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Revista de Enfermagem

# TESTE RÁPIDO PARA O HIV DURANTE O PRÉ-NATAL RAPID TEST FOR HIV DURING PRENATAL CARE PRUEBA RÁPIDA DEL VIH DURANTE EL PRENATAL

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## **RESUMO**

Objetivo: verificar, na literatura, as características das consultas de pré-natal às gestantes para oferecimento do teste rápido para o Vírus da Imunodeficiência Humana. *Método:* trata-se de um estudo bibliográfico, descritivo, tipo revisão integrativa da literatura, sem limite temporal, realizado por meio das bases de dados BDENF, LILACS, MEDLINE, CINAHL, Scopus e Web of Science. Incluíram-se artigos originais em português, inglês ou espanhol. Analisaram-se os dados de forma descritiva. Resultados: identificaram-se 1726 publicações, das quais dez compuseram a amostra. Verificaram-se, em geral, as características do estudo e as estratégias para a melhoria das consultas, do aconselhamento e do oferecimento de testes efetivos. Conclusão: conclui-se que a análise dos estudos permitiu a síntese de características, conteúdos, recursos e técnicas de abordagem, além de lacunas e dificuldades tanto dos profissionais quanto das gestantes para a efetivação do aconselhamento para a execução dos testes rápidos para o Vírus da Imunodeficiência Humana em gestantes.

Descritores: Gestantes; Cuidado Pré-Natal; Técnicas de Laboratório Clínico; Diagnóstico; Atenção Primária à Saúde; HIV.

#### **ABSTRACT**

**Objective:** to verify, in the literature, the characteristics of prenatal consultations to pregnant women to offer the rapid test for the Human Immunodeficiency Virus. *Method*: It is a bibliographic, descriptive, integrative literature review type study, without time limit, carried out through the BDENF, LILACS, MEDLINE, CINAHL, Scopus and Web of Science databases. Original articles in Portuguese, English or Spanish are included. The data were analyzed in a descriptive manner. Results: 1726 publications were identified, of which ten composed the sample. In general, the characteristics of the study and the strategies for the improvement of consultations, counseling and offer of effective tests were verified. *Conclusion:* it is concluded that the analysis of the studies allowed the synthesis of characteristics, contents, resources and techniques of approach, besides gaps and difficulties of both professionals and pregnant women for the realization of counseling for the execution of rapid tests for the Human Immunodeficiency Virus in pregnant women.

**Descriptors:** Pregnant Women; Prenatal Care; Clinical Laboratory Techniques; Diagnosis; Primary Health Care; HIV.

# **RESUMEN**

Objetivo: verificar, en la literatura, las características de las consultas prenatales a gestantes para ofrecer la prueba rápida del Virus de Inmunodeficiencia Humana. *Método*: se trata de una revisión bibliográfica, descriptiva, integradora de la literatura, sin límite de tiempo, realizada utilizando las bases de datos BDENF, LILACS, MEDLINE, CINAHL, Scopus y Web of Science. Se incluyeron artículos originales en portugués, inglés o español. Los datos se analizaron de forma descriptiva. *Resultados*: se identificaron 1726 publicaciones, de las cuales diez componen la muestra. En general, se verificaron las características del estudio y las estrategias para mejorar las consultas, el asesoramiento y la oferta de pruebas efectivas. *Conclusión*: se concluye que el análisis de los estudios permitió la síntesis de características, contenidos, recursos y técnicas de abordaje, además de vacíos y dificultades tanto de los profesionales como de las gestantes para la efectividad del asesoramiento para la ejecución de las pruebas rápidas para el Virus de la Inmunodeficiencia Humana en mujeres embarazadas.

**Descriptores**: Mujeres Embarazadas; Atención Prenatal; Técnicas de Laboratorio Clínico; Diagnóstico; Atención Primaria de Salud; VIH.

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#### INTRODUCTION

It is known that the Joint United Nations Programme on HIV/AIDS estimates that every week about 6,000 women between the ages of 15 and 24 become infected with the Human Immunodeficiency Virus (HIV) and a significant portion are diagnosed during pregnancy. The diagnosis of HIV in pregnancy is surrounded by insecurity and fear and has an impact on the lives of women and people close to them, which emphasizes the need to provide subsidies for the realization of humanized and resolute care with regard to the difficulties experienced in coping with this infection in this phase of life. <sup>2-3</sup>

At this time, guidelines are crucial to mitigate the negative components of HIV diagnosis during pregnancy. Therefore, it is essential to gain the trust of the subjects involved by forming bonds to promote health in an individualized way, besides being a favorable moment to discuss issues relevant to this stage of life, as well as to provide guidance to prevent complications and clarify doubts of the woman and her partner.<sup>4</sup>

In recent years, activities to improve assistance to pregnant women have been intensified, such as expanding access to and improving the quality of prenatal consultations and increasing the performance of rapid HIV testing.<sup>5</sup> It is necessary, however, for the proper performance of the rapid tests, that, during the consultation, the counseling is performed both before and after the test. This must occur, because, from this practice, it is possible to break the chain of transmission of infections, among them, HIV. It is considered that this is still a very stigmatized disease and, therefore, the importance of using counseling as an instrument of interaction, exchange of knowledge and feelings capable of promoting reflections on risks and prevention needs.<sup>6</sup>

The quality of consultation is essential for the acceptance of rapid testing and clarification of HIV infection, which can significantly contribute to reducing vertical transmission of this disease, however, studies combining the characteristics of consultations are non-existent. In this way, it is necessary to group and investigate the characteristics of the consultations, since they indicate practices that need improvement and serve as a resource that can guide the care of health professionals.

## **OBJECTIVE**

Verify, in literature, the characteristics of prenatal consultations to pregnant women to offer the rapid test for the Human Immunodeficiency Virus.

## **METHOD**

It is a bibliographic, descriptive, integrative literature review type study. It is explained that this type of study has the potential to present a comprehensive understanding of the problems relevant

to health care and policies. The following steps were followed, methodologically: 1) elaboration of the guiding question; 2) literature search or sampling; 3) data collection; 4) critical analysis of the studies included; 5) discussion of the results; 6) presentation of the integrative revision. 10

The following research question was elaborated: "What are the characteristics of prenatal visits to offer HIV rapid testing to pregnant women? The following were listed as inclusion criteria: original articles on prenatal consultations to offer HIV rapid testing to pregnant women; published in Portuguese, English or Spanish; without temporal cut-off. Studies that did not answer the guiding question were excluded, research that approached the consultation to offer the rapid test only to pregnant women, review articles, letters to the editor, editorials, scientific event proceedings, monographs, theses and dissertations.

Data was collected between April and May 2020 through the following databases: MEDLINE (Medical Literature Analysis and Retrieval System Online); Scopus; Web of Science; CINAHL (Cumulative Index to Nursing and Allied Health Literature); LILACS (Latin American and Caribbean Health Sciences Literature) and BDENF (Nursing Database). For the search at the bases, Boolean OR and AND operators combined the following controlled descriptors of the Health Sciences Descriptors (DeCS) also contemplated in Medical Subject Heading (Mesh): "pregnant women"; "prenatal care"; "clinical laboratory techniques"; "diagnosis"; "prenatal diagnosis"; "primary health care" and "hiv". For the CINAHL search, the following CINAHL titles were used: "expectant mothers"; "prenatal care"; "diagnosis"; "prenatal diagnosis"; "prenatal d

A total of 1726 records were identified in the initial search. Duplicate articles were excluded, selecting 1211 records to read the titles and abstracts. Of these, 143 were selected and ten were included in the qualitative synthesis (Figure 1).

Records identified through database searches (n=1726)

Records identified through surveys in other data sources (n= 00)

**IDENTIFICATION** 

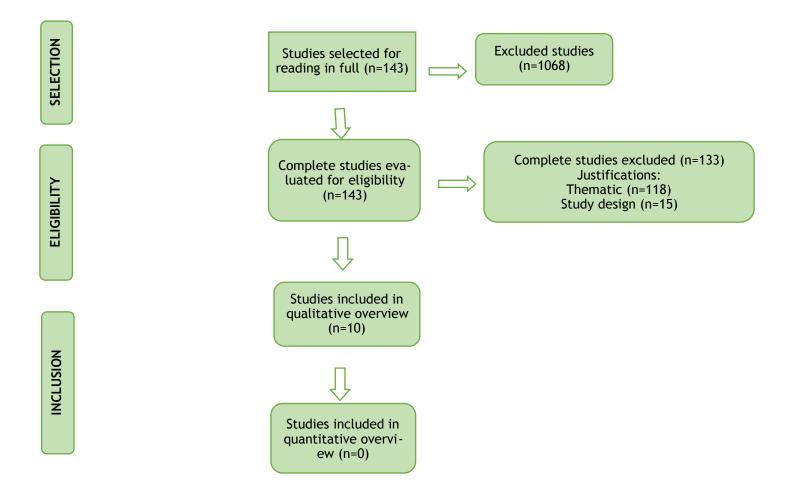


Figure 1. Study selection flowchart adapted from Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2009). Aracaju (SE), Brazil, 2020.

The information of interest was extracted with the help of the instrument prepared by Ursi (2005)<sup>11</sup> and adapted by the authors containing the following variables: study; place of publication; year of publication; type of study; main aspects/results related to the research question and level of evidence/ methodological rigor. The analysis and discussion of the studies grouped in the table described were carried out.

The selected studies were classified, regarding the level of evidence of the Critical Apprailsal Skills Programme (CASP) instrument adapted<sup>12</sup>, categorizing them into six levels, according to established criteria: Level I - meta-analysis or systematic review; Level II - experimental or randomized study; Level III - non-randomized studies or case-control; Level IV - descriptive, qualitative research, literature reviews; Level V - case reports or program evaluation data; Level VI - authors' opinion or expert committee reports.

The articles were critically evaluated as to their methodological rigour, by means of the instrument adapting the CASP<sup>13</sup> after analysis through reflexive and careful reading about the main information and elements that compose the theme in the studies. The instrument is composed by ten scorable items in which they classify the articles in two categories in accordance with the score achieved, being: category A - achieved six to ten points and are considered articles with good

methodological quality and reduced bias and category B - achieved at least five points, classified as articles of satisfactory methodological quality, but with potential and increased bias.

It was also verified, with the analysis of the articles about the main information and elements that compose the theme in the studies, that the discussion carried out correlates the texts according to its theoretical reference, ending the last stage with the publication of the research.

## **RESULTS**

Ten articles were included to compose the integrative review. It was observed that South America had three publications (30%)<sup>15,16,21</sup>, North America<sup>17,22</sup> and West Africa<sup>19,23</sup> there were two (20%) studies each and Southeast Asia<sup>20</sup>, South Africa<sup>18</sup> and East Africa<sup>14</sup>, one study each (10%). Six (60%) articles published in English were found in relation to the language<sup>14,17,18,19,20,23</sup>, three (30%), in portugueses<sup>15,16,21</sup> and one (10%), in Spanish<sup>22</sup>.

It was verified that the publications occurred from 2000 to 2017, with two publications (20%) in 2005<sup>17,18</sup> and one (10%) in each of the following years: 2000<sup>14</sup>; 2001<sup>15</sup>; 2003<sup>16</sup>; 2006<sup>19</sup>; 2011<sup>20</sup>; 2015<sup>19</sup>; 2016<sup>22</sup> and 2017<sup>23</sup>. Five (50%) cross-sectional studies were found in relation to the design of the researches<sup>14,15,16,17,19</sup>, three (30%) descriptive studies<sup>20,22,23</sup>, a (10%) prospective cohort study<sup>18</sup> and a (10%) population-based study<sup>20</sup>.

Figure 2 presents an overview of the publications selected for the study, with emphasis on the methodological aspects and research results.

Author	Year	Country	Type of study
Bakari, McKenna, Myrick, Mwinga, Bhat, Allen. <sup>14</sup>	2000	Zambia	Cross-sectional
Duarte, Gonçalves, Marcolin, Quintana, Mussi-Pinhata. <sup>15</sup>	2001	Brazil	Cross-sectional
Goldani, Giugliani, Scanlon, Rosa, Castilhos, Feldens, et al. <sup>16</sup>	2003	Brazil	Cross-sectional
Granade, Parekh, Tih, Welty, Welty, Bulterys, et al. <sup>17</sup>	2005	United States	Cross-sectional
Shetty, Mhazo, Moyo, Lieven, Mateta, Katzenstein, et al. <sup>18</sup>	2005	Zimbabwe	Prospective cohort
Pignatelli, Simpor, Pietra, Ouedraogo, Conombo, Saleri. <sup>19</sup>	2006	Burkina Faso	Cross-sectional
Nguyen, Gammeltoft, Rasch. <sup>20</sup>	2011	Vietnam	Population base
Lopes, Araújo, Vasconcelos, Uchoa, Rocha, Santos. <sup>21</sup>	2015	Brazil	Descriptive
Figueroa-Hernández, Uriostegui- Espírit, Delgado-Quiñones. <sup>22</sup>	2016	Mexico	Descriptive
Olowokere, Adelakun, Komolafe. <sup>23</sup>	2017	Nigeria	Descriptive

Figure 2 - Results found in the studies according to author, year of publication, country and type of study. Aracaju (SE), Brazil, 2020.

It was found, based on the data analyzed, that it was possible to point out important questions about prenatal consultations to pregnant women to offer the rapid test for HIV. In general, the characteristics of the study and the strategies for the improvement of consultations, counseling, and offer of effective tests were verified.

## DISCUSSION

In the studies reviewed, different content was identified during pre-test and post-test HIV counseling at the antenatal visit. It is important to note that most of them exposed topics that were only addressed during pre-testing, 14-7,20-3 contemplating subjects such as: mode of transmission; diagnostic form; prevention measures regarding HIV infection; risks and benefits of performing rapid tests; the meanings of positive and negative results; offer and adherence to treatment; awareness of the sexual partner.

It is important to note that addressing all these issues contributes to the breaking of stigma, being crucial for awareness and behavior change, since it is a diagnosis that is still accompanied by prejudice and impacts the quality of life and the micro and macro environment of the individual.<sup>24</sup> It is thus evident that counseling, when properly performed, is capable of alleviating obstacles both for the performance of the test and to favor the confrontation according to the later diagnosis.

It is known that, in relation to pregnant women, this information is even more important, since, in this phase of life, the woman experiences an emotional instability that can be exacerbated and contribute with negative implications for the woman and the fetus. Thus, the educational component of prenatal care is the objective at the moment of counseling: investment in the prevention of the disease, through adequate information and spaces available for the discussion of possible forms of interference in the behavior of individuals; the guarantee of a space to establish bonds of trust and help in the promotion of the rights of citizenship.<sup>25</sup>

It is signaled, according to state laws and institutional policies, that HIV testing is preceded by counseling and consent, in view of the importance of counseling for awareness, breaking the chain of transmission and stigma, as well as better acceptance of the health picture in case of test positivity. Testing needs to be offered to all people, regardless of age group, through prior counseling.<sup>26</sup>

It is recommended, with regard to the orientation of the obligation to perform the rapid tests during the prenatal,<sup>17</sup> that screening with anti-HIV tests is voluntary and occurs through verbal or written guidance for later acceptance or refusal.<sup>27</sup> It should be noted that during prenatal care, HIV testing is performed in the first trimester, at the first visit, and at the beginning of the third trimester of pregnancy or at any other time according to a history of risk behavior or sexual abuse.<sup>28</sup>

It should be noted that, in addition to the contents already discussed, among the studies analyzed, there was the orientation that the rapid test does not have the character of a definitive diagnosis and that it only works as a guide for the use of prophylactic antiretroviral. However, it can be seen that the reality experienced in 2001, the year of the study, the dissemination and the use of the rapid tests were not yet done in a homogeneous manner, which may have contributed to the result found. It is pointed out that a prospective study, conducted with 443 pregnant women without serologic test for HIV in the prenatal period, identified that the rapid diagnosis made through the use of rapid tests made available by the Ministry of Health is effective, because the sensitivity, specificity, positive predictive value and negative predictive value were 100.0%, 99.5%, 87.5%, 100.0%, respectively. 15

It was found that the development of new technologies allows the conjugated detection of antigen and antibody and narrows the immunological window period. It is added that the conventional complementary tests (western blot - WB, immunoblot - IB or rapid immunoblot - IBR) are less sensitive when compared to third and fourth generation immunoassays, and can lead to false non-reactive results and, for this reason, it is necessary to perform the contract. It is revealed that, currently, the molecular tests are the most effective for diagnostic confirmation, because they allow the diagnosis of acute and/or recent infections and present better cost-effectiveness, being these tests made available by the Ministry of Health.<sup>29</sup>

It was found that only two studies (20%) addressed post-test guidelines, being the importance of health status disclosure for the partner, in order to break the transmission chain, <sup>19</sup> issues such as grief, domestic violence, marital abandonment, conflicting test results, family planning, safe sex, especially in case of a positive rapid test result. <sup>18</sup> Important guidelines for reducing anxiety, breaking taboos, understanding the possibility of false positive results, prognosis and measures of non-transmissibility of infection in a sexual or vertical manner are highlighted. <sup>18,19,23</sup>

It was found, in terms of resources and techniques used to address these contents and themes, that ranged from individual counseling, group counseling, use of educational videos. It is worth mentioning that the Ministry of Health presents necessary items for Primary Health Care so that it is possible to offer quick tests in an adequate way and, among them, there is the reserved room, with a guarantee of privacy according to the approach technique used, since the pregnant woman needs to feel welcomed in order to build the bond. It is also pointed out that the tests cannot be exposed to high temperatures, making necessary the presence of a refrigerator, preferably, exclusive, to store the tests.<sup>27</sup>

It was identified that it is possible to make use of materials that are easy to understand, such as educational brochures and booklets, and, in the case of populations, which have a variety of vocabularies, to make use of interpreters, as in the case of deaf people, who use the Brazilian Sign Language and bilingual staff, who can assist in the need for care of foreign patients.<sup>27</sup>

Some assistance gaps were also pointed out: one of the studies (10%) revealed the absence of registration on the number of sexual partners in 100% of the cases analyzed, in addition to the absence of registration of the test results in 10% of the sample. This demonstrates the deficiency in the process of written communication due to the inadequacy of the records, since the documentation must be complete, reliable and capable of favoring the continuity of care and quality of assistance, requiring greater attention to the records, since they will accompany the pregnant woman to the puerperium, bringing important information for decision making at different times of pregnancy, childbirth and puerperium.

Another problem of the counseling present in the report of the professionals who perform the rapid tests must be considered: it is the gap between what is considered by them as the ideal and the real, because, in reality, there is still a lack of training and capacity building to update knowledge on the practice of counseling.<sup>30</sup>

The issue of attention to the feelings presented by women at the time of pre and post-test HIV counseling was addressed, and only one (10%) study analyzed this variable, which identified that women had fear related to the possibility of a positive result, as well as misconceptions about mother-to-child transmission of HIV.<sup>24</sup>

It is essential to clarify these concepts, as well as to manage fear in the face of the possible diagnosis, since the prenatal consultation, in the moments of pre- and post-advocacy, should act as a contributing factor for better outcomes as to the ways of facing the diagnosis and the change in lifestyle and risk practices.<sup>30</sup>

It is recognized that there is still a fear of individuals being identified and having their intimacy exposed to the population where they live, thus generating anxiety, fear of prejudice and loss of partner, among other conflicts.<sup>30</sup> It is inferred that prenatal consultations should address both physical and relational, behavioral and emotional aspects, with orientation being one of their focuses, investigating their state of health-disease, advising on infection prevention and prognosis, risk behaviors, working the emotional/expectations of the couple/managers.

It is considered that the performance of counseling for the offer of the anti-HIV rapid test in the prenatal consultation is essential to achieve success in breaking the barriers of prejudice and pretrial in order to, through education and effective communication, achieve the patient's confidence, in addition to raising awareness and contributing to changing their risk practices, regardless of the diagnostic result of the test.

It is a practice that requires continuous training in order to establish a homogeneous level of knowledge among health professionals to approach the pregnant woman in a clear, effective way, in

which women can demystify the topic and solve their doubts, which contributes to reducing anxiety and increasing the possibility of acceptance to perform the test.

# **CONCLUSION**

It is concluded that professional training on the characteristics of prenatal care is a necessary element for achieving positive outcomes through early HIV diagnosis. It is verified that training influences the best adherence of users to health services, since a quality consultation is able to favor the adherence of the client through the creation of bond and achievement of confidence.

It follows that the professional needs to be clear about the elements necessary for the consultation, as well as about the characteristics of pre and post-test HIV counseling, to know what contents should be discussed in the pre and post-test and to have sensitivity, by means of a complete anamnesis, to identify perceptions of the pregnant woman in relation to the phase of life she is experiencing.

It is also concluded that the analysis of the studies allowed the synthesis of characteristics, contents, resources and techniques of approach, in addition to gaps and difficulties of both professionals and pregnant women in the implementation of counseling for the execution of rapid tests for HIV in pregnant women, an element that contributes significantly to the improvement of health practice through a cohesive, complete and quality care.

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