### Implementation of the Manchester Risk Classification System in emergency municipal network

Implantação do Sistema de Classificação de Risco Manchester em uma rede municipal de urgência

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ABSTRACT Hospital and non-hospital urgent and emergency healthcare services are commonly used as entrance doors of healthcare systems. The hypothesis of the excess demand for these services is insufficient to explain the unfavorable clinical outcomes that result from the overcrowding phenomenon, related to organizational aspects of these services themselves. Considering this scenario, the reorganization of the inputs of the urgency and emergency health services has become paramount. This paper presents and analyses the Manchester Triage System implementation in a municipal urgency and emergency network in the metropolitan region of São Paulo, the largest one in the South hemisphere, and allows to understand how the improvement of the use of the risk classification, foreseen in several policies of the Unified Health System, can be a powerful technology applied to care management and urgency and emergency health services.

KEYWORDS Health services. Emergency medical services. Triage. Resources management.

RESUMO Os serviços de urgência e emergência hospitalares e não hospitalares são habitualmente utilizados como portas de entrada dos sistemas de saúde. A hipótese do excesso de demanda por esses serviços é insuficiente para explicar os desfechos clínicos desfavoráveis que resultam do fenômeno da superlotação, relacionado a aspectos organizativos desses próprios serviços. Diante desse cenário, a reorganização das entradas dos serviços de urgência e emergência tornou-se primordial. O artigo apresenta e analisa a implantação do Sistema de Classificação de Risco de Manchester em uma rede municipal de urgência e emergência da região metropolitana de São Paulo, a maior do hemisfério Sul, e permite compreender como o aprimoramento do uso da classificação de risco, prevista em diversas políticas do Sistema Único de Saúde, pode se constituir em potente tecnologia aplicada à gestão do cuidado e dos serviços de urgência e emergência.

PALAVRAS-CHAVE Serviços de saúde. Serviços médicos de emergência. Triagem. Gestão de recursos.

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### Introduction

Hospital Emergency Services (HES) are utilized by users as one of the main entry points into public or private healthcare system. Worldwide, the number of patients requiring HES, with a wide variety of clinical conditions, has increased 1,2. This situation can lead to the phenomenon of overcrowding of HES, which, often associated with the precarious processes of organization of these services, result in undesirable clinical outcomes 3,2. A scenario that directly affects not only the user, but, also, and on a large scale, health services and systems.

The care for patients in overcrowded HES can generate inequity for those users with greater clinical risk<sup>4</sup>, besides directly interfering in the occurrence of adverse events and in the deterioration of working conditions. It provides, as well, ultimately, questionable performance of the health system as a whole.

Among the reasons for the population's demand for the HES, easy access is one of the most relevant factors<sup>5</sup>, in particular, the prospect of guaranteeing an unscheduled medical consultation and the rapid accomplishment of diagnostic tests, stimulating the decision of the user to draw his/her own care route, privileging the access door of the HES. This decision gains even more relevance in the context of the need to consume hard and light-hard technologies6, predominant in Urgent and Emergency Services (SUE), as they provide a sense of security. Such technologies are identified by the users as more care producing, since they are associated to the hegemonic biomedical model centered in the doctor and the hospital, undoubtedly potent in many situations, but not enough by itself.

This value in use of the HES distorts the purpose of these services, overburdening them with the development of care actions that could be performed in primary care or in emergency units of lower technological density, which, in the Brazilian health system, also make up the Urgent and Emergency Care

Network (RUE), or, moreover, in other attention points of the health system<sup>7,8</sup>. This overload interferes with the quality of Urgent and Emergency (UE) care provided by HES to patients<sup>9</sup>.

There are other elements that corroborate the overload in the HES, among them, the following stand out: dimension of transport accidents and urban violence, which devastate large metropolises and municipalities of all sizes in emerging countries 10,11; increase in the burden of non-communicable chronic diseases, generating a significant number of visits to HES, due to their acute clinical instability events, given the low effectiveness of their follow-up; in addition to the challenges inherent to care in acute events related to mental disorders.

In view of this scenario, the reorganization of HES entries became paramount. Therefore, in situations in which demand exceeds the capacity of service attendance, devices have been implanted for clinical priority, to organize the flow of patients. Such flow organizing practices or technologies serve to quickly identify users who are at risk of death, organic or functional losses and, thus, ensure timely access to the health resources needed to reduce potential harm.

Risk classification emerged, thus, as a clinical and organizational strategy to mitigate risks and harms from the asymmetries generated by access to care in the UE, traditionally oriented on a first-come, first-served basis in the HES, as well as to minimize the risks and harms caused by the consequences of overcrowding. The classification process occurs through the identification and consequent prioritization of individuals who need immediate/short care and, subsequently, cases with minor clinical severities. Patients are classified according to clinical severity, level of suffering and risk for their own health.

Risk classification or medical sorting is defined as a dynamic process of identifying and distributing users that allows them to be directed to the service, or care environment, most appropriate for timely treatment <sup>12,13</sup>. Thus, a structured risk classification is indicated as an effective health care tool, because it allows individuals with more severe illnesses to be the first ones to receive care in the UE<sup>14</sup>.

Therefore, this strategy turns into a valuable clinical and organizational device for assisting the care management of the UE service, improving and qualifying the care provided by organizing the demand according to the risk standards expressed by the severity at the moment of the introduction of the patient. The Manchester Risk Classification System (SCRM), due to its coverage and sorting capacity, has been one of the most used in Brazil and abroad 15.

There are current studies that demonstrate that a structured risk classification reduces the risk of worsening of the patients' condition before the first medical care, increases the satisfaction of the user and health professionals, besides rationalizing the consumption of resources<sup>16</sup>.

In Brazil, within the scope of the Unified Health System (SUS), the confrontation of the overcrowding of the HES gained greater prominence from the Hospital Urgency Care Qualification Program (Qualisus), in 2004<sup>17</sup>, concentrating its efforts on the HES of the main Brazilian capitals. In general terms, the program established conceptual assumptions for management and care, provided financial support for equipment investments and early-care reform. The financial support was the counterpart of the Ministry of Health to the changes in work processes in hospitals with emergency services, whose implementation would be the responsibility of the local manager.

The improvement of these actions gained strength in 2010, when a national policy was defined to conform Health Care Networks (RAS). The RUE patterns originated from this production, a policy that complemented, through proposed actions – such as the SOS Emergencies Program (2011) –, the strategies to support hospitals to manage the quality of

care for SUS users <sup>18-22</sup>. In this set, shared care arrangements and processes were defined, organizing them into prehospital and hospital care components. In the hospital component, there was induction for the use and dissemination of the devices and arrangements contained in the National Humanization Policy (PNH), in which the reception process with risk classification was configured as one of the main strategies for qualifying the SUE entry processes.

It was against this background that the municipality of São Bernardo Campo (SP) implemented a set of actions aimed at qualifying the care offered to its population. Among them, the RUE organization, assuming the SCRM as a technological health care arrangement in the SUE.

The main objective of this article is to report and analyze the experience of implementing this device in the municipal UE services, indicating the main challenges faced and those arising from the use of this technological arrangement. Thus, it is expected that the article may provide substrate for the elucidation of issues related to the implementation of a risk classification tool in the SUE, as well as discussing the advances in the reorganization of health work and care management. In the sequence, it intends to discuss the challenges that the implementation of the tool implies, giving visibility to issues that involve the work and power relations between the health teams.

# The risk classification under review: SCRM

The beginnings of Risk Classification System (SCR) or medical sorting date back to the XVIII century, associated with military operations, in which soldiers were prioritized to receive the first assistances on the battle-field or to be removed. However, it was only from the 1960s that other sorting systems gained relevance in the context of hospital

care. These systems are dedicated to providing a preliminary clinical evaluation strategy which organizes patients assistance due to their severity and/or urgency even before a complete diagnostic and therapeutic evaluation, effective in contexts in which the demand for care in UE exceeds supply<sup>23,24</sup>.

Consequently, SCR, like Manchester, prioritize access to the necessary care in a timely manner for the most needy, contrary to the logic of sequential assistance in order of arrival<sup>25</sup>, which makes them disruptive, because they provide the contact as early as possible between those who reach the SUE with their needs and the health professionals, allowing the variable time, often crucial in situations of imminent risk, to be managed, by means of prompt identification of the problem and decision on the flows and processes necessary for the timely access to appropriate care<sup>26</sup>.

SCR that present a large number of subclassifications or that have a low sensitivity, that is, that classify urgent patients as low priority, are unsafe5. According to the evidence, SCR that are structured, at least, with the following principles, are considered safe and effective: have at least five levels of classification; have high sensitivity for identifying the risks and, in some cases, overestimating them; be implemented by a higher level professional (better experiences related describe more effectiveness when the SCR is applied by nurses) and have continuous reclassification, at defined times (dynamic reclassification), as a safety device to identify any clinical deterioration event, during occasional waiting periods between processes and care stations<sup>16</sup>.

The Manchester Protocol was initially

deployed at the Manchester Royal Infirmary, in the city of Manchester (1997), and, since then, has been adopted as standard protocol in several hospitals in the United Kingdom. It is originally composed of 52 predefined clinical conditions linked to their respective guidelines or flow lines, from each of the risk levels classification or screening obtained. Classifications are divided into colors organized by level of severity and risk of clinical presentation. Since the year 2000, a significant number of health institutions of various geographic and population realities have been implementing the SCRM. Some examples are in countries such as Austria, Brazil, Germany, Mexico, Norway, Portugal, Spain, among others<sup>27</sup>.

### The urgent and emergency network of São Bernardo do Campo

The municipality of São Bernardo do Campo (SBC), located in the metropolitan region of São Paulo, more precisely, in the ABC region of São Paulo, has been developing, since 2009, actions aimed at the continuous improvement of the health care of its population, of 765,463 inhabitants<sup>28</sup>, in the various points of attention of the RUE. Following the national guidelines, RUE of SBC consists of services directly related to urgent and emergency care, as well as other back-up services according to its various components.

Considering services directly related to urgent and emergency care, the RUE of SBC is composed of:

Chart 1. Urgent care network of São Bernardo do Campo

Component	Service	Description	
Mobile pre- hospital	Mobile Emergency Medical Services (Samu) 192	Twelve primary support units, two advanced support units and two motor-ambulances.	
Fixed Pre- hospital	24h Emergency Care Unit (UPA)	Nine units distributed territorially in the municipality (seven type II units and two type I units) aimed at assisting the low and medium complexities in urgency and emergency.	
	Stabilization room – primary care	Environment provided with human and technological capabilities installed in places of difficult access and low health density of healthcare services (post-ferry region – Riacho Grande), to provide the first care and stabilization until access to the appropriate care component is made available in a timely manner.	
Hospital	Hospital and Central Emergency Room (HPSC)	Service dedicated to the care of medium and high complexity to the clinical and surgical urgencies.	
	University Municipal Hospital (HMU)	Service for gynecological and obstetrical emergencies.	
	Anchieta Hospital	Reference and back-up service to prompt oncology care and surgical emergencies.	
	Municipal Clinical Hospital	Reference and back-office service to urgent and clinical and surgical emergencies, through the care lines of acute myocardial infarction, trauma and orthopedic services, stroke and neurosurgery.	
Mental Health	Center of Psychosocial Attention (Caps)	Services dedicated to psychiatric handling, clinically shared with 24h UPAs and HPSC, of disorders and acute mental suffering in the adult, child and abusive aspects of alcohol and other drugs.	

Source: Own elaboration.

The structural consolidation of the prehospital fixed network in SBC, started in 2009, was materialized with the inauguration of the ninth 24 hours Emergency Care Unit (UPA) (May/2013). Previously, the scenario of prehospital urgency in the city was composed of seven peripheral firstaid posts, which performed urgent care in precarious conditions of structure and processes. The flow of care established until then was still instructed on a first-come, first-served basis. Added to this scenario is the operation of these services in spaces shared with other services of the municipal network, such as Basic Health Units (BHU) and specialty outpatient clinics, in the same physical structure, further compromising their processes and flows. The nine UPAs 24h are distributed in order to cover all their territorial extension and connect them territorially to the BHU of the same territory and to a Center of Psychosocial Attention (Caps).

Considering the guidelines of the National Policy for Emergency Care, a fixed prehospital network was designed for the municipality, composed of nine 24 hours UPAs, acting in an integrated way to the other points of attention of the RUE. In the context of the restructuring process, started in 2009, the reception and classification of risk began to be implemented based on a protocol developed by the Health Department.

However, with the maturation of the process and its understanding, by the care teams, management and population, the current risk classification protocol, based on only three levels of priorities and not synergistic with the total flows of the units (24h UPA), began to demonstrate technical and procedural

limitations. They stemmed from the low level of evidence of their discriminators and the inadequate definition of priorities and times for assistance, which resulted in an erratic allocation of resources for each priority level, leading to unsatisfactory results.

The Hospital and Central Emergency Room (HPSC) is also configured as the entry door to the RUE of SBC. It is an important prompt service, with around 800 assistances/day, in addition to its critical axes focused on acute/worsened cases, dedicated to the stabilization, observation and clinical decision processes, which are crucial for supporting a chain of care in the UE. This hospital counts on 175 hospital beds, including intensive care beds, as well as transitional environments for observation and support to clinical decision making, called the green room and the yellow room, with different resources to support life.

The ten services that make up the RUE of SBC (nine 24h UPAs and HPSC) and which serve as the gateway to the UE have achieved, in 2015, an average of 89,000 medical consultations in the UE per month, representing 54% of the total medical consultations performed in the municipal health network. Somehow, these data corroborate the elements presented in the introduction of this article, that is, even with a strong investment in the primary care of the municipality - which, in addition to an increase and a physical restructuring of the network, from 28 to 36 BHU, have undergone changes in the model of health care and qualification from other aspects of RAS -, SUE still represent an important entry door to care.

In June 2014, the Health Secretariat of SBC, considering the representativeness of the UE in the municipal health system, the weaknesses of the current risk classification process and the non-uniformity of use of a risk classification tool among the SUE, took the decision to deploy the SCRM in its 24h UPAs (SUE) and HPSC (HES). This was an effort to reorganize processes and flows regarding the entry of users into prehospital and hospital components.

# The implementation of SCRM in the RUE

For the implementation of the SCRM in the points of attention to the UE in its nine 24h UPAs and in the HPSC, SBC was supported by the Brazilian Risk Classification Group (GBCR), representative of the Manchester Protocol in Brazil. The execution of this process was organized in seven stages, distributed over 1 year and 5 months, the first one being held in July 2014, and the last one in December 2015.

The decision to implement the project in stages was based on the need to promote physical and structural adaptations in services. The purpose was to carry out such adjustments considering future internal flows, the need to expand staff, and the zeal to conduct a broad process involving more than 1,700 employees of the municipal emergency care network. That is, what could be seen as the implementation of a 'protocol' expands its scope of action by proposing, from its inception and from it, other actions, from physical reforms to the involvement and participation of workers.

Strategies were adopted for the purpose of ensuring the satisfactory execution of the stages and the entire implementation process. Among the main actions, prior sensitization to the care and administrative staff of the units was essential for understanding the new methodology for risk classification and internal flows. The involvement of doctors at all stages minimized the tension between teams as new processes and internal flows involving the whole team were reviewed and changed.

Considering the insertion of 24h UPAs as part of a health care network, awareness raising actions have been put in motion with the health teams of the other services assigned to the territory. The impact of the SCRM implantation within the 24 hours UPAs was discussed directly with members of the Family Health Teams (EqSF) of the BHU, as well as with the counselors of the Health Managing Councils of the respective services. Once more, it is possible to identify here not only an ethical

political commitment to democratization and participation in the construction processes of the SUS, but also a conception about the health care system and care network. In other words, the very 'conversational' or dialogical character of the implementation form evidences an understanding of management not only in a functional/functionalizing way, but which considers the uniqueness and complexity of health organizations. At the end of the implementation project of the SCRM, 222 professionals (doctors and nurses) were trained, of which 188 (85%) were certified as professionals qualified for the methodology. The validation of the implementation (external audit) was performed by the GBCR auditors, totaling 136 hours of on-site monitoring in the ten services.

There were also the training of 34 professionals, doctors and nurses, qualified to perform the assignment of internal auditors of the health department. This training aimed at ensuring the monitoring of the application of the SCRM method by the care teams.

The monthly internal audit process adopted, a practice recommended by the GBCR, assists in the maturation of the team, identifying opportunities for improvement for the whole process of risk classification, since feedback of the process is given directly to the professional classifier. It's included, moreover, the training of eight SCRM instructors, who are responsible for continuing education for SCRM Classifiers, ensuring, thus, the constant training of new professionals. The two training components, internal auditors and instructors, are strategic in ensuring the sustainability and maturation of the tool in the SBC RUE.

### Methodology

## Methodological and analytical procedures

For the construction of this article, produced without specific funding, two complementary

analytical approaches were made. The first one is the production of a narrative about the experience of the implantation of this risk classification technology in the municipality of SBC, written by the actors responsible for the implantation process and, at that moment, in a governance position. Institutional actors/authors of this article reconstructing the meaning of the proposal, the implementation strategies and the evaluation they make of the advances, limitations and challenges still to be faced.

In this sense, this first analytical approximation reflects the process of accumulation and critical observation of individuals who assume, a priori, the engaged character of their triple 'statute'29: actors in a governance state (former SUS managers in SBC), workers of the collective health area committed to the SUS and researchers engaged in the production of militant knowledge30, namely: taking health policy, in particular, their personal experiences in public administration as an object of reflection and production of knowledge. It is evident that such a methodological option can be advantageous by providing an 'inside' look at politics, put into question by managers who have adapted it to the municipal level and implemented it. On the other hand, such an implication degree may act as an element of analytical 'blindness' to the actual results of its implementation. In order to try to overcome this risk a second methodological approach was made, of quantitative nature, in particular, the construction of indicators built with secondary data that could give clues about the real effects of the policy.

The second analytical component of the SCRM implementation was based on the use of secondary data from the services for the construction of indicators that could capture possible changes produced in the work processes in the SUE from the implementation of the SCRM. For this purpose, the nursing procedures of the Outpatient Information System of the SUS (SIA-SUS), related to the reception and classification of risk, as markers/signposts

of the new care model, will be described and measured, taking the years 2014 and 2016 as a basis for comparison to the said procedures.

The nursing procedures analyzed point to a desired incremental perspective of nursing professional protagonism, which is recognized worldwide and decisive for the achievement of central SCR objectives, such as the early recognition of clinical risks in SUE entries. The achievement of this objective is highly dependent on the professional nurse, whose priority is the rapid identification of the risk and the selection of the necessary care flow, to the detriment of the culture of the execution of procedures, such as blood pressure or frequency of peripheral pulse measurement, both already outlawed in risk screening activities, according to the best evidences 12.

#### Results and discussion

## Changes in work process indicators tell us what?

The implementation of the SCRM brought direct and indirect results to the entire urgent and emergency network of SBC. According to the quantitative analysis of procedures performed (SIA-SUS), throughout the implementation of the SCRM in the prehospital component, a direct influence of this device is observed in the process of reception and risk classification of 24h UPAs.

The comparative analysis of the procedures 'consultation of professionals with higher education in specialized care (except medical)' and 'capillary glycemia' allows to observe enlargement in 285% and 54%, respectively, between the years 2014 and 2016. Regarding the 'blood pressure measurement', a reduction of 42% was observed in the same period (*table 1*). It is important to emphasize that the volume of assistance of the units ('urgent care in specialized care') showed an increase of only 7% between the

years analyzed (*table 1*). These results allow to infer that the previous protocol of reception and risk classification allowed a process of collection of vital signs that did not add greater security to the classification of risk and clinical prioritization of the patient.

In addition to the direct reorganization of internal care flows to prehospital and hospital services, the SCRM allowed us to identify more precisely the reasons for the search of the units by the users and their respective clinical severities. This identification allowed the implantation of assistance protocols directed to the needs of the users and integrated with the hospital component of the RUE. Among them, it is possible to mention the implantation of the protocol directed to the care of the adult user with complaint of cephalea.

For the institutional protocols already in place, the SCRM assisted in the improvement of its internal flows, supporting the effective and standardized management of the clinical risk of the patient among the teams of the ten health units that make up the entrance doors of the SUE of the municipality. In this sense, the alignment between the institutional chest pain protocol, together with the SCRM, resulted in a 45% increase in the number of electrocardiograms performed in the units (table 1).

As observed in the literature<sup>26,31-35</sup>, the SCRM has also assisted in the management of the demands after the classification of risk, such as human and technological resources required to assist patients, according to the priority levels. All these improvements allow a greater safety in the handling of cases, besides the exercise of a protagonism by the health team, especially, nursing, which acquires greater autonomy and capacity in serving the UE. This is a significant point in the cultural changes of the organizational structure induced by the new model of care, which also had repercussions on interprofessional relations and power arrangements in SUE, predominantly centered on the medical professional, until then. Central elements and that undoubtedly demand other investigative designs that bring more elements in the capacity or not of the SCRM to lead the transformations in the work processes and in the relations of power.

Table 1. Number of procedures accomplished in the nine 24h UPAs, 2014 - 2016

PROCEDURES	2014	2016	2016/2014
0301060061 URGENT ASSISTANCE IN SPECIALIZED CARE	736,972	791,909	7%
0301010048 CONSULTATION OF PROFESSIONALS WITH HIGHER EDUCATION DEGREE IN THE SPECIALIZED CARE (EXCEPT DOCTOR)	209,229	806,425	285%
0301100039 MEASUREMENT OF BLOOD PRESSURE	320,783	184,541	-42%
0214010015 CAPILLARY BLOOD GLYCEMIA	105,766	162,675	54%
0211020036 ELECTROCARDIOGRAM	21,007	30,467	45%

Source: Outpatient Information System of the SUS (SIA-SUS)36.

Another gain in the implementation process of the SCRM and in SUE and HES involves the management of network care. The identification and segmentation of the clinical risks of the patients seeking the SUE indirectly assisted in the management of the clinic of the patients assigned to the BHU responsible for the longitudinal care of the users. The priority of the SCRM, identified in the SUE care, directly influences the actions that the EqSF initiate in the clinical management of the patient, enhancing the comprehensive and equal access to care and promotion and prevention actions. The risk classifications performed in the SUE with priorities of greater clinical risk open the possibility for the EqSF to reprogram the care offered to the user, concentrating greater efforts in the therapeutic approach. On the other hand, risk classifications with lower clinical risk priorities assist in identifying high-frequency, high-frequency users of SUE.

It is important to highlight, furthermore, the limitations that the risk classification process can induce to the nurses' teams. While the protocol significantly enhances clinical safety for both sides of the health-care team relationship, it is also capable of mechanizing that same relationship, reducing the potency of the team to the diversities of demands and needs in SUE. Such risk reinforces the opportunity to use complementary and simultaneous strategies, in order to provide greater and real gains in autonomy and effectiveness for the clinical practice of nurses, such as permanent education.

# Final considerations or the need for further studies

It is possible to affirm that the implementation of the SCRM in the urgent and emergency network of SBC was able to produce benefits directly related to the reorganization of the flows and the work processes of the entry doors of the SUE.

The implantation acted in an inductive and collaborative way for other movements and strategies to improve production and care management, with a view to achieving a greater and more synergistic integration between the RUE components, and of these with the comprehensiveness of the municipal health system. But this theme would require a greater depth of investigation that could reveal how it happened.

The new process of reception and risk classification also gave managers new challenges in the technical-assistance dimension of the production of comprehensive care and in the dimension of the autonomy of the work of the different professions of the health teams of the SUE. This may be an important point to be studied in the light of the clues presented in this article.

There are objective and possibly common limits to the several contexts of SCRM implantation at the SUS of the SUS, such as the technocratic training of the professional nurse, much focused on reproductive activities and process checks and less accustomed to clearly identifying priority problems with a view to producing cognition with better clinical outcomes and solutions, crucial competence for clinical management scenarios. The position of power and hierarchy of the doctor with respect to the team represents another limit for the implementation of the SCRM, since such an arrangement may be seen by this professional as a breach of that position, in particular, with respect to its autonomy in the management of case. A process of greater horizontalization of hierarchical relationships between the doctor and the nurse, starting from the changing role of nursing, may pose new questions for medical practice itself. Is the possible establishment of greater cooperation in the team also a reason to trigger more frequent and intense situations of conflict between the professional nuclei?

But there are also evident advances from initiatives such as the one described, since improvements in strategies and care management technologies require, in an irreplaceable way, application tests followed by accurate analysis in the time curve. The greater the disposition for such efforts of use and analysis, the more effective and authentic will be the repercussions of the decision to implant technologies like the SCRM within the SUS.

The results here presented are a first approximation plan of the repercussions that SCRM is capable of producing in the dimensions of care management, particularly, in the organizational and professional dimensions. It is evident that in the organizational dimension, its implementation brought about internal changes to the SUE, with the evident transformations of the workflows, of the physical infrastructure – necessary for its application – and the formation of cadres for application, monitoring and evaluation of the protocols.

How much the SCRM produces of changes outside, for the construction of network, is an incognito to be studied. At first, this technology can be seen as a way to face the 'inevitable' – the overcrowding of SUE, given the ease of accessing a range of technologies, from medical consultation to testing – and, therefore, organizing flow into the SUE.

The conception of the SCRM does not speak of network construction, or the 'outside', however, the SBC experience has a particularity, since the SCRM implementation was another component of a municipal health policy that sought to implement SUS with real capacity to meet, with integrity and equity, the health needs of the people. Would it be possible, methodologically, to see how it, alone, has contributed to this comprehensiveness and equity of care?

In the professional dimension, new studies, of a qualitative and micropolitical nature, are necessary; investigations that allow us to understand the concrete transformations that this technology can produce in the processes of subjectivation of health professionals. Investigations that may answer the following question: does the implementation of the SCRM, as a new organization of the work

process, alter the marked power relations in the production of care, establishing new forms of teamwork?

The work presented provokes, furthermore, other questions: Is the protagonism of nursing in care capable of changing the relationship of this professional with doctors? What changes does it provoke in relation to other team members? How has this change been operated and perceived by doctors? What resistances are identified? Does the SCRM affect medical autonomy? These are open-ended questions.

But they do not stop there, because it is, also, necessary to understand how and if such technology of care has impact on the production of care for the user. What strategies have users accomplished for the access that they so much strive for in order to produce their care, from this new technology, that can be seen as the creation of a new barrier? Do they incorporate the SCRM

in the overall calculation of their acting to produce the care they seek?

#### **Collaborators**

Sacoman TM (0000-0002-1407-2860)\* contributed substantially to the design and planning and to the analysis and interpretation of the data. Beltrammi DGM (0000-0003-3964-3700)\* contributed substantially to the design, planning and analysis and interpretation of the data. Andreazza R (0000-0002-3332-2183)\* contributed significantly to the elaboration of the draft and critical review of content. Cecílio LCO (0000-0002-9207-4781)\* contributed significantly to the elaboration of the draft and critical review of content. Chioro dos Reis AA (0000-0001-7184-2342)\* contributed substantially to the design and planning and to the analysis and interpretation of the data. •

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