



Occurrence of HIV and syphilis in the prenatal care of primary health care

*Ocorrência de HIV e sífilis no acompanhamento pré-natal da atenção primária em saúde**Ocurrencia de VIH y sífilis en el seguimiento prenatal de la atención primaria en salud*Andréia Alves de Sena Silva¹, Maria das Graças Alves dos Santos Bezerra², Lucilene Araújo Almeida^{2,1}¹ Programa de pós-graduação Epidemiologia em Saúde Pública da Fundação Oswaldo Cruz - FIOCRUZ, Manguinhos, Rio de Janeiro, Brasil² Instituto de Ensino Superior Múltiplo - IESM, Departamento de Enfermagem, Teresina, Piauí, Brasil

ABSTRACT

Objective: To identify in the literature the factors related to the occurrence of HIV and syphilis cases in pregnant women in primary health care. **Method:** Integrative review, carried out in Latin American and Caribbean databases on Health Sciences (LILACS), Scientific Electronic Library Online (SCIELO), CAPES portal and MEDLINE were selected to search for primary studies. **Results:** From a thorough reading of the selected studies in full, the ordering and investigation of the themes was carried out, with the purpose of describing and classifying the results, demonstrating the knowledge acquired with the presented theme. Thus, 11 researches in full, established sampling for denote results of the convenient guiding question. **Conclusion:** several factors favor the increase of cases of these infections in pregnant women, from the inefficiency of the programs of capture of this woman, lack of professional action in the face of this problem until the lack of resources to subsidize the work of the health team. **Descriptors:** Prenatal care; HIV; Syphilis; Primary health care.

RESUMO

Objetivo: Identificar na literatura os fatores relacionados à ocorrência de casos de HIV e sífilis em gestantes na tenção primária em saúde. **Método:** Revisão integrativa, realizada nas bases de dados latino-americana e do Caribe em Ciências da Saúde (LILACS), *Scientific Electronic Library Online* (SCIELO), portal da CAPES e MEDLINE foram selecionadas para a busca dos estudos primários. **Resultados:** A partir a leitura minuciosa dos estudos selecionados na íntegra, realizou-se, a ordenação e investigação das temáticas, com o propósito de descrever e classificar os resultados, demonstrando o conhecimento adquirido com o tema apresentado. Desse modo, 11 pesquisas, na íntegra, estabeleceram a amostragem, por denotarem resulta dos convenientes à questão norteadora. **Conclusão:** diversos fatores favorecem ao aumento de casos dessas infecções em gestante, desde a ineficiência dos programas de captação dessa mulher, falta atuação profissionais diante dessa problemática, até ausência de recursos para subsidiar o trabalho da equipe de saúde.

Descritores: Cuidados no pré-natal; HIV; Sífilis; Atenção primária à saúde.

RESUMÉN

Objetivo: Identificar en la literatura los factores relacionados con la ocurrencia de casos de VIH y sífilis en gestantes en la tenencia primaria en salud. **Método:** una revisión integradora, llevado a cabo en las bases de datos de América Latina y el Caribe en Ciencias de la Salud (LILACS), *Scientific Electronic Library Online* (SciELO), CAPES portal y MEDLINE fueron seleccionados para la búsqueda de los estudios primarios. **Resultados:** A partir de la lectura minuciosa de los estudios seleccionados en su totalidad, se realizó, la ordenación e investigación de las temáticas, con el propósito de describir y clasificar los resultados, demostrando el conocimiento adquirido con el tema presentado. De este modo, 11 investigaciones, en su totalidad, establecieron el muestreo, por denotar resultados convenientes a la cuestión orientadora. **Conclusión:** diversos factores favorecen el aumento de casos de estas infecciones en gestante, desde la ineficiencia de los programas de captación de esa mujer, falta actuación profesional ante esta problemática, hasta ausencia de recursos para subsidiar el trabajo del equipo de salud.

Descritores: Prenatal care; VIH; la sífilis; Atención primaria.**How to cite:**

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INTRODUCTION

According to the World Health Organization (WHO) approximately one million people contract STIs on a daily basis, making a significant impact on people's quality of life. Some have high prevalence and incidence rates, with emphasis on HIV/aids and syphilis.¹

With regard to Brazil, between 2007 and June 2018, 247,795 cases of HIV infection were recorded, with a concentration in the South and Southeast (47.4%) and (20.5%) respectively, being observed in the Northeast and Central-West regions. In this epidemic, the number of infected pregnant women deserves attention: between the years 2000 and June 2018, more than 116,292 thousand cases were reported in the country.²

The occurrence of syphilis is also worrisome in this public, it is estimated that a million pregnant women are infected per year, in this way, the need to prioritize, detect and carry out treatment in a timely manner.³

In this context, primary health care services should be structured in such a way as to enable reception, early diagnosis and appropriate assistance for cases infected with HIV and syphilis, as well as the guarantee of referral to specialized services when necessary, especially to women who are accompanied during prenatal care.

Integral care for this group of diseases is of fundamental importance, and it is necessary to develop strategies of multiprofessional commitment, seeking to strengthen and resolve positive cases. It is important to intensify promotion and prevention actions in order to break the epidemiological chain, as well as

provide assistance that allows a higher quality of life for those infected.⁴

In order to strengthen health actions in the maternal and child health field, in 2011, the Administrative Rule No. 1459, which established the Stork Network, was created in order to ensure the quality of access to coverage and follow-up for pregnant women and children. In it, rapid tests are instituted, creating possibilities for increasing access to early diagnosis of HIV infection and syphilis. In addition, Decree No. 3,275, dated December 26, 2013, states that it is the competence of the primary health care teams to conduct rapid tests for the diagnosis of HIV and the detection of syphilis, in addition to other diseases, in prenatal care for pregnant women and their partners.⁵

Achieving the goals of minimizing vertical transmission of syphilis and HIV should be achieved through the effective involvement of primary health care, which is the place of the population's search for care and resolution of their problems, especially in pregnancy, to perform prenatal follow-up.

However, the precarious health infrastructure conditions and the unpreparedness observed by some professionals make it difficult to carry out these tests, as well as follow-up after the delivery of a positive result, with consequences such as false negative diagnoses or non adherence to the treatment. Such situations may lead to an increase in the transmission of STIs and impairments in patient follow-up.

Considering the importance of quality prenatal care, following ministerial

recommendations, and knowing clinical aspects of these diseases, in order to better advise pregnant women and their sexual partners, the objective is to: Identify in the literature the factors related to the occurrence of HIV and syphilis cases in pregnant women in primary health care.

METHODS

This is an integrative review. In order to construct the integrative review, it was necessary to go through six different stages: identification of the theme and selection of hypotheses, establishment of criteria for inclusion and exclusion of study, definition of the information of the selected studies, evaluation of the studies, interpretation of the results and presentation of the review.⁶ Thus, this research was guided by the following problematic: what factors contribute to the increasing incidence of HIV and syphilis cases in pregnant women?

The search was carried out in the Virtual Library Platform (according to its acronym in Portuguese, BVS), in the Latin American and Caribbean literature on Health Sciences (LILACS), Scientific Electronic Library Online (SCIELO), portal of CAPES and MEDLINE, in the period of January of 2018, with descriptors tested and standardized according to the established norms of the descriptors in health science (DECS). In order to answer the guiding question, the following descriptors were used: prenatal care, HIV, syphilis and primary health care; interleaving them with the Boolean operator AND to obtain as many articles as

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possible, making the construction of the revision possible.

Included were original articles, dissertations and theses with Portuguese or English language, made available in full and published from 2010 to 2017, which were related to the theme addressed in the review. The following were excluded: case studies, books, reports of experience and studies that did not answer the guiding question.

To extract the data of the selected articles, an instrument previously prepared by the researchers was used, which ensured the evaluation of the information obtained and served as a record for analysis, supporting the reliability of the extracted data. The instrument has as variables: identification, study institution, type of publication, methodological characteristic of the study, objective, sample, data treatment, interventions performed, results, analysis, implications, level of evidence, methodological rigor assessment.

Data analysis was performed by means of an intensive and critical reading of the selected studies. According to the guiding question and interest of the researchers, the contents addressed in each article were extracted, so that the works were compared and grouped by content similarity. Initially, the data were organized through a table with the following information: authors, year, type of study, sample characterization, objective and level of evidence.⁶

The classification of the level of evidence was according to the Stetler study, in the year of 1998⁷ in which level 1 are the meta-analyses of randomized controlled clinical studies; at level

2, experimental design studies; at level 3, quasi-experimental study design studies; at level 4, non-experimental, descriptive studies or with a qualitative methodological approach or case series study; at level 5, case report or systematically obtained data of verifiable quality or program evaluation data; and at level 6, expert opinions, based on clinical experiences or expert committee.

Subsequently, the findings were evaluated in an unbiased manner and organized as empirical categories: *Importance of quality prenatal care*

in the prevention of diseases and Factors that interfere in the outcome of pregnancy.

RESULTS

After a thorough reading of the selected studies in full, we proceeded, with the ordering and investigation of the themes, with the purpose of describing and classifying the results, demonstrating the knowledge acquired with the theme presented. Thus, 11 surveys in the whole established the sampling, since they denote convenient results to the guiding question (Table 01).

Table 1: Distribution of articles found, excluded and selected for review.

Databases	Studies		
	Retried	Excluded	Selected
Scielo	10	1	9
Lilacs	8	6	2
Portal da capes	4	3	1
Medline	3	2	1
Total	25	12	13

It was observed that 69.2% of the publications occurred from the year 2011, year in which the Stork Network was launched, with a view to the prenatal qualification, emphasizing the occurrence of the diseases, object of this study. As regards the country of origin, 92.3% are national studies; foreigners were made in the countries of origin 7.7%. About the authorship of the researches, it was verified that 9 studies were published by multiprofessional teams and two by medical area.

Regarding the study approach, most

research (76.9%) had a quantitative analysis, with a cross-sectional design. The other studies had a qualitative approach, one of them ethnographic.

Considering the classification of level of evidence, the studies did not have a high level, generating good levels of recommendation, in which 76.9% were classified in level 4 and 23.1% in level 3 (Table 2).

Table 2: Characterization of the studies included in the integrative review.

Nº	TITLE	TYPE OF STUDY/SAMPLE	AIM	LEVEL OF EVIDENCE
E1	Sífilis gestacional como indicador da qualidade do pré-natal no Centro de Saúde n.º 2 Samambaia-DF ⁸	Quantitative, retrospective study with cross-sectional design Sample= 22 pregnant women	To determine the epidemiological profile of pregnant women with VDRL reagents in the health center n° 2 Sambambaia-DF from 2005 to 2009.	4
E2	Aconselhamento na testagem anti-HIV no ciclo gravídico-puerperal: o olhar da integralidade ⁹	Exploratory qualitative study N = 12 postpartum women	Analyze professional care of women who became aware of HIV positivity during labor.	4
E3	Perfil clínico e epidemiológico de gestantes infectadas pelo HIV em um serviço do sul do Brasil ¹⁰	Quantitative, prospective study N = 139 pregnant women	To analyze the clinical and epidemiological profile of the pregnancy outcome and the vertical transmission of pregnant women infected with the human immunodeficiency virus treated at the prenatal hospital of Santa Maria.	3
E4	Protocolo na assistência pré-natal: ações, facilidades e dificuldades dos enfermeiros da Estratégia de Saúde da Família. ¹¹	Qualitative study N = 15 nurses	To know the nurse's perception about the use of the protocol of their duties in prenatal care.	4
E5	Público versus privado: avaliando a assistência à gestação e ao parto no extremo sul do Brasil ¹²	Quantitative study with cross-sectional design N = 2.557 mothers	To evaluate the assistance to the pregnant woman and to the delivery between the public and private sector in the city of Rio Grande-RS.	4
E6	Management of syphilis during pregnancy: knowledge, practices and attitudes of prenatal professionals from the SUS network in the city of Rio de Janeiro ¹³	Quantitative study with cross-sectional design Sample = 102 health professionals who performed prenatal care.	To evaluate the knowledge of the practices and attitudes of the prenatal professionals of the SUS network in the city of Rio de Janeiro and to identify the main barriers to the implementation of care management protocols Syphilis in pregnancy.	4
E7	Differences in the prenatal care process between units of the Family Health Strategy and traditional units in a municipality in the Southern Region of Brazil ¹⁴	Quantitative study with cross-sectional design N= 961 pregnant women	Evaluate differences in prenatal care between the Family Health Strategy (FHS) and the traditional Basic Health Units (BHU) in Rio Grande, Rio Grande Do Sul, Brazil.	4
E8	Pre-natal actions performed by the nursing team in primary health care, Cuiabá ¹⁵	Quantitative, exploratory study with cross-sectional design N=182 nursing professionals	To describe the actions performed by the nursing team in prenatal care in the city of Cuiba, MT.	4
E9	Prenatal care and delivery in women users of the public health system in the Legal Amazon and in the Northeast, Brazil 2010 ¹⁶	Population-based survey Sample = 13,205 pregnant women attended during the prenatal period Sample = 13,044 women attended at childbirth	To describe the adequacy of health care among women who underwent prenatal care and/or childbirth in the Unified Health System (SUS) in the priority municipalities for the reduction	4

		Sample = 252 priority municipalities	of infant mortality in the Legal Amazon and in the Northeast.	
E10	Spatial analysis of human immunodeficiency virus infection among pregnant women ¹⁷	Ecological Study Sample= 1614 of registered notifications of pregnant women with HIV	To analyze the spatial distribution of reported cases of pregnant women infected with the human immunodeficiency virus.	3
E11	Prenatal care and culture: an interface in nursing practice ¹⁸	Ethnographic nursing study Sample= 5 nurses	To know the care practices and the cultural values of nursing when assisting pregnant women.	4

Importance of quality prenatal care in the prevention of injuries

Prenatal care does not occur effectively in the different regions of Brazil, both in terms of quantity and quality, there are differences when comparing follow-up in the public and private service.^{9-11,14,17}

Another point that stands out is the lack of tests for the respective syphilis and HIV infections in the health services, many professionals are still unaware of the rapid test and many do not have the competence to carry out the respective tests. The implementation of rapid tests is effective in all regions of care for pregnant women and the preparation of professionals is still below the expectations of health authorities, since not every professional is able to perform the rapid test.^{14,17}

The findings of the studies point to the importance of implementing a quality prenatal care to prevent the vertical transmission of infections to the newborn and the sexual and reproductive health of the mother.⁹⁻¹⁷

Factors that interfere in the outcome of pregnancy

Some variables jeopardize the continuity of preventive care for women in prenatal and childbirth situations, such as the low level of Rev Pre Infec e Saúde.2019;5:8351

schooling of the mother or the couple, the absence of a link between the professionals and the pregnant woman, the lack of preparation of health professionals to conduct a continuum of care effectively and a skilled recruitment of the pregnant woman in a timely manner.^{8,12-13,17-18}

The quality of care and the favorable outcome depends on the patient, professional triad and health service. Despite the fact that the mother's low level of education is placed on the agenda by the authors, the professional's failure to perform significantly compromises favorable outcomes regarding the vertical transmission of diseases to the newborn.¹³⁻¹⁸

The professional should be able to carry out the situational diagnosis of the individual or community, as well as provide a holistic care, so as to guide and sensitize the pregnant women about the relevance of prevention of diseases, mainly syphilis and HIV, and the importance of follow-up prenatal care for the baby.^{8,12-13,17}

DISCUSSION

Syphilis and HIV infection in pregnant women, if not diagnosed and treated during pregnancy, can be transmitted to the fetus, causing several complications. According to the Epidemiological Bulletin of Syphilis, more than 300,000 fetal and neonatal deaths occur annually worldwide, and

predispose an increasing number of 215,000 children exposed to the risk of early death.¹⁹

The prevalence of the high incidence of infections in pregnant women such as syphilis and the presence of high rates of congenital problems reflects the quality of care, which is sometimes unsatisfactory, requiring the need for periodic review of the procedures adopted and greater commitment of professionals to problems that are preventable.¹³

The problem that the professionals face in the approach of the partner of the pregnant woman contributes in a negative way to the inadequacy in the direction in the verification of the percentages of syphilis in pregnancy.²⁰

It is noted that laboratory tests for the detection of syphilis and HIV diseases have increased, however, we do not have the desired coverage, which makes it very serious; therefore, if the treatment is not instituted in time, the consequences are severe for both the mother and the child, simple tests with a greater impact on the health of the binomial are no longer performed, indicating a fundamental factor for the adoption of effective interventions.²¹

Although the early diagnosis of HIV is characterized as a priority goal, especially when it comes to pregnant women due to the risk of transmission, this reality is still less than desired. The absence of diagnoses provided at the time of childbirth for HIV and for syphilis prevents prophylactic measures being taken against vertical transmission (VT). The lack of care increases the severity of the situation for these people, significantly reducing patients' quality of life.^{10,22}

When it comes to HIV, mother-to-child transmission has been the leading cause of HIV in children worldwide, and approximately 84% of this in children under the age of thirteen is found in Brazil. The possibility of vertical transmission of infection may culminate in 25% if interventions are not followed in the appropriate period. However, during the development of preventive conduits the transmission can considerably decrease these levels, between the percentage of zero to two percent.²³⁻²⁵

When undiagnosed and treated early, syphilis may cause irreversible sequelae. Since 2014 in Brazil, as in other countries, there is a lack of this drug for HIV, and because of the absence of the raw material for its manufacture, the Ministry of Health (MS), in an emergency, sought to solve this issue in with other entities. In 2017, 24,666 cases of congenital syphilis were diagnosed.¹⁹

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The sociodemographic factors of the pregnant woman reinforce that they are sufficient reasons to interfere in the adequate prenatal follow-up, schooling is presented as one of the main reasons for satisfactory prenatal care adequacy, since pregnant women with

primary education do not assimilate the information provided by the health professional. Thus, gestational syphilis prevails with a high prevalence and incidence of vertical transmission, which is around 30 to 100% with inadequate or untreated treatment.²⁶

One of the main factors that significantly interfere with the exams for these diseases is the late onset of prenatal care, low maternal schooling, wastage of opportunities to test these women, something that was found and debated during this study.

The Ministry of Health proposes the articulation of action plans to reduce HIV VT, in this includes the use of combined antiretrovirals. Synchronized actions ranging from prenatal accessibility to HIV testing, to completion of follow-up of the child exposed to risk, which will ensure the success of decreasing the vertical transmission of this infection. Qualified care for pregnant women and childbirth is one of the pillars to minimize or perhaps eliminate transmission of syphilis.^{25,27}

The favorable end of a gestation is directly inferred by distal, intermediate and proximal determinants, social, economic and cultural factors, daily living conditions, individual behaviors, perinatal complications; respectively, are a reliable representation of interferences in the condition of the pregnant woman.²⁸ Observational research has shown that the reduction of prenatal care is a risk factor for the rise in fetal and neonatal mortality rates. In addition, the absence of adequate behavior at the right time may lead to premature birth.²⁹⁻³⁰

The analyzed studies confer low laboratory tests in the gestational period and the

lack of execution of the professionals of the protocol of testing in the pregnant woman, besides the time too much for the return of the result of the examination are factors considered limiting to obtain the total coverage in relation to pregnant women with anti-HIV and syphilis tests, several authors indicate and advocate testing with an immediate result, which will lead the professional to adopt inherent and convenient behaviors.³¹⁻³²

It is important to emphasize that prenatal care needs to be planned to ensure the pregnant woman's real needs, professionals must have technical and scientific knowledge, appropriate means for such action and, especially, continuous assessment of actions and interventions related to maternal and child health.³³

A prenatal and humanized quality care is required, aiming at the integration of welcoming behaviors that provide pertinent guidelines to the pregnant woman, during the prenatal care the health professional must seize the moment to develop a space of health education, with the purpose of providing support conditions to the pregnant woman, so that she experiences gestation and delivery in a positive way.

The main actors involved in the practice of health education should be composed primarily of health professionals who promote health promotion and prevention, which goes beyond curative practices. The development of groups of pregnant women is an opportunity to generate a link between professional and pregnant women, contributing to the strengthening and understanding of the pregnancy process, which will empower it in

self-care, considering the therapeutic process.³⁴⁻³⁵

It is conjectured that HIV indicators and gestational syphilis can be reduced with a significant improvement through the implementation of the actions proposed by the Stork Network, a proposal that aims to provide good perspectives in prenatal and birth care, among other strategies to detect and perform the early treatment of cases of HIV and syphilis in pregnant women.³⁶

In prenatal care, educational activities allow the woman to experience the moment of delivery in a positive way. Research carried out in the Brazilian context has shown that women with lower schooling, lower family and non-white incomes are the ones who start prenatal care late, and when they follow up, this is of lower quality, pointing to the social inequity present in the care.³⁷

The prenatal humanization policy is based on the right to maternal and child humanized care, in addition to determining rules of service with the necessary quality, favoring a greater link between outpatient care and referral maternity with complete integration in health actions.³⁸

The main limitation of the present study involves the difficulty of extrapolating conjectures

regarding the thematic, since the outlines of the studies recruited are generally transversal, other research delineations involve different perspectives regarding the reality of the problem.

CONCLUSION

Corresponding to studies included in this review, the quality of prenatal care was important emphasis on disease prevention and/or obstetric complications. Requesting laboratory tests in a timely manner at gestational age leads to early treatment and provides a favorable outcome for the pregnant woman and the child. Some studies indicate factors that interfere in this monitoring and in qualified listening, such as the late onset of prenatal care, professional unpreparation, failure to perform laboratory tests and treatment, configuring significant barriers that make it impossible to attend.

It was also evidenced by some studies that there is no definition adopted by professionals in the follow-up of behaviors based on care protocols, indicating that the actions developed are not standardized, compromising the qualified attention to prenatal care.

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