

Implementation of fast tests for syphilis and HIV in prenatal care in Fortaleza – Ceará

Implantação dos testes rápidos para sífilis e HIV na rotina do pré-natal em Fortaleza – Ceará Implantación de los exámenes rápidos para sífilis y VIH en la rutina del prenatal en Fortaleza - Ceará

Ana Cristina Martins Uchoa Lopes¹, Maria Alix Leite de Araújo¹, Lea Dias Pimentel Gomes Vasconcelos¹¹, Fabiana Sales Vitoriano Uchoa¹¹¹, Helen Pereira Rocha¹¹, Janete Romão dos Santos¹

¹ Universidade de Fortaleza, Postgraduate Program in Collective Health. Fortaleza, Ceará, Brazil.

"Secretaria Municipal de Saúde, Rede Cegonha, Health Technical Area of Women and Gender. Fortaleza, Ceará, Brazil.

"Secretaria Municipal de Saúde, STD/Aids and Viral Hepatitis Technical Area. Fortaleza, Ceará, Brazil.

"Universidade Federal do Ceará, University Hospital Walter Cantídio. Fortaleza, Ceará, Brazil.

V Escola de Saúde Pública do Ceará, Integrated Health Residency. Fortaleza, Ceará, Brazil.

How to cite this article:

Lopes ACMU, Araújo MAL, Vasconcelos LDPG, Uchoa FSV, Rocha HP, Santos JR. Implementation of fast tests for syphilis and HIV in prenatal care in Fortaleza – Ceará. Rev Bras Enferm [Internet]. 2016;69(1):54-8. DOI: http://dx.doi.org/10.1590/0034-7167.2016690108i

Submission: 02-12-2015 **Approval:** 09-22-2015

ABSTRACT

Objective: to describe the implementation of the Fast Test (FT) of syphilis and HIV in prenatal care in primary healthcare units in Fortaleza, Ceará. **Method:** a descriptive study with a quantitative approach. There were training supervisions carried out in 24 units between May and August 2014, and the inclusion criterion was to have at least one trained professional. **Results:** the physical space, the availability, validity and the performance of FT in prenatal were analyzed. The data were presented in simple frequency tables. It was identified adequate space in 79.2% of the units, availability of FT in 62.5%, performing the tests in 37.5%, and of these, 55.6% doing these procedures in routine prenatal care. **Conclusion:** the primary units have difficulties in implementing FT in syphilis and HIV in the prenatal routine. This activity is seen as an effective strategy to reduce vertical transmission of these infections.

Key words: Prenatal Care; Primary Health Care; Sexually Transmitted Diseases; Women's Health; Pregnant Women.

RESUMO

Objetivo: descrever a implantação dos Testes Rápidos (TR) de sífilis e HIV na rotina do pré-natal em unidades primárias de saúde de Fortaleza, Ceará. **Método:** estudo descritivo com abordagem quantitativa. Foram realizadas supervisões capacitantes em 24 unidades entre maio e agosto de 2014, cujo critério de inclusão era ter pelo menos um profissional capacitado. **Resultados:** analisou-se espaço físico, disponibilidade, validade e realização dos TR no pré-natal. Os dados foram apresentados em tabelas de frequências simples. Identificou-se espaço físico adequado em 79,2% unidades, disponibilidade de TR em 62,5%, realização dos testes em 37,5% e, destas, 55,6% fazendo estes procedimentos na rotina do pré-natal. **Conclusão:** as unidades primárias apresentam dificuldades para implantar os TR de sífilis e HIV na rotina do pré-natal. Atividade essa vista como uma estratégia eficaz para a redução da transmissão vertical dessas infecções.

Descritores: Cuidado Pré-Natal; Atenção Primária à Saúde; Doenças Sexualmente Transmissíveis; Saúde da Mulher; Gestantes.

RESUMEN

Objetivo: describir la implantación de los Exámenes Rápidos (ET) de sífilis y VIH en la rutina del prenatal en unidades primarias de salud de Fortaleza, Ceará. **Método:** estudio descriptivo con enfoque cuantitativo. Fueron realizadas supervisiones capacitantes en 24 unidades entre mayo y agosto de 2014, cuyo criterio de inclusión era tener por lo menos un profesional capacitado. **Resultados:** se analizaron el espacio físico, disponibilidad, validez y realización de los ET en el prenatal. Los datos fueron presentados en cuadros de frecuencias simples. Se identificó el espacio físico adecuado en 79,2% unidades, disponibilidad de FT en 62,5%, realización de los exámenes en 37,5% y, de estas, 55,6% haciendo estos procedimientos en la rutina del prenatal. **Conclusión:** las unidades primarias presentan dificultades para implantar los FT de sífilis y VIH en la rutina del prenatal. Actividad esta vista como una estrategia eficaz para la reducción de la transmisión vertical de esas infecciones. **Palabras clave:** Cuidado Prenatal; Atención Primaria a la Salud; Enfermedades Sexualmente Transmisibles; Salud de la Mujer; Gestantes.

CORRESPONDING AUTHOR

Ana Cristina Martins Uchoa Lopes

E-mail: anocalopes@hotmail.com

INTRODUCTION

Syphilis and Human Immunodeficiency Virus (HIV) infection in pregnant women, when are not diagnosed and treated during pregnancy, can be transmitted to the fetus causing serious complications⁽¹⁾. In Brazil, case detection rates of Vertical Transmission (VT) of Congenital Syphilis (CS) and HIV were 5.0 and 1.5 per thousand live births (LB) in 2011. In Ceará State, the incidence rates were 3.3 and 3.8 per 1,000 LB of CS and HIV, respectively⁽²⁾. The city of Fortaleza registered only in 2012, 523 cases of CS and between 2008 to 2012 the incidence rate increased from 8.8 to 16.6 per thousand LB⁽³⁾. For HIV in pregnant women, 6,540 cases were reported in 2011 and 3,426 by June 2012⁽³⁾.

It is believed that syphilis and HIV indicators in pregnant women can be improved with the implementation of the actions proposed on the *Rede Cegonha* (RC) by the Federal Government. This proposal aims to improve the quality of prenatal (PN) and birth care and also proposes the availability of fast tests (FT) as a detection strategy and early treatment of cases of syphilis and HIV in pregnant women, among other strategies⁽⁴⁾.

The difficulties related to the diagnosis of infections in pregnant women, among other reasons, may be associated with organizational issues and the need for complex technology to the performance of conventional laboratory tests. The FT then appears as a strategy that can qualify the care of pregnant women since it does not require very complex technologies and provides results in a timely manner (average 30 minutes) and may contribute to increased testing coverage, optimizing the diagnostic time and mother's treatment as well as expediting the adoption of the necessary measures to prevent the VT⁽⁴⁻⁵⁾.

Currently, health services have difficulties to carry out and delivery syphilis and HIV tests as well as professionals are still unprepared to deal with positive results, causing a late diagnosis or no diagnosis of pregnant women during the PN and as also a no treatment or inappropriate treatment of pregnant women and emotional suffering to women⁽⁶⁻¹⁰⁾. The FT for syphilis and HIV should be conducted preferably on the first and third trimesters of pregnancy⁽¹⁾. In the case of HIV, the diagnosis is definitive after conducting two FT by different methodologies (BIOMANGUINHOS AND RAPID CHECK).

In the case of syphilis, it is a screening test, requiring, therefore, to be realized in a non-treponemal test when reagents. The Ministry of Health (MOH) recommends starting treatment even before the non-treponemal test⁽¹¹⁾.

The FT of HIV is already implemented in the routine of Brazilian maternity hospitals since 2002, activity done by the Birth-Maternity Project⁽¹²⁾. However, it is still being implemented in primary health units. Considering FT of syphilis and HIV having the simplified technology and being performed in their medical practices and nursing, it is imperative to invest in it's effectively implementation in primary care and during the first pregnant woman's PN care. Therefore, this work aims to describe the implementation of FT of syphilis and HIV in prenatal care in primary healthcare units in Fortaleza, Ceará, Brazil.

METHOD

This is a descriptive study with a quantitative approach, performed in primary health care units (UAPS) in Fortaleza, all acting as the Family Health Strategy.

This city is divided into six Regional Offices with a total of 92 UAPS. Data collection were between May to August 2014. In this study, data from 24 trained UAPS are presented, having the selection criteria to show at least one professional trained in FT for syphilis and HIV.

The entire data collection process was developed through non-participants observations taking place at the time of training supervision, which are still in development.

This activity proposes a process of interaction with the teams, provoking reflections on epidemiological indicators, moving away from the traditional and authoritarian model of monitoring⁽¹³⁾.

The supervisions were carried out to monitor the implementation of FT for syphilis and HIV in the UAPS, going beyond the simple observation of facts, but contributing to the professional and technical-scientific way so that FT was effectively implemented. This work presents the part referring to the observations of the FT implementation process in the units.

The visits were previously scheduled and took place in the morning shift, considering this is the peak period in the units, for monitoring the implementation of the FT by the team. The monitoring was performed by technicians of the Health Area of Women and Gender/Rede Cegonha and STD/Aids and Viral Hepatitis Area performing a brief presentation and exhibition of the visiting goal. Then, the first supervision step was initiated, being the observation of the unit using a tool designed specifically for this purpose and subsequently the team was meeting to discuss syphilis and HIV indicators of the unit, showing the importance of implanting the FT.

The findings observed in UAPS were the existence of complete teams of the Family Health Strategy, qualified professional category; private offices, refrigerators for storing FT, presence and validity of FT kits; if they were being carried out and, especially if occurring at the PN care.

Data were entered into the Statistical Package for Social Sciences (SPSS) version 18.0 and presented in simple frequency tables.

The study was approved by the Ethics Committee in Research of the University of Fortaleza (UNIFOR)⁽¹⁴⁾.

RESULTS

Regarding the implementation of FT for HIV and syphilis in primary care, there are important aspects that are worth mentioning because they influence directly in the implementation of FT for syphilis and HIV. The data in Table 1 show the aspects relating to conditions of physical spaces of the units, as well as the availability of materials, FT, and their validity.

Nineteen units (79.2%) had adequate physical space to carry out FT, in 11 of them (44.8%) the family health teams were complete, in 20 (83.3%) of the units, the trained professionals were nurses, 19 units (79.2%) had a private offices, 18 units (75%) had exclusive refrigerators for storage and preservation of the tests. In 15 UAPS (62.5%), the FT of syphilis, HIV or both were available, and in 10 units (66.6%), tests were with the expiry date.

Table 1 - Aspects related to physical space to perform the Fast Test in primary health care units, Fortaleza, Ceará, Brazil, 2014

Variables	n	%
Complete ESF (n = 24)		
Yes	11	44.8
No	13	55.2
Trained profissionals $(n = 24)$		
Nurses	20	83.3
Doctors	04	16.7
Private offices (n = 24)		
Yes	19	79.2
No	05	20.8
Refrigerator exclusive for FT (n = 24)		
Yes	18	75.0
No	06	25.0

The PN was performed daily in 21 (87.5%) UAPS and FT were performed in nine (37.5%) of them. Of these, five (55.6%) were performed in the routine of PN.

There were 11 units (44.8%) with complete ESF teams, ranging from two to eight teams. It is noteworthy that nine UAPS (37.4%) had less than half of the teams trained in FT. In 20 UAPS (83.3%) nurses were exclusively trained and in four (16.7%) there was also the participation of the doctor. Nine UAPS (37.5%) performed the FT, and five (55.6%) were performing a routine in the prenatal care (Table 2).

Table 2 - Aspects related to implementation of the Fast Test (TR) in Primary Health Care Units (UAPS), Fortaleza, Ceará, Brazil, 2014

Variables	n	%
Had FT in the unit (n = 24)		
Yes	15	62.5
No	09	37.5
FT in the valdity date $(n = 15)$		
Yes	05	33.4
No	10	66.6
Perform Ft in the unit $(n = 24)$		
Yes	09	37.5
No	15	62.5
Perform FT in the routine of PN care $(n = 09)$		
Yes	05	55.6
No	04	44.4

DISCUSSION

For the MOH⁽⁴⁾, a health service of primary care to perform FT with the appropriate conditions must have a reserved and privacy security room, as well as a refrigerator, exclusive preference for storage of tests, among other attributes.

It can be observed that most of the units were inadequate in physical space or some aspect assessed, hindering the effective implementation of FT. Despite having trained professionals, many of them did not have available the FT kits and among those who had the kits, some had expired dates. These kits were collected for disposal at the time of supervision, and the situation was discussed with the team. It is noteworthy that, the request for the kits should be made by the coordinators of the units after the training.

Thus, it can be said that the poor quality of the PN care becomes a prejudice since it is a key point for early detection of various diseases, as well as for the immediate treatment, including HIV, and syphilis.

Studies show that the occurrence of CS is through improper handling of cases with lost opportunities both for diagnosis and for treatment since there is embezzlement of women who perform routine laboratory tests for the monitoring of PN^(5,15).

Moreover, it can be seen that despite good coverage, quality of care often committed the involvement and monitoring of pregnant women, being extremely important that the changes in the procedures adopted, such as the implementation of FT, are seen as strategies to streamline this process and inhibit a future child transmission avoiding CS^(7,15). Thus, it is possible to emphasize that without the discipline and collection of program effectiveness of the service, it is difficult to eradicate or reduce diseases such as HIV and syphilis, especially when control also depends on the behavioral aspects of the pregnant women⁽¹⁶⁾.

Another issue worth mentioning is that according to the joint technical note 391/12 that the MOH created, the FT should be carried out in primary care units by trained health professionals to running, reading, interpretation of results and issuance of reports given the seriousness of the results found⁽¹¹⁾.

The professionals are the key instruments in this process, and they need to feel security for the implementation of the activity. The instruction or the correct training combined with sufficient theoretical knowledge must be to ensure greater safety on the subject that should be put in place and can, therefore, be seen more affordable for them and facilitating proper and effective preparation of the function.

Also, the MOH advocates that the nurse and FT must perform the first PN consultation, must be provided and implemented at that time, making a connection with what was found in this study when observing the most trained category⁽¹⁷⁾. Thus, the nurse may be placed as an indispensable tool

in this process, considering the need to be prepared to articulate with the pregnant woman to the treatment again.

A study carried out in Rio Grande do Sul concluded that the view expansion on the importance of nurses to the care of women in childbirth, pregnancy is something essential and hard work, proving again the relevance of the nursing category be the most qualified in this study for the fast test performance for syphilis and HIV in primary care⁽¹⁸⁾.

CONCLUSION

The study shows that there are difficulties in the implementation of fT for syphilis and HIV. However, none of them is as relevant to this non-performance of tests in the units studied and especially during PN care.

Also, it is worth noting that the skills are key to this strategy be implemented successfully, realizing the need to increase the number of trained professionals and facilitate the procedure at the time of PN care. It is important to highlight that the professionals involved need security and expertise to perform such activity.

Being a strategy considered effective for diagnosis, early treatment and a future reduction in the vertical transmission of infections that the test covers, a further investigation would be a possible suggestion for justifications search for obstacles that activity and promoting actions that change this reality since there is a cautious organizational and operational process that needs to be worked for a better resolution.

REFERENCES

- Brasil. Ministério da Saúde. Protocolo para a Prevenção de Transmissão Vertical de HIV e Sífilis: manual de bolso. Brasília: Ministério da Saúde; 2007.
- 2. Brasil. Ministério da Saúde. Boletim Epidemiológico de Aids e DST. Brasília: Ministério da Saúde; 2012.
- Araújo MAL, Freitas SCR, Moura HJ, Gondim APS, Silva RM. Prevalence and factors associated with syphilis in parturient women in Northeast, Brazil. BMC Public Healthy [Internet]. 2013[cited 2015 Jan 15];13:206. Available from: http://www.biomedcentral.com/content/pdf/1471-2458-13-206.pdf
- Brasil. Ministério da Saúde. Realização do Teste Rápido para HIV e Sífilis na atenção básica e aconselhamento em DST/Aids da Rede. Brasília: Ministério da Saúde; 2012.
- Miranda AE, Filho ER, Trindade CR, Gouvêa GM, Costa DM, Oliveira TG, França LC, Dietze R. [Prevalence of syphilis and HIV using rapid tests among parturients attended in public maternity hospitals in Vitória, State of Espírito Santo]. Rev Soc Bras Med Trop [Internet]. 2009[cited 2015 Jan 15];42(4);386-91. Available from: http://www. scielo.br/pdf/rsbmt/v42n4/a06v42n4.pdf Portuguese.
- Nascimento MI, Cunha AA, Guimarães EV, Alvarez FS, Oliveira SRSM, Bôas ELV. [Pregnancies complicated by maternal syphilis and fetal death]. Rev Bras Ginecol

- Obstet [Internet]. 2012[cited 2015 Jan 15];34(2);56-62. Available from: http://www.scielo.br/pdf/rbgo/v34n2/a03v34n2.pdf Portuguese.
- Campos ALA, Araujo MAL, de Melo SP, Gonçalves MLC. [Epidemiology of gestational syphilis in Fortaleza, Ceará State, Brazil: an uncontrolled disease]. Cad Saúde Pública [Intenet]. 2010;26(9);1747-55. Available from: http:// www.scielo.br/pdf/csp/v26n9/08.pdf Portuguese.
- Miranda AE, Pinto VM, Talhari S, Figueiredo NC, Page K. Risk Factors for syphilis in young women attending a Family health program in Vitória, Brazil. An Bras Dermatol [Internet]. 2012[cited 2015 Jan 15];87(1):76-83. Available from: http://www.scielo.br/pdf/abd/v87n1/v87n1a09.pdf
- Rodrigues CS, Guimarães MDG, César CG. Missed opportunities for congenital syphilis and HIV perinatal transmission prevention. Rev Saúde Pública [Internet]. 2008[cited 2015 Jan 15];42(5):851-8. Available from: http://www.scielo.br/pdf/rsp/v42n5/6547.pdf
- Carneiro AJS, Coelho EAC. [Care integrality in HIV testing: the look of women]. Rev Bras Enferm [Internet].
 2013[cited 2015 Jan 15];66(6):887-92. Available from: http://www.scielo.br/pdf/reben/v66n6/12.pdf Portuguese.
- Brasil. Ministério da Saúde. Nota técnica conjunta n°391/2012/SAS/SVS/MS. Brasília: Ministério da Saúde; 2012.

- Brasil. Ministério da Saúde. Portaria nº 2.104 de 19 de novembro de 2002. Institui no âmbito do Sistema Único de Saúde SUS o Projeto Nascer-Maternidades. Diário Oficial da União (DOU). Brasília: Ministério da Saúde: 2002.
- 13. Reis CCL, Hortale VA. [The Family Health Program: supervision or "shared vision"? A case study in a medium-sized Brazilian city]. Cad Saúde Pública [Internet]. 2004[cited 2015 Jan 15];20(2).492-501. Available from: http://www.scielo.br/pdf/csp/v20n2/17.pdf Portuguese.
- 14. Brasil. Ministério da Saúde. Conselho Nacional de Saúde-CNS. Resolução nº 466 de 12 de dezembro de 2012. Dispõe sobre as diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Brasília: Ministério da Saúde; 2012.
- 15. Costa CC, Freitas LV, Sousa DMN, Oliveira LL, Chagas ACMA, Lopes MVO, Damasceno AKC. Congenital

- syphilis in Ceará: epidemiological analysis of one decade. Rev Esc Enferm USP [Internet]. 2013[cited 2015 Jan 15];47(1);149-56. Available from: http://www.scielo.br/pdf/reeusp/v47n1/en a19v47n1.pdf
- Duarte G.[Syphilis and pregnancy... the story continues!]!.Rev Bras Ginecol Obstet [Internet]. 2012[cited 2015 Jan 15];34(2);49-51. Available from: http://www.scielo.br/pdf/rbgo/v34n2/a01v34n2.pdf Portuguese.
- Brasil. Ministério da Saúde. Caderno de Atenção Básica. Atenção ao pré-natal de baixo risco. Brasília: Ministério da saúde; 2012.
- Feliciano NB, Pradebon VM, Lima SS. [Nursing during the Low-risk Prenatal Period as Part of a Family Health Strategy]. Aquichán [Internet]. 2013[cited 2015 Jan 15];13(2);261-9. Available from: http://www.scielo.org.co/scielo.php?script = sci arttext&pid = \$1657-59972013000200012 Portuguese.