

Actions adopted by nurses to prevent gestational and congenital syphilis in primary care

Ações desenvolvidas por enfermeiras para a prevenção da sífilis gestacional e congênita na atenção primária

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Resumo

INTRODUÇÃO: A sífilis é uma infecção sistêmica de evolução crônica que tem como agente etiológico a bactéria *Treponema Pallidum*. Estima-se que cerca 2 milhões de gestantes são infectadas por sífilis, anualmente, em todo o mundo, e sem tratamento, estas possuem uma elevada chance de transmitir a doença para o feto durante gestação **OBJETIVO:** Analisar a assistência de enfermagem para prevenir a sífilis gestacional e congênita na atenção primária **MÉTODOS:** Trata-se de pesquisa de caráter descritivo, com abordagem qualitativa. A população era composta por 19 enfermeiros, mas a amostra foi constituída por oito enfermeiras que atuam nas Unidade Básicas da zona urbana do município de Floriano-PI. **RESULTADOS:** A partir da análise dos discursos das participantes do estudo, foi possível inferir que as enfermeiras fornecem orientações de saúde durante o acompanhamento de pré-natal. Além disso, as participantes apontaram a atuação no tratamento precoce das gestantes positivas, para a sífilis, logo após o resultado reagente do teste treponêmico. A adesão da gestante e do parceiro são as maiores dificuldades apontadas pelas enfermeiras para a efetividade do tratamento da sífilis gestacional. **CONCLUSÃO:** Observou-se limitações na prevenção da sífilis gestacional e congênita realizada pelas enfermeiras da atenção primária do município de Floriano-PI.

Palavras-chave: sífilis, cuidados de enfermagem, enfermagem primária

Abstract

INTRODUCTION: Syphilis is a chronic systemic infection whose etiological agent is the bacterium *Treponema Pallidum*. It is estimated that around 2 million pregnant women are infected with syphilis every year around the world, and without treatment, they have a high chance of transmitting the disease to the fetus during pregnancy **OBJECTIVE:** To analyze nursing care to prevent syphilis gestational and congenital in primary care **METHODS:** This is descriptive research, with a qualitative approach. The population consisted of 19 nurses, but the sample consisted of eight nurses who work in Basic Units in the urban area of the city of Floriano-PI. **RESULTS:** From the analysis of the study participants' speeches, it was possible to infer that nurses provide health guidance during prenatal care. Furthermore, the participants highlighted the early treatment of pregnant women positive for syphilis, right after the reactive result of the treponemal test. The adherence of the pregnant woman and her partner are the biggest difficulties highlighted by nurses for the effectiveness of the treatment of gestational syphilis. **CONCLUSION:** Limitations were observed in the prevention of gestational and congenital syphilis carried out by primary care nurses in the city of Floriano-PI.

Keywords: syphilis, nursing care, primary nursing

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Introduction

Syphilis is a chronic systemic infection whose etiological agent is the bacterium *Treponema Pallidum*¹⁻². The disease is transmitted especially sexually, being called acquired syphilis and can occur transplacentally, when the bacteria present in the pregnant woman's blood circulation occurs through the placenta to the conceptus or fetus, which is characterized by congenital syphilis²⁻³.

When syphilis affects pregnant women, it is considered a serious public health problem with a major impact worldwide. It is estimated that around two million pregnant women are infected with syphilis every year around the world, and without treatment, they have a high chance of transmitting the disease to the fetus during pregnancy⁴⁻⁵. In 2022, in Brazil, 83,034 cases of syphilis were reported in pregnant women, with the Northeast region standing out in second place, with 14.6% (17,025) of the total reports⁶.

Syphilis in pregnant women, when untreated or with inadequate treatment causes clinical manifestations similar to acquired syphilis. Furthermore, the infection can be transmitted to the conceptus or fetus at any period of pregnancy or stage of infection and during delivery⁷⁻⁸. Around 80% of pregnancies with untreated syphilis result in serious consequences for the fetus, such as prematurity, low birth weight, early pregnancy loss, miscarriage, stillbirth and early and late manifestations of congenital syphilis in newborns. Congenital syphilis (CS) is the second most relevant cause of preventable stillbirth in the world⁹⁻¹⁰.

Given the severity and negative consequences that syphilis causes for both the pregnant woman and the fetus, it is extremely important that quality screening and complete treatment be carried out for the pregnant woman and her partner diagnosed positive for syphilis, with prenatal is the most opportune time for

this¹¹. Prenatal care, a set of actions that provides a healthy pregnancy for women, which is offered by primary health care, is considered the fundamental moment for screening infections such as gestational syphilis², as it is during prenatal care that takes place the diagnosis and complete treatment for gestational syphilis (GS)¹².

Nursing care is of fundamental importance in providing adequate prenatal care for pregnant women, considering that it is the nurses who screen gestational risks with the aim of preventing and reducing gestational complications, such as syphilis. Furthermore, these professionals are the ones who will provide qualified and humanized care through the promotion, prevention and treatment of these pregnant women during nursing consultations¹³.

Therefore, this study listed the following guiding question: "How does nursing care occur to prevent gestational and congenital syphilis in primary care?" and its objective is to analyze nursing care to prevent gestational and congenital syphilis in primary care.

Materials and methods

This is descriptive research, with a qualitative approach. It is noteworthy that the writing of this final report was guided by the Consolidated Criteria for Reporting Qualitative Research (COREQ)¹⁴.

The research took place in the Basic Health Units (BHUs) located in the urban area of the municipality of Floriano-PI. The municipality of Floriano-PI is located in the Northeast region of Brazil. According to the Brazilian Institute of Geography and Statistics (IBGE), its population is 57,690 people, according to the last census of 2010, and it has an estimated population, for the year 2021, of 60,111 people, accounting for a demographic density of 16.92 inhabitants/km²¹⁵.

According to data collected in the National Health Establishment Registry



(CNES), the municipality of Floriano-PI has 24 BHUs, distributed between urban and rural areas, with Basic Care (BC) coverage of the total population. It has 26 Family Health teams (FHSs), with 19 FHSs operating in urban areas and seven in rural areas. The coordination of BHUs with other health services occurs through referrals.

The population consisted of 19 nurses, but the sample consisted of eight nurses who work in BHUs in the urban area of the city of Floriano-PI. As this is research with a qualitative approach, the sample delimitation was carried out for convenience. Regarding the inclusion criteria, nurses who worked in direct prenatal care for at least six months in BHU in the urban area of the city of Floriano-PI were included and those nurses who were on leave for reasons such as leave or vacation, or those who were unable to participate in the interview, due to some reason, after two attempts to meet, were excluded.

Data were collected through individual interviews, guided by a semi-structured script; the interviews were carried out at the BHU itself, in private environments in order to avoid interference from third parties, as well as to preserve the confidentiality of the information that was obtained. It should be noted that the interviews were carried out after the public had attended, with the aim of not harming the nurses' work activity, and that they lasted a mean of 15 minutes.

The interviews were previously scheduled with the nurses. On the day of the interview, all procedures regarding carrying out the research were explained before starting the collection itself. Furthermore, the Informed Consent Form (ICF) was presented, which was made available in two copies, which were signed by the researchers and study participants. After agreeing to participate, by signing the informed consent form, the nurses were asked for authorization to make the recording using a smartphone. With authorization, recording of the interview

began. After each interview, the statements were transcribed into Microsoft Word.

For data analysis, content analysis was used, proposed by Bardin¹⁶, which is divided into three stages: pre-analysis, material exploration and treatment of results, inference and interpretation. In the pre-analysis, we initially sought to understand and analyze the set of material collected, in order to acquire impressions and guidance on the content of the interviews and documents used. After reading, the materials that provided the most information about the issue raised were selected. After this stage, the thematic formulation of indicators took place based on the indices referenced in the interview that supported the interpretation or inference of the material¹⁶.

In the second stage, the exploration of the material was carried out, which is the analysis itself, which aimed to carry out the coding and categorization of the analyzed material. During coding, the raw data of the text was changed into cutting and aggregation, allowing an exact description of the characteristics of the content in units that was subsequently interpreted. Categorization consists of the stage of classifying the elements, by differentiating them and then grouping them into categories based on common criteria¹⁶. The last stage concerns the treatment of results, inference and interpretation, which consisted of interpreting the results of the study based on the researcher's subjectivity carried out through inferences, but with a methodological basis for the analysis¹⁶.

The research was carried out in accordance with the guidelines of resolutions number 580/2018¹⁷, number 510/2016¹⁸ and number 466/2012¹⁹ related to the ethical aspects of research with human beings and in the context of the Unified Health System that aim to protect the participants involved. Participants were informed about their anonymity and freedom to participate and withdraw from the research at any time, informing them that the research will not cause them any

harm or complications. The nurses who agreed to participate in the research signed the informed consent form. The project was submitted to the Research Ethics Committee of the State University of Piauí and approved on November 28, 2022, with opinion number 5,781,984, under certificate 63420922.2.0000.5209, through Plataforma Brasil.

Results

Regarding the characterization of the participants, the eight are female, aged between 26 and 47 years. The majority referred to themselves as brown race and they were married.

Box 1. Sociodemographic aspects of nurses. Floriano, Piauí, Brazil. 2022.

Nurses	Age (in complete years)	Race/Color (self-referred)	Marital status
Jasmine	36	White	Married
Hydrangea	29	Black	Single
Sunflower	42	Brown	Married
Lily	29	Brown	Stable union
Iris	47	White	Married
Tulip	38	Brown	Married
Rose	38	Brown	Single
Daisy	26	Brown	Married

Source: Research data.

Regarding the professional aspects of nurses, it appears that the majority of nurses graduated from public university education institutions (PUEI), have graduated between two and 20 years, and have worked in the FHS for between two and 16 years. Regarding employment, the majority is civil servants and they have a

weekly workload of 30 hours. Regarding the treatment of syphilis in pregnant women, all nurses have already treated pregnant women diagnosed with syphilis. It is noteworthy that a nurse reported that she was treating three pregnant women with syphilis during the interview period.

Box 2. Professional aspects of nurses. Floriano, Piauí, Brazil. 2022.

Nurses	Characteristics of the training institution	Time since training (years)	Time working in the profession (years)	Employment relationship	Weekly workload (hours)	Have you ever treated a case of gestational syphilis?
Jasmine	Public	2	2	Contract	30	Yes
Hydrangea	Public	5	5	Contract	30	Yes
Sunflower	Private University	17	17	Public tender	30	Yes
Lily	Public	3	3	Public tender	30	Yes



Nurses	Characteristics of the training institution	Time since training (years)	Time working in the profession (years)	Employment relationship	Weekly workload (hours)	Have you ever treated a case of gestational syphilis?
Iris	Public	20	16	Public tender	30	Yes
Tulip	Private university	10	6	Contract	30	Yes
Rose	Private university	13	2	Public tender	30	Yes
Daisy	Public	3	3	Public tender	30	Yes

Source: Research data

In view of the interviews and after the precise analysis of the nurses' statements regarding the topic, it was possible to construct the following categories: "Nurses' strategies for preventing gestational syphilis during prenatal care"; "Measures taken by nurses to prevent congenital syphilis during prenatal care"; "Factors that make it difficult to treat pregnant women with syphilis during prenatal care".

4.1 Nurses' strategies for preventing gestational syphilis during prenatal care

From the analysis of the study participants' speeches, it was possible to infer that nurses provide health guidance during prenatal care, focusing on the use of condoms during sexual intercourse, as can be seen in the statements below:

[...] We also provide guidance during the prenatal consultation on how to prevent syphilis through the use of condoms. [...] (Jasmine).

I recommend the use of condoms for both the pregnant woman and her partner when he comes for a prenatal consultation. [...] (Tulip).

The actions are basically guidelines such as the use of condoms during sexual intercourse [...] (Rose).

Regarding guidance on the use of condoms, among the reports, only one nurse highlighted providing guidance to pregnant women on the use of condoms, regardless of whether they are a steady partner or not. In view of this, the participant stated that it is pertinent guidance to be carried out during the prenatal consultation, as evidenced in the following statement:

During prenatal consultations, pregnant women are always advised on the use of condoms during sexual intercourse. I think it is very important to provide this guidance even for pregnant women who have been in a stable relationship for years. I advise that using a condom will protect her from contracting sexually transmitted infections such as syphilis and will protect the baby's health [...] (Lily).

According to the statements, only one nurse declared carrying out health education actions on STIs, including syphilis, as a strategy to prevent gestational syphilis. In her speech, the nurse reports that she holds conversations with pregnant women, as per the following statement:

We held conversation circles with pregnant women about STIs, including syphilis. In these conversation circles, forms of prevention, transmission, diagnosis and treatment of syphilis are discussed. And then, I talk about the consequences that the disease can cause if it is not treated correctly, I show images when I can [...] (Jasmine).

The other nurses, when asked about carrying out health education activities with pregnant women, reported not doing so. Therefore, they only provide guidance during the prenatal consultation. The following statements show the absence of these actions despite being considered relevant:

[...] No, no actions are taken here outside of the consultation. There, I provide guidance to pregnant women during prenatal consultations. Now health education actions on syphilis have never been carried out. I believe that these guidelines are already important (Sunflower).

[...] We do not carry out any health education actions. We only provide the necessary guidance within the prenatal consultation [...] (Tulip).

[...] We here do not carry out actions outside of the prenatal consultation. I know it's important, but we don't do it [...] (Lily).

[...] No health education action is carried out. I only provide guidance that clearly serves to inform these pregnant women about how to avoid sexually

transmitted infections such as syphilis. I believe that these guidelines are already important [...] (Rose).

4.2 Measures taken by nurses to prevent congenital syphilis during prenatal care

4.2.1 Rapid testing carried out during the prenatal consultation

The rapid syphilis test is considered the main method for early diagnosis of pregnant women during prenatal care. The test is available in the services of the Unified Health System (SUS), is easy to perform and can be read within 30 minutes, in order to expand the diagnostic coverage of syphilis²⁰.

Screening for gestational syphilis is recommended by the Ministry of Health during prenatal consultations through rapid testing in order to guarantee more qualified care for women during pregnancy. Therefore, it is recommended that pregnant women positive for syphilis be screened through rapid tests in the first trimester, specifically at the first prenatal consultation, at the beginning of the third trimester of pregnancy and at the time of birth or abortion²⁰. From the speeches it was possible to learn that nurses carry out rapid testing in the first trimester of pregnancy, during prenatal care, as a way to prevent vertical transmission, according to the following reports:

[...] and with the rapid test being very important to prevent congenital syphilis, then I carry out the test in the first trimester, as soon as the pregnant woman arrives, that is, at the first prenatal consultation. I do all the tests, including the syphilis test. Then, the diagnosis is carried out through rapid tests [...] (Jasmine).

[...] By carrying out rapid tests in the first and third trimester of pregnancy. The rapid test is carried out at the first prenatal consultation [...] (Hydrangea).

[...] At the first prenatal consultation, a rapid test is performed on the pregnant woman (generally before 12 weeks), if the pregnant woman is going to undergo prenatal care during this period, right. But, generally, the majority I diagnosed was in the first trimester of pregnancy [...]. Hence, the rapid test is carried out again in the third trimester of pregnancy regardless of whether the pregnant woman has tested positive or not [...] (Sunflower).

[...] By carrying out the rapid test here at the Basic Unit. We perform the rapid test at the first prenatal consultation, that is, during the first trimester of pregnancy. It's true that some pregnant women don't come in the first trimester, but we do it during her first appointment [...] (Lily).

[...] The rapid test is carried out at the pregnant woman's first prenatal consultation [...] (Iris). By carrying out a rapid test during the first prenatal consultation [...] (Tulip).

Assistance to prevent congenital syphilis is based on diagnosis through rapid testing [...] at the first prenatal consultation, the rapid test is performed. Then, the rapid test is also carried out in the third

trimester of prenatal care [...] (Rose).

[...] As soon as the pregnant woman starts prenatal care, the rapid test is carried out, which is carried out in the first and third trimesters of pregnancy [...] (Daisy).

4.2.2 Early action in the treatment of pregnant women

Ensuring the detection of syphilis in the pregnant woman's first prenatal consultation allows treatment to be carried out early and effectively, which reduces the risk of vertical transmission²¹. In view of this, the participants highlighted the role in the early treatment of pregnant women positive for syphilis, right after the reactive result of the treponemal test, carried out in the first prenatal consultation, as can be seen in the following statements:

[...] if the pregnant woman is positive for syphilis, treatment immediately begins together with the medical professional here. There, the physician prescribes the medication, which is penicillin, according to the stage of syphilis, whether it is primary, secondary [...] Then, the medications are administered at the BHU itself by nursing technicians [...] There, we sent her to the Testing and Counseling Center (TCC) to perform the Venereal Disease Research Laboratory Test (VDRL), which is the quantitative test [...] (Hydrangea).

[...] if she tests positive for syphilis, treatment with a dose

of penicillin immediately begins. Initially, the case is referred to the medical professional who will prescribe the medication, benzathine penicillin and the medication is administered at the BHU itself by the nurses. The stage of the pregnant woman's syphilis is always observed so that appropriate treatment with the medication can be carried out, which is why I always monitor it to know exactly how many doses will be and are being administered. Generally, a single dose of penicillin is administered, a total of 2.4 million IU with 1.2 million in each buttock. Why? Because they are usually diagnosed in primary syphilis. If the pregnant woman has never been medicated with penicillin, she is referred to the Emergency care unit as a precaution because there is an emergency service there [...] (Sunflower).

[...] Therefore, if the pregnant woman reacts positive for syphilis, she is referred to the physician at the same time and treatment with penicillin begins. Medications are administered by the BHU nursing team. The pregnant woman receives complete prenatal care, focusing mainly on monitoring the response to treatment through the VDRL exam (carried out in the laboratory) [...] (Daisy).

On the other hand, with regard to starting treatment after the result of the

treponemal test, another part of the professionals reported starting treatment only after referring them to the TCC for medical evaluation and after obtaining the result of the VDRL test, going against what is recommended by the Ministry of Health, which recommends the start of treatment immediately after a rapid reagent test for syphilis, as can be seen in the following excerpts from the speech:

[...] The complete treatment for this pregnant woman is prescribed by the TCC doctor. Initially, the rapid test is carried out during prenatal care, if the pregnant woman tests positive, she is referred to the TCC to perform the VDRL, if positive, and treatment begins. The TCC physician prescribes the treatment and the medications are administered at the BHU. As a result, the pregnant woman receives prenatal care normally at the BHU, but is always accompanied by the TCC physician, performing the VDRL to monitor the treatment [...] (Lily).

[...] Through the diagnosis of pregnant women with rapid testing and complete treatment. In general, pregnant women are diagnosed here at the BHU, referred to the TCC to perform the VDRL so that we can have greater certainty, and then they return to the BHU for treatment. After the TCC result, the prescription is made by the TCC physician and prenatal administration and monitoring is carried out by nursing here at BHU[...] (Iris).

[...] By carrying out a rapid test during the pregnant woman's first prenatal consultation and treatment. Treatment is carried out in accordance with the Ministry of Health. Initially, when the pregnant woman is diagnosed with syphilis using the rapid test, she is referred to the TCC to undergo the VDRL. After testing positive on the VDRL test, treatment is prescribed by the physician and the pregnant woman is referred to undergo treatment at the BHU. The nursing team is responsible for administering the medication. Furthermore, the pregnant woman normally continues prenatal care at the BHU [...] (Rose).

In the participants' statements, it is possible to infer that not capturing the pregnant woman to start treatment at the first prenatal consultation and at her reference BHU is a major problem, as they can pose risks regarding the woman's withdrawal from the treatment and/ or late onset.

Among the reports, a nurse declared that she did not treat pregnant women diagnosed with syphilis at the BHU, and she referred pregnant women to undergo complete treatment at the TCC:

[...] Treatment is not carried out at the BHU. We diagnose, it is reported to the Testing and Counseling Center (TCC) and the pregnant woman is referred for treatment there [...] We do not administer it here because it is a medication that requires a lot of caution to be administered, they can have

adverse reactions in pregnant women, which is why it is not done here [...] (Jasmine).

4.3 Factors that make it difficult to treat pregnant women with syphilis during prenatal care

The adherence of the pregnant woman and her partner are the biggest difficulties highlighted by nurses for the effectiveness of the treatment of gestational syphilis. In this regard, it is essential to emphasize the importance of the pregnant woman and her partner adhering to syphilis treatment, which will enable greater control over the cure of gestational syphilis, being a key point in preventing transmission to the fetus. Of the nurses interviewed who treat gestational syphilis at the BHU, most pointed out difficulties regarding partner compliance, as can be seen in the following statements:

[...] Pregnant women's partners do not want to undergo treatment. Therefore, we explain all the consequences that the pregnant woman may have if there is reinfection through her partner [...] (Sunflower).

[...] Partner adherence is the main difficulty. Pregnant women's partners refuse to be tested, not just for syphilis. When diagnosed, some are resistant to adhering to treatment. This is a very serious problem, because, even when pregnant women are treated, new transmission can occur through their partner [...] (Rose).

Furthermore, it was pointed out by a nurse that the biggest difficulty was the pregnant woman's adherence, justifying that they were young, which made it more difficult to adhere to the treatment:

[...] The biggest difficulty in my case was the resistance of the pregnant woman herself to undergo the treatment, as the woman I diagnosed was very young. So, she didn't have much commitment to carry out the treatment, she didn't have much knowledge about the disease. Do you know? So, what did I do? I asked the mother, the CHA, for help, to try to help me treat this pregnant woman. So, when it comes to young pregnant women there is greater difficulty because they are not very aware of the size of the problem, which is why I think it is very important to include sexual education for these young people [...] (Hydrangea).

One of the interviewees pointed out the difficulty in carrying out rapid testing during prenatal care due to the inadequate infrastructure of the BHU, as can be seen in the report below:

[...] We started carrying out rapid tests here at the basic unit less than 30 days ago, as even today the BHU does not have the structure to store rapid tests such as an air-conditioned environment, for example. Here, all the rapid tests are being stored in the vaccination room and this certainly takes more time to carry out the test and ends up

interfering with the provision of better care for these pregnant women [...] (Lily).

Only one nurse reported having no difficulty treating pregnant women positive for syphilis during their prenatal care. The following statement highlights this information:

[...] I have never had any difficulties in relation to carrying out treatment for pregnant women. All the pregnant women I diagnosed understood that they should adhere to the treatment. I explained all the risks that could be caused to both her and the baby if syphilis was not treated and that it was a curable disease and an easy treatment to carry out. Therefore, I had no difficulties [...] (Iris).

Analyzing the nurse's speech, it is possible to infer that humanized guidance after a positive diagnosis for syphilis in the prenatal consultation is of great relevance, as it enables the pregnant woman's understanding of the disease and the consequences that the Syphilis can cause if not treated properly. Therefore, nurses have a fundamental role in providing guidance on syphilis, diagnosis, treatment and the complexity of the consequences caused by late diagnosis and treatment ²².

Discussion

Nurses advise the use of condoms during prenatal consultations. Given this, it is possible to analyze that the nurses in this study consider it important to use condoms during sexual intercourse in order to reduce syphilis during pregnancy. Studies state that the use of condoms during sexual intercourse is considered the most effective measure to prevent syphilis infection, as it

is a Sexually Transmitted Infection (STI). Therefore, it is possible to consider raising awareness of condom use as the first-line measure to reduce syphilis in pregnant women²³⁻²⁴.

Among the reports, only one nurse reported providing guidance on the use of condoms to married pregnant women. The information corroborates a study that states that guidance on condom use should be given to pregnant women who have had a spouse for years, and is not restricted to those who have relationships with unknown people, as the risk of contamination exists. Furthermore, this research also reports that pregnant women who had steady partners and stable relationships were not advised on the use of condoms²².

In relation to carrying out health education actions, only one nurse stated that she held conversation circles with pregnant women. Health education actions are considered important tools for health promotion, considering that educational guidelines, carried out during prenatal care, guide women on STI preventive measures, with the aim of enabling awareness of practices safe throughout pregnancy, thus reducing risks and harm to their health and of the fetus²⁵.

The statements about the lack of health education actions may demonstrate failures in relation to the prevention of syphilis in pregnant women, as these strategies aim to generate information, raise awareness and, consequently, reduce cases of syphilis during pregnancy. It is noteworthy that education and health, when harmonized, enable holistic assistance to women²⁶. In this way, the nurses have the elementary role of promoting strategies aimed at sexual education in order to minimize gestational syphilis and, consequently, the congenital²⁷.

Based on the results, it is possible to observe incomplete assistance regarding strategies to prevent gestational syphilis during prenatal care, because, despite the use of condoms being the most effective method of preventing STIs, guidance

regarding the correct technique of use must be demonstrated to pregnant women and their partners during the prenatal consultation in order to guarantee its effectiveness and, thus, avoid factors that contribute to rupture and leakage²⁸⁻²⁹. Many points can contribute to susceptibility to syphilis infection, such as inadequate use of condoms during sexual intercourse and lack of information²².

Guidelines regarding conservation and the correct technique of use must be part of the nurses' conduct during prenatal care, such as: storing the condom away from heat, observing the integrity of the packaging and the expiration date; put it on before penetration, during penile erection and press the end of the condom between the fingers while putting it on, removing all the air from inside in the case of a male condom; the feminine condom can be placed before intercourse and removed calmly after intercourse, preferably before the woman gets up; and not reusing the condom after use²⁸.

Prenatal care offered in primary health care is considered a set of clinical and educational actions that seek to provide a healthy pregnancy for women. In view of this, the nurses within the scope of the FHS play a very important role in leading the team in order to guarantee qualified assistance to pregnant women in a holistic way with regard to health promotion and prevention of diseases and injuries^{2,30}.

The nurses interviewed perform the rapid test for syphilis, in the first quarter of pregnancy, at the first prenatal consultation. The data are similar to the study carried out in Rio de Janeiro, in which most of the nurses interviewed reported using the syphilis screening approach to carry out rapid tests during the first prenatal consultation, through humanized reception and health education³¹. In this regard, it is important to highlight the importance of screening syphilis infection in the first quarter of pregnancy in order to diagnose and treat it early, thus reducing vertical transmission.

Furthermore, the data corroborate the study carried out with professionals from Rio Grande do Sul, in which nurses showed a high frequency of requesting rapid tests, available at the BHU, in the first prenatal consultation³². In research carried out in Mexico, in 2023, an increase in the incidence of GS cases was observed, given the low number of screening tests performed in the first quarter of pregnancy³³. In view of this, the nurses are professionals trained to carry out syphilis screening in pregnant women at the beginning of pregnancy, and their role is fundamental in monitoring women, in which they frequently act to ensure the effectiveness of strategies to combat syphilis throughout pregnancy and seek to prevent negative consequences resulting from vertical transmission to the fetus.

Half of the nurses interviewed do not offer rapid testing for syphilis in the third quarter of pregnancy, which is recommended by the Ministry of Health in order to minimize cases of congenital syphilis. In view of this, failures in assistance may occur with regard to the prevention of congenital syphilis, as testing in the third quarter of pregnancy is part of the preventive measures against vertical transmission to the fetus. These data corroborate research carried out in Rio Grande do Norte, in which the results indicated that approximately half of the teams did not offer rapid testing for syphilis in the third quarter of pregnancy²⁵.

Still with regard to the prevention of congenital syphilis, a study carried out at BHU in Ceará showed that more than half of pregnant women were tested in the third quarter of pregnancy and 57% of partners did not receive testing⁴. A survey, carried out in Uberlândia-MG, found a greater number of cases of pregnant women diagnosed with syphilis in the third quarter of pregnancy compared to the first, with the percentages being respectively 37.1% and 35.7%²¹. In this sense, it is noteworthy that tests carried out in the third quarter of pregnancy have an impact on reducing

cases of congenital syphilis, as found in a study that found that most cases of vertical transmission could have been avoided if a rapid test had been carried out in the first prenatal consultation, as well as in the third quarter of pregnancy, with many women only diagnosed with the infection at delivery²⁰.

With regard to the treatment of syphilis, from the analysis of the speeches it was possible to observe that some of the nurses began treatment immediately after the positive result of the rapid test, without needing the result of the non-treponemal test, the VDRL, to start treatment for syphilis in pregnant women. This is in line with what is recommended by the Ministry of Health, which states that the treatment of pregnant women should begin immediately after the positive result of the treponemal test during prenatal care, without having to wait for the result of the VDRL test³⁴.

The nurses reported capturing the pregnant women for treatment shortly after the positive result of the rapid test for syphilis. Early action in the treatment of pregnant women is part of the WHO's strategies to eliminate the vertical transmission of syphilis throughout the world. In this way, it is possible to understand that it is essential to guarantee access to screening tests in order to carry out early treatment in pregnant women positive for syphilis, which reduces the chances of vertical transmission to the fetus, considering that the diagnosis and early treatment are effective in minimizing vertical transmission in up to 97% of cases¹.

According to a study, the states that offer the most early diagnosis and treatment at the pregnant women's reference BHU demonstrate a higher rate of reduction in congenital syphilis, as they guarantee the identification of pregnant women and the initiation of early treatment³⁴. In view of this, it is essential that the treatment is



carried out completely and appropriately at the BHU, as the FHS is the elementary space to guarantee a healthy pregnancy for women, making it possible to diagnose syphilis from the beginning of pregnancy and provide complete and, consequently, preventing vertical transmission³⁰.

The treatment of gestational syphilis is carried out through the administration of the drug Benzathine Benzylpenicillin, which can be applied at the reference BHU for the pregnant women. Penicillin is considered the treatment of choice for syphilis, as it is the only drug capable of crossing the placental barrier, making it safe to treat pregnant women and the fetus²⁰. The pregnant women are treated appropriately when the treatment is carried out within 30 days before delivery and must be carried out according to the stage of syphilis².

A portion of the nurses declared that they did not treat gestational syphilis at the BHU. In this way, it was possible to understand that there is a challenge regarding the administration of benzathine Benzylpenicillin at the BHU, which makes it difficult to provide adequate assistance in the treatment of pregnant women positive for syphilis during prenatal care. The data corroborate the study, which states that the administration of benzathine penicillin by BHU professionals is still a problem and this occurs due to the fear, on the part of professionals, of adverse events occurring after administration of the medication, such as anaphylactic reaction by pregnant women. In this regard, a study indicates that the occurrence of anaphylactic reactions is only 0.01% to 0.05% and, of allergic reactions, 2%²⁵.

The data is in line with a study, which indicates that there is a large availability of Penicillin in BHU in Brazil, however, professionals refuse to administer the medication, justifying its failure due to

the lack of technical and human resources in cases of anaphylaxis reactions after administration. It is worth mentioning that, in 2017, the Federal Nursing Council (COFEN) approved the administration of Benzylpenicillin Benzathine by nurses in primary health care³⁵.

According to the professionals interviewed, including the partner in prenatal care and his adherence to syphilis treatment is a major challenge faced that interferes with reducing the vertical transmission of syphilis. These data are in line with research carried out in Santa Catarina, which defines that limited adherence by partners is one of the biggest challenges in carrying out treatment for gestational syphilis¹. Furthermore, a study carried out in Indiana, in the United States, in order to identify the social vulnerability of pregnant women with syphilis, it demonstrated that none of the pregnant women's partners were diagnosed before them, which indicates that they had little or no participation during prenatal care³⁶.

It is important to highlight the risk of syphilis reinfection if the pregnant woman is not treated together with her partner. It is estimated that in Brazil only 12% of sexual partners of pregnant women with syphilis are treated. In view of this, there is a major problem, as screening and adequate treatment of the pregnant women and their partners are the main method for controlling the transmission of the infection to the fetus²⁰.

According to a study, pregnancy before the age of 18 is one of the factors that interfere and cause failure in the treatment of gestational syphilis. Having unprotected sexual relations, many partners and incidence of STIs may be related to the early initiation of sexual life in young women³⁷. Given this, it is important to carry out actions that guide safe sexual practices,

in addition to unwanted pregnancies⁹. This corroborates with a study carried out in Imperatriz (MA), in which the majority of pregnant women affected by syphilis were young, black, multiparous, with a low level of education and in precarious socioeconomic conditions²⁷; and also with a study carried out in Bahia, in which gestational syphilis was predominant in young, non-white (brown and black) pregnant women, with a low level of education³⁰. Furthermore, the data is in line with a study carried out in Colombia, which points to a significant increase in GS and CS cases, the latter showing an increase of 1.2 per 1000 live births in 2020, mainly in the most vulnerable population, in low-income women with a low level of education³⁸.

According to a study, all states in the Northeast region have structural flaws in relation to the diagnosis and treatment of syphilis, with Piauí being one of the states that presented the most, superior to the state of Sergipe. There are inadequate conditions that interfere with the adequate management of pregnant women with syphilis and thus interfere with early detection and timely treatment. Thus, adequate and organized infrastructure is defining point to qualify access to health services by the population³⁵.

The professional training of primary care nurses is essential for the management of gestational syphilis to be carried out appropriately, as it allows for the screening and identification of cases of syphilis in pregnant women in a more qualified manner, in addition to allowing effective performance and analysis of results, diagnoses during prenatal care, which is considered the opportune moment to prevent syphilis in pregnant women and vertical transmission⁷⁻². Therefore, nurses have a fundamental role in providing guidance on syphilis, diagnosis, treatment and responding to the complexity of the

consequences caused by late diagnosis and treatment²².

In view of this, the data point to a reflection on the importance of professional qualification, as it guarantees more qualified and complete assistance for pregnant women during prenatal care. It is up to health professionals, together with managers, to carry out actions aimed at preventing gestational and congenital syphilis during prenatal care. Managers must invest more in training and professional qualification of nurses, which will contribute to more qualified assistance for women during prenatal care.

Conclusion

Limitations were observed in the prevention of gestational and congenital syphilis carried out by primary care nurses in the city of Floriano-PI, considering that the strategies carried out by nurses to prevent gestational syphilis, during prenatal care, were summarized in guidelines regarding the use of condoms during prenatal consultations, which despite being considered the main prevention method, other strategies must be carried out to raise awareness and guide the pregnant women and their partners. In this sense, it is noteworthy that health education actions are fundamental tools to promote knowledge and awareness about the prevention of syphilis, in addition to providing information about the infection itself.

Regarding congenital syphilis, it is highlighted that nurses seek, above all, to provide rapid testing during prenatal care, which is mostly carried out incompletely, as the provision of rapid tests only occurs in the first quarter of pregnancy. This goes against what is recommended by the Ministry of Health, which recommends that it be carried out in the first and third quarter, which could interfere with the early detection of pregnant women with syphilis and, consequently, with the vertical transmission of the infection.



In this sense, the data from this study suggest that there is a need to promote the qualification of care for the prevention of gestational and congenital syphilis through training that assists health professionals

regarding the health actions that must be adopted for prevention, diagnosis and treatment of syphilis in pregnant women and their partners.

Referências Bibliográficas

1. Rohers MP, Silveira SK, Golçalves, HHG, Sguario RM. Sífilis materna no Sul do Brasil: epidemiologia e estratégias para melhorar. FEMINA. 2020; 48 (12): 753-759. Disponível em: <https://docs.bvsalud.org/biblioref/2020/12/1141186/femina-2020-4812-753-759.pdf>
2. Rosa RN, Araújo AS, Silva ADB, Silva AK, Martins JVM, Alves JM et al. O manejo da sífilis gestacional no pré-natal. Rev. enferm. UFPE on line 2020; 14 (1): 1-21.. Disponível em: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/viewFile/243643/34761>.
3. Morais CM, Teixeira IV, Sadok S, Endo PT, Kelner J. Syphilis Trigram: a domain-specific visualisation to combat syphilis epidemic and improve the quality of maternal and child health in Brazil. *BMC Pregnancy and Childbirth* 2022; 22 (379): 1-21. Disponível em: <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-022-04651-w>
4. Leal MGA, Cavalcante EGR, Gomes EB, Pereira MLD, Cruz RSBL, Oliveira DR. Estrutura e resultados do controle da sífilis em gestantes na atenção básica: estudo transversal. Rev enferm UERJ, Rio de Janeiro 2021; 29: e5772. Disponível em: <https://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/57721>.
5. Amorim EKR, Matozinhos FP, Araújo LA, Silva TPR. Tendência dos casos de sífilis gestacional e congênita em Minas Gerais, 2009-2019: um estudo ecológico. Epidemiol. Serv. Saúde 2021; 30 (4): 1-13. Disponível em: <https://www.scielo.br/j/ress/a/C9HNFpTnZV4DjHJJpkkwtGP/?lang=pt>
6. Ministério da Saúde (BR). Secretária de Vigilância em Saúde. Sífilis Boletim +Epidemiológico. Brasília, DF: Ministério da Saúde; 2023. Disponível em: <https://www.gov.br/saude/pt-br/centrais-de-conteudo/publicacoes/boletins/epidemiologicos/especiais/2023/boletim-epidemiologico-de-sifilis-numero-especial-out.2023>
7. Sousa, SS, Silva YB, Silva IML, Oliveira HFC, Castro AGS, Araújo Filho ACA. Aspectos clínico-epidemiológicos da sífilis gestacional no nordeste do Brasil. Rev. Ciênc. Plur 2022; 8 (1): 1-15. Disponível em: <https://periodicos.ufrn.br/rcp/article/view/22522>
8. Araújo GAS, Maranhão TA, Sousa GJB, Silva TL, Silva IG, Vasconcelos MN. Distribución espacio-temporal y factores relacionados con la sífilis congénita en el nordeste brasileño. *Enferm. glob* 2023; 22 (39): 337-352. Disponível em: https://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1695-61412023000100012&lng=es&nrm=iso.
9. Amaral JV, Araújo AAC, Monteiro AKC, Araújo Filho ACA, Sales IMM, Ibiapina ARS. Análise da sífilis congênita no nordeste brasileiro. Rev. epidemiol. controle infecç 2021; 11



(2): 1-10. Disponível em:

<https://online.unisc.br/seer/index.php/epidemiologia/article/view/15949>

10. Hedge A, Srinivasan R, Dinakar C. Congenital syphilis: a rare presentation of a forgotten infection. *J Infect Dev Ctries* 2023; 17 (1): 135-138. Disponível em:

<https://pubmed.ncbi.nlm.nih.gov/36795921>

11. Freiras FLS, Benzaken AS, Passos MRL, Coelho ICV, Miranda AE. Protocolo Brasileiro para Infecções Sexualmente Transmissíveis 2020: sífilis adquirida. *Epidemiol. Serv. Saude*; 2021 30 (1): 1-13. Disponível em:

<https://www.scielo.br/j/ress/a/N3PFzwZKhgLVPHngzGRFdfy/>

12. Figueiredo DCM, Figueiredo AM, Souza TKB, Tavares B, Vianna RPT. Relação entre oferta de diagnóstico e tratamento da sífilis na atenção básica sobre a incidência de sífilis gestacional e congênita. *Cad. Saúde Pública* 2020; 36 (6): 1-21. Disponível em:

<https://www.scielo.br/j/csp/a/8syf4sN3Q5vZSw8mwk6zkDy/?lang=pt>

13. Nunes JT, Marinho ACV, Davim RMB, Silva GGO, Félix RS, Martino MMF. Sífilis na gestação: perspectivas e condutas do enfermeiro. *Rev. enferm. UFPE on line* 2017; 11 (12): 4875- 4884. Disponível em:

<https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/23573/25297>

14. Souza VRS, Marziale MHP, Silva GTR, Nascimento PL. Tradução e validação para a língua portuguesa e avaliação do guia COREQ. *Acta Paul Enferm* 2021; 34: 1-9. Disponível em: <https://www.scielo.br/j/ape/a/sprbhNSRB86SB7gQsrNnH7n/>

15. INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA (IBGE). Censo 2010. Disponível em: <https://censo2010.ibge.gov.br/>

16. Bardin, L. *Análise de Conteúdo*. 2.ed. São Paulo. Person; 1979. Disponível em: <https://ia802902.us.archive.org/8/items/bardin-laurence-analise-de-conteudo/bardin-laurence-analise-de-conteudo.pdf>

17. Brasil. Ministério da Saúde. Resolução nº 580, de 22 de março de 2018. Dispõe sobre as especificidades éticas das pesquisas de interesse estratégico para o Sistema Único de Saúde (SUS). *Diário Oficial da União*, Brasília p. 55; 16 jul. 2018; seção 1. Disponível em: <https://conselho.saude.gov.br/resolucoes/2018/Reso580.pdf>

18. Brasil. Ministério da Saúde. Resolução nº 510, de 07 de abril de 2016. Dispõe sobre as normas aplicáveis a pesquisas em Ciências Humanas e Sociais. *Diário Oficial da União* Brasília, p. 44; 24 mai. 2016; seção 1. Disponível em: <http://conselho.saude.gov.br/resolucoes/2016/Reso510.pdf>

19. Brasil. Ministério da Saúde. Resolução nº 466, de 12 de dezembro de 2012. Dispõe sobre diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. *Diário Oficial da República Federativa do Brasil*, Brasília, DF 13 jun. 2013. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/cns/2013/res0466_12_12_2012.html



20. Caldeira JG, Morais CC, Lobato ACL. Perfil das gestantes diagnosticadas com sífilis durante o pré-natal ou parto admitidas em maternidade de Belo Horizonte – MG. FEMINA 2022; 50 (6): 377-372. Disponível em: <https://docs.bvsalud.org/biblioref/2022/08/1380719/femina-2022-506-367-372.pdf>
21. Sousa ACF, Rende VF, Almeida DC, Rezende SC, Oliveira SV. Análise epidemiológica dos casos de sífilis na gestação em Uberlândia (MG) de 2011 a 2020. Journal Health NPEPS 2022; 7 (1): e5666. Disponível em: <https://docs.bvsalud.org/biblioref/2022/08/1380536/document-5.pdf>
22. Gomes, NS, Prates LA, Wilhelm LA, Linpinski JM, Velozo KDS, Pilger CH. Só sei que é uma doença”: conhecimento de gestantes sobre sífilis. Rev Bras Promoç Saúde 2021; 34 (1): 1-10. Disponível em: <https://ojs.unifor.br/RBPS/article/view/10964>
23. Barbosa KF, Batista AP, Nacife MBPSL, Vianna VN, Oliveira WW, Machado EL. Fatores associados ao não uso de preservativo e prevalência de HIV, hepatites virais B e C e sífilis: estudo transversal em comunidades rurais de Ouro Preto, Minas Gerais, entre 2014 e 2016. Epidemiol. Serv. Saude 2019; 28 (2): e2018408. Disponível: <https://www.scielo.br/j/ress/a/MhBQs3hjd9WffgJvH3G7skv>
24. Pinto IS, Oliveira JSB, Suto CSS, Pinto SS, Nobre TCN. Práticas de saúde na prevenção das infecções sexualmente transmissíveis. Research, Society and Development 2021;10 (10): e306101018755. Disponível em: <https://webcache.googleusercontent.com/search?q=cache:zQWEXvRNr34J:https://rsdjournal.org/index.php/rsd/article/download/18755/16860/233081&cd=3&hl=pt-PT&ct=clnk&gl=br>
25. Araújo TCV, Souza MB. Team adherence to rapid prenatal testing and administration of benzathine penicillin in primary healthcare. Rev Esc Enferm USP 2020; 54: e.03645. Disponível em: <https://doi.org/10.1590/S1980220X2019006203645>
26. Petry S, Padilha MI, Kuhen AE, Meirelles BHS. Saberes de estudantes de enfermagem sobre a prevenção de Infecções Sexualmente Transmissíveis. Rev Bras Enferm 2019; 72 (5): 1208-16. Disponível em: <https://www.scielo.br/j/reben/a/nK3KPDjP8RL3zjnkW9wvVQd/?lang=pt&format=pdf>
27. Silva NCP, Carvalho KBS, Chaves KZC. Sífilis gestacional em uma maternidade pública no interior do Nordeste brasileiro. FEMINA 2021; 49 (1): 58-64. Disponível: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1146935>
28. Ministério da Saúde (BR). Protocolo Clínico e Diretrizes Terapêuticas para atenção integral as pessoas com Infecções Sexualmente Transmissíveis (IST). Brasília, DF: Ministério da Saúde; 2022. Disponível em: <http://www.aids.gov.br/pt-br/pub/2020/protocolo-clinico-e-diretrizes-terapeuticas-para-atencao-integral-pessoas-com-infeccoes>.
29. Moreira AS, Alves JSS, Melo GC, Paixão JTS, Carnaúba MCS. Fatores associados ao não uso de preservativo por adolescentes brasileiros: uma revisão sistemática. Research, Society and Development 2022; 11 (5): e54011528450. Disponível: <https://webcache.googleusercontent.com/search?q=cache:sx4oWKsx0c8J:https://rsdjournal.org/index.php/rsd/article/download/28450/24818/329633&cd=1&hl=pt-PT&ct=clnk&gl=br>

30. Moraes MMS, Freire MRS, Rufino VN. Sífilis gestacional e congênita: evolução e relação com estratégia saúde da família no Sul e extremo sul baiano. *Rev Baiana Saúde Pública* 2021; 45 (3): 10-31. Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/biblio-1392990>
31. Machado I, Silva VAN, Pereira RMS, Guidoreni CG, Gomes MP. Diagnóstico e tratamento de sífilis durante a gestação: desafio para enfermeiras? *Saúde e pesquisa* 2018; 11 (2): 249-255. Disponível em: <https://docs.bvsalud.org/biblioref/2018/09/912400/6299-30301-1-pb.pdf>
32. Rosa LGF, Santos FS, Vatam CM, Burg MR, Camargo MEB. Análise do rastreamento oportuno da sífilis no pré-natal de baixo risco. *Aletheia* 2020; 53 (1): 133-145. Disponível em: <http://pepsic.bvsalud.org/pdf/aletheia/v53n1/v53n1a12.pdf>
33. Buiza LM, Reyes JCL, Ramírez ROP, Picazoc DM, Zamora AC, Riiz LMG et al. Asociación del consumo de drogas ilícitas en mujeres embarazadas y sífilis congénita en un Hospital Público de México. *Revista Argentina de Microbiología* 2023. Disponível em: <https://www.sciencedirect.com/science/article/pii/S0325754123000585>
34. Ministério da Saúde (BR). Protocolo de Atenção Básica: Saúde das mulheres. Brasília, DF: Ministério da Saúde; 2016. Disponível em: https://bvsmms.saude.gov.br/bvs/publicacoes/protocolos_atencao_basica_saude_mulheres.pdf
35. Paula MA, Simões LA, Mendes JC, Vieira EW, Matozinhos FP, Silva TMR. Diagnóstico e tratamento da sífilis em gestantes nos serviços de Atenção Básica. *Ciênc. Saúde Colet.* 2022; 27 (8): 3331-3340. Disponível em: <https://doi.org/10.1590/1413-81232022278.05022022>
36. DiOrío D, Kroeger K, Ross A. Social vulnerability in congenital syphilis case mothers: qualitative assessment of cases in Indiana, 2014-2016. *Sex Transm Dis* 2018; 45 (7): 447-451. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/29465662/>
37. Torres PMA, Reis ARP, Santos AST, Negrinho NBS, Manegueti MG, Gir E. Fatores associados ao tratamento inadequado da sífilis na gestação: revisão integrativa. *Rev Bras Enferm* 2022; 75 (6): e20210965. Disponível em: <https://www.scielo.br/j/reben/a/M7LhhZh5b56pLCgYBFRYRWx/?format=pdf&lang=pt>
38. Becerra AC, Alvarado SJLuis, Manrique HEF, Caballero CJA. Estudio ecológico de la sífilis gestacional y congénita en Colombia, 2012-2018. *Revista Cuidarte* 2022; 13(1): e2326. Disponível em: <https://revistas.udes.edu.co/cuidarte/article/view/2326/2431>

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