

Neuro Ncu Attention Project through Timely Detection of Neurological Alarm Data of Newborns Treated in a Unit Hospital Staff Susceptible to Immediate Medical Management

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Abstract

Introduction: There are newborn care models, which are defined as individualized for hospitalized babies so that they can detect alterations in time, clinics as initial manifestations of pathologies that in the long run can be extremely serious and that put life and integrity at risk. Neuro logical of newborns taken care of in neonatology services in different hospitals. To achieve a clinical basis, it is necessary to have an understanding of the different behaviors or movements that the hospitalized newborn presents, especially in intensive therapy or intermediate therapy, which are affected by pathologies such as asphyxia, hemorrhage. Seizures, hypoglycemia, convulsions, etc.

In the case of suffocation, for example, it is as important as we know that there are 4 million deaths worldwide within the first 28 days secondary to this cause. Preterm births and congenital malformations cause more than a third of neonatal deaths, most of them in the first weeks of life, of which at least 26% of deaths are caused by asphyxia and according to the WHO more than one million survive suffocation developing cerebral palsy, learning problems or other development problems.

Specific Goal: Measure the impact of direct surveillance in patients at risk of neurological damage.

Method: A list of signs and symptoms of different pathologies will be made and will be announced with nurses and doctors who want to participate in the neurological surveillance project in different shifts. The above with the idea that all participants have the same information to perform the detection and surveillance, nurses are trained to know how to detect neurological data and different neonatal seizures among other topics. They will receive the information in writing and they will sign the receipt. We will use methods such as classification of asphyxia, clinical classification of hypoxic encephalopathy, clinical classification of seizures, clinical data of acidosis, and kramer parameters for jaundice among others.

We will record and in case of seizures, encephalopathy data, imbalances we will give the task of immediate therapeutic intervention, monitoring the evolution of the patient clinically by not having electroencephalogram in real time, and most studies as enzymes either the resource is available, only BT, gasometry, occasionally CPK MB as a biochemical parameter for asphyxia, the neurological evolution will be carried out by a Licentiate in neuro stimulation to detect data of early damage or improvement when reviewing fine and coarse motor among others.

The specific clinical signs will be described in the file and in the data capture sheet, even with graphic evidence, for example, of seizures prior to medical management. We measure results according to the patient's evolution, which we followed during his stay to be on the lookout for improvement or complications based on the evaluation of gross fine motor and reflexes as it marks the program

of equal start in life, valued by the graduate in rehabilitation. commissioned or assigned for that purpose. Finally, the patient was considered successful if an improvement was detected with management and without complications and those who complicate or undergo an underlying pathology that delays post-intervention assessment will be excluded from the study. Finally, relative risk was calculated through statistical analysis of the cohort in exposed and unexposed population; including the healthy and unhealthy to be analyzed and calculate the relative risk.

Results: In the stipulated time we were able to detect 130 newborns with some symptomatology of any of the pathologies that were going to be monitored to avoid neurological damage. We were struck by the fact that of the pathologies found the most frequent is asphyxia (present in 28.46%).

In an observational manner, we were able to confirm that conducting a directed monitoring helped specifically detect 130 patients of high complexity before they became complicated, as well as being able to perform interventions that were successful for patients who were graduates with improvement and without apparent neurological damage. subject to neurological follow-up.

During the analysis of the total of hospitalized patients, 0.205136 were at risk of pathology with neurological damage and could be classified as problem cases since they had a clinical picture that could potentially cause damage, and the factor of exposure was calculated as 0.794832.

Keywords: *Congenital Heart Disease; Down Syndrome; Gadarif State; Eastern Sudan*

Background

According to Callista Roy, a person is “an adaptive system with internal processes (cognitive and regulatory), which act to maintain adaptation in its four modes: physiological, self-concept, role function and interdependence”.

During pregnancy, the fetus is dependent for its metabolism and protection from the contributions of oxygen, nutrients and immune factors that reach it through the mother-fetus-placenta unit, in such a way that the pathologies that affect the mother, they can affect fetal development and give manifestations during the neonatal period.

Delivery is a critical moment on which the transition of hemodynamic, respiratory and metabolic functions of the fetus to the newborn depends.

In the extrauterine environment, the child requires protection activities through the adequate supply of heat, which is decisive for him to be able to develop his vital functions and avoid an overload that especially impacts the energy metabolism (glucose). The feeding depends on breastfeeding.

The newborn is labile to infections as a consequence of its relative immunity incompetence and dependence on antibodies that it has received passively from the mother, especially during the last trimester of pregnancy. Delay in having a load of own antibodies, more or less until six months of age.

The neonatal period has high morbidity and mortality rates as a consequence of genetic, infectious or hypoxia-related risk factors, which together are the most frequent etiological agents that affect fetal development [1-3].

In this evolutionary stage the nuclear family of the new being plays a very important role because it is there where it will be accepted as it is, where it will be given all the opportunities for its development as a holistic being. Hence the importance of a prior preparation for its reception.

For the application of a model of nursing care and monitoring in the newly born child it is necessary to sensitize and prepare the staff to detect clinical changes that manifest the different pathologies that are frequent in the neonatal period [12-15].

In several countries, including Spain, Chile, the United States and Canada, we increasingly depend on standardized and computerized care plans; to be able to use this information in a safe way, only when a nurse is governed by reflection, instead of a task-focused nurse, will be in the current world. Only then will he be able to think critically about how to achieve the final nursing goals for:

- Prevent disease and promote, maintain or restore health (in terminal diseases, to control the symptoms and promote comfort and well-being until death).
- Enhance the feeling of well-being and the ability to act according to the desired roles.
- Provide effective and efficient care according to the wishes and needs of the individual.
- Find ways to increase the well-being of the child and family by administering health care.
- Take a model that at least considers this in its care methodology. The model that we are going to develop will be the Application of Roy's Adaptation Model to the newborn.

Careful prenatal care is the fundamental procedure to assess the normality of the process. At birth, the attention offered to achieve the transition to the extrauterine environment is decisive for the new being, with its biological, psychological, intellectual and spiritual potential, to be holistic, to give continuity to its growth and development processes towards a mature being.

Nursing intervenes in this period through processes of scientific and technological order, but fundamentally human.

Their training includes: identifying the stimuli and the answers that lead to determine the adaptation problems of the newborn, which based on a nursing diagnosis, allows the planning of the corresponding interventions medical.

As the changes in the newborn are extremely dynamic, you must perform at least three assessments: Transition, neonatal adaptation, in the first 24 and 48 hours, and 28 days of age [1,7,9,11].

Newborn assessment - neonatal adaptation

In human physiology, abrupt changes in the environment that surrounds us, are some of the most important aspects to discern in a critical state that is defined as "all that situation in which there is a significant imbalance in one or several vital signs, temperature, respiratory rate, heart rate and blood pressure", such as changes in temperature, humidity, pressure; since these situations the homeostasis of the organism tends to equalize these imbalances with the external environment, so that these gradients follow the following basic rule, the smaller the difference of changes, the faster the homeostatic adaptation will be made.

We must consider that the body surface of a newborn is four times greater than that of an adult, so the gains and losses with respect to physical homeostasis are faster. The gradient differences between the vital signs and the external environment are proportional to the homeostatic changes that the organism must make to try to balance its state.

The birth is the most critical moment that the person has, since it is when there are abrupt changes regarding homeostasis, they go from being:

- Body temperature at room temperature
- Uterine pressure at atmospheric pressure

- Liquid environment to ambient air
- From darkness to the clarity of light
- Breathe through the umbilical cord to breathe through your lungs.

The newborn is adapting little by little to the environment that he finishes knowing, first of all he adapts himself to that new exercise of breathing, adapting to the new environmental conditions of temperature, light and his recently released circulation.

Newborns can be classified according to gestational age in term pre (gestational age < 37 weeks) to term (gestational age between 38 and 41+ 6 weeks) and post term (gestational age > 42 weeks). Those born preterm, we classify them as premature. At younger gestational age the newborn has more difficulty adapting to new living conditions, mainly due to the immaturity of their organs. If we relate the gestational age (weeks) with the weight in gr. and the degree of organic maturity (Table 1) we have that those born with great immaturity report a risk. It is the first step of the EP and involves collecting data in a systematic and deliberate way to determine the current status of a person (group, community) and their response to a specific health situation or illness. It is necessary that the choice of the model adopted for its realization, as a guide to focus the assessment, that is made taking into account the following characteristics:

- **Integral and globalizing:** That contemplates the biopsychosocial aspects from a total perspective.
- **Staff:** To collect the response of the baby from his individuality.
- **Operative:** To orient and identify the problems that the nurse can treat as the identification of neurological alarm data and early medical intervention for the management of different pathologies in a timely and immediate manner to the detection of any of the neurological alarm data.

It is considered very important since, based on the data collected and analyzed, all the decisions and interventions of nursing and physicians will depend, without forgetting that in each interaction new information is being collected about the changes, that is, the assessment You can consider a continuous process.

The valuation stage is divided into several sub-tapas:

- Data Collect
- Data validation
- Organization of data.

As a proposal, a data collection record will be designed based on the model of C. Roy, framed in his theory of the adaptation of the pediatric patient, contemplating the systems that may be altered [8,10,11].

Data collect

It begins with the first contact with the newborn patient and consists of gathering the necessary information for the assessment using the appropriate sources: the person, the family or significant others, other professionals (doctors, nurses, social workers), the history or records and complementary studies.

Types of data

- **Objectives:** Can be observed and measured.
- **Subjectives:** Reflect situations expressed by the person.

Types of valuation:

- **General assessment or basic data:** It gathers information about all aspects of the person. It must be planned, systematic and complete from a nursing model.
- **Assessment focused:** It is carried out specifically on the situation of a problem or a doubtful aspect and focus attention on real or potential problems. They require periodic evaluations to control their evolution.

Methods

- **Observation:** Information is obtained through the senses, to be effective It is necessary to be structured and systematic. Observation is an activity which requires having a broad base of knowledge and experience.
- **Interview:** Usually done in conjunction with observation and requires interaction and communication skills to establish a relationship of trust (therapeutic or help), know how to listen and ask. It allows the person to receive information and participate actively in the process. To be appropriate, it is necessary to take into account:
 - Environmental factors that facilitate interaction. (space, noise, privacy...)
 - Techniques that facilitate communication: open questions, paraphrasing, validation, clarification, clarity, congruence between verbal and non-verbal communication, listen active, eye contact, respect silence...
- **Physical exploration:** Consists of the structured and complete review of the person that is made through: inspection, auscultation, palpation and percussion.

Data validation

It consists of checking that the data that has been collected is real and complete, in this way the obtained data is verified and the validity of the information is confirmed. Validation is necessary since incorrect and/or incomplete information can lead to erroneous interpretations in the identification of problems. Through it, you avoid:

- Skip relevant information
- Inappropriate interpretation of the situation
- Precipitate the conclusions.

Organization of data

Once the data has been collected, it is necessary to carry out a synthesis that groups the information in a coherent way in order to establish the real or potential problems that are present and the capabilities of the person. It involves a complex work that will later allow to conclude if there is a Nursing Diagnosis (DE) or an Interdependent Problem (PI).

The way in which the data are organized will depend on the chosen model, highlighting among others:

- Functional health patterns (Gordon).
- Functional abilities (McCain).
- Dependency/independence (Henderson).
- Self-care (Orem).
- Adaptation (Roy) [4-6].

Pediatric patient assessment based on the adaptation theory of Callista Roy:

- **The basic physiological needs:** That is, those related to circulation, body temperature, oxygen, organic liquids, sleep, activity, feeding and elimination.
- **The self-image:** The ego of man must also respond to changes in the environment.
- **The mastery of a role or role:** Each person plays a different role in society, according to their situation: mother, child, father, sick, retired... This role changes sometimes, as it can be the case of a retired employee man and must adapt to the new role that has.
- **Interdependence:** The self-image and mastery of the social role of the child hospitalized in Critical Care interacts with the people in their environment, exercising and receiving influences. This creates relationships of interdependence, which can be modified by changes in the environment.

The basic physiological needs

Circulation:

- Heart Rate
- Characteristics of the electrical conduction of the heart
- Characteristics of the central and peripheral pulse
- Hair re-leak.

Oxygenation:

- Breathing frequency
- Characteristics of respiration
- Oxygen saturation.

Temperature:

- Skin temperature
- Central temperature
- Body temperature differential.

Organic liquids:

- Routes of administration
- Amount of liquid supply
- Characteristics of liquids.

Activity/dream:

- Waking hours
- Hours of recreational activities and/or affective stimuli
- Hours of sleep.

Food:

- Nutritional characteristics:
 - Weight
 - Size
 - Body mass
 - Differential weight
- Type of Feeding
- Energy supply.

Elimination:

- Urine
- Insensitive loss
- Stool.

The self-image

- Description of the location of the bed
- Description of the bed used
- Description of the hygiene and hygienic inspection by anatomical parts
- Deterioration of the skin and mucous membranes (cures)
- Changes in the clinical situation
- Perception of the self
- General appearance printing.

Role domain

- Anthropometry
- Inspection organs of the senses
- Likes and relationship preferences
- Psychomotor development
- Behaviors regarding their chronological age.

Interdependence

- Patient/Environment Relationship (demonstrations)
- Patient/Nurse Relationship (manifestations)
- Patient/Personal Relationship (demonstrations)
- Patient/Family Relationship (manifestations)
- Family/Personal Relationship (demonstrations) [1].

There are newborn care models, which are defined as individualized for hospitalized babies so that they can detect alterations in time, clinics as initial manifestations of pathologies that in the long run can be extremely serious and that put life and integrity at risk. neurological examination of newborns who are seen in neonatology services in different hospitals. To achieve a clinical basis, it is necessary to have an understanding of the different behaviors or movements that the hospitalized newborn presents, especially in intensive therapy or intermediate therapy, which are affected by pathologies such as asphyxia, hemorrhage. Seizures, hypoglycemia, convulsions, etc.

In the case of suffocation, for example, it is as important as we know that there are 4 million deaths worldwide within the first 28 days secondary to this cause. Preterm births and congenital malformations cause more than a third of neonatal deaths, most of them in the first weeks of life, of which at least 26% of deaths are caused by asphyxia and according to the WHO more than one million survive suffocation developing cerebral palsy, learning problems or other development problems.

In the case of suffocation as it is referred to in neonatology books, it can bring a significant number of deaths, however it leaves a similar number of survivors with long-term sequelae. Therefore, vigilance must be maintained not only to avoid deaths due to suffocation, but also to the consequences in the survivors.

In order to prevent neonatal death and neurological damage, it is essential to apply measures to prevent neonatal asphyxia through timely diagnosis and identification of problems that affect fetal well-being. Protocols must be included to ensure that all patients with neonatal risk factors present Any pathology that puts the neurological integrity at risk is given an early diagnosis and treatment to avoid sequelae, such is the case of pathologies such as ischemic hypoxic encephalopathy where the adequate procedure of Resuscitation and a normal transition state are vital if we can avoid variations in temperature, base acid or hydroelectrolyte imbalances, hypoxia or hyperoxia of course, hypotension or hypertension as well as timely detection of convulsive cramps, hypoglycemia, jaundice that must be managed in an intensive with the desire to reduce risks of long and medium term damage. It is important that the personnel in charge of caring for newborns are familiar with the presence of clonic, myoclonic seizures, spasms and motor automatisms so that a good management approach is given and the report is immediately initiated in the file, as well as the measurement of glucose, calcium, magnesium, sodium and blood gases to infuse immediately if detected, even in the case of early myoclonus ma n should be initiated immediately and jo are asoc if IADAS, to metabolic problems, or hypoxic ischemic encephalopathies derived from intrauterine asphyxia, and identified by newborns, with problems of cerebral structural disease manifested by muscle tone disorders alterations in reactivity or primary reflexes, or abnormal breathing pattern in addition to intolerance to OV, disorders that if not clinically detected, they should be monitored with real-time electrocardiographic tracings where spasm phase is temporarily related to the outbreak phase followed by a voltage suppression phase that persists during wakefulness and sleep.

In the case of intracranial hemorrhage (HIV), it refers to the presence of blood at the brain level, being more frequent in preterm infants, and originates in the germinal matrix, sub e pendimaria peri ventricular. It can occur early in the first 72 hours or later after that period, the manifestations depending on the type is saltatory, manifested in minutes or hours, where the level of consciousness is altered, hypotonia, altered motility, respiratory alterations among others, or the catastrophic fiestada man by stupor coma, apne as, seizures, decerebrate posture, fixed pupils, flaccid cuadriparecia etc. Or silent whose most representative sign is a decrease in unexplained hematocrit. That they should be detected immediately and preventive protocols from before being born that is to say Prematurity, transport in utero with pharmacological handling with phenobarbital, vitamin K and glucocorticoids that diminish the H IP 2 - 3 times in its incidence. Obviously associated with adequate resuscitation to avoid fluctuations in cerebral blood flow, maintain all equilibria, adequate ventilation and avoid coagulation disorders, then give advanced manipulation with FNB even barbiturate coma. Caring for the presence of hydrocephalus later on.

Another pathology to detect are apneas: apneas are mu and common especially in premature which has already been increased on life and increases thereby the presence of apneas, being present in up to 100% are born less than 28 weeks who suffer physiological changes

control of their breathing due to instability of the respiratory center that predispose to sudden cessation of breathing for up to 20 seconds generating periods of hypoxemia and bradycardia that can irreversibly affect the central nervous system if they are not diagnosed and managed in time: In this case Dx due to sudden cessation of ventilation or observation of periodic respirations, monitoring oxemia and immediately indicating methylxanthines, CPAP, CO₂ mixture, even ventilatory assistance. We must consider that most apneas are idiopathic and that they improve with age, but they should always be diagnosed early, and managed to avoid the neurological damage generated by long periods of hypoxemia and bradycardia.

Preterm infants and especially those with extreme low birth weight can suffer episodes of hypoxia, hypercapnia and acidosis in the perinatal period, which together with the alteration of the cerebral self-regulation that these children present, can cause dilation of the fragile arterioles of the germinal area (sub area) ependi maria) and expose capillaries and capillary/venule junctions to fluctuations in blood pressure. This situation associated with increased cerebral blood flow after birth can predispose these vessels to rupture and intraventricular hemorrhage (HIV). Many procedures and routine treatments in the Neonatal Intensive Care Unit are associated with fluctuations in blood pressure and central venous pressure with the risk of intraventricular hemorrhage. Therefore, avoiding abrupt fluctuations in blood pressure, central venous pressure and blood volume can reduce the incidence and severity of HIV, for which it is important to implement "Minimum Manipulation" protocols in children under 1000 grs and some children with weight less than 1,300 grams, grouping the care, explorations and interventions, in stipulated periods of time. The manipulations will be more frequent during the day and more spaced at night. The rest of the time the observation will be by non-invasive methods.

The purposes of the concentration of care are the following:

- Increase rest periods.
- Longer time of deep sleep.
- Keep the RN as relaxed as possible.
- Minimum stress.
- Avoid fluctuations in blood pressure and intracranial pressure.
- Lower caloric expenditure.
- Reduce thermal stress and overstimulation.
- Lower consumption of O₂.
- Minimal fluctuations in the ventilatory situation.
- Decrease the risk of intraventricular hemorrhage, retinopathy of prematurity, dysplasia bronchopulmonary and sepsis.

Manipulation of the child

- Group all the interventions to be carried out on the newborn to prevent their sleep from being continually interrupted;
- Make soft cyclic caresses and according to your health status;
- Do not awaken him abruptly, facilitating the gradual transition from sleep to wakefulness, speaking to him before beginning any intervention;
- Monitor your vital signs as much as possible, to avoid frequent manipulations;
- Provides individualized care according to your needs and not routinely.

Take special care with interventions related to nursing procedures such as:

- Washing of arterial and venous catheters - respect the principles of handling and maintenance.
- Do not perform bladder compression;
- Special care with endotracheal intubation and aspiration of the airway;
- Apnea management;
- Transfusions;
- Hypotension

Among other

The monitoring of vital signs is a key factor in the strict monitoring of the clinical condition of the critical patient although the level of severity will force us to a more or less bloody monitoring, we will focus on the non-invasive.

The main vital parameters in non-invasive monitoring are heart rate, respiratory rate, blood pressure, oxygen saturation and peripheral body temperature.

There are different types of monitors that will show us the value digital of each parameter and its representation graphic by waves.

Other tools to carry out the monitoring of the process that can be used if they exist in the hospital centers are: Ultrasound, trans fontanelar; Electroencephalograms and this in real time, measurements of electrolytes, cardiac enzymes, gasometries, and levels of bilirubin in blood.

The fact of being a non-aggressive procedure does not exempt the nurse's exhaustive knowledge of the equipment used, its utilities and applications. All this, together with the exploration and observation of the child, will help us to make a good reading of the alterations that may occur and act appropriately knowing how to identify the false-positive alarms and recognize the real ones.

Little emphasis has been placed on Neonatal health in relation to the improvement of survival and neurological integrity, by means of a team that specifically cares for a seriously ill patient or with a high risk of morbidity and mortality, when, as has been expressed in part, surveillance must start from adequate monitoring of fetal well-being [5,9-11].

Problem

In the case of neonatal care units like ours, the presence of newborns with a high degree of complexity; Neurological complications occur very frequently within the first hours of life or days, which requires having staff increasingly better prepared to detect anomalies early that allows us to make immediate decisions to ensure the neurological well-being of newborns, so that This is essential to have high-tech equipment to perform the monitoring of vital signs of preference in a non-invasive manner. Other tools can be trans-fontanelle ultrasound, real-time EEG, serum electrolytes, cardiac enzymes, gasometries, bilirubins, ETC that will be under the responsibility of the medical staff for their interpretation and decision making. We must consider that the fact of having measurement instruments such as those exposed does not exempt a strict convention of performing a strict surveillance in a clinical way to be detected by nursing to identify in a timely manner the neurological alarm signs according to each pathology listed in the background, so that the doctor is dedicated to give specific management, for seizures, hypoglycemia, jaundice, encephalopathy etc. Intended to reduce collateral damage to neurological level generated by delay in diagnosis. Conforming with this work an attention group with a neuro-surveillance approach.

Delimitation

The lack of measurement devices such as those mentioned, does not exempt us from carrying out a strict and continuous neurological surveillance in our special care units, in times of crisis where resources dwindle at an alarming rate and where the measuring devices do not are available to us, perhaps require more human surveillance and improvement in diagnostic care of newborn patients with complex pathologies such as we usually handle in our unit.

Justification

Currently, there is no record that we have a specific neurological surveillance system to prevent long-term damage in the newborns of our unit.

General Objective:

- Sensitize nursing staff and train them to perform a neurological surveillance in newborns with a risk approach.
- To form a work team of doctors and nurses that allows a rapid management response for neuro protection in newborns.

Specific goal

Measure the impact of direct surveillance in patients at risk of neurological damage.

Inclusion criteria

We will include in the study all R/N that enters emergency pediatrics, neonatal, internal medicine and NICU services that have risk factors to deal with any of the aforementioned pathologies.

Exclusion criterion

- Patients without neurological risk factors
- Patients who enter seriously ill.

Method

A list of signs and symptoms of different pathologies will be made and will be announced with nurses and doctors who want to participate in the neurological surveillance project in different shifts. The above with the idea that all participants have the same information to perform the detection and surveillance, nurses are trained to know how to detect neurological data and different neonatal seizures among other topics. They will receive the information in writing and they will sign the receipt. We will use methods such as classification of asphyxia, clinical classification of hypoxic encephalopathy, clinical classification of seizures, clinical data of acidosis, and Kramer parameters for jaundice among others.

Registration will be made and in case of seizures, encephalopathy data, imbalances we will be given the task of immediate therapeutic intervention, monitoring the evolution of the patient clinically by not having electroencephalogram in real time and most studies as enzymes the resource is not available, only BT, gasometry, occasionally CPK MB as a biochemical parameter for asphyxia, the neurological evolution will be carried out by a Licentiate in neuro stimulation to detect data of early damage or improvement when reviewing fine and coarse motor among others.

The specific clinical signs will be described in the file and in the data capture sheet, even with graphic evidence, for example, of seizures prior to medical management. We will measure results according to the patient's evolution which we will follow during your stay to be on the lookout for improvement or complications based on the assessment of gross fine motor and reflexes as it marks the program of equal start in life, valued by the licensed in assigned or assigned rehabilitation for that end. Finally, the patient was considered successful if improvement was detected with management and without complications and will exclude from the study who complicates or curses with underlying pathology that delays the assessment after the intervention. Finally, relative risk was calculated through statistical analysis of the cohort in exposed and unexposed population; including 1 or healthy and unhealthy for analysis and calculate the relative risk. Where

$$RR = \frac{\text{Cumulative incidence exposed}}{\text{Cumulative incidence of not exposed}} = \frac{to + (b + d)}{b(a + c)}$$

where

	Exposed	Not exposed
New cases	to	b
Healthy control	c	d

We will also try to calculate the Exposure Factor by subtracting the unit from the final result of RR.

Type of study

Original cross-sectional observational clinical study, to be carried out with investigator resources. To be performed in a period from October 2016 to June 2017. Taking patients who present neurological alarm data and who require immediate medical management to detection with seizures, data of encephalopathy, depression by anesthetic and/asphyxia.

Results and Discussion

Below is a table 1 with the pathologies detected as well as the number of cases treated successfully.

Neonatal Seizures	1
Suffocation	37
Jaundice	3
EHI	5
ECN	18
Deep thrombosis	1
Heart disease	2
Endocarditis	1
Laryngomalacia	1
Dehydration	3
Depression by anesthetics	1
Hypocalcemia	2
Col stasis with NPT and suspend	4
Cardiomyopathy	2
Shock	6
Intubations	10
Meconium plug	2
OLigohydramnios	3
Hypoglycemia	2
sepsis	5
SIRI Application of surfactant	3
Tanned child	2
NPT pass 80 ML as adverse event	1
Hypernatremia	2
Deaths	1 for cerebral hemorrhage
Intracranial hemorrhage	2
Total	130

Table 1: Table of detected pathologies and number of successful cases detected and managed.

In the stipulated time we were able to detect 130 newborns with some symptomatology of any of the pathologies that were going to be monitored to avoid neurological damage. We were struck by the fact that of the pathologies found the most frequent is asphyxia (present in 28.46%).

Analysis

$$RR = \frac{\text{Cumulative incidence exposed} \quad a + (b + d) \quad (130) (615)}{\text{Cumulative incidence of not exposed} \quad b (a + c) \quad (610) (4637)} = 0.205136$$

To calculate the Exposure Factor, we will subtract 1 from the RR and the result = .7948632

Where:

	Exposed	Not exposed
New cases	130	615
Healthy control	4507	3885

Clearing: a = new cases found with problems; b = patients admitted to observation; c = total of patients born during period d = healthy patients in joint room not exposed.

Conclusion

As we can see during analysis of all patients hospitalized one 0.205136 they studied at risk of disease with impaired neurological and could be classified as problem cases and que coursed with some damage potential generator clinical picture also it was estimated that the exposure factor was presented in a 0.794832 for the unexposed population knowing that less than 1 is a protection factor.

In an observational manner, we were able to confirm that conducting a directed monitoring helped specifically detect 130 patients of high complexity before they became complicated, as well as being able to perform interventions that were successful for patients who were graduates with improvement and without apparent neurological damage. subject to neurological follow-up.

Ethical Implications

With the present with the Helsinki agreements are violated since they are affected integrity, or patients’ lives, only a monitoring with early intervention that shortens the response time in care, with what we hope will improve the quality of function and life of the patients that are detected.

Conflict of Interests

The researcher declares that the present has no conflict of interests, and that its sole purpose is medical research for the benefit of patients.

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