

# Care protocol for reception in an emergency care unit in the context of COVID-19 (2020-2021)

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**Abstract:** Qualitative action-research research aimed to describe the process of reorganizing the care flow of a UPA to face the COVID-19 pandemic, based on the implementation of care protocols. The collective problem was the organization of the care flow for people with the flu syndrome (FS). The study considered the action-research cycles proposed by Tripp (2005). In the planning phase, the flow of care for patients with FS was developed through the analysis of regulations, physical structure, and available resources. During implementation, intersectoral partnerships were established for physical adaptation, training of professionals, and resizing of the team. The planning and implementation process was described based on reports and data were collected from the unit's management equipment and the Municipal Health Department. The evaluation was carried out continuously, based on feedback from the literature and reflected practice. The reorganization of the unit with the implementation of protocols and division of flows showed positive points, such as participation and involvement of the team, review of processes, search for evidence, and intersectoral partnerships; and negative, such as the difficulty in separating FS patients within the physical structure of the UPA.

► **Keywords:** Health Management. Health Services Administration. Protocols. COVID-19. Unified Health System.

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## Introduction

On December 31, 2019, the World Health Organization (WHO) received a notification about cases of “viral pneumonia” from the Wuhan Municipal Health Commission, People’s Republic of China. On January 9, 2020, Chinese authorities declared that Wuhan pneumonia cases were possibly caused by the coronavirus (CoV). Still in January 2020, authorities in Thailand, Japan, the United States, and France reported the notification of the same virus in their countries (WHO, 2022).

The geographic expansion of cases and the analysis of the epidemic curve of the disease caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-Cov2), also referred to as new coronavirus 2019 (Covid-19), indicated that it was a human-to-human transmitted disease whose infection occurs through close contact and exposure to the virus. Thus, on March 11, 2020, faced with alarming data related to the levels of spread of the disease and the severity of clinical cases presented by those infected, the WHO considered that COVID-19 characterized a pandemic (WHO, 2022). The great concern arising from the epidemiological situation of the pandemic - given what had happened, in particular, with China and Italy - was the overload of health services in the affected territories (Wu; McGoogan, 2020).

Faced with the new global reality with COVID-19, measures to deal with the pandemic became necessary, especially in the health sector. Strategic changes were made to ensure that resources offered maximum benefits to the population, which resulted in the need for strategic planning and coordinated action to maintain the essential provision of health services, mitigating the risk of system collapse (WHO, 2020)

Brazil’s Unified Health System (SUS) faces chronic difficulties in offering medium and high-complexity health actions and services that vary according to the socioeconomic reality of each region of the country (Portela; Grabois; Travassos, 2020). Despite the guidelines at the federal level and throughout the global context, the contingency plan to combat COVID-19 had to respect the local-regional reality of emergency care units (UPA), hospital structures, and beds available in intensive therapy units, which led each region to analyze its context and provide the necessary adjustments to combat the disease (Gleriano *et al.*, 2020).

UPAs can be described as intermediate health structures that operate around the clock, providing care at different levels of care complexity (Brasil, 2017). In the COVID-19 scenario, they provided care at local levels for patients with everything

from typical flu syndrome (FS) to severe cases that progressed to respiratory failure. Thus, welcoming patients and planning care flows became a management priority, combined with the organization for this new situation, and it was necessary to train the technical team, both in biosafety issues and in the care of respiratory cases.

Care protocols are relevant health management tools, as they guide the organization of work, ensuring quality and safety for users (Vecina Neto, 2016; Quadrado; Tronchin, 2012; Krauzer *et al.*, 2018). For the organization of health units, the use of care protocols was a viable strategy for guiding care behaviors and institutional practices with a focus on quality, patient-centered care. Furthermore, they supported the training of professionals concerning knowledge, skills, and attitudes related to biosafety in developing care practices.

Thus, this study aimed to describe the process of reorganizing the care flow of a UPA to combat the COVID-19 pandemic, based on the implementation of care protocols.

## Materials and Methods

This action-research study was conducted in a city in the countryside of São Paulo state, Brazil.

Action-research is a type of social research that considers the resolution of a collective problem, in which researchers and participants engage in a cooperative and participatory way intending to effect transformations in their practices through scientific research (Tripp, 2005). It is characterized by a systematized process in which practice improvement occurs through the systematic oscillation between acting in the field of practice and researching about it. This type of research follows a classic cycle: planning, implementing, describing, and evaluating (Tripp, 2005). In this sense, the collective problem, the focus of this phase of the study, was the organization of the flow of care for people with FS in a UPA in the municipality's public network.

The municipality's emergency network corresponds to intermediate health care, interconnecting primary and hospital care. In its units, the structure keeps uninterrupted care for clinical, gynecological, pediatric, surgical, orthopedic, and dental health problems. It supports the services provided by the radiology service and contracts laboratory tests.

There are five emergency care units distributed across four neighborhoods in the municipality, with pediatric care concentrated in two of these units. The municipal

emergency network also has a Mobile Emergency Care Service (SAMU) which aims to organize the flow of care through a regulation center and provide early care to victims affected by health problems of a clinical, surgical, gynecological-obstetric nature, traumatic, and psychiatric, by sending vehicles manned by a qualified team. The municipality has seven Basic Support Units (USB) decentralized in bases attached to the UPAS, two Advanced Support Units (USA), and two Motolandias, motorcycles with material for basic life support.

The UPA that is the focus of this study is part of the municipality's Emergency Care Network. Opened in 2013 in the eastern region, it served an estimated population of 79,656 inhabitants in 2016. It aims to concentrate on intermediate complexity healthcare linked to the Basic Care network, with four basic health units in its coverage area, SAMU 192, diagnostic and therapeutic support, besides hospitals whose referral occurs through the Regulation Centers and / or Regulatory Complex. It serves an average of 389 patients per day (2019), and over the last few years, there has been an increasing search for care at the unit, since in 2017 84,975 consultations were carried out, while in 2019 they recorded 139,921 consultations.

The study participants were professionals who performed their work activities in this UPA while the research was being carried out, namely: unit manager, 8 nurses, 31 nursing technicians, 8 doctors, 1 pharmacist, 4 pharmacy technicians, 2 social workers, 2 kitchen assistants, 8 reception attendants, 6 cleaning service assistants, 8 security guards, and 3 administrative assistants, in addition to members of the management team of the municipality's Emergency Department, including 3 doctors and 2 nurses.

The study was approved by the Ethics Committee of the Hospital for Cranio-Facial Anomalies of the University of São Paulo [Hospital de Anomalias Crânio-Faciais da Universidade de São Paulo], with opinion number 4.312.394 and CAAE:35133020.3.0000.5441

## Study development

Respecting the action-research cycles proposed by Tripp (2005), the **Planning Phase** was based on: a) survey of literature and regulations available by Brazilian health agencies, which were being constructed and made available during care for COVID-19 patients; b) survey and description of how the flow of care for non-COVID-19 patients was carried out; c) detailed survey of the unit's physical, material

and human resources (quantity, conservation, availability of use and training); d) survey of necessary items and the knowledge of professionals working in the unit regarding biosafety.

Subsequently, with the data collected, the following were held: a) meetings of the management team of the Municipal Health Department (SMS); b) meetings with the management team of the SMS and managers of the unit and jointly establishing the possible flows for the location; and c) identification of the need for partnerships to loan materials and equipment.

During the **Implementation Phase**, partnerships were established with the IT sector and the municipal Education Department to loan materials and equipment. The flow was then presented to the unit's nursing and clinical manager and head. In this process, the need to create a graphic representation of the flow that would be implemented in the unit was discussed, for the entire team to view.

The **Description** of the planning and implementation process was carried out throughout the process through reports and data collected from the unit's management equipment and the SMS and the **Assessment** was carried out continuously, based on feedback from literature and reflected practice and at the end of this study in sum.

The results of this study were presented in the form of a table, figures, and discursive report, and discussed based on the literature review on the subject.

## Results

### Planning

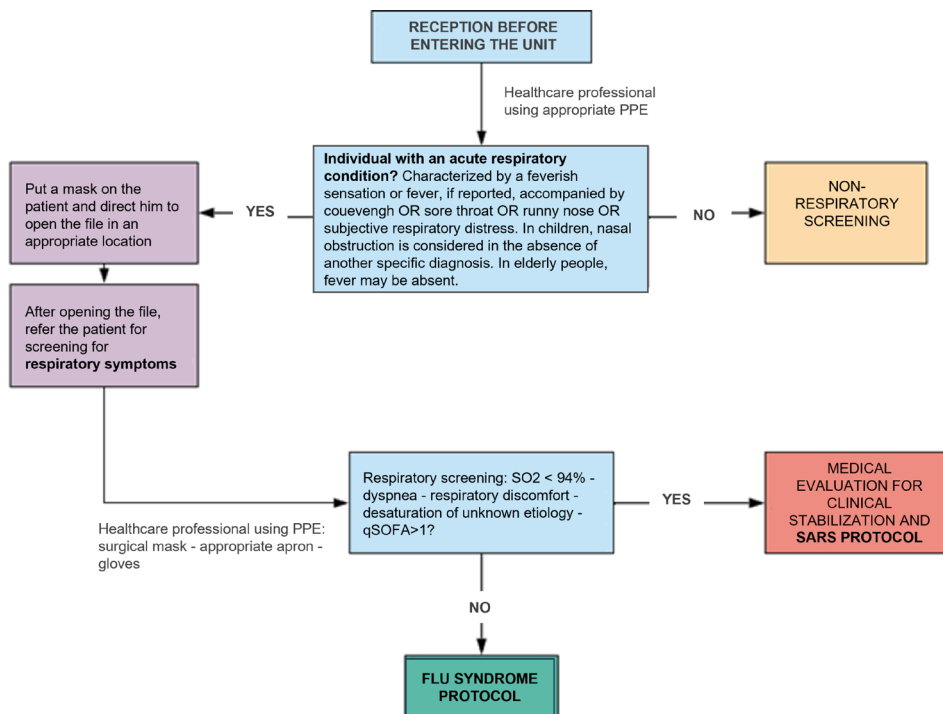
Based on a survey of the literature and regulations available by Brazilian health and health agencies (Santos *et al.*, 2020a), a matrix was designed to divide the care flow to be implemented in the UPA. This step was carried out by the management team of the municipality's Emergency Department, which assumed that the UPAs have particularities and require different organizational strategies for timely and safe care for patients, in addition to being open-door units for care of any level of clinical severity.

It was therefore established that planning in the face of a pandemic should consider, in addition to treating respiratory conditions typical of COVID-19, that the units would continue to receive patients from other health specialties and in different severities.

Municipal management defined that an extra flow must be created in each emergency unit. Furthermore, based on the assumption that the movement of people throughout the municipality should be minimized, the objective was that each unit should receive and provide rapid flow to patients with FS, focused on immediate reception, detection of suspected cases, early care, and prescription of social isolation. Therefore, the first step towards tactical-operational planning to organize municipal urgency and emergency units was that all units should adopt two internal care flows. The first for patients who present respiratory/flu symptoms and the second for the public.

In this context, the management team developed a reception care protocol with a matrix flowchart (Figure 1) for the segregation of patients and made it available to health units so that each could adapt it to their reality, considering their physical structure and available human resources.

**Figure 1.** Reception care protocol with matrix flowchart for patient segregation. Bauru-SP, 2020



Source: Secretaria Municipal de Saúde de Bauru-SP, 2020.

Based on this assumption, three distinct stages were carried out for planning, namely: visits to the units, fundraising, and finally, meetings between the SMS management team and the unit managers. The visits and on-site evaluation to adapt the matrix flowchart to the structural reality of the unit were carried out in line with the suggestions of the management and nurses. The visits were recorded in a field diary by the management team.

In a meeting between the care team working at the UPA, the scenario of this study, and the management team, it was agreed that the best option for the unit at that time was to adapt the existing physical structure to divide the flows. Thus, a patient entrance was created at the back of the unit, a location where, before this action, SAMU ambulances came in. The security guard's box at this location was adapted and became a reception area for opening the service form. The ambulance parking lot, also located on-site, was divided and part of it received chairs so that patients with FS could wait for care. This structure was chosen considering the advantage of being an environment with a roof, without walls, and with excellent ventilation.

There was also a glass door separating the ambulance parking lot from inside the unit, from which unused materials were removed and where the physical space was adapted to receive the triage of patients at reception and the doctor's office. The environment gained furniture and partitions with the help of screens.

It was also decided that the patient who needed intravenous medication would go inside the unit and be medicated in a room exclusively for FS cases. It was also determined that serious cases would be sent to the emergency room.

## **Implementation**

For implementation, partnerships were established between the management team, care team, IT sector, SMS maintenance sector and the Municipal Department of Education, which collaborated with the adaptation of the unit through loans of furniture and tents, electrical adaptation for the installation of computers and consequent electronic medical records. Still on partnerships, a Public and State Higher Education Institution was sought, located in the municipality, to help with the training of professionals.

After the physical adaptation to receive FS patients in an isolated environment, the process of internal adaptation of the unit for the operation of both flows began.

In this process, the biggest discomfort expressed by the manager and professionals of the unit was the number of professionals available when faced with adapting to the new reality. The manager indicated the need for two teams on duty, to minimize the crossing of flows between patients with FS and without FS. Based on this question, it was decided that the team size should be re-evaluated.

Before providing care to FS patients, the unit in question had two clinical doctors, two pediatricians, two nurses (one dedicated to risk classification and the other dedicated to patient care), nine nursing technicians (divided between triage, medication room, infirmary, emergency room, and materials center), a pharmacist, a pharmacy technician, an X-ray technician, two receptionists, two security guards and two cleaning service assistants on duty.

Maintaining the initial team, the medical team was unable to supply another office, which resulted in a single professional taking turns providing care in both flows (flu and non-flu), as was the case with nurses, who ended up performing functions in both streams. Furthermore, the number of nursing technicians proved to be insufficient to assist in a segregated manner.

So, a new cycle of adaptations was initiated, motivated by a meeting between the care team and the management team, which highlighted these considerations and presented a plan of professionals that could meet the activities imposed by the division of care flows. Regarding the medical team, it was requested to include one more professional on all shifts, so that this could be exclusively for the care of suspected FS. As for the nursing team, a new dimension was calculated as determined by Resolution 543/2017 (COFEN, 2017).

To size the nursing staff, considering the legislation in force at the time, the unit's functional areas were expanded, including, for flu cases, a triage with a nurse and a nursing technician, a medication application room with two nursing technicians, an emergency bed with a nurse and a nursing technician. Considering the technical safety index of 15.0%, the new dimensioning meant an increase of 16 nurses and 27 nursing technicians to keep the sites distinct and functional 24 hours every day, with a workload of 36 hours per week (COFEN, 2017).

The management team of the Emergency Department, receiving this request to adapt staffing, initiated, together with the Municipal Health Department, the process of hiring staff on an emergency basis. The process did not occur immediately but took place over time. In total, 11 nurses, 18 nursing technicians, and two pharmacy



technicians were hired temporarily, beginning in April 2020. An additional doctor was also made available per shift, with an outsourced employment contract, as was already the case with this professional category. The numbers of x-ray technicians, security guards, cleaning assistants, pediatricians, and receptionists were not increased.

The lack of prediction of the need to increase the number of professionals resulted in a delay in the provision of personnel, which linked to the freezing of public spending by law complete 173/2020 (Brazil, 2020), leaving emergency and temporary contracts as an alternative.

The solution found in staffing minimized the difficulties caused by the shortage of professionals in the unit, however, it led to training in the workplace, which, together with the modified and overloaded routine of the environment, led to harassment. Thus, the need to implement training programs was discussed, focusing on new professionals and the need for continuing education, an action that until then had not been developed at this UPA.

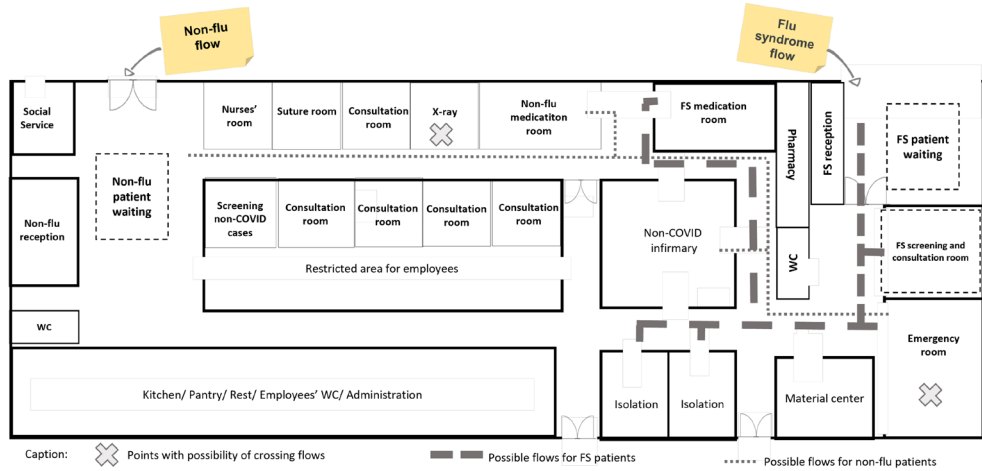
## Description

Although it is complex to separate the planning, implementation, description, and evaluation phases, which were continuous and fed back to each other, one could notice the growing number of registered services, the partnerships established and the number of trained professionals, the production of documents, the meetings recorded in a field diary and the search for frequent legislation and literature. This data enabled continuous documentation, description, and analysis of the entire process. In this context, this study highlights two records, one related to the design of the patient flow and the other to the team size associated with the number of consultations in the period.

The care flowchart was designed by the care nurses using the unit's floor plan, aiming at clarifying any doubts and demonstrating to the rest of the team how the effective implementation of the care protocol would take place.

Some items helped to clarify playfully, such as concerns about the use of the X-ray room and the emergency room, which could occasionally cross flu and non-flu care flows. This action had repercussions among the team, triggering activities that strengthened the use of Personal Protective Equipment (PPE) and the cleaning and disinfection of the place. PowerPoint® was used for the drawing (Figure 2).

**Figure 2.** Floor plan of the unit and description of the flow of care for FS patients, prepared by the unit's nurses. Bauru-SP, 2021



Source: Internal collection of the health unit

The description of the number of professionals and the number of services provided by the unit throughout the period in which the care protocol was implemented can be found in Chart 1.

**Chart 1.** Number of professionals and number of services provided in the unit over the period. Bauru-SP, 2021  
Source: The authors, 2022.

Month	Number of care team per shift												Number of consultations at the UPA				Realidade epidemiológica do município				
	Nurse			Nurse technician			Clinical doctor			Pharmacy technician			Pharmacist			Cases of flu syndrome	General cases	Severe cases (classified as red)	Number of COVID-19 cases reported in the municipality	Number of COVID-19 cases confirmed	Number of deaths from COVID-19
	M	A	N	M	A	N	M	A	N	M	A	N	M	A	N						
03/20	2	2	2	9	8	7	2	2	2	1	1	1	1	1	0	2,493 (24,7%)	6,362	34	144	2	0
04/20	2	2	2	12	8	8	2	2	2	x	1	1	1	1	0	774 (22,8%)	2,611	22	465	106	7
05/20	3	2	2	12	11	8	3	3	3	1	1	1	1	1	0	609 (16,7%)	3,028	43	546	177	8
06/20	3	3	2	11	11	8	3	3	3	2	2	1	1	1	0	1,431 (27,4%)	3,789	51	4,499	1,276	15
07/20	3	2	2	12	12	8	3	3	3	1	1	1	1	1	0	2,045 (31,9%)	4,367	62	16,423	2,503	43
08/20	4	4	3	10	12	9	3	3	3	2	2	1	1	1	0	1,788 (28,6%)	4,453	60	15,695	3,201	67
09/20	4	3	3	13	14	10	3	3	3	1	1	1	1	1	0	2,200 (29,6%)	5,231	61	15,322	4,195	56
10/20	4	4	3	13	14	10	3	3	3	1	1	1	1	1	0	1,852 (24,6%)	5,651	77	9,660	4,327	51
11/20	4	4	3	13	13	10	3	3	3	1	1	1	1	1	0	1,824 (24,0%)	5,767	72	7,110	2,143	23
12/20	5	5	3	13	13	10	3	3	3	1	1	1	1	1	0	2,133 (25,7%)	6,157	72	8,095	2,794	29
01/21	5	5	3	10	11	10	3	3	3	1	1	1	1	1	0	3,556 (34,2%)	6,826	93	12,137	4,516	55
02/21	4	4	3	14	14	10	3	3	3	1	1	1	1	1	0	1,601 (19,4%)	6,631	92	8,907	3,022	63
03/21	4	3	2	13	14	10	3	3	3	1	1	1	1	1	0	2,493 (28,1%)	6,392	124	12,202	4,701	162

## Evaluation

The evaluation of the implementation process of the care protocol was carried out continuously, based on feedback from literature, reflected practice, and analysis of existing and produced data and records. Another cycle of constant dialogues between the SMS management team, unit leadership, and front-line professionals began, highlighting the difficulty of maintaining segregated flows without adequate staff numbers.

It should also be noted that linked to an already chronically reduced number of health professionals in the unit, diagnostic difficulties increased (laboratories were adapting to receive an increased number of tests for viral antigen detection, which caused long waits to release reports) during the removal of those who developed signs and FS symptoms.

Furthermore, the hiring generated new challenges for the unit's team, since there was the simultaneous arrival of several professionals from different categories and without prior training for the hires. Thus, it was up to the care team to train the newcomers as they assisted. Over the months in which the care protocol was maintained in the unit, there was a high turnover of temporary hires, which at times left the permanent team exhausted by the responsibility of training colleagues without being sure of the amount of time these professionals would spend on their functions in the unit.

Despite the challenges, hiring professionals was essential for the unit to achieve fluidity in care, especially in months with a significant increase, both in the demand for flu patients and in the number of critically ill patients, as occurred from January to March 2021.

The hiring bottleneck occurred in the support teams that remained unchanged, especially in the cleaning team, sometimes insufficient to meet the unit's entire demand, making it difficult to comply with biosafety standards and delaying services due to the need to carry out terminal cleaning of some functional sites. The difficulty of updating outsourced contracts such as cleaning and security at the same speed as COVID-19 demanded its evolution, and the corresponding financial aspects were negative management issues faced by the management team.

This care protocol operated from March 2020 until March 2021, when the epidemiological scenario of the disease changed, as well as the municipal management, with the implementation of new strategies to combat the pandemic.

While it was in process, there were constant continuing education actions, in particular, to demonstrate that the proposed activities were in line with health determinations and based on scientific precepts available to date regarding COVID-19, focusing on the creation of bonding and an organizational climate of trust so that employees would adhere to the suggested care protocols. During the period, a large amount of literature on the subject was also produced by the global team of scientists, observing the severity of the cases and the start of vaccination.

## Discussion

The pandemic brought to light several challenges for society, for health professionals in all complexities, especially for those on the front line, with managers being forced to plan and organize units to care for this new demand. In an uncertain scenario, with ongoing scientific advances and exposure of information by health organizations almost concomitantly, the agility of response from science and, consequently, from national regulatory agencies, despite being considered an achievement in confronting of the pandemic (Guerra; Salinas; Gomes, 2020), often brought enigmas in the identification, understanding, and translation into practice of the information received.

Beyond the new challenges of organizing health units to meet the demands of patients with COVID-19, it was possible to experience the pressure on the health system, the deterioration of patients, uncertain care, the demand for new technologies in health care, and the importance given to biosafety. Such facts associated with global panic with the uncertainty of obtaining inputs for necessary health care (Burki, 2020), a constant fear of contamination on the part of front-line professionals, and a storm of unsubstantiated information linked by replicated social media by society, reflected in the request for actions by the management teams responsible for all levels of complexity of health care, no different in emergency care units.

Given the immediate context, the management and internal organization of the units had to respond to the social and care demands of the user population, as well as the multidisciplinary team that worked in the health service. This study unit decided to organize a care flow planning and implementation of care protocols, including different follow-ups between FS patients and those without flu. At that

time, little was known about the course and measures to combat the pandemic, and in the current assessment of the event, it can be observed that this division showed strengths and weaknesses where this study was carried out.

Among the potentialities, the most notable one was the strengthening of teamwork, multidisciplinary, sometimes interprofessional, and collaborative practice, as a management strategy. With the focus on placing the patient at the center of care, collaborative practice is currently seen as a tool for strengthening and qualifying health care at national and international levels (Peduzzi; Agreli, 2018; WHO, 2010).

Thus, the inclusion of the work team in decision-making during the care protocol implementation in the UPA can be considered the difference for its effective implementation. The participation of professionals working in the unit, in the planning and implementation of flows, came from an organizational environment based on trust and participation of the subjects. This fact provided management in line with the reality of the unit, alleviating difficulties and encouraging the team to collaborate with the implementation of the care protocol.

The literature has shown that decision-making processes including group participation, responsibility for actions, when distributed among team members, motivate and qualify creativity, innovation and involvement of professionals. Furthermore, such actions make the information more comprehensive, diverse, and legitimate, which means that the deliberate questions will be accepted with greater ease and incorporated into everyday clinical practice (Hayashida *et al.*, 2014; Amaral *et al.*, 2021).

Still in the context of potentialities, this care protocol demonstrated that intersectoral work beyond public services in the health sector, dialogue between municipal public sectors, through a collaborative process between the Education and Health departments, as well as articulation with higher education public institutions in the same municipality, helped to overcome the challenges imposed by the unprecedented and chaotic COVID-19 scenario, attesting that collective work towards a common objective between different sectors in public administration is possible (Conceição *et al.*, 2020; Gleriano *et al.*, 2020; Souza, 2022).

Using a flowchart resulted in a clear and concise dialogue with the health team, providing a global view of the process and indicating the responsibilities of each actor in the unit. The flowchart is an instrument that makes it possible to optimize

results and minimize conflicts in care protocols (Pimenta *et al.* 2015), as perceived by the nurses in this study, boosting the artistic representation of the unit (Figure 2).

Among the factors that can still be considered positive in this process, the results achieved during the care protocol implementation stand out. This fact provided a better visualization of the unit's critical areas and points, in a context of rationing and inadequate use of PPE; shortage of inputs and equipment in the health sector, and training of professionals, among others; a scenario also found in other services and discussed sporadically until now (Burki, 2020; Machado *et al.*, 2016; O'Dwyer *et al.*, 2017; Cook, 2020). Recognizing weaknesses such as team exposure to pathogens, use of new drugs, more refined techniques for accessing airways, incorporation and adaptation of technologies, avoid waste, ensuring and qualifying care, both for the user and the healthcare professional.

One objective of The National Continuing Education Policy (Brasil, 2018) is the training and development of professionals based on everyday problems, which strengthen the organization of work. In the context of the COVID-19 pandemic, biosafety issues were exposed, respected, and considered. In addition, difficulties in skills in various situations, advanced care and the translation of scientific evidence motivated intervention in the work environment of different professionals, in an interprofessional way, in a collaborative practice that aimed to better serve the patient and protect professionals (Peduzzi *et al.*, 2020). These facts reinforce the relevance of successful teaching and service partnership programs, such as the Education through Work for Health Program (PET Saúde) (Garcia *et al.*, 2019).

In the development of this study, PET Saúde was underway in the municipality, focusing on interprofessionalism. With the support of the ongoing project, teachers, professionals, and students who were part of it, in addition to professionals from the public and private care network in the municipality, carried out several actions aimed at training professionals, in addition to providing advice in the search for evidence, health support mental, among many others (Bastos; Lopes, 2021).

At the same time that positive issues emerged regarding the flow segregation proposal described here, weaknesses emerged in the process implemented at the UPA, such as a lack of human resources and the impossible mission of segregating the human beings who at that time were seeking healthcare (Moriya *et al.*, 1995).

Limited human resources in public services, especially in the health sector and UPA services (Machado *et al.*, 2016), have been the subject of discussion for some

time in national literature (Morici; Barbosa, 2013; Morais *et al.*, 2018) and the fight against the pandemic worsened this situation. This fact occurred due to the absence of professionals, perhaps contaminated and sickened by the virus, or those who showed clinical signs and symptoms that led to suspicion of contamination (Teixeira *et al.*, 2020). In the same period, there was a significant increase in the number of cases (Brazil, 2022) and the worsening of the clinical status of patients, which required greater physical space for care, trained human resources, and a greater quantity of material inputs, which also occurred in the UPA of this study (Chart 1).

In this context, a broad discussion among public and health agencies about changes and illness in the health workforce began (WHO, 2020). However, little progress was made about professional replacement plans and professional qualification in a short period (Santos *et al.*, 2021), which may have been aggravated by the inexperience of managers, public authorities, and private companies during a pandemic. In this context, it was possible to observe emergency and temporary contracts (Santos *et al.*, 2020b; Pinho *et al.*, 2020) which generated difficulties caused by the intense and necessary training in workplaces (Santos *et al.*, 2020b), due to the modified and overloaded routine that professionals experience.

Moreover, the increased number of serious cases revealed another weakness in the implemented care protocol. In the municipality, at the beginning of the pandemic, epidemiological data demonstrated that a single emergency room for the clinical stabilization of cases and subsequent referral of the patient to a hospital bed would be sufficient for the demand that was being presented, but the epidemiological dynamics of the disease proved to be much more aggressive, and many patients ended up remaining in the emergency care unit for a long period, due to the insufficient number of hospital beds (Noronha *et al.*, 2020). Concomitantly, with a direct impact on the reduction of professionals to maintain the emergency room, the new reality demanded the replanning of mitigation, control, and organization actions of health services, putting an end to segregated flows and instituting new management strategies to meet demand.

## Final considerations

Although this research is related to the analysis of a specific case, which can be a limiting factor, the reorganization of a UPA through the formulation and



implementation of care protocols, in addition to the division of flows during the COVID-19 pandemic, highlighted positive and fragile points that can be minimized or enhanced in new challenges.

Among the points to be enhanced, we can highlight the participation and involvement of the team, the review of processes, the creation and review of care protocols and materials, the search for evidence, partnerships with other units and other public services, multidisciplinary work and interprofessional and review of routines. Among the points to be improved are the difficulties to separate infected patients, the need for continuing education during intense work activity, and the finding of an insufficient number of professionals. Add to this that during the period there was intense production of evidence and its difficult translation into care practice and the unpredictable course of the disease associated with the population's behaviors.

In this context, the action-research proved to be an important tool. Using a methodological framework, it provided an analysis and evaluation of the planned, described, and implemented phases, to confront the problem, indicating a rigorous process of involvement and evaluation, which can be employed in other experiences.<sup>1</sup>

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## Note

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# Resumo

## *Protocolo assistencial de acolhimento em unidade de pronto atendimento no contexto da Covid-19 (2020-2021)*

Pesquisa qualitativa tipo pesquisa-ação cujo objetivo foi descrever o processo de reorganização do fluxo assistencial de uma UPA para o enfrentamento da pandemia de Covid-19, a partir da implantação de protocolos assistenciais. O problema coletivo foi a organização do fluxo de atendimento de pessoas com síndrome gripal (SG). O estudo considerou os ciclos da pesquisa-ação propostos por Tripp (2005). Na fase de planejamento foi desenvolvido o fluxo de atendimentos de pacientes com SG mediante análise de normativas, estrutura física e recursos disponíveis. Durante a implementação, foram estabelecidas parcerias intersetoriais para adequação física, capacitação dos profissionais e redimensionamento da equipe. A descrição do processo de planejamento e implementação deu-se por meio de relatórios e dados coletados dos equipamentos de gestão da unidade e da Secretaria Municipal de Saúde. A avaliação foi realizada de forma contínua, com base na retroalimentação da literatura e da prática refletida. A reorganização da unidade com implantação de protocolos assistenciais e divisão de fluxos evidenciou pontos positivos, como participação e envolvimento da equipe, revisão de processos, busca por evidências e parcerias intersetoriais; e negativos, como a dificuldade na segregação do paciente com SG dentro da estrutura física da UPA.

► **Palavras-chave:** Gestão em Saúde. Administração de Serviços de Saúde. Protocolos. Covid-19. Sistema Único de Saúde.

