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Screening for sexually transmitted infections in pregnant women as a strategy for preventing vertical transmission.

Screening for sexually transmitted infections in pregnant women as a strategy to prevent vertical transmission

Riddled with sexually transmitted infections in embarrassed women as a strategy to prevent vertical transmission

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ABSTRACT

Introduction: Pregnancy is a period of increased vulnerability to sexually transmitted infections (STIs), which can result in vertical transmission and cause significant harm to the newborn. Objective: To evaluate adherence to STI screening in pregnant women, identify factors associated with non-adherence to protocols, and analyze strategies for preventing vertical transmission. Methodology: This is an integrative literature review, conducted through searches in scientific databases, including BVS, SciELO, LILACS, and PubMed, using descriptors related to vertical transmission and STIs in pregnant women. Articles published in the last five years, in Portuguese, English, and Spanish, were included. Results: The analyzed studies showed failures in adherence to the screening protocol, especially related to late initiation of prenatal care, lack of retesting in the third trimester, and difficulties in treating the partner. Final considerations: Despite the existence of well-established guidelines, challenges in their implementation still persist. Strategies such as expanding access to services, using rapid tests, and providing professional training are fundamental to improving prenatal care and reducing vertical transmission.

Descriptors: Vertical transmission, Sexually transmitted infections, pregnant women, and prenatal care.

1 INTRODUCTION

Pregnancy is a period marked by physiological, immunological, and hormonal changes that make Women are more susceptible to infections, including sexually transmitted infections (STIs). Many of these infections are asymptomatic, which makes early identification difficult and increases the risk. of complications for both the pregnant woman and the fetus (Nascimento et al., 2024).

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Vertical transmission, defined as the passage of infectious agents from mother to fetus during... Pregnancy, childbirth, or breastfeeding constitutes a public health problem. Infections such as Syphilis, HIV, and hepatitis B are associated with adverse outcomes, including miscarriage. prematurity, low birth weight and chronic diseases of the newborn (Miranda et al., 2023).

In the Brazilian context, despite the availability of protocols and public policies aimed at Despite prevention, vertical transmission still presents worrying rates, especially in the case of Congenital syphilis. These data reflect shortcomings in prenatal care, including late diagnosis.

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Inadequate treatment and poor adherence to clinical recommendations (Ministry of Health, 2024).
The Ministry of Health establishes the Clinical Protocol and Therapeutic Guidelines for the Prevention of Vertical Transmission (PCDT-TV), which recommends testing for syphilis, HIV, and hepatitis B in three distinct moments of pregnancy: at the first appointment, in the third trimester, and at the time of delivery. (Ministry of Health, 2022).
However, the literature indicates that adherence to these guidelines is still limited due to factors such as Insufficient access to health services, late initiation of prenatal care, failures in the organization of Assistance and difficulties in treating the sexual partner (Newman et al., 2021).
Given this scenario, it becomes essential to analyze the available scientific evidence on the subject. screening for STIs in pregnant women, in order to identify gaps in care and propose improvements in prevention of vertical transmission.
This study aims to evaluate adherence to screening for Sexually Transmitted Infections. (STIs) among pregnant women and identify the main factors associated with non-adherence to protocols recommended. In addition, the research aims to analyze current prevention strategies. vertical transmission, with the aim of understanding the gaps and potential of the assistance. Prenatal care in the management of these pathologies.

2 METHODOLOGY

This study is characterized as an Integrative Literature Review, a method that allows for... Synthesis and analysis of scientific studies on a given topic, providing an understanding. comprehensive of the knowledge produced. The research was developed with the objective of identifying Scientific evidence regarding adherence to screening for sexually transmitted infections. (STIs) in pregnant women and the challenges involved in preventing vertical transmission.
The bibliographic search was conducted in the Virtual Health Library (VHL) database. Latin American and Caribbean Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SciELO) and MEDLINE/PubMed. The Science Descriptors were used. Health (DeCS) and Medical Subject Headings (MeSH): “Vertical transmission”, “Screening”, “Syphilis”, “HIV”, “Hepatitis B”, “Prenatal care” and “Adherence”, combined through the Boolean operators AND and OR.
As inclusion criteria, original articles published in the last five years were selected. available in full, in Portuguese, English and Spanish, that address the tracking of STIs in pregnant women, adherence to clinical protocols, and prevention of vertical transmission were excluded. review articles, editorials, letters to the editor, duplicate studies, and works not directly related to

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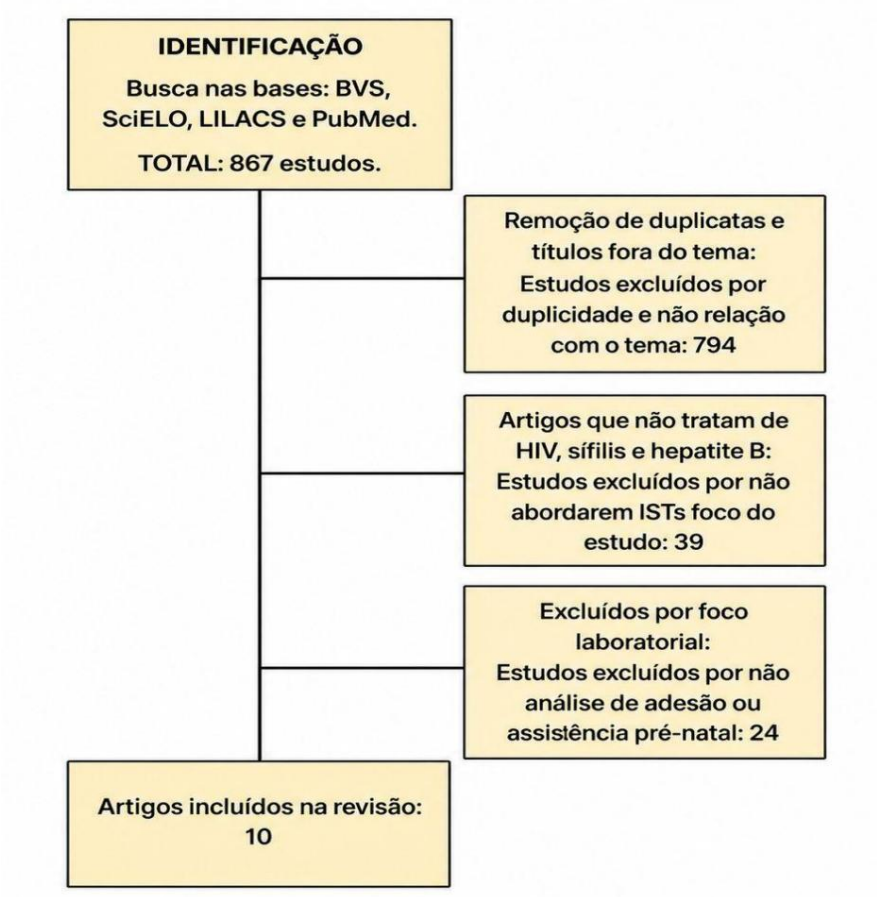
the proposed objective.

The selection of studies occurred in two stages: initially, the titles and abstracts were read to...
to identify potentially eligible articles; subsequently, a full reading of the...
studies selected for application of inclusion and exclusion criteria. After defining the
In the final sample, the data were organized and analyzed in a descriptive and qualitative manner.
considering aspects such as the objective, the methodology, the main results and the contributions.
from studies related to the investigated topic.

3 RESULTS

Based on a structured search conducted in scientific databases, 1,880 were identified.
studies. After reading titles and abstracts, as well as applying the inclusion criteria and
Previously established exclusion criteria, 10 articles were selected (Figure 1) to compose the corpus.
analysis of this integrative review.

Figure 1. Flowchart for article selection, 2026.



Source: Author's own work, 2026.

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Among the 10 articles selected for review, aspects related to adherence to were analyzed.
Screening for sexually transmitted infections (STIs) in pregnant women, with a focus on prevention.
vertical transmission of syphilis, HIV, and hepatitis B. Studies have investigated factors associated with
non-adherence to the clinical protocol, the quality of prenatal care, and access to services.
health, to the performance of testing at the recommended times and to intervention strategies.
The main findings highlighted that the late start of prenatal care, the absence of retesting in
Third quarter factors, failures in partner treatment, and socioeconomic vulnerabilities are contributing factors.
directly related to low adherence to screening. Conversely, strategies such as
use of rapid tests, expanding access to health services and training of
Professionals have demonstrated a positive impact on early detection and reduction of transmission.
Vertical. The details of the analyzed articles, including title, authors, year of publication, objectives and...
The results are presented in Table 1.

Table 1. Characteristics of the selected scientific articles, according to title, authors, year of publication, objective and results, 2026.

TITLE	AUTHOR YEAR OBJECTIVE	RESULTS
Tracking of STIs during pregnancy	Nascimento et al. 2024 Assessing how it occurs, it showed that a portion al. screening for sexually transmitted infections in pregnant women does not perform complete screening during follow-up as recommended, Regarding prenatal care, analyzing the timing of prenatal exams and the absence of retesting in the third trimester, which increases the risk of vertical transmission, the timing of the start of prenatal care and its relationship with the prevention of vertical transmission is crucial.	and compromises early diagnosis.
identified.	Miranda et al. 2023 Analyze the main **challenges of vertical transmission.** Low adherence was Challenges faced in aligning clinical guidelines, eliminating vertical transmission of HIV, syphilis, and hepatitis B associated with failures in the organization of health services in Brazil, considering the structural, organizational, and social aspects of health services, difficulties in monitoring pregnant women, and limitations in the implementation of health services.	prevention strategies.

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Epidemiological profile of gestational syphilis	Gonçalves; Gomes	2022	Writing profile Demonstrated high epidemiological incidence of syphilis in pregnant women and analyze gestational and congenital syphilis, factors associated with congenital syphilis diagnosis. The delay and absence of treatment for the partner highlight shortcomings in prenatal care.
Protocol Clinical and Guidelines Therapeutics (PCDT-TV)	Ministry of Health	2022	Establish guidelines Recommends conducting clinical testing at three distinct points during pregnancy (beginning of the prenatal period, hepatitis B during the third trimester, and at the time of delivery), highlighting that adherence to these steps is vertical. fundamental to reducing vertical transmission rates.
Strategies for preventing vertical transmission	Ministry of Health	2024	Evaluating the effectiveness of the clinical protocols implemented in the Brazilian health system demonstrated that the application of adequate prevention strategies for vertical transmission, associated with access to prenatal care and treatment, was crucial. significantly It contributes and promptly to the reduction of vertical transmission, especially in the case of HIV.
Hepatitis B during pregnancy	CDC	2024	Assessing the importance of screening for hepatitis B during pregnancy and early identification of infected pregnant women and preventive measures to prevent vertical transmission. Immunoprophylaxis in newborns (immunoglobulin vaccine) is effective in preventing vertical transmission.
Access to prenatal care and observed.	STI screening were assessed by Newman et al. 2021. They observed that factors such as access to health services, low income, low education **level ,** and difficulty in STI screening were Access for pregnant women, with a focus on health services for vulnerable populations. directly associated with lower adherence to prenatal care and incomplete screening.		

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Factors of non-adherence to tracking	Souza et al. 2020 identified the main non-structural factors associated with adherence to the health protocol, such as the lack of STI screening during pregnancy.	proper registration and Difficulties in no monitoring pregnant das women contribute to low adherence to the protocol.
Rapid prenatal tests	Peeling et al. 2020 assessed the impact of the use of rapid tests in diagnosing infections. They demonstrated that rapid tests allow for immediate diagnosis and...	the Sexually transmitted infections, early onset in prenatal care services, improving the chances of death. treatment, significantly improving the quality of care and reducing the risk of vertical transmission.
Quality of care according to	Santos et al. 2022. Assessing the quality of **prenatal care** indicated that... Prenatal care and its proper conduct, in relation to the prevention of vertical transmission of STIs, is crucial.	The continuation of the pregnancy It is directly associated with a reduction in cases of vertical transmission.

Source: Author's own work, 2026.

4. DISCUSSION

Sexually transmitted infections (STIs) during pregnancy remain an important concern.
public health problem, mainly due to the risk of vertical transmission and its repercussions
associated maternal and neonatal factors. The results of this integrative review show that, despite the
existence of well-established clinical protocols for the screening and management of these
Despite infections, there are still significant shortcomings in adherence to prenatal care and in the effective implementation of...
preventive measures. These limitations directly impact early diagnosis and treatment.
timely and, consequently, a reduction in vertical transmission.

The studies analyzed demonstrated that late initiation of prenatal care constitutes
one of the main barriers to adequate STI screening. According to Nascimento et al. (2024),
Many pregnant women only begin prenatal care in the second or third trimester of pregnancy.
reducing opportunities for early diagnosis and therapeutic intervention. This finding is

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This is especially concerning because the Ministry of Health recommends that the first test for
Testing for syphilis, HIV, and hepatitis B should be carried out early in pregnancy, allowing for the adoption of preventative measures.
Preventive measures taken in a timely manner.

In addition to the late start of prenatal care, the absence of retesting in the third trimester was also...
cited as a relevant factor for maintaining vertical transmission rates. Miranda et
al. (2023) highlight that many pregnant women only undergo the first test, failing to repeat it.
the tests as established in the Clinical Protocol and Therapeutic Guidelines for Prevention of
Vertical Transmission (PCDT-TV). This situation favors the occurrence of undiagnosed cases.
during the gestational period, especially in more vulnerable populations, in which the risk of
Continuous exposure to STIs is greater.

Another important aspect identified in the studies refers to the structural difficulties of the services.
health. Souza et al. (2020) show that problems related to the lack of supplies, to
deficiencies in the organization of services, delays in releasing laboratory results, and
The absence of adequate records compromises the quality of prenatal care.
Structural weaknesses hinder continuity of care and contribute to failures in...
Monitoring pregnant women directly impacts the effectiveness of prevention efforts.
vertical transmission.

Socioeconomic factors also significantly influence adherence to screening.
STIs. Newman et al. (2021) demonstrate that pregnant women in situations of social vulnerability
They have greater difficulty accessing health services, lower levels of education, and lower adherence to health protocols.
to prenatal appointments. These factors are associated with incomplete completion of examinations and to
There is a delay in diagnosing infections. Therefore, it is observed that preventing transmission...
Vertical growth depends not only on the existence of clinical protocols, but also on social conditions.
and economic factors to which pregnant women are subjected.

In this context, social inequality is an important determinant of outcomes.
related to STIs during pregnancy. Women living in poverty often face
Geographical, financial, and informational barriers to accessing health services. Furthermore,
Factors such as low levels of education and limited access to information hinder the understanding of
The importance of prenatal care and undergoing recommended tests. These aspects reinforce the
The need for health education strategies focused on promoting maternal and child care.
and to the prevention of STIs.

Gestational syphilis stood out among the infections analyzed due to its high incidence.
Vertical transmission has been observed in studies. Gonçalves and Gomes (2022) point out that syphilis
Congenital heart disease remains a significant challenge in Brazil, mainly due to diagnosis.

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The delay and inadequacy of treatment for the sexual partner. Even with the availability of
Effective and low-cost treatment, many cases progress to vertical transmission due to failure.
in clinical management and the absence of a comprehensive approach to the pregnant woman and her partner.
The difficulty in treating the partner is one of the main obstacles to controlling syphilis.
During pregnancy, many partners do not seek medical follow-up or abandon treatment.
This situation favors maternal reinfection even after adequate treatment of the pregnant woman.
This highlights the need to strengthen strategies for active outreach, support, and education in
health, also aimed at sexual partners, promoting a more comprehensive approach and
effective in preventing vertical transmission.

With regard to HIV, studies have demonstrated significant progress in prevention strategies.
Vertical transmission. According to Brazil (2024), expanding access to rapid tests, the
availability of antiretroviral therapy and adequate monitoring during the prenatal period.
They contributed significantly to the reduction of cases of vertical transmission of HIV in the country.
These results demonstrate that when clinical protocols are properly implemented, it is
It is possible to achieve positive results in preventing STIs during pregnancy.
However, despite advances in HIV management, significant challenges in adherence remain.
to the treatment and ongoing monitoring of pregnant women. Some women abandon the
prenatal care is often compromised by emotional, social, and economic factors, which negatively impacts...
continuity of therapeutic interventions. Furthermore, the stigma associated with HIV still exists.
This represents a significant barrier to early diagnosis and adherence to treatment, which
This highlights the need for actions that promote acceptance, reduce prejudice, and...
Strengthening the bond between healthcare professionals and patients.
In the case of hepatitis B, the studies analyzed highlight the importance of early identification of
pregnant women infected with the virus and the implementation of neonatal immunoprophylaxis. According to the CDC (2024), the
administration of the hepatitis B vaccine, combined with immunoglobulin, in the first hours of life.
In newborns, it shows high efficacy in preventing vertical transmission. These findings
They reinforce the importance of adequate screening during prenatal care and the integration between services.
maternal and neonatal care.
Another relevant aspect identified in this review refers to the use of rapid tests in the context.
prenatal care. Peeling et al. (2020) demonstrate that rapid tests allow for diagnosis.
Immediate and early initiation of treatment significantly reduces the risk of transmission.
vertical. Furthermore, these tests represent an important strategy for expanding access to
diagnosis in regions with less laboratory infrastructure, contributing to decentralization
for the care and strengthening of primary health care.

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The qualification of healthcare professionals was also identified as an essential factor for improvement. of prenatal care. Ongoing training of the teams allows for greater safety in the performance of prenatal care. of the tests, in the interpretation of the results and in the clinical management of pregnant women diagnosed with STIs. Furthermore, trained professionals are able to develop more effective educational initiatives. promoting greater adherence to treatment and greater awareness of the importance of prevention. of vertical transmission.

In this scenario, the importance of the biomedical professional in prevention is also highlighted. Diagnosis and monitoring of STIs during pregnancy. The biomedical professional plays a role. fundamental in the performance and interpretation of laboratory tests, contributing directly to early diagnosis and monitoring of infections. Furthermore, its integrated approach to A multidisciplinary team strengthens the quality of care provided to pregnant women, promoting... Proper implementation of prevention strategies.

Despite the progress observed in public policies focused on maternal and child health, studies The analyses show that there are still significant gaps in the implementation of clinical guidelines. The persistence of high rates of congenital syphilis and failures in adherence to screening. Studies show that the mere existence of protocols is not enough to guarantee the effectiveness of prevention measures. It is necessary to strengthen the organization of health services and expand access. to prenatal care and promote integrated strategies that meet social, economic and cultural factors of pregnant women.

Finally, it is worth highlighting that the results of this review reinforce the need for investments. Continuous efforts in public policies, health education, and professional training, aimed at reducing the vertical transmission rates and improve maternal and infant outcomes. Furthermore, it is evident the importance of developing new research aimed at identifying more effective strategies. effective for increasing adherence to prenatal care and strengthening assistance to pregnant women in situation of vulnerability

FINAL CONSIDERATIONS

This study showed that, despite the existence of well-established clinical protocols for the Screening for sexually transmitted infections during pregnancy still persists. significant shortcomings in adherence to prenatal care and in the implementation of prevention strategies Vertical transmission. Factors such as late initiation of prenatal care, the absence of retesting in the third quarter, structural difficulties in health services, and vulnerability Socioeconomic factors have demonstrated a significant influence on the quality of care provided to

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Pregnant women.

Furthermore, it was observed that strategies such as expanding access to health services,
The use of rapid tests and the continuous training of professionals contribute significantly.
for early diagnosis and reduction of vertical transmission. In this way, the
The need to strengthen prenatal care and to effectively implement clinical guidelines.
aiming to promote better maternal and neonatal outcomes.

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