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Immediate Care to the Newborn of Women with Human Immunodeficiency Virus: a Proposal of Evaluation

ORIGINAL

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Abstract

Introduction: women living with human immunodeficiency virus (HIV) have 15% of the 45% chance of transmitting the virus to their children during pregnancy, childbirth or breastfeeding. However, this risk is reduced to 2% when the treatment and monitoring are carried out since the gestational period until the birth of the child.

Objective: Building a logical model to subsidize the immediate care of health professionals to the newborn of women with HIV.

Method: Construction of a logical model based on "clinical Protocol and therapeutic guidelines for management of HIV infection in children and adolescents", manual of the Ministry of health, Brazil, 2014, in order to guide health professionals who, watch newborns in the first few minutes of life.

Results: Were listed eight components that are essential to the care of the newborn, such as: greeting, umbilical cord clamping, suctioning the airway, administering of vitamin K, shower, breastfeeding, administration of anti-retroviral and reference to specialized service.

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Conclusion: It is believed that the logical model will contribute to reducing the risks of mother-to-child transmission of the virus, since it includes the flow of care clearly and objectively.

Keywords
Health Professionals; Immediate Care; Newborn; Vertical Transmission of HIV.

Introduction

In Brazil, since 2000 until June 2015, estimated that 92,210 were reported pregnant women infected with human immunodeficiency virus (HIV) [1]. When untreated, women living with HIV have to 15% to 45% chance of transmitting the virus to their children during pregnancy, childbirth or breastfeeding. However, this risk is reduced to 2% when the treatment and follow-up are carried out since the gestational period until the birth of the child. [2]

The detection rate of the acquired immunodeficiency syndrome (AIDS)-per 100000 inhabitants-in under five years has been used as an indicator of vertical transmission in Brazil and was observed a tendency of falling of 33.3% in the last ten years as a result of follow-up of women with HIV who are of childbearing age [1]. Therefore, intensifying the care and offer quality assistance is fundamental to the continuous reduction of the transmission of HIV from mother to newborn.

Immediate care is offered to the neonate actions within the first hour of life, time is essential to minimize the risk of postpartum transmission of HIV. In this perspective, it is imperative that health professionals are familiar with the steps to be developed at that stage, since they differ from the support provided to the neonate healthy. [3]

Study on maternity and child reference shows that professionals demonstrate little demands immediate postpartum recovery. Thus, it is necessary a change in the posture of those who assist the mother and newborn, as well as a hospital organization in order to offer good structural and organizational conditions with human and material resources, in order to minimize the risk of vertical transmission. [4]

In this way, the quality of care must be periodically evaluated in order to offer care able to provide the continuous reduction of the transmission of HIV from mother to newborn. With that, the assessment appears to be the best solution to get information on the functioning and effectiveness of the Health System [5]. Furthermore, the use of control program of mother-to-child transmission of HIV in the evaluation process provides major grant to identify important points of support.

One of the strategies that will help in the immediate care to neonate cadaveric shoulders exposed to HIV is building a logical model for presenting great benefits, since it consists of a schematic representation of the guiding professional practice, in addition to being the first step in the evaluation of assistance and health services. Has the ability to provide better visualization of the points to be assessed and to identify the issues on which the efforts will be concentrated [5]. Therefore, by its characteristics, the model becomes a very important instrument to be used for evaluation of the quality of the services offered.

Based on the foregoing, we have the following evaluation question: how health professionals who

work in maternity wards develop immediate care to neonates exposed to HIV? To answer that question this article aims to build a logical model to subsidize the immediate care of health professionals to the newborn of women living with HIV.

Method

This is a descriptive study of normative evaluation type, which consists of a judgment on an intervention, comparing the resources employed and his organization, the services or activities developed and the results achieved with criteria and standards, in addition to correspond to quality assurance programs. [5]

It is the construction of a logical model based on "clinical Protocol and therapeutic guidelines for management of HIV infection in children and adolescents," manual of the Ministry of health, 2014, in order to guide health professionals who, watch newborns in the first few minutes of life, as well as contribute to future research evaluation in maternity wards, more specifically in the health of the child is born in motherhood and because he's the tool of the first stage of the evaluation.

The logical or theoretical model is a conceptual schematic representation, designed in a stream, demonstrating how he theoretically can be used, and thus be able to instrument the thought processes, phenomena or events. Features as advantages, the ability to summarize the walkthrough of the care, associated with the process the results, the interaction of the effects of its components as impacts. [5]

Thus the logical model of the study was structured based on the Donabedian model, with an emphasis on structure, process and results, and Hartz, whereas components and products. Justify the use of two references in order to assess points that are not covered in just an allusion.

The study was not submitted to the Ethics Committee and research, because the authors were not the field gathering data in humans (directly or indirectly), as defined in resolution CNS 466/12. The proposal was to use the "clinical Protocol and therapeutic guidelines for management of HIV infection in children and adolescents".

Results

The logic model presented in **Figure 1** is understood as a dynamic structure graphic display, built by means of the guidelines of the Ministry of health on the care provided to newborns of women with HIV.

Were listed eight components that are essential in the care to neonate, such as: the reception, the umbilical cord clamping, suctioning the airway, the administration of vitamin K, the bath, the non-breastfeeding, the administration of anti-retroviral and reference to specialized service.

The dimension "structure" present in the logical model, included items relating to human and material resources. In "process" were described the main targeted care to neonate by health professionals who work in maternity wards, as immediate clamping of the umbilical cord, the removal of excess skin secretions, and bathing the earliest possible.

As the "product" dimension highlights items to be achieved immediately after the actions taken. Some of the products highlighted were: decrease the risk of mucosal trauma resulting from aspiration and possible contamination, carry out the shower as quickly as possible to minimize exposure to blood and secretions of childbirth. As a final result is expected to minimize the risks of transmission of viral load and decrease the chances of the unborn child have the HIV virus.

Discussion

The newborn exposed to HIV care in the delivery room or in the operating room differs from the

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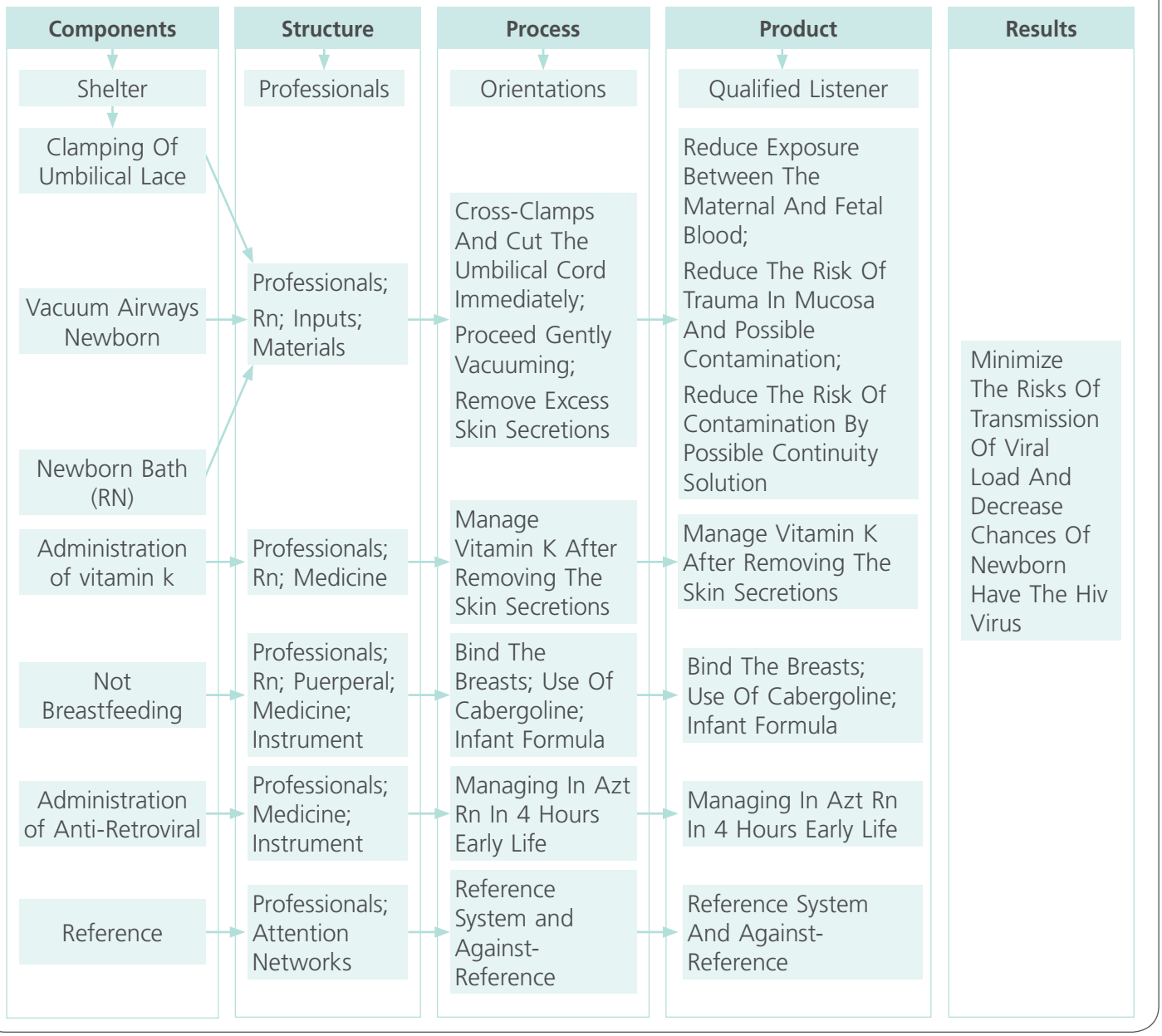
Figure 1: Logical model for the immediate newborn care to pregnant women living with HIV, based on "clinical Protocol and therapeutic guidelines for management of HIV infection in children and adolescents" of the Ministry of health, 2014. of the integrative review. Natal, 2015.



neonate health care, because blood and secretions present on the skin of the unborn the expose to a higher risk of acquiring the HIV virus, thus, interventions applied must be planned and sequenced, which will help reduce the increase of vertical transmission This way it is suggested to follow the steps of the clinical Protocol.

In this way, will be discussed some prophylactic measures essential to immediate care to the newborn of women living with HIV. Care practices include the host, the immediate clamping of the umbilical cord, avoid the airway aspiration, the earliest possible bathroom, not breastfeeding, the administration of anti-retroviral (ARV) and vitamin K, and the reference to Specialized Assistance Service (SAE).

The host component consists of an intervention tool that involves concern for the quality and the

kind of bug that if offers. This process includes the reception of the user in the health system and full responsibility of their needs until the resolution of the problems. To set the decision-making process is essential to hear and be heard and so, appear in scene two guys, professional care and user, and a mediator object (risks, pain, suffering). [6]

Health professionals as essential structure in this process, should hear the woman affected by HIV and make her feel empowered in the process of care, as well as develop strategies to facilitate their learning, acceptance of treatment prior to pregnancy and gestational period in order to reduce vertical transmission of HIV. [7]

The inclusion of pregnant women in the services and approach with the team, group activities, the referrals to the referral services, respect women's autonomy and preserve confidentiality are inclusion attitudes and approach of pregnant women on the part of professionals through listening, resulting in the birth of the neonate with less risk of acquiring the virus of HIV because it will have the opportunity of proper diagnoses and treatment, efficient and targeted to the particular need of each mother and unborn child. [8]

For this action to be applied as a routine it is important that professionals meet the steps of logical model, emphasizing that the achievement of a satisfactory outcome is intertwined the structure, process and product.

A prophylactic measure is the ligature of the umbilical cord, component of the logical model. This measure when held at least one minute after the birth of healthy newborns results in an increase of hemoglobin and lower iron deficiency in childhood, since the passage of blood from the placenta to the child occurs during this period (placental transfusion). [9]

However, in newborns exposed to the HIV virus, the clamping of the umbilical cord should happen shortly after birth without milking, to reduce exposure of the fetal blood with the mother [10] and thus achieve the expected result of the logical model.

In study developed with professionals on the immediate care the newborns of women with HIV, 76 percent stated that cord clamping is performed immediately after birth, however, 20% of professionals are not aware of the conduct, worrying situation by increasing the risk of exposure to the virus. [11]

Other care offered and listed in the logical model is the practice of upper airway, aspiration technique discussed even in the healthy term neonates by bring more harm to children than benefits. Study shows that 90% of newborns do not have to be handled after birth, however, is still noticeable a high percentage of this action on the part of the professionals who watch the neonate cadaveric shoulders. [12]

In the case of unborn children exposed to HIV virus the aspiration of the upper airways must happen in a situation of excessive secretion or meconial liquid that impede breathing. This technique must be careful and delicate way to avoid mucosal trauma, because the solution of continuity may favor the risk of contamination by the virus, therefore, this procedure is recommended in cases of dire need for risk of gravity. [10]

The minimum time for the healthy newborn bath and the term is after 1 hour of life, since time is directed to the skin-to-skin contact and interaction of the neonate with parents [13]. However, in children with risk of HIV contamination, the shower should be in running water as early as possible with the removal of secretions and blood from the skin to prevent contamination of the healthcare professionals and families who come into contact with the secretions of the skin, as well as the child's infection through continuity solution. [3]

Thus, it is imperative that the team that provides the assistance is in tune with the logical model for flow, thus, does not interrupt the care offered the child covering aspects of structure, process and product.

Newborns with deficiency of vitamin K pose a risk of abnormal bleeding, since this vitamin is essential for the production of clotting factors. The main

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manifestation of his disability is the hemorrhagic disease of newborn caused by: improper crossing of vitamin K by means of the mother to the fetus; insufficient production of this substance by the neonatal liver still immature; lack of vitamin-producing bacteria in the gut in the first days of life, in addition to breast milk be a scarce source of vitamin k. [14]

Study shows that seven children identified with vitamin K deficiency, five of them showed bleeding that ranged from severe as intracranial hemorrhage until vomiting, poor diet and lethargy, but coagulation parameters were normalized rapidly after administration of the vitamin. [15]

Thus, it is necessary that the neonate at risk of HIV infection the administration of intramuscular vitamin K is applied after the neonate because bath decreases the possibility of micro-organisms from childbirth to penetrate in the body of the child through the puncture continuity solution [10, 15], as indicates the logical model.

With respect to breastfeeding, emphasized its permanent contraindication in cases of HIV-positive mothers, since the natural breastfeeding increases the risk of transmission of the virus to the child. In this way, the products as breast filleting and use of cabergoline are recommended to inhibit the action of breast-feeding. [16]

Bandaging of the breasts is the compression of the breasts with dressing for 10 days to prevent its manipulation. This is a non-hormonal, but of great emotional wear for women subjected to this process as a result of not experiencing breastfeeding and the embarrassment of feeling different from other recent mothers. Pharmacological inhibition, however, is accomplished by the use of cabergoline immediately after childbirth with a single dose of 1 mg orally. [1, 17]

Highlights the need for orientation of the pregnant women in prenatal, yet held early women have greater understanding about the risks and benefits to the newborn, as well as better adherence to prophylaxis [18]. Thus, it is crucial that the interdisciplinary team of health share the knowledge with the woman so that she can empower the self-care and thus become able to properly take care of you and your fetus at home, to protect it from infection. [19]

With the contraindication of breastfeeding, children who are born exposed to HIV are entitled to free infant milk formula until at least six months of life. Are also strictly contraindicates the mixed breastfeeding Cross (performed by other nursing mothers) and pasteurized human milk at home. [10]

Studies showed HIV-positive mothers in disabilities prepare and offer milk and complementary feeding properly for their children, which may be reflective of a health assistance still deficient in that women do not receive appropriate information from the professionals that attend. Emphasizes, with it, the need for teams to explain women and families about care in the preparation of milk, in addition to direct the receipt of service formula. [20, 21]

It is believed that the graphic representation of actions to be undertaken to improve this process, since it allows easy viewing of the steps to be followed to reach the expected result.

With respect to the use of anti-retroviral drugs, one of the components of the logic model, the Department of health recommends that the first dose of the oral solution of zidovudine (AZT) to be performed even in the delivery room or within the first 4 hours after birth. Can still be added to neviparina, the earliest possible, in cases where mothers made use of antiretroviral therapy in prenatal care or no viral load less than 1000 copies/ml in the last trimester of pregnancy. [10]

Study points out that about 59.1% of professionals began the administration of AZT in neonate between 2 and 48 hours after birth which features a delay in the administration of medication that has emergency character, because it protects the child from the virus present in the blood and in the vaginal secretions at time of delivery. However, when questioned most professionals replied properly this question, which warns us about a difference bet-

This article is available at: www.intarchmed.com and www.medbrary.com

ween knowledge and the actions that are being carried out in practice. [11]

The administration of AZT for RN exposed to HIV poses a challenge, especially for being held at home and rely on mom or other family member who must be guided as to the treatment regimen. In this way, the link between child, parents/caregivers and the health team is critical and must be based on a qualified and targeted assistance listening conditions of life of the patient. [21]

The graphical representation of the actions to be carried out will help in the process of care to the newborn exposed to HIV, as it allows easy viewing of the activities to be performed by professionals to reach the expected result.

Finally, children born to mothers with HIV should be met by Specialized support services (SAE) when it is found to be infected, however, the non-infected may be accompanied by Basic Health Attention and periodically by LEAVES by the end of adolescence through reference sheet and against reference. [10]

It has been found in research that only 57.3% of newborns from maternity with references to specialized service, worrying considering that it is essential to the appropriate follow-up of serology of all neonates exposed and requires the professional attention at the time of hospital discharge, facilitating the follow-up of prophylactic measures recommended by the Ministry of health. [11]

Conclusion

Based on the evaluative question and the information found in the literature for the preparation of the study, it is concluded that the immediate care offered by health professionals who work in maternity wards are not in accordance with the Protocol of the Ministry of health, since the research shows the ignorance of the specific care for the child at risk of contracting the HIV virus. In addition, it was noticeable that even in cases where the knowledge is made present there were gaps in the implementation of the practice, such as: immediate clamping of the umbilical cord; use of AZT in the first few minutes of life and referencing all the kids in the leaves.

As a result of the deficiencies identified was developed a logical model to guide health professionals in immediate assistance to newborn exposed to HIV, with the purpose of reducing the risk of mother-to-child transmission of the virus.

Thus, we conclude that the logical model is of fundamental importance, as well as allow the evaluation of the quality of care provided by health professionals, provides better understanding of care that must be offered to the neonate at risk of HIV infection.

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