family of a healthy baby and frustration, anxieties and expectations with the new situation of the newborn. For this reason, must be upheld in the neonatal complex and told to see the newborn whenever possible, to alleviate stress and promote the proximity between them. It should still show the unit and the equipment involved in the care of infants, their needs and current health status.

During pregnancy, the couple constructs images, dreams and hopes around this unless they imagine with a cute face, chubby, healthy, active, and perfect. The birth of a sick newborn undo this dream, bringing disappointment, feelings of inadequacy, guilt, and fear of loss. All these feelings generate stress and often lead to estrangement between parent and child.

In short, the population served in the nursery in question is configured as high risk requiring attention and skilled nursing care, even in the rooming sector. The data reaffirm the possibility of the occurrence of in-hospital transfers highlighting how essential is the ongoing assessment of newborns. Although verbalized and described some of the established nursing care to newborns in rooming who were transferred to the neonatal complex, much still must be done to make this more complete and specific to the type of clientele approached assistance.

**CONCLUSION**

Based on these, it is concluded that this study showed a discrepancy between nursing records and Institutional practice of nurses working in rooming with regard to nursing care provided to newborns those were in this sector and needed to be transferred to the neonatal complex. The main issue is therefore the discrepancy between the records and the discourse presented. The nursing record ensures the continuity and quality of care, with important indicator. Moreover, it is characterized as legal advice for health professionals document provides essential information for administrative and clinical level for the audit of nursing, and underlies the numerous
Complications in the newborn in intra-hospital...

research studies and developed. The real fact is that any action developed by the health team, here specifically addressed the nursing needs to be registered once the full care not described generate doubt as to their actual implementation. In the context of intra-hospital transfer of newborns in a high-risk maternity, the continued importance of this assistance is even more pronounced, should be subsidized by past records relating to the history, evolution and complications presented.

It is noteworthy that in a university hospital, where there is a great incentive for doing research, this type of failure becomes an inconvenience and is a barrier to their proper development.

REFERENCES

Dulfe PAM, Aguiar RCB de, Alves VH et al.

Complications in the newborn in intra-hospital...

Submission: 2013/09/27
Accepted: 2013/12/19
Publishing: 2014/03/01

Corresponding Address
Diego Pereira Rodrigues
Departamento Materno-Infantil e Psiquiatria
Universidade Federal Fluminense
Rua Dr. Celestino, 74 / 5º andar / Centro
CEP: 24020-091 – Niterói (RJ), Brazil