

**Flow implementation for rapid test management in a health facility in Rio de Janeiro***Implementación de flujo para la gestión rápida de pruebas en un establecimiento de salud en Río de Janeiro**Implementação de fluxo para manejo de teste rápido em unidade de saúde no Rio de Janeiro***Bruna Caroline Hirle de Souza<sup>1</sup>**

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**Submission:** 03-29-2021**Approval:** 08-27-2021**Abstract**

This is the experience report of a nursing resident in the implementation of an intervention plan aimed at solving a problem identified in a type B primary care unit, where the family health strategy model and the traditional model coexist, located in the northern part of the city of Rio de Janeiro. The aim was to describe the implementation of a flow for carrying out and recording rapid tests for HIV, syphilis, hepatitis B and C, aiming to improve the quality of care during their execution, the release of results through standardized forms and the training of the professionals involved. The methodology was carried out through an intervention plan, where the objective was to implement a flowchart for conducting rapid tests for sexually transmitted infections in a unit and training the team that performed the tests in the unit. From the implementation of the flow, improvements were observed in the process of carrying out and recording the quick tests, as well as the maintenance of limitations related to the topic. The lack of knowledge of the professionals involved in the testing was noticed, with a consequent impact on effectiveness, emphasizing the importance of continuing education.

**Descriptors:** Diagnosis; Primary Health Care; HIV; Hepatitis; Syphilis; Nurse.**Resumén**

Este es el relato de experiencia de un residente de enfermería en la implementación de un plan de intervención orientado a la solución de un problema identificado en una unidad de atención primaria tipo B, donde conviven el modelo de estrategia de salud de la familia y el modelo tradicional, ubicado en la zona norte del país. ciudad de Rio de Janeiro. El objetivo principal fue describir la implementación de un flujo para la realización y registro de pruebas rápidas de VIH, sífilis, hepatitis B y C, con el objetivo de mejorar la calidad de la atención durante su ejecución, la divulgación de resultados a través de formularios estandarizados y la capacitación de los profesionales involucrados. La metodología se llevó a cabo a través de un plan de intervención, donde el objetivo fue implementar un diagrama de flujo para la realización de pruebas rápidas de infecciones de transmisión sexual en una unidad y capacitar al equipo que realizó las pruebas en la unidad. A partir de la implementación del flujo, se observaron mejoras en el proceso de realización y registro de las pruebas rápidas, así como el mantenimiento de limitaciones relacionadas con el tema. Se notó el desconocimiento de los profesionales involucrados en las pruebas, con el consecuente impacto en la efectividad, enfatizando la importancia de la educación continua.

**Descriptores:** Diagnóstico; Primeros Auxilios; HIV; Hepatitis; Sífilis; Enfermero.**Resumo**

Trata-se do relato de experiência de uma residente de enfermagem na implementação de um plano de intervenção voltado à resolução de um problema identificado em uma unidade de atenção primária do tipo B, onde coexistem o modelo de estratégia de saúde da família e o modelo tradicional, localizada na zona norte do município do Rio de Janeiro. O objetivo principal foi descrever a implementação de um fluxo para realização e registro de testes rápidos para HIV, sífilis, hepatites B e C, visando a melhoria da qualidade da assistência durante a execução dos mesmos, a liberação de resultados por meio de formulários padronizados e a capacitação dos profissionais envolvidos. A metodologia se deu através de um plano de intervenção, onde o objetivo foi a implementação de um fluxograma para realização de testes rápidos para infecções sexualmente transmissíveis em uma unidade e capacitação da equipe que realizava os testes na unidade. A partir da implementação do fluxo, foram observadas melhorias no processo de realização e registro dos testes rápidos e também a manutenção de limitações referentes ao tema. Percebeu-se a falta de conhecimento dos profissionais envolvidos na testagem, com consequente impacto na eficácia, ressaltando-se a importância da educação continuada.

**Descriptores:** Diagnóstico; Atenção Primária à Saúde; HIV; Hepatite; Sífilis; Enfermeiro.

## Introduction

Sexually Transmitted Infections (STIs) are Public Health problems due to their magnitude and difficulty in accessing adequate treatment<sup>1</sup>.

The World Health Organization (WHO) points out in 2019, that the annual estimate is approximately 376 million new sexually transmitted infections<sup>2</sup>.

Acquired Immunodeficiency Syndrome (AIDS) was identified in the 1980s, spreading and becoming a pandemic. Its etiologic agent is the human immunodeficiency virus (HIV). The first diagnosis of the disease in Brazil was in the city of São Paulo, in 1982. The first cases diagnosed were related to men who had sex with men, people using injecting drugs, and blood transfusion recipients<sup>3</sup>. In the 1990s, the term vulnerability emerged to reaffirm that any individual could become infected with the HIV virus<sup>4</sup>. Today, this panorama continues to change, and there is currently a trend of growth in the number of cases among young people aged 15 to 24 years and in adults over 50 years, both in men and women<sup>3</sup>.

In 2012, rapid tests for the diagnosis of HIV, Syphilis and Viral Hepatitis were included in the Rede Cegonha program, contributing to early prenatal diagnosis, which is a fundamental strategy for reducing vertical transmission<sup>5</sup>.

In the organization model of the Unified Health System (SUS), Primary Care (PA) is the user's gateway to the network. In this way, she is the coordinator of this user's care, where testing, diagnosis and treatment will be carried out to increase access to the service<sup>6</sup>. The Family Health Strategy, as a primary care unit, is characterized by health promotion, health protection and disease prevention services, both individually and collectively.<sup>7</sup>

The rapid test is a tool that aims to meet the needs related to the prevention of HIV/AIDS and other sexually transmitted infections and health promotion<sup>8</sup>. The main objective is to provide the user with a service where equity and comprehensiveness, doctrinal principles of the SUS, are universally present for an early diagnosis, consequent treatment in a timely manner and breaking the transmission chain<sup>9</sup>. In addition, pre- and post-test counseling is a form of health education, a fundamental role of Primary Care<sup>10</sup>. The decentralization of rapid testing to AP units brings a significant change in care, which was previously carried out primarily in Specialized Testing and Counseling Centers (CTAs) and is currently available in units closest to users, making it a facilitator for early capture of these cases<sup>11</sup>.

It is worth emphasizing the fundamental role of the nursing consultation in this process; COFEN Resolution No. 544/2017 addresses consultation as a private act of the nurse, in which the professional uses the scientific method to identify problems in the health/disease process of an individual, carrying out the nursing systematization to contribute to the promotion, prevention, health protection, user recovery and rehabilitation<sup>12</sup>.

The present study is an experience report, in which the objective was to propose the implementation of a flow for carrying out and recording rapid tests for sexually transmitted infections, namely: HIV, syphilis, hepatitis B and C, with a view to improvement in the quality of care during

their execution, the release of results through standardized forms and the training of professionals involved.

## Methodology

An intervention plan arises in response to a concrete problem, hence it is stated that its objective elaboration, above all, should contribute to the solution of problems, transforming ideas into actions to achieve specific goals within the limits of a budget and a period of time. The preparation of a plan is a management tool that has shown increasing importance for the life of the entire organization, regardless of the nature of the product or service offered by it, or of its public or private sphere of action, as it aims to systematize actions and the optimization of activities and processes, whether strategic or operational<sup>13</sup>.

Thus, the present work is an experience report about the implementation of an intervention plan, which had as a proposed action the improvement of the rapid testing flow for STIs in a Primary Care unit, located in the northern zone of the city of Rio de Janeiro.

This intervention plan was aimed at the entire unit, in which the author worked as a second-year family health nursing resident nurse.

Through the experience during the residency at the Municipal Health Center (CMS), the absence of a flow for storing, handling, carrying out, recording, and issuing the results of rapid tests for HIV, syphilis and hepatitis B and C was identified. Considering the importance of this procedure, it was understood that this problem brought the need for an intervention to improve the quality of the process and create a single flow for the entire unit.

The target audience of this intervention plan were the seven nursing technicians of the CMS, the other professionals of the health team who help users and who also occasionally carry out rapid tests and, indirectly, all users who would carry out the test fast on the drive.

From the definition of the problem, the following critical nodes were identified: incorrect storage of the quick test kits, in non-compliance with the manufacturer's guidance (maximum temperature of 30°C); registration performed in manual spreadsheets, with identification and exposure of patients, through their names and results; registration of exams performed with missing data or even non-performance of the registration; technique for performing the collection incorrectly or with objects not belonging to the respective kits; professionals' lack of knowledge regarding the importance of the guidelines recommended in the manual; lack of certification to perform rapid tests by TELELAB, for all nursing technicians in the unit; non-use of standard forms for issuing quick test reports, available on the SUBPAV platform.

## Operation Design

### 1st step - Routine Diagnosis

In view of the defined problem, the author was present at different times in the test sector, for systematic observation and survey of possible problems related to the practice.



## 2nd step - Training in the Unit

Right after the survey of the situational diagnosis, in June 2019, a training activity was carried out, with the objective of raising problems and doubts observed by the nursing technicians during the work process, in addition to a discussion on the theme.

## 3rd step - Technical Visit

Based on the problems raised in the first stage, the author felt the need to know how the recorded data were organized and stored. She visited the Planning Area Coordination (CAP) in July 2019, to better understand the flow of information after registration at the unit.

## 4th step - Training by the Municipal Health Department

In September 2019, CAP offered, in partnership with the Municipal Health Department, training to carry out rapid tests, with practice and certification.

## 5th step - Registration and issuance of reports

It was noted, during the intervention plan, that the standard forms for recording and issuing reports for delivery of results were not used; they were communicated only verbally to the user. Considering the importance of using the standard form, the author created a flow and guided the entire team to use the material already created and available on the SUBPAV platform, for all requests and release of results to the user.

## 6th step - Flow elaboration

The flow created from the problems raised had the objective of directing and implementing a standard so that all professionals could guide themselves, and consequently all users went through all the necessary steps.

## Experience Report

During routine diagnosis, negative points were observed, such as incorrect test execution technique and lack of theoretical knowledge, professionals without certification to perform the procedure and users did not receive their results in the available reports.

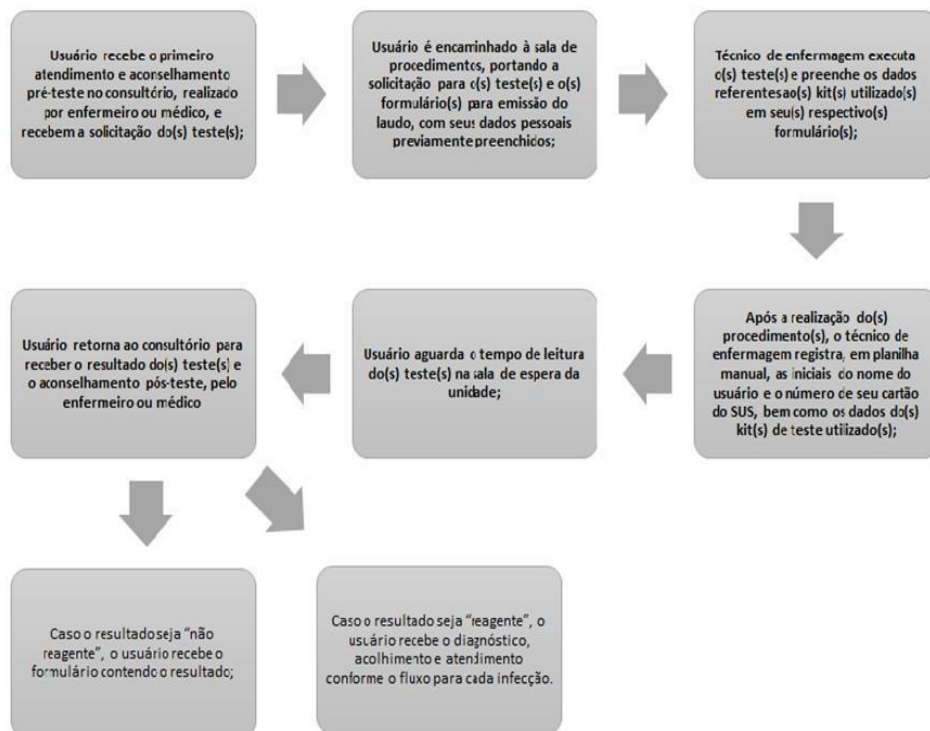
After implementing the flow, the importance of the pre- and post-testing moment was noted, corroborating a study<sup>15</sup>, which points to the fundamental role of nursing in this process.

The trained and sensitive nursing professional makes counseling an active listening process, generating a relationship of trust, minimizing dilemmas and stressors resulting from the result.

According to Araújo<sup>10</sup>, Counseling is one of the main health education strategies, allowing a great exchange between counselor and counselee.

According to a study<sup>15</sup>, one of the most important actions to be developed by nurses in the testing protocol is counseling at different times: pre- and post-testing. Faced with a negative result, counseling is of paramount importance.

Figure 1. Service Flow for running quick tests. Primary Care Unit. Rio de Janeiro, RJ, Brazil, 2019



It was also observed that users started to receive their results recorded and released in the available report, with all data referring to their test filled in at the post-test moment.

Also, as a positive point, we can observe that the tests started to be performed using the correct technique, as indicated by the protocols, which directly influences their effectiveness. With the creation of a flowchart, it became easier for the professionals involved to visually identify the work process, guiding its execution.

The Ministry of Health's guidance through the Technical Manual for the diagnosis of HIV infection in adults and children<sup>14</sup> is that anyone can take the test, if they are trained in this procedure. During the process of implementing the flow, it was noted that a nursing technician did not have the certification and performed this procedure. In this way, it was possible to identify a failure through the study, which ensured that the professional carried out training and certification on the subject during her work shift, reaching the goal of 100% certification of professionals who perform rapid testing for IST in the unit.

Another point worth mentioning is the precarious structure of the health unit, which hinders the work process within the procedure room, not cooperating with the correct technique for handling the material. As much as rapid tests do not require a laboratory structure, there is no sink for hand hygiene in the sector, there is a lack of hygiene materials and refrigeration for test storage is ineffective, or, at times, absent. This was a problem found that directly influences the effectiveness of the tests and, consequently, their results.

As a result, after the creation of the flow (Figure 1), there was an increase in the registration of quick tests in the spreadsheets, and in an adequate manner.

As Aguiar<sup>16:167</sup>, the results of the implementation of the flow allow us to recognize that "[...] carrying out rapid tests qualifies primary care and provides greater resolvability and quality in care, reception and prevention and health care actions".

### Final Considerations

The results achieved by this intervention plan can serve as a trigger for the development of research on the subject, as there are still gaps on the subject in the scientific literature. Another point raised by this study is that the availability of tests is not enough, since there is no

minimal resources and a skilled team to ensure reliable results.

The service's work dynamics were changed to improve the process that involves quick testing, from request to registration. After the implementation of the plan, there was an improvement in the execution, storage, and correct use of inputs. The organization of a flow is extremely important, as it is not limited to its creation, but must be frequently evaluated and discussed again as a team, to identify new problems, observe the persistence of gaps and its potential.

It was concluded that the increasing prevalence of STIs in Brazil and in the world is a topic that needs to be discussed within family health teams, highlighting the promotion and prevention of infections, considering that the basic health unit is the main gateway users, thus providing opportunities for the reception, counseling, testing and treatment of STIs.

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