

# Analysis of services provided by SAMU 192: Mobile component of the urgency and emergency care network

*Análise dos atendimentos do SAMU 192: Componente móvel da rede de atenção às urgências e emergências*

*Análisis de las llamadas del SAMU 192: Componentes móvil de la red de atención a las urgencias y emergencias*

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## ABSTRACT

**Objective:** To analyze the services provided by SAMU 192: the mobile component of the Urgency and Emergency Care Network, in the city of Botucatu, SP, Brazil. **Methods:** An exploratory-descriptive field study of a time series with a quantitative approach was performed. This study focused on the analysis of care provided by SAMU 192, between August 2011 and January 2012, based on 2635 service files. **Results:** There was a predominance of clinical occurrences and seizure as the main complaint (12.16%). The majority of victims (96.08%) were conscious upon arrival of the SAMU 192 team. The city's central region was the one that showed the greatest demand for care (25.83%). The main outcome of occurrences was the referral of victims to a hospital (81.61%). **Conclusion:** The present study showed the importance of SAMU 192 in the Urgency and Emergency Care Network. A high number of occurrences and the associations between several complaints and age, sex and place of occurrence stood out in this study.

**Keywords:** Nursing; Emergency Medical Services; Emergency.

## RESUMO

**Objetivo:** Analisar os atendimentos realizados pelo SAMU 192: componente móvel da Rede de Atenção às Urgências e Emergências no Município de Botucatu/SP. **Métodos:** Trata-se de um estudo de campo, de série histórica, exploratório-descritivo de abordagem quantitativa, focado na análise das fichas dos atendimentos realizados pelo SAMU 192, entre agosto de 2011 e janeiro de 2012, totalizando 2635 fichas. **Resultados:** Houve predominância de ocorrências clínicas, sendo crise convulsiva a principal queixa (12,16%). A maioria das vítimas (96,08%) estava consciente no momento do atendimento. A região central da cidade foi a que apresentou maior demanda de atendimentos (25,83%). O principal desfecho dos atendimentos foi o encaminhamento das vítimas ao hospital (81,61%). **Conclusão:** O estudo mostrou a importância do SAMU 192 na Rede de Atenção às Urgências e Emergências, ressaltando o elevado número de atendimentos, as associações de várias queixas com idade, sexo e região do município referente ao atendimento.

**Palavras-chave:** Enfermagem; Serviços Médicos de Emergência; Emergência.

## RESUMEN

**Objetivo:** Analizar los atendimientos realizados por el SAMU 192 de Botucatu (SP). **Métodos:** Investigación de campo de serie histórica. Estudio exploratorio-descriptivo de enfoque cuantitativo, basado en el análisis de los registros de los servicios prestados por el SAMU 192, entre Agosto de 2011 y Enero de 2012, a partir de 2635 formularios. **Resultados:** Predominancia de eventos clínicos, siendo la crisis convulsiva la queja principal (12,16%). La mayor parte de las víctimas (96,08%) estaba consciente en el momento del servicio. La región central de la ciudad ha demostrado la mayor demanda por el servicio (25,83%). El principal resultado de las consultas fue la remisión de las víctimas al hospital (81,61%). **Conclusión:** Se comprueba la importancia del SAMU 192 en la Red de Atención de Urgencias y Emergencias, destacando el elevado número de llamadas, las asociaciones de quejas con la edad, el sexo y la región referente al atendimento.

**Palabras clave:** Enfermería; Servicios Médicos de Emergencia; Emergencia.

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## INTRODUCTION

The fast and disorganized growth of cities, occurring mainly in the capitalist era, has led to important epidemiological changes, especially regarding the increase in the number of diseases related to situations requiring urgency and emergency care. As a result, in recent years, several countries have developed services and systems to meet this demand. Concomitantly, there has been a growing demographic transition in Brazil followed by an increase in the number of chronic diseases, particularly those related to the circulatory system, such as acute myocardial infarction (AMI) and cerebrovascular accident (CVA)<sup>1-3</sup>.

Brazil and other countries in the world are now facing a health system crisis, resulting from the gap between their health care situation and this demographic and epidemiological transition. Health systems continue to be primarily aimed at acute conditions and acute states of chronic diseases. This strategy prevents efficiency, effectiveness and quality of care for chronic conditions. These systems are known as fragmented systems, as they are organized according to a set of isolated health care points, without communication with other services and with their attention focused on acute conditions cared for in emergency units. Emphasis is given to curative and rehabilitating interventions and attention is centered on medical professionals, thus hindering continuing and comprehensive care for the population's health<sup>4,5</sup>.

In view of this situation, the Brazilian Ministry of Health proposed the implementation of *Redes de Atenção à Saúde* (RAS - Health Care Networks), aiming to overcome this country's existing fragmented system<sup>4,5</sup>. The *Rede de Atenção às Urgências* (RUE - Emergency Care Network) stands out among these Health Care Networks, with the purpose of "connecting and integrating all health equipment, aiming to increase and qualify humanized and comprehensive care for users requiring urgency and emergency care in health services in a fast and timely way"<sup>5</sup>.

Urgency and emergency doorways can be important markers of the population's health condition quality and health system performance. Additionally, through these doorways, unexpected or recurrent health problems can be identified, such as the high incidence of pedestrians run over by vehicles occurring in a certain area and recurrent asthmatic crises, among others<sup>6</sup>.

In developed countries, the inclusion of the pre-hospital care system can be observed as an important urgency and emergency care service. "Pre-hospital care" means care provided to victims with urgent health problems, outside of the hospital environment, to maintain life and/or reduce the sequelae<sup>7</sup>.

Currently, the *Serviço de Atendimento Móvel de Urgência* (SAMU 192 - Mobile Emergency Care Service) is the main mobile component of the emergency care network. Through such service, the federal government aims to reduce the number of deaths, the sequelae caused by delays in service and the hospitalization time. In Brazil, this service began through a bilateral agreement with France and it was implemented in 2003 and made official in 2004, in accordance with Decree 5055 issued on April 27<sup>th</sup> 2004<sup>3,6</sup>.

The objective of this service is to receive medical care requests from citizens suffering acute health problems of a clinical, psychiatric, traumatic, obstetric and gynecological nature. This health service begins when a free phone call is made to 192, the national emergency number, which is for the exclusive use of the Medical Regulation Centers of SAMU 192 Emergency Care Services<sup>3,6</sup>.

In the city of Botucatu, in the countryside of São Paulo state, SAMU 192 began its activities on July 27<sup>th</sup> 2011. This service is regional and it has a Regulation Center that not only serves this main city, but also the cities of Areiópolis, Anhembi and Pardinho. This Center is regulated by the Ministry of Health in accordance with Decree 3203 issued on December 29<sup>th</sup> 2011 and qualified by Decree 560 issued on April 4<sup>th</sup> 2013.

This is a recent health service aimed at quality, efficiency and safety from the moment someone calls 192 to the health care provided on site. Thus, the present study had the purpose of analyzing services provided through SAMU 192: the mobile component of the Urgency and Emergency Care Network, in the city of Botucatu, São Paulo state, southeastern Brazil.

## METHODS

An exploratory-descriptive field study of a time series with a quantitative approach was performed, focusing on the analysis of emergency services provided by the SAMU 192 team of the city of Botucatu, Southeastern Brazil.

Research data were obtained from the SAMU 192 Pre-Hospital Care Files in Botucatu, totaling 2,635 files which were collected by the researcher herself. All files of services provided between August 1<sup>st</sup> 2011 and January 31<sup>st</sup> 2012 were included, even those that were incomplete, aiming to obtain the greatest amount of information possible, thus totaling 2,635 files.

The present study was performed in the regional Medical Regulation Center of SAMU 192 Urgency and Emergency Care in Botucatu, where service files are archived.

In this city, the emergency service includes two mobile health care units, one of which is a *Unidade de Suporte Avançado* (USA - Advanced Support Unit) and the other is a *Unidade de Suporte Básico* (USB - Basic Support Unit). There is a decentralized base (an USB) in each city linked to the SAMU 192 from Botucatu.

The main doorway for cases cared for by the regional SAMU 192 of Botucatu is the Emergency Service for Adults of the Clinical Hospital of this city. It is known as the Model Urgency and Emergency Care Unit in accordance with official document 117/2012 issued on May 21<sup>st</sup> 2012.

Data collection and analysis were authorized by the City of Botucatu Health Department and the SAMU 102 Coordination Office of this city.

Regarding the services provided, the following variables were analyzed: type of ambulance made available to patients (USB or USA), age, sex, type of occurrence (clinical, traumatic, gynecological-obstetric or psychiatric) victim conditions (level of awareness), place of occurrence and service outcome (referred

to hospital, discharged on site, helped by others, deceased, occurrence cancelled by the dispatcher or service refused).

A map made available by the City of Botucatu Planning Department, including the division of the city into macro- and micro-regions according to districts and streets, was used to characterize addresses. Thus, it was possible to categorize services provided according to the city's macro-regions: central, north, south, east and west.

This project was sent to the Research Ethics Committee of UNESP's Botucatu Medical School and approved under official document OF.3907/2012 - CEP. An Informed Consent Form was not required as this study used service files as its source for data collection.

Data were primarily collected on a 2007 Microsoft Office Access form, aiming to store them in a friendly, fast and safe way. The statistical analysis was performed with SAS software for Windows, version 9.2. Initially, a descriptive analysis of data was carried out, when frequency and percentage were analyzed for qualitative variables, while the mean, standard deviation and median were used for quantitative variables. Pearson's chi-square test and Fisher's exact test were applied to verify the association between variables studied (complaints, sex, age, type of occurrence, service outcomes and city's macro-region served), considering a significance level of  $p < 0.05$ .

## RESULTS

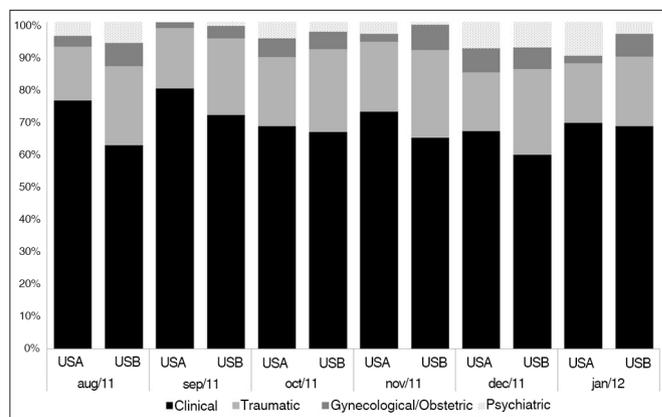
The analysis of occurrences showed that, with regard to type, there was a predominance of clinical occurrences followed by traumatic ones, regardless of the type of ambulance made available (USA or USB), as observed in Graph 1. The USB was responsible for the majority of services provided (66.75%). Additionally, in the case of psychiatric occurrences, the number of services provided by the USA increased, when compared to USB ( $p = 0.0002$ ).

The age of victims varied from less than one year to 106 years, with a mean of 44.58 years ( $SD \pm 24.57$ ) and median of 43.00 years. The highest percentage was between the interval corresponding to the 20-to-29-year age group, while the lowest percentage was found in the age group over 90 years.

Type of occurrence was compared with age and sex, categorizing the age variable as follows: children (subdivided into three categories: 0-1 year, 2-4 years and 5-9 years), adolescents (10-19 years), adults (20-59 years) and elderly (> 60 years). There was a predominance of services provided to victims aged between 20 and 59 years. Of all 2,635 service files analyzed, 1,333 were males, although the type of occurrence could not be confirmed in 169 of these cases. Nonetheless, the comparison between sex variables and type of occurrence was statistically significant. Except in cases of gynecological-obstetric services, all types of occurrence were associated with male victims, as observed in Table 1.

The results showed that seizures were the most frequent type of clinical occurrence. The main traumatic occurrences were falls, whereas births were the most frequent obstetric occurrence.

**Graph 1.** Services provided by SAMU 192, according to type of occurrence and ambulance made available, between August 2011 and January 2012. City of Botucatu, Brazil, 2013. USA: Unidade de Suporte Avançado/Advance Support Unit USB: Unidade de Suporte Básico/Basic Support Unit.



Services provided to illicit drug users were the main psychiatric occurrences.

Table 2 shows the comparison between the main complaints and sex. Falls were the most frequent complaint found in both sexes. However, the main clinical complaints were alcohol intoxication ( $p < 0.0001$ ) among males and anxiety attack/nervous breakdown ( $p < 0.0001$ ) among females, with significant statistical association.

Table 3 shows the comparison between victims' main complaints and age. It should be noted that the majority of them had a significant statistical association with the adult population.

With regard to the initial assessment of victims, 2,135 (96.08%) of them were conscious upon arrival of the team on site. Only 386 (14.65%) victims cared for showed an altered level of consciousness, such as sleepiness, restlessness, aggression or confusion. When victims' level of consciousness was compared to the type of occurrence, unconscious victims were found to be more prevalent among clinical occurrences ( $p = 0.0003$ ).

Another point that should be emphasized is that the majority of victims showed normal respiratory function upon arrival of the team and, regarding the circulatory system evaluation, only 2.43% had one of the types of change described in the files as cyanosis or perspiration.

The main service outcome was associated with the referral of victims to a hospital unit (81.61%). Clinical cases were those that showed the highest index of patients discharged on site after the team's evaluation.

Analyses showed that the city's central macro-region was the one that most frequently required services, totaling 25.83% of occurrences. There was a predominance of suspected stroke in the eastern region ( $p = 0.0143$ ); in contrast, the southern region had more blunt traumas ( $p = 0.0101$ ), aggression ( $p = 0.0086$ ) and births ( $p = 0.0359$ ). Except for highways, the majority of services provided in the city were clinical. Additionally, there was a higher number of psychiatric occurrences in the city's central region, compared to other regions.

**Table 1.** Comparison between type of occurrence and sex and age of victims cared for by SAMU 192, between August 2011 and January 2012. City of Botucatu, Brazil, 2013

Variables	Clinical		Traumatic		Gynecological-obstetric		Psiquiátrica		p-value	
	f	%	f	%	f	%	f	%		
Sex	Female	798	47.96	200	35.65	133	100.00	36	33.33	< 0.0001
	Male	866	52.04	361	64.35	0	0.00	72	66.67	
Age	0 to 1 year	50	3.06	15	2.74	1	0.75	0	0.00	< 0.0001
	2 to 4 years	30	1.83	16	2.93	0	0.00	0	0.00	
	5 to 9 years	32	1.96	28	5.12	0	0.00	0	0.00	
	10 to 19 years	123	7.52	65	11.88	59	44.03	18	17.65	
	20 to 59 years	808	49.42	298	54.48	72	53.73	74	72.55	
	> 60 years	592	36.21	125	22.85	2	1.49	10	9.80	

f: Frequency; %: Percentage. Significant p-values < 0.05. Note: Data not found: age = 217 files.

**Table 2.** Comparison between the main complaints and sex of victims attended to by SAMU 192, between August 2011 and January 2012. City of Botucatu, Brazil, 2013

Main complaint	Female		Male		p-value
	f	%	f	%	
Seizure	83	41.92	115	58.08	0.1357
Alcohol intoxication	39	24.22	122	75.78	< 0.0001
Chest pain	73	54.89	60	45.11	0.0610
Dyspnea	73	54.89	60	45.11	0.0610
Malaise	44	44.00	56	56.00	0.5399
Abdominal pain	48	53.93	41	46.07	0.1820
Hypoglycemia	40	50.63	39	49.37	0.5107
Exogenous intoxication	36	66.67	18	33.33	0.0034
Nervous breakdown/Anxiety attack	39	76.47	12	23.53	< 0.0001
Syncope	28	51.85	26	48.15	0.4700
Suspected stroke	22	46.81	25	53.19	0.9746
Cardiac arrest	13	33.33	26	66.67	0.0848
Fall (unspecified)	110	43.14	145	56.86	0.1925
Fall from one's own height	62	49.60	63	50.40	0.5499
Traffic accident - motorcycle	20	26.32	56	73.68	0.0002
Traffic accident - car	14	33.33	28	66.67	0.0736
Aggression	16	35.56	29	64.44	0.1194
Trauma (unspecified)	9	30.00	21	70.00	0.0600
Blunt trauma	5	17.86	23	82.14	0.0019
Restlessness caused by illicit drug use	7	17.50	33	82.50	0.0002
Suicide attempt	9	69.23	4	30.77	0.1073

f: Frequency; %: Percentage. Significant p-values < 0.05.

**Table 3.** Comparisons between main complaints and age group of victims attended to by SAMU 192, between August 2011 and January 2012. City of Botucatu, Brazil, 2013

Main complaint	0 to 1 year		2 to 4 years		5 to 9 years		10 to 19 years		20 to 59 years		> 60 years		p-value
	f	%	f	%	f	%	f	%	f	%	f	%	
Seizure	6	3.13	6	3.13	9	4.69	22	11.50	125	65.10	24	12.50	< 0.0001
Alcohol intoxication	0	0.00	0	0.00	0	0.00	8	5.30	134	88.74	9	5.96	< 0.0001
Chest pain	0	0.00	0	0.00	0	0.00	3	2.25	78	58.65	52	39.10	0.0001
Dyspnea	5	3.73	1	0.75	0	0.00	6	4.48	38	28.35	84	62.69	< 0.0001
Malaise	4	4.04	0	0.00	2	2.02	6	6.06	32	32.32	55	55.56	< 0.0001
Abdominal pain	1	1.12	1	1.12	2	2.25	12	13.48	43	48.31	30	33.72	0.7725
Hypoglycemia	0	0.00	0	0.00	0	0.00	0	0.00	34	43.04	45	56.96	< 0.0001
Exogenous intoxication	2	3.70	2	3.70	2	3.70	6	11.11	41	75.93	1	1.85	0.0005
Nervous breakdown/Anxiety attack	0	0.00	0	0.00	0	0.00	7	13.73	33	64.70	11	21.57	0.2162
Syncope	1	1.85	1	1.85	1	1.85	6	11.11	20	37.04	25	46.30	0.1840
Suspected stroke	0	0.00	0	0.00	0	0.00	1	2.17	12	26.09	33	71.74	< 0.0001
Cardiac arrest	0	0.00	0	0.00	0	0.00	3	7.89	9	23.69	26	68.42	< 0.0001
Fall (unspecified)	8	3.19	5	1.99	15	5.98	22	8.76	103	41.04	98	39.04	< 0.0001
Fall from one's own height	2	1.63	1	0.81	5	4.07	11	8.94	41	33.33	63	51.22	< 0.0001
Traffic accident - motorcycle	0	0.00	0	0.00	1	1.37	10	13.70	59	80.82	3	4.11	< 0.0001
Traffic accident - car	2	5.00	0	0.00	0	0.00	5	12.50	26	65.00	7	17.50	0.3036
Aggression	1	2.44	0	0.00	1	2.44	4	12.20	33	80.48	1	2.44	0.0029
Trauma (unspecified)	3	10.00	2	6.67	4	13.33	2	6.67	15	50.00	4	13.33	< 0.0001
Blunt trauma	1	3.70	3	11.11	3	11.11	4	14.82	15	55.56	1	3.70	< 0.0001
Restlessness due to illicit drug use	0	0.00	0	0.00	0	0.00	10	25.60	29	74.40	0	0.00	< 0.0001
Suicide attempt	0	0.00	0	0.00	0	0.00	1	9.09	9	81.80	1	9.09	0.5042

f: Frequency; %: Percentage. Significant p-values < 0.05.

## DISCUSSION

The analysis of types of occurrences cared for by SAMU 192 in the city of Botucatu showed a predominance of clinical services, thus corroborating other studies<sup>8-10</sup>. Gynecological-obstetric and psychiatric occurrences were the least frequent ones. The index of USA services was significantly lower when compared to that of USB, which is in agreement with other studies<sup>10-12</sup>.

USA services were associated with psychiatric occurrences, a fact that can be explained by the need for physical and/or chemical restraining, usually associated with care for patients undergoing psychological distress and drug users.

The highest numbers of occurrences corresponded to the 20-to-59-year age group. Based on these results, it could be affirmed that, despite population aging and the increase in chronic disease rates associated with this population, pre-hospital emergency services in this study are being provided to a higher number of young patients who have the possibility of entering the job market. Occurrences in children aged up to 10 years were

not significant. However, there was an association between this population and clinical services. Similar results were evidenced by the population who used emergency services, instead of seeking care through the Primary Care Network or because there were no pediatric care services near their place of residence<sup>9</sup>.

Among the clinical occurrences cared for, epileptic seizures were the most frequent, as observed in other studies<sup>8-10</sup>. However, another study<sup>12</sup> reported that seizures were the second most frequent clinical occurrence. In this study, seizures are present in the adult population ( $p < 0.0001$ ) and men are the ones who most often suffer from them.

Moreover, another frequent occurrence was alcohol intoxication, totaling nearly 10% of the services cared for and involving male patients exclusively. These occurrences predominated in the city's central region, although this variable showed no statistically significant association. It should be emphasized that many of these patients did not need to be referred to an urgency and emergency service after being evaluated. SAMU 192 cares for acute cases, although the

need for a follow-up in mental health services is clear in cases of alcohol abuse as a established disease, rather than as sporadic intoxication. In the present study, the diagnosis of alcohol abuse could not be determined, hence all cases were grouped as intoxication. These data show the complexity of such occurrences in the perspective of this approach and the need for broad therapeutic proposals, including programs and actions to care for alcohol users and their families.

Chest pain was found to be the third most frequent complaint among clinical occurrences, associated with adult females. Taking this into consideration, the Ministry of Health created the Cardiovascular Care Division in 2011, a priority in the Urgency and Emergency Care Network. It focuses on two aspects: acute myocardial infarction (AMI) and cardiac arrests<sup>3</sup>. These diseases represent criteria for on-site medical care by SAMU 192<sup>9</sup>. It could be observed that, apart from the availability of ambulances, SAMU 192 needs to maintain continuing education programs aimed at cardiac emergencies, the presence of current protocols and the integration with regional tertiary centers<sup>13</sup>.

With regard to the main trauma complaints, unspecified falls and falls from one's own height were the most prevalent. There was an association between falls from one's own height and the elderly population. Males showed a higher incidence in this case, corroborating other studies<sup>14,15</sup>.

It is important to consider the need for special care for the elderly population, due to the vulnerability of this population and what this means to their quality of life and expenses with hospitalizations, surgeries and rehabilitation.

Births were the main cause of gynecological-obstetric occurrences, associated with the city's southern region.

With regard to the analysis of the main psychiatric complaints, restlessness due to illicit drug use was the main reason for occurrences. There was an association between such cases and males and the 20-to-59-year age group. The World Health Organization (WHO) reports that approximately 10% of the population of urban centers worldwide consumes psychoactive substances abusively regardless of age, sex, level of education and income<sup>16</sup>.

Although SAMU 192 is a service that cares for victims in urgency and emergency situations, it should be noted that the majority of patients attended to by the team were conscious upon arrival on the site of occurrence. Only 14.65% had an altered level of consciousness. This result could be evidence that many emergency calls made to the Medical Regulation Center of SAMU 192's Urgency and Emergency Care may not be actual urgency and emergency cases. In Brazil, a study performed in the city of Porto Alegre, Southern Brazil, showed that 73.2% of users cared for by SAMU 192 due to clinical occurrences were transported to a health service. However, only 3.7% of these cases were actual emergency situations<sup>17</sup>. Another study performed in 2012 dealt with the theme of demand not pertaining to SAMU 192 and its implications. The results showed that many

users sought such emergency service due to the presence of physicians and medication in the ambulances and that they are usually unaware of the real purpose of this service, mistaking it for patient transportation<sup>18</sup>.

The outcome of occurrences varies and it is associated with the severity of each case. When the emergency team is sought, the dispatcher waits for patients to be evaluated by the SAMU 192 team and their cases to be passed on by telephone, confirming or not the urgency and emergency situation. However, if patients do not show severe symptoms or signs, the dispatcher can discharge them without a referral to a hospital. However, this situation is conflicting. A study<sup>18</sup> emphasized the implications of demand not pertaining to SAMU 192, mentioning some reports associated with this situation: "Why do they have these things [ambulances] if they cannot transport patients? - 18"; "SAMU has to be present when someone doesn't have conditions to take a taxi or go to an emergency room." - 19.

These data add to the hypothesis that many healthcare users believe that the main purpose of SAMU 192 is to transport patients to emergency units to receive care, which is in fact not the actual purpose of this service.

Although there are several possibilities of outcome for occurrences, the present study showed that the majority of victims who sought SAMU 192 were referred to hospital care.

The analysis of districts where there were occurrences showed that the central region, including 48 villages and districts, had the greatest demand for services. The following are reasons for this fact: users' ease of access to health services, money saving and cultural factors, among others that can interfere in this region. Another important point is that, although there are three primary health care units covering such population in this city region, this may be insufficient due to their demands. The northern region, which has 59 villages and districts and four primary health care units, was the second region that most required SAMU 192 services, while the southern region, with its 23 villages and districts and five primary health care units, was the third most frequently served. When the main complaints and city sectors were compared, the relationship among traumatic occurrences in the southern region, aggression and blunt trauma stood out, apart from complaints about births. It should be noted that this is a new region in the city and its population has shown significant growth, mainly with the appearance of several expensive house complexes funded by the government.

Files with incomplete addresses that prevented the identification of the region of occurrence, totaling 33.7% of cases, should be emphasized. This index is high, considering the importance of such information, as it can be used by managers with the purpose of preventing health problems. Factors that can explain the incomplete information are the lack of awareness of the importance of completion of service files and the severity of occurrences, when professionals may not have sufficient time to fill them out.

## CONCLUSION

It can be concluded that, during the first six months of service, SAMU 192 in the Botucatu region cared for 2,635 occurrences. Of these, 66.57% were performed by the USB.

The analysis of occurrences showed the importance of SAMU 192 in the Urgency and Emergency Care Network. The high number of services provided and the associations between several complaints and specific populations, considering age, sex and place of occurrence, should be emphasized.

The type of occurrence most frequently cared for was clinical, especially seizures, followed by alcohol intoxication, chest pain and dyspnea. The majority of these occurrences were active males. The city's central region was the one that most frequently required care. The main outcome of occurrences was referral of victims to a hospital unit.

We believe in the importance of discussing this type of urgency and emergency care with participants and institutions in this area, involved in health prevention, promotion, recovery and rehabilitation, such as health management and councils, providers and users, aiming to improve and integrate the city's entire Health Care Network.

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