# Diabetics in the context of pandemic by covid-19: implementation of standard operating procedure in specialized service

## Diabéticos no contexto da pandemia por covid-19: implantação de procedimento operacional padrão em serviço especializado

## Diabéticos en el contexto de la pandemia de covid-19: implementación del procedimiento operativo estandarizado en un servicio especializado

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# **REVISA**

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#### RESUMO

**Objetivo**: Descrever a experiência de um grupo tutorial do PET-Saúde Interprofissionalidade na confecção de procedimento operacional padrão (POP) referente à triagem de risco, de pacientes diabéticos em um centro especializado, durante a pandemia por Covid-19. **Método**: Trata-se de uma proposta de padronização de procedimento de triagem de pacientes diabéticos para auxiliar a equipe de saúde na condução do fluxo de pacientes no serviço. Constitui um relato de experiência, elaborado por um grupo do PET-Saúde/Interprofissionalidade que atua no Centro de Atenção ao Diabético e Hipertenso (CADH), do município de Feira de Santana-Ba. **Resultados:** O protocolo descreve o fluxo de triagem dos pacientes atendidos no CADH, contemplando recomendações para área de isolamento na triagem inicial, uso de máscaras obrigatório, manejo clínico de casos suspeitos e fluxo de encaminhamentos. **Conclusão:** A implementação de protocolos pode resultar em benefícios para equipe e usuários, possibilitando maior segurança e assistência em períodos pandêmicos por Covid-19.

Descritores: Infecções por coronavírus; Pandemia; Diabetes Mellitus.

#### ABSTRACT

**Objective:** To describe the experience of a tutorial group from PET-Saúde Interprofessionality in the preparation of standard operating procedure (SOP) referring to risk screening for diabetic patients in a specialized center during the Covid-19 pandemic. **Method**: This is a proposal to standardize the screening procedure for diabetic patients to assist the health team in managing the flow of patients in the service. It is an experience report, prepared by a group from PET-Saúde / Interprofessionality that works at the Diabetic and Hypertensive Care Center (CADH), in the municipality of Feira de Santana-Ba. **Results:** The protocol describes the flow of screening for patients seen at the CADH, including recommendations for the isolation area in the initial screening, use of mandatory masks, clinical management of suspected cases and referral flow. **Conclusion:** The implementation of protocols can result in benefits for staff and users, enabling greater security and assistance in pandemic periods by Covid-19. **Descriptors:** Coronavirus infections; Pandemics; Diabetes Mellitus.

#### RESUMEN

**Objetivo:** Describir la experiencia de un grupo de tutoría del Programa PET-Saúde Interprofesional en la preparación del POE para la detección de riesgos en pacientes diabéticos en un centro especializado durante la pandemia de Covid-19. **Método**: Esta es una propuesta para estandarizar el cribado de pacientes diabéticos para ayudar al equipo de salud a gestionar el flujo de pacientes en el servicio. Este es un reporte de experiencia preparado por un grupo del programa PET-Saúde Interprofessional que trabaja en el Centro de Atención de Diabéticos e Hipertensivos (CADH), en el municipio de Feira de Santana, BA, Brasil. **Resultados:** El protocolo describe el cribado de pacientes atendidos en el CADH, incluidas las recomendaciones para aislamiento en la detección inicial, el uso de máscaras obligatorias, el manejo clínico de casos sospechosos y el flujo de derivación de pacientes. **Conclusión:** La implementación de protocolos puede generar beneficios para el personal y los usuarios, lo que permite una mayor seguridad y asistencia en la de pandemia de Covid-19...

**Descriptores:** Infecciones por coronavirus; Pandemia; Diabetes Mellitus.

#### Introduction

The new coronavirus (SARS-CoV-2), which triggered the Covid-19 pandemic, has become a serious public health problem as it is associated with high morbidity and mortality and high transmissibility of the virus, which has spread rapidly, overloading health services. The disease became known worldwide, from the first reported in a province of China on December 31, 2019, being declared a pandemic by the World Health Organization (WHO) in March 2020.<sup>1</sup>

This epidemiological scenario culminated with rigorous measures of isolation and social distance, in addition to the initial closure of several stores, in an attempt to contain the exponential growth of Covid-19 around the world, as it is a disease with high respiratory transmission..<sup>2</sup>

The number of infected patients, currently in the world, already exceeds 7 million, being registered until June 18, 2020, at least 434 thousand deaths from complications of the disease. The main comorbidities associated with deaths include heart disease (7,318), diabetes (5,627) and pneumopathy (1,061)<sup>3</sup>, highlighting the importance of care and social isolation of this population considered at risk for Covid-19 infection, because asymptomatic people may be infected and behave as transmission vehicles, contributing to the spread of the virus more quickly.

In Brazil, the numbers of cases confirmed by Covid-19 until June 18, 2020 represent more than 978,365 thousand infected and 47,754 thousand deaths, which places the country in the 2nd position in deaths, with 4.9% of lethality.<sup>3</sup> In its most severe form, the disease affects vulnerable groups, such as those with chronic noncommunicable diseases (NCDs), such as Diabetes Mellitus (DM), alerting the importance of the need for differentiated care flows in health units, in order to guarantee safe assistance in times of pandemic by the new coronavirus.

In this context, the World Health Organization (WHO) recognizes that patients with pre-existing chronic conditions, such as DM and Systemic Arterial Hypertension (SAH), manifested more serious infections by Covid-19.<sup>4</sup> This is because people diagnosed with DM when contracting SARS-CoV-2 infection may experience an increase in the secretion of glucocorticoids and catecholamines, hyperglycemic substances, triggering an increase in blood glucose levels, which worsens the prognosis of both clinical conditions and contributes to a more severe inflammatory response, with shorter survival and the need for mechanical ventilatory support and the intensive care unit (ICU).<sup>5</sup> These factors imply an increased risk of disease progression to a more critical and fatal condition.

Therefore, a differentiated approach is necessary in patients with chronic pathologies, in view of the challenges and insecurity faced by professionals who are on the front lines, as well as by patients with DM and their families when seeking assistance in specialized care centers. for diabetics and hypertensive patients.

In this context, standardizing work processes and implementing specific assistance flows for this group, becomes important to protect the team and assisted population. Thus, the Standard Operating Procedure (SOP) is an important management tool that expresses the planning of repetitive work, with the purpose of standardizing and minimizing the occurrence of deviations in the execution of tasks, ensuring that actions are carried out in the same way, regardless of the professional performer or even any other factor involved in the process, reducing "variations caused by malpractice and random adaptations".<sup>6</sup>

In this sense, the objective of the study was to report the experience of a tutorial group from the Education through Work for Health Program - PET-Saúde / Interprofessionality in the elaboration of a screening protocol for diabetic patients in a specialized center, during the period of the pandemic by Covid-19.

#### Method

This is a proposal to standardize the screening procedure for diabetic patients to assist the health team in conducting patient flows during the Covid-19 pandemic period. It was described as an experience report, prepared by the tutorial group of PET-health / interprofessionality that works in the practice scenario of the Diabetic and Hypertensive Care Center (CADH), located in the municipality of Feira de Santana-BA.

The CADH is considered a medium complexity unit, managed by the city, being founded in 2001 as a strategy to strengthen the care network for diabetic patients in the city and with the purpose of serving diabetic users with high cardiovascular risk, whose complexity cannot be resolved only in Primary Care. It has a multidisciplinary team and currently has 3,000 registered users being monitored.

Faced with the pandemic scenario, the units had to adapt to continue offering service and without losing the quality of care. In view of this, the multidisciplinary team in conjunction with the Pet-Health / Interprofessional tutorial group, which operates in this scenario, raised the need for the implementation of clinical management protocols for screening patients' risk during the pandemic, ensuring safe practices during care.

For the justification and theoretical basis, it was necessary to search and select references with a scientific and practical basis. The coronavirus clinical management protocol (Covid-19) prepared by the Ministry of Health for Primary Health Care guided the team in the construction of the flowchart of care for patients at the center during the pandemic.<sup>7</sup> State and municipal decrees on the norms recommended during this period were also considered as supporting documents. The following aspects of standardization were covered in the POP format, such as: header containing the type of document, title, code, company or institution logo, application area, scope or applicability, persons responsible, abbreviations, definitions, material resources, description activities (procedures), references used, appendices and annexes. The pagination and the number of the last revision can be in the footer.<sup>8</sup>

### Results

#### Scenario of the implementation of the Standard Operating Protocol

The Diabetic Patients Risk Screening POP for Covid-19 was created with the aim of reducing the possibility of contagion for diabetic patients in the face of the current pandemic scenario. The implantation took place at the Diabetic and Hypertensive Care Center (CADH), located in the city of Feira de Santana, Bahia. In the sense of obtaining an understanding during reading by the team, the protocol was composed of fourteen essential topics, namely header, title, institution logo, code, area of application, scope or applicability, persons responsible, abbreviations, definitions, material resources, description of the activities (procedures), references used, appendices and annexes that included the municipal and state documents on the recommendations regarding the pandemic.

The purpose of the protocol is to standardize screening techniques for diabetic patients during the Covid-19 pandemic period and to reduce the chances of contagion. The application of POP is directed at nurses, service coordination and staff at the center's reception. As it is a managerial tool for nurses, the responsibility for training and the application of the protocol to the team is attributed to the coordination of nurses and nurses at the institution.

Among the general guidelines, information about the disease was inserted, such as clinical manifestations, the transmission period being recognized as 5 and 7 days or ranging from 0 to 14 days, taking into account the virus incubation period. It was also noted that asymptomatic patients can transmit Covid-19, reinforcing the importance of respiratory etiquette rules and the mandatory use of a mask. Hand hygiene with water and soap or 70% alcohol is always recommended after touching surfaces or materials handled by other people.

The clinical management took into account the attendance of diabetic users without evident respiratory symptoms and reported by family members and when mentioned in the screening, the flow will follow the conduct of mild suspected cases, because serious cases require clinical stabilization and referral to emergency services and emergency. Thus, in mild cases support and comfort measures, home isolation and monitoring until discharge of the isolation are included. Non-pharmacological measures should be oriented, such as rest, hydration, adequate food, in addition to analgesics and antipyretics and home isolation for 14 days, starting from the date of onset of symptoms, recommended by the medical and nursing staff during consultations.

The abbreviations presented in the POP refer to terms that are described in the document and that may be unknown to the team. The material resources used to perform these activities were described by the team and include the registration form, infrared thermometer, stethoscope, sphygmomanometer, pilot and PPE (mask, apron, glasses and / or face shield).

In the description of the activities, two care flows were described, one from the reception for the initial reception of the patient by the team and the other from the health team. Regarding the reception of the patient by the reception, obedience to sanitary recommendations was described, and a specific space was improvised for this screening to be carried out, in order to identify possible suspected cases and ensure the safety of the team. At this stage, the reception team requests the use of the mask as a mandatory item for users and their families. In the absence of the mask, the unit must provide as a measure of individual and collective protection; guidance on obedience in the minimum distance of 2 (two) meters from the counter to be served; prohibition of personal contact such as handshaking as preventive measures and the supply of alcohol gel for hand hygiene before the screening service.

During the pandemic period, the use of the mask is mandatory for all patients who access the unit, regardless of whether they have symptoms or not. If the patient is not using it, the mask will be made available by the team responsible for the Risk Screening for Covid-19.

In the second flow, the health team's screening service was described and a screening form was filled out with anamnesis, temperature measurement and vital signs by the nursing team. In cases that present symptoms compatible with Covid-19, the screening team should request the presence of the unit's nurse, to provide general guidance on the suspicion and need for social isolation until the virus research by reaction in polymerase chain (PCR) collected by nasal swab to confirm the diagnosis. In addition, you should proceed with the investigation of the case in a private room and follow the conduct of clinical management and / or referrals, if necessary.

If the patient does not qualify as a suspected case, he will be taken to the reception to confirm the previously scheduled care, following the sanitary recommendations.

Each of the POP stages was built in partnership with the service team, who were able to assess and validate the risk screening procedures. Access to the protocol in printed or electronic format, must be controlled and limited to its users, providing for revisions and updates that must be previously approved before implementation.

#### Discussion

In 2019, the International Diabetes Federation (IDF) estimated that there are approximately 463 million adults worldwide living with diabetes.<sup>9</sup> People with diabetes are among the most vulnerable to serious complications and death from coronavirus. On the other hand, long-term follow-up is essential for diabetic patients to reduce complications and mortality.<sup>4</sup>

Although not every individual with diabetes has the same level of risk to develop the severe form of Covid-19<sup>10</sup>, the health recommendations and the importance of good glycemic control, aim to promote changes in the behavior of all patients who should be advised about the adoption of physical activity, monitoring of blood glucose, hydration, balanced diet, continuity of treatment.

Changes in the routine of referral services to attend them were necessary to ensure protection not only for users, but also for the professionals involved in the assistance.<sup>9</sup> This must be comprehensive, safe and of quality, and establishments must be prepared to detect suspected or confirmed patients with the virus early, in order to adopt control measures that prevent its spread.<sup>7,11</sup>

In this scenario, the potential of health care standardization emerges, through the implementation of the Standard Operating Procedure (SOP).<sup>12</sup> The standardization of care processes is understood as an important management action in providing care to users of health services. Regarding the quality of care provided by health professionals, it is necessary to standardize the

processes, search for safety in care and centralize the user.<sup>13</sup>

Hence the initiative of the tutorial group of PET-Saúde / Interprofessionality, which has as one of its preceptors the service coordinator, in elaborating a protocol seeking to offer screening to diabetic patients of CADH during the pandemic.

As previously described, the application of this SOP is directed at nurses, service coordination and staff at the center's reception. The responsibility attributed to nurses and nursing coordination is based on Law No. 7,498, in which the nursing professional is given the responsibility for direct care to critically ill patients at risk of death and those who require greater technical complexity and scientifically based knowledge with ability to make immediate and planned decisions.<sup>14</sup> Protocol-based care is seen as a mechanism to facilitate professional nursing practice and standardize care provided to patients.

Despite the suspension of practical experiences since mid-March, the participation of the PET-Saúde tutorial group in the construction of POP for risk screening for Covid-19 as a preventive strategy for contagion during patient care, was of great importance for the unit in the face of the current pandemic scenario, as it enabled the standardization of work processes to be carried out in a clear and descriptive manner by the professionals involved.

The positive impacts that POP provides include the organization of rules and routines allowing nurses to plan other demands for the service, as well as assist in decision-making, cost reduction and expense control when the resources used for each procedure are known. The impact of SOP in the sequence of care is also highlighted, favoring the establishment of a greater bond between the professional and the user, since it breaks with a fragmented work process within the same service.<sup>15</sup>

Systematic technical meetings, with reevaluation of SOPs by the team, can contribute to strengthening professional commitment to service and maintaining standardized and quality care. This characteristic of co-participation in the service organization establishes and defines a focus on the assistance to be provided, making it clear to both staff and users what the objectives of the assistance are, in addition to providing more transparency to the process.<sup>8</sup>

Thus, it is clear that the implementation of the protocol can collaborate in the organization of the work process and management of the care provided, especially in services that have a high turnover of professionals and that are officially considered a teaching environment for the health professions, enabling greater safety in the care of diabetic patients during the Covid-19 pandemic.<sup>15</sup> In addition, standardization in nursing services can present satisfactory results, ranging from professional qualification as well as reducing risks and increasing user satisfaction, leaving the health institution to use the most appropriate methodologies and tools for each situation.

On the other hand, the main challenges faced during the implementation of protocols include the resistance of professionals to follow the guidelines or lack of interest in standardization, lack of awareness about the importance of standardization and existence of performance vices, with the use of old and outdated techniques.<sup>9</sup> Hence the need for a prior awareness of professionals, as the success or failure of these procedures is directly proportional to the involvement of the entire health service team.<sup>15</sup>

## Conclusion

The implementation of protocols can result in benefits for staff and users of specialized centers, enabling greater security and assistance, especially in pandemic periods by Covid-19. The standardization of processes ensures the involvement of the entire team, in addition to enabling supervision and decision making in specific situations. For that, it is necessary to consider the reassessment of the protocols whenever necessary or when there is a change in the rules that govern the service or procedures described, in addition to permanent education of professionals aiming at maintaining the quality of the care provided.

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