PROPHYLACTIC MEASURES FOR THE REDUCTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV IN BRAZIL: INFORMATIVE STUDY
MEDIDAS PROFILÁTICAS PARA A REDUÇÃO DA TRANSMISSÃO VERTICAL DE HIV NO BRASIL: ESTUDO INFORMATIVO
MEDIDAS PROFILÁCTICAS PARA LA REDUCCIÓN DE LA TRANSMISIÓN VERTICAL DE VIH EN BRASIL: ESTUDIO INFORMATIVO

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ABSTRACT
Objective: to inform about the prophylactic measures that enable the eradication of HIV in children by maternal-fetal transmission, proposed by the Ministry of Health of Brazil. Method: it is an informative study about Brazil's prevention measures against mother-to-child transmission of HIV. Data obtained through articles in the databases LILACS, MEDLINE, Scopus and Web of Science as well as manuals of the Ministry of Health has been consulted. The findings were read, analyzed and described analytically. Results: it was observed that Brazil has effective guidelines that allow the elimination of mother-to-child transmission from sex education and family planning until the follow-up of children exposed to HIV. Conclusion: it should be promoted the training of professionals who work directly with the assistance and management in health prophylactic measures imposed. Descriptors: Maternal-Child Nursing; Vertical transmission of Infectious Disease; HIV.

RESUMO
Objetivo: informar acerca das medidas profiláticas que permitem a erradicação do HIV em crianças por transmissão materno-fetal, preconizadas pelo Ministério da Saúde do Brasil. Método: estudo informativo sobre as medidas de prevenção do Brasil contra a transmissão vertical do HIV. Dados obtidos por meio de artigos nas bases de dados LILACS, MEDLINE, Scopus e Web of Science bem como manuais do Ministério da Saúde foram consultados. Os achados foram lidos, analisados e descritos analiticamente. Resultados: foi observado que o Brasil possui diretrizes eficazes que permitem a erradicação da transmissão vertical desde a educação sexual e planejamento familiar até o seguimento da criança exposta ao HIV. Conclusão: deve ser promovida a capacitação dos profissionais que atuam diretamente com a assistência e gerência em saúde quanto às medidas profiláticas instituídas. Descriptores: Enfermagem Materno-Infantil; Transmissão Vertical de Doença Infecciosa; HIV.

RESUMEN
Objetivo: informar acerca de las medidas profilácticas que permiten la erradicación del VIH en niños por transmisión materno-fetal, preconizadas por el Ministerio de Salud de Brasil. Método: estudio informativo sobre las medidas de prevención de Brasil contra la transmisión vertical del VIH. Datos obtenidos por medio de artículos en las bases de datos LILACS, MEDLINE, Scopus y Web of Science así como manuales del Ministerio de Salud fueron consultados. Los hallazgos fueron leídos, analizados y descritos analíticamente. Resultados: fue observado que Brasil posee directrices eficaces que permiten la erradicación de la transmisión vertical desde la educación sexual y planeamiento familiar hasta el seguimiento del niño expuesto al VIH. Conclusión: debe ser promovida la capacitación de los profesionales que actúan directamente con la asistencia y gerencia en salud cuanto a las medidas profilácticas instituidas. Palabras claves: Enfermería Materno-Infantil; Transmisión Vertical de Enfermedad Infecciosa; VIH.

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INTRODUCTION

The human immunodeficiency virus (HIV) is a retrovirus Lentivirinae family, responsible for the largest pandemic of the last four decades. The tropism of HIV-1 and HIV-2 by cells of the immune system, featured the CD4 + T-cell permit a depletion of lymphocytes, and consequently the immunosuppression.

The risk group to this infection is any person exposed to the forms of transmission of HIV, especially the more susceptible to infection or illness by exposure, socioeconomic condition, educational level, among other parameters. In addition, it assumed new characterization, with pauperization, heterosexualization and feminization of the disease.2-4

It is estimated that 33 million people are living with HIV in the world, while in Brazil, the incidence rate in 2011 was 20.2 cases for every 100,000 inhabitants. In Brazil, the first HIV women notifications appeared in 1985 and since then, the incidence increased to become matched with the male, around 1.5: 1. Until 2011, 14,388 have been reported in HIV-positive women cases in Brazil.1-5

The women's Brazilian seropositive profile corresponds to the worldwide trend. Their vulnerability is in stable relationship and confidence in male sexual imposition which exclude the use of condoms. The vulnerability extends to those who are victims of domestic and sexual violence.3,6-7

The age group of women affected by the infection is their reproductive age, culminating at risk for mother-to-child transmission of the virus (TV), via responsible for 84% of pediatric HIV infections in Brazil which may occur during the intrauterine period, especially in the third quarter (35%), during labor (65%) and by breastfeeding (7-22%). Viral factors, obstetric, maternal, postnatal and the newborn can interfere associated in TV during the gravid-puerperal cycle.3,8-9

With the imminent risk of mother-to-child transmission, the Ministry of Health has implemented measures to be inserted in any health area, requiring the involvement of the three levels of government: federal, state and municipal. When the behaviors are taken according to the Ministry of Health, there is a significant reduction in the rate of mother-to-child transmission of HIV estimated 25% to 1% or 2% risks.10 On this premise, it aimed to investigate, in the scientific literature, the guidelines recommended by the Ministry of Health and the prevention of mother-to-child transmission of HIV in Brazil and its implementation.

The Ministry of Health, in its plan for reducing mother-to-child transmission of HIV and syphilis in Brazil, proposed actions to be carried out in the prenatal and maternity care. Such measures are in accordance with international recommendations and put the Brazil as reference in combating mother-to-child transmission of HIV. The plan meets the Health Pact, set up in 2006 as a way to reduce maternal and child mortality.10-2

The plan is: sexual orientation and education about Sexually Transmitted Diseases (STDs) and HIV/AIDS in a manner through dialogue with an exchange of knowledge between professional and user; Offer of the anti-HIV test to all pregnant women to present unknown serology, accompanied by counseling; Early Antiretroviral Therapy to HIV-positive pregnant women from the 14th week of pregnancy under professional health monitoring and use of injectable medicine in intrapartum; Realization of elective cesarean section on patients from the 34th week with viral load > 1000 copies/mL or undetectable; Maternal lactation Repression of mechanical or hormonal way, replacing breastfeeding by infant formula; Indication of the use of prophylactic oral medicine to the newborn exposed to HIV until the 6th week and followed by specific tests to 18 months.11,13-4

The starting point of the prophylaxis against the TV consists of sexual education and family planning are essential for the prevention of STD/HIV infection/AIDS, orientation for planned pregnancy and, in the case of positive serology for HIV between the couple, development of strategies for that pregnancy to occur safely and healthy. Vertical transmission prevention begins in the exchange of knowledge, respecting the subjectivity of women, the family, cultural and social aspects that is immersed. In this scenario, it is important to note the importance of reproductive rights.14-5

In recent years, the sero concordants or discordant couples became more confident with the prophylactic methods to curb mother-to-child transmission, highlighting the development of anti-retroviral drugs, increasing their expectation to have children. These advances have enabled women to carry out his desire to be a mother and be a family according to their nature. Thus, the serological condition is no longer seen as a hindrance.16-7

The health professional must work for the partner and the family receive advice when
they are aware of the serology so they can support it, because it is proven that the family support makes it less friendly face of the disease, gives strength to women facing discrimination from society and this adheres better to the treatment. For this, the family also needs to be informed about the disease, out of bias in a way that does not leave virus carrier the more she needs of the family. The mother and partner are keystones to the coping of women regarding the disease and so should be encouraged to be at his side.  

In addition, it is necessary to pay attention to HIV-positive women who want to become pregnant, because it requires some adjustments to be carried out prior to pregnancy. There is, for example, the anti-retroviral used by client, because certain drugs are teratogenic potential. In addition, it is expected that the CD4 + lymphocyte count is undetectable level under control to reduce possible maternal-fetal transmission. Therefore, it is important the early capture of these women to perform the specialized family planning to this condition. 

When women become pregnant, are forwarded to the prenatal care, where it is accompanied by the evolution of their pregnancies until the days preceding childbirth. Once confirmed the HIV seropositive begin prophylactic and educational measures that reduce fetal exposure to the virus. It is important to the early capture (before the 16th week) and active search of these pregnant women to start early routine tests and Anti-HIV, in addition to the detection of possible problems that may result in damage to the mother and/or fetus. 

In the first prenatal consultation, it is important to test anti-HIV offering to women with unknown serology, in which it has the right to accept or deny the test. The difference exempt, for this exam, applies to be stimulated in the first instance, the pre- counseling in which the healthcare provider addresses in understandable language about what is HIV/AIDS, ways of transmission, including the TV and the risks to mother and child have with the infection. In this way, it promotes sexual education with exchange of ideas between professional and user, developing awareness and self-care. With the acquired knowledge and questions supplied, the woman will be able to choose on their own the HIV test. 

The advice must also occur after the tests in accordance with the diagnosis. If the result is negative, are intensified, in post- counseling, the measures that should be taken to prevent exposure of risk and the strengthening of this infection, in addition to being clarified their doubts. If the result is positive, the advice turns to the elucidation on the measures to be taken for the control of infection and prevention of mother-to-child Transmission and emotional support so that the woman has autonomy over his own body and joining the prophylaxis and treatment.  

The HIV test results of pregnant women need to return in a timely manner to start early prophylactic measures if it is positive. For this reason, it is important that the reference system and against references with the laboratories are functioning properly to achieve these objectives and the serology duly registered in antenatal card and other required documents, such as the notification form in positive cases. 

To detect the infection in the pregnant woman, the professional attention to capture the partner consultations to submit his serology test because he may have infected his partner or he is sero negative exposed to the risk of infection. The nurse, who is able to deal with the family, can be intermediate in this conversation, performing the pre-test and post-test counseling and dealing with the great emotional burden on those involved. 

Once committed to maternal serology, the anti-retroviral therapy scheme adapted to each health situation. Historically, its introduction if started as a monotherapy and, with the advancement of studies in this area culminated in therapy with a combination of three antiretroviral drugs belonging to two different classes, called HAART (Highly Active Antiretroviral Therapy). The retroviral schema was based from the outcome of the work developed in partnership between the United States and France: the ACTG 076 (AIDS Clinical Trials Group) and is distributed free of charge by the Unified Health System. 

The woman known as seropositive would take more than the minimum consultation recommended by the Ministry of Health to be considered high-risk. The monitoring should be done judiciously so that preventive measures are fulfilled by pregnant women and aware of the problems arising from HIV for her and her son. In other words, the prenatal period carried out correctly and caring allows the reduction of mother-to-child Transmission rate and decreases the morbidity and maternal and child mortality in the country. 

It is recommended to test when the woman reaches the last trimester of gestation, because its omission may result in breakage of the trace of HIV infection by the possibility of...
the first result to be immunological window period and seroconversion occurs later, or even her being infected during pregnancy. Finally, when the woman in labor is admitted in the maternity, we can adopt measures to give continuity to the prophylactic follow-up during her stay. There are possibilities for education and prevention, health services, to promote clarification on HIV and Syphilis to women in labor, the use of prenatal card as a means to inform about the progress of pregnancy in these women's reception and counseling before and after the test.

The mother, who perhaps didn't realize the HIV test or have not received the result in time, should be subjected to a quick test when admitted to hospital. This test must also be accompanied by pre and post counseling adapted to the situation since the woman is in labor. When she starts labor, the intravenous anti-retroviral must be given as reinforcement to prophylaxis, because at that time the exposure of the fetus is greater and must occur at the beginning of labor (or three hours before cesarean section) to the clamping of the umbilical cord, which will take place immediately and without milking. In relation to the process of childbirth, from the 34th week of pregnancy, it is recommended obstetric and viral load assessment of women to reach consensus on the best way of delivery. As it is explained earlier, the result less than 1000 copies/mL or unknown favors vaginally, having obstetric evaluation and in agreement with the customer, taking into account the need to assess the risks and benefits to the woman and the child.

Via caesarean section is performed around the 38th week of pregnancy in women with high viral load amniotic integrity corio membranes proven or that is in the early stages of labor with cervical dilation around three inches with integrity membranes or routes in less than 4 hours, because after this period of fetal exposure to the virus increases considerably.

It is necessary to remember that the process of childbirth alone do not reflect more or less security as the possible vertical transmission because there are other factors that affect how the use of forceps, excess vaginal touch examination, episiotomy, the use of oxytocin, uterine contractions, the rupture of the membranes, viral and immune status of the mother and the nutritional status of women. In addition, questions whether the caesarean should really be a preventive method since the chemoprophylaxis already reduces the probability of infection during childbirth.

The puerperium is also marked by measures of prophylaxis to decrease the exposure of the newborn to the virus. Breastfeeding is retaining using mechanical measures (breast filleting, for 10 days without stimulation) and hormonal (pharmacological measures to decrease milk production). These measures may be used in combination or not, each of which has its benefits and harms.

Mechanical inhibition is uncomfortable, painful and, when poorly managed, can cause consequences, such as: paving of breast milk, fever, pain, and deform the vision of the body, triggering emotional problems as repudiation and rejection. The use of pharmacological inhibition is contradictory in the literature, showing reports of significant adverse reactions rare side effects, requiring more enlightening studies. As well as breastfeeding is deleted, the infant’s food is exposed to HIV will occur with the infant formula which should be distributed free of charge by the health units up to 6 months of age of the child. The nurse has a fundamental role in instructing on the need to use the formula which will meet the needs of the child, protecting it from the HIV virus via breastfeeding.

The newborn must be referenced to the specialized center in which performs specific tests to evaluate possible infection. This period demands time where the newborn has for some time legacy of mother cells. Meanwhile, the child should use oral anti-retroviral therapy in the early postpartum 24 hours from the birth until the sixth week of life and feed with infant formula.

We can infer that the prophylactic steps of the Plan for Reducing mother-to-child Transmission of HIV and Syphilis are well outlined and cover the interdisciplinary and interaction between all levels of complexity to produce the success of prophylaxis. To do so, requires not only the grip of seropositive women, but also the commitment of the professionals and of health services.

**FINAL REMARKS**

Health professionals, that are present both in management and in assistance, should be sensitized and trained to provide the highest quality in the monitoring of pregnant women and recent mothers with HIV and their children. Nursing, particularly, should better
position against these preventive measures, because it has a decisive role in reducing TV, given their greater proximity to these women for their assistance throughout follow-up, enabling them to be traced back to the barriers and address them with the multidisciplinary team.

It is concluded that Brazil presents prophylactic measures that enable the eradication of HIV in infants by maternal-fetal transmission. This work depends on the commitment of all involved to that, based on scientific evidence, improve the education and prevention of pregnant women in Brazil in front of one of the most important current pandemics.

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