Admittance of Risk-Classified Cases: Assessment of Hospital Emergency Services

Maria Antonia Ramos Costa¹
Gelena Lucinéia Gomes da Silva Versa²
José Aparecido Bellucci³
Kelly Cristina Inoue³
Catarina Aparecida Sales⁴
Laura Misue Matsuda⁵

1. Universidade Estadual do Paraná - Campus Paranavaí - PR, Brazil.
2. Hospital Universitário Oeste do Paraná - Cascavel - PR, Brazil.
3. Universidade Estadual do Norte do Paraná - Bandeirantes - PR, Brazil.
4. Faculdade Ingá - Maringá - PR, Brazil.
5. Universidade Estadual de Maringá - Maringá - PR, Brazil.

ABSTRACT

Objective: Current paper evaluates admittance of risk-classified cases in two hospital emergency services. Methods: The exploratory, descriptive and quantitative research was undertaken between March and May 2013, with 47 nursing professionals at two hospital emergency units in the state of Paraná, Brazil, who answered the questionnaire. Results: Acceptance of Risk-classified Cases was reported hazardous at the two units; the lowest rates refer to issues on the place the accompanying person would stay and to discussions on the flowchart. The best assessment occurred in the attendance of less serious cases. Conclusion: The hazardous assessment at the two health units was mainly due to the non-compliance with certain basic principles of its guidelines of the Acceptance of Risk-classified Cases.

Keywords: User Embracement; Nursing; Emergency Service, Hospital.

RESUMO

Objetivo: Avaliar o Acolhimento com Classificação de Risco (ACCR) implantado em dois serviços hospitalares de emergência. Métodos: Pesquisa exploratório-descritiva, de abordagem quantitativa, realizada entre março e maio de 2013. Participaram 47 profissionais de enfermagem de dois serviços hospitalares de emergência do Paraná que responderam a um questionário. Resultados: O ACCR foi considerado “Precário” nos dois Serviços; e as avaliações mais baixas se referiram à acomodação do acompanhante e discussão sobre o fluxograma. A melhor avaliação se relacionou ao atendimento de casos não graves. Conclusão: A avaliação precária nos dois Serviços, deveu-se principalmente, a não adequação de alguns princípios fundamentais da diretriz ACCR.

Palavras-chave: Acolhimento; Enfermagem; Serviço Hospitalar de Emergência.

RESUMEN

Objetivo: Evaluar la Acogida con Clasificación de Riesgo (ACCR) implantado en dos servicios hospitalarios de emergencia. Métodos: Investigación exploratorio-descriptiva, de abordaje cuantitativo, realizada entre marzo y mayo de 2013. Participaron 47 profesionales de enfermería de dos servicios hospitalarios de emergencia de Paraná que contestaron a un cuestionario. Resultados: El ACCR fue considerado “Precario” en los dos Servicios; y las evaluaciones más bajas se refirieron a la acomodación del acompañante y a la discusión sobre el flujo. La mejor evaluación se relacionó a la atención de casos no graves. Conclusión: La evaluación precaria en los dos Servicios, se debió, principalmente, a la no adecuación de algunos principios fundamentales de la directriz ACCR.

Palabras clave: Acogimiento; Enfermeria; Servicio de Urgencia en Hospital.
INTRODUCTION

With the launch of the National Humanization Policy (NHP), the reorganization of healthcare services became required in order to assure the population, resolute, humanized and welcoming service. For this purpose, the Admittance Risk Classification (ARC) guideline was proposed, which is a dynamic system patient identification ordination of care, in line with the degree of complexity and potential risk of each case¹.

It is recognized that the prioritization of critical patients can manage the disease in a timely manner, with higher chances of recovery from acute cases seen in Hospital Emergency Service (HES)². For it, were developed rating systems in several countries, among which stand out: National Triage Scale (NTS) of Australia; Canadian Emergency Department Triage and Acuity Scale (CTAS) of Canada; Manchester Triage System (MTS) of the United Kingdom; Emergency Severity Index (ESI) of the United States of America³⁴. OACCR is a system that transcends the perverse logic of call in order of arrival and apart from other risk classification systems be based on strengthening the bond between users and workers, through qualified listening¹. In this context, the admittance can be performed by any trained professional, while the Risk Classification is the nurse’s responsibility¹⁴⁶.

It is recognized, however, that the fragmented work process and conflicts of asymmetry of power are still strong barriers to the deployment of the ARC and, consequently, improving the quality of care in the Brazilian HES³⁴. Therefore, the discussion of the theme, by health professionals and managers, is of paramount importance, because a humanized service and safe, risk rating depends on the involvement of all the professionals, in the construction of flowcharts and protocols tailored to the features of each service⁵⁷.

Despite being required the active participation of the entire multidisciplinary team for the success of the ARC is that nursing professionals have much importance in this process. After all, risk classification is the responsibility of the nurse¹⁴⁶ and nursing workers who commonly direct and continuous contact with patients.

It is observed that there is concern about the analysis and evaluation of the ARC by nursing professionals in the Brazilian HES⁵⁻¹⁰. With that, the dissemination of research related to this theme, can contribute to the recognition of weaknesses and difficulties to the planning and establishment of on the spot strategies aimed at greater efficiency and effectiveness to the operationalization of the ARC. In addition, institutions that have not yet deployed this guideline can be guided in shared experiences in scientific, adapting them to their respective reality.

When considering that the measure of nursing professionals, with a focus on the environment and at work in the HES, based in ARC is an important tool for the (re) planning service and the (re) directing their actions, the question is: How do nurse practitioners, who work in the ARC, evaluate this guideline? To answer this question, this study aimed to evaluate the ARC deployed in two HES.

METHOD

This is an Exploratory-descriptive research with a quantitative approach, carried out in the period March to May 2013, in two HES, designated as HES A and HES B.

The HES A was a philanthropic hospital with 225 beds operating capacity; with an average of 96,000 services a year; implemented the ARC in the year 2011 and had 31 nursing professionals. Yet HES B belonged to a charitable, not-for-profit hospital, with 200 beds; there were about 48,000 of attendances per year; used the ARC since 2010 and 47 nursing professionals.

The sample was obtained through census, with 60% of the nursing staff (nurses and nursing Auxiliaries or technical) of each of the institutions. In this procedure, the professionals were selected randomly by lot and by his refusal or withdrawal, there was replacement with new draw until completing 19 of HES Nursing professionals and 28 HES B, totaling 47 participants.

The inclusion criteria considered were: belong to the nursing context and having time on the job less than three months in the ARC.

Data collection took place individually in the workplace, through the application of Admittance Assessment Instrument with Risk Classification¹¹, composed of two parts. The first part, contained demographic data and professionals. The second was made up of 21 items evaluating the ARC, distributed on the dimensions donabedianas health assessment (structure, process and outcome), structured in the form of type range Likert, with five levels of responses¹¹.

The data were compiled and analyzed by means of Microsoft Office Excel Software7.0. From the data of the first part, we applied statistical analysis descriptive (frequency, percentage, mean and standard deviation, variation-SD); and the second part, after reversal of (3, items 4, 5, 7, 10, 14, 16, 19 and 20) that corresponded to negative on the scale, it was calculated the weighted average (WA) of the score assigned by the number of respondents (NR) to each item, as follows:

\[
WA = \frac{(1 \times NR) + (2 \times NR) + (3 \times NR) + (4 \times NR) + (5 \times NR)}{Total\ \Respondents}
\]

After the calculation of the WA, we analyzed the valuation of each item of the dimensions and ARC. In the analysis of each item, it was considered as positive assessment when the WA was close to 5 points; negative if the WA was close to 1 point; and neutral, when next to 3 points.

For the assessment of the dimensions and the ARC as a whole, there has been the indexes of representativeness, on the basis of the following parameters: Great = 31.5 to 35 points; Satisfactory = 26.2 the 31.4 points; Precarious = 17.5 the 26.1 points; Insufficient = 7 the 17.4 points. For the overall assessment of the ARC, using the following parameters: Great = 94.5 the 105 points; Satisfactory = 78.7 to 94.4 points; Precarious = 78.6 points to 52.5 and; Insufficient = 21 the 52.4 points¹¹.

This investigation was approved by the Ethics Committee for Research Involving Human Beings of the State University of
Maringa, located in Maringa - PR, under Opinion nº 248,339/2013 and prior to data collection, all participants held reading and signing the informed consent (IFC).

RESULTS

47 nurses participated, of which 19 (40%) worked in HES A and 28 (60%) in HES B; 31 (36%) were female and 16 (34%) were male, with a mean age of 29.93 years (SD = 6.23 years) and; average operating time of the ARC, of 2.65 years (SD = 2.56 years). As for the Professional category, 22 (47%) were nurses and 25 (53%) were nursing technicians.

In table 1 the distribution of responses to the evaluation items of the ARC of each dimension, according to HES.

The data of each dimension and the overall assessment of the ARC at each HES, can be found in Table 2.

DISCUSSION

As in Table 1, among the items with lower WA in the dimension structure of the HES, calls attention to the host of the Chap- erone (WA = 2.42 points); while in HES B stood out for the User/ Companion Comfort (WA = 2.71 points). These data deserve special attention of leaders because, in terms of humanization is no need to accommodate the patient's companion1. Moreover, the comfort of the user/companion, can be promoted by improve- ments of the physical space, with comfortable armchairs in places, entertainment or rest area, that require financial investments and/or changes in the physical structure to be authorized by the managers of the institutions; and therefore, more expensive than the change of posture for training of all professionals for their admittance.

The guiding principles of the host is the appreciation of the subject and the strengthening of the relationship user/ employee/escort through listening, dialog and accountability for the production of trust relationships and links, and thus of affectionately, meet the needs of the clients1,12.

It highlights that the WA of items related to comfort and welcome are opposed to the assessment of the item Ambience Admittance also the structure dimension, which was higher and obtained 3.89 points and 3.25 points respectively in the HES A and HES B. After all, the ambiance articulated to the host policy favors the creation and re-creation of physical spaces on the urgency to prioritize a comfortable and adequate reception for the users1,13; the paradox between these results may be related to lack of institutional investment for promoting improvements in physical space coupled with the lack of conceptual instrumentalization of professionals about the ambiance, which refers to the treatment given to the physical space of a health unit, in order to provide care and comfort to the user13.

In HES, the ambience of the interface with the ARC refers to the need to develop architectural proposals with arrangements consonants used to care model and also to assist in the solving of care and organization of the work process in these services13. Therefore, some of the limitations that could hamper improvements in that respect would be: the need for financial investment on the part of the institutions and the structural unfeasibility for execution of expansion and/or reform of architectural design of the HES.

It is also observed in the dimension structure, the item Communication between the team got low in both HES MD (MD = 2.73 points in HES A and MD = 3.57 points in HES B). It is understandable that the ARC actors should be involved in the process of care, using the communication and the exchange of information between professionals themselves and between these and the user. Thus, the low score of communication between the team indicates that the rating and user monitoring can be impaired by lack of information or failure in transmission.

Still with regard to the item communication between the team, calls attention to the fact that HES to this item presented one of the worst ratings (WA = 2.73 points). This score is worrying, given that, for classification of risk and appropriate handling of the case, during the process, it is imperative that communication between the professionals who make up the team to be effective, because it is from the interaction between the involved that appear useful information to the care process. Furthermore, the communication is based, which is defined as a technical assistance action aimed at changes in the relationship between user and professional, seeking a more ethical, humanitarian and solidarity1.

You can see then, that there is a need, especially in HES the, to implement a training program that includes the skills development, including strategies to improve communication between staff members, between staff and the user, and also, with their families.

To improve the quality of care through adjustments in the structure, based on the results obtained in this study (table 1), it is proposed that services investigated managers organize action strategies in order to stimulate the creation of mechanisms to encourage discussion between the health team, managers and users, about the problems in the structure and that can influence negatively the ARC.

In the process, the item discussion on flowchart (WA = 2.47 points) on HES and the item revaluation of cases on hold (WA = 2.50 points) in B, the smaller HES scores. It is noteworthy; however, that the two services Knowledge of ARC’s conduct also presented a low WA. This result is in line with the WA in item periodic Training low on the ARC, leaving clear the need of investments in the training of the team.

The previous data, without doubt, are important because, this research was carried out in services that have already deployed the ARC for at least two years, and doubts about the flowchart, appreciation and knowledge of the host’s ducts with risk classification should not exist, as in the National Humanization Program of Hospital Care (NPHHC) and later in the National Policy of Humanization (Humaniza SUS) the guidelines referred to in the definition of clinical protocols and the reception of the demand by means of criteria for classification and risk assessment have been established previously1,5.

The discussion of the flowchart is an important item for the proper functioning of the whole process of the ARC and as

1,12
### Table 1. Distribution of responses to the evaluation items of the ARC, according to HES. Maringa - PR, 2013

<table>
<thead>
<tr>
<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimension/Items</strong></td>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
</tr>
<tr>
<td><strong>Dimension Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 User/companion comfort</td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>2 Welcoming ambiance</td>
<td>-</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>3 Periodic training about the ARC</td>
<td>2</td>
<td>2</td>
<td>20</td>
<td>8</td>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>4 Privacy in the consultations</td>
<td>-</td>
<td>3</td>
<td>14</td>
<td>4</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>5 Companion welcoming</td>
<td>3</td>
<td>3</td>
<td>20</td>
<td>18</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>6 Environmental signage</td>
<td>-</td>
<td>3</td>
<td>14</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>7 Team communication</td>
<td>3</td>
<td>1</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td><strong>Process Dimension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 User safety and comfort</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>9 Attendance of non-serious cases</td>
<td>-</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>10 Knowledge of the ARC conducts</td>
<td>4</td>
<td>4</td>
<td>14</td>
<td>24</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>11 Relationship between leading/led</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>12 Discussion on the flowchart</td>
<td>4</td>
<td>-</td>
<td>10</td>
<td>22</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>13 Trained staff to meet the user and companion</td>
<td>-</td>
<td>-</td>
<td>14</td>
<td>-</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>14 Reassessment of the cases on hold</td>
<td>-</td>
<td>4</td>
<td>4</td>
<td>30</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td><strong>Result Dimension</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Prioritization of severe cases</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>16 Humanization of care</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td>17 Healthcare team integration</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>18 Wait time information</td>
<td>-</td>
<td>5</td>
<td>4</td>
<td>26</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>19 Risk classification</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>20 Counter reference</td>
<td>4</td>
<td>2</td>
<td>14</td>
<td>2</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>21 Satisfaction with results of the ARC</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>12</td>
<td>42</td>
</tr>
</tbody>
</table>

A*: HES A; B**: HES B.
With respect to the dimension data Result (table 1), they point out that the services surveyed the ARC process falls short of establishing the guidelines of the Ministry of health\(^1\), item in particular Against-that in the reference HES obtained the WA = 2.42 points. This indicates that the service has difficulty in articulation with attention to health, to offer the appropriate forwarding to user needs.

The ignorance of the population and the low resolution of the primary care network can contribute to increasing spontaneous demand in HES\(^16\). In this context, the absorption of this clientele without forwarding suitable for smaller health units health care complexity often leads the health professional to develop the risk classification in the midst of a complex environment and surrounded by demands that aren't priorities urgent and emergency service, becoming space of tension\(^12\).

The difficulty of routing users with low complexity care needs to the nearest basic health unit of residence, means that the referral mechanisms and counter-referral are flawed within the service network and this interferes in full compliance with the user in HES. To minimize the high demand of care of serious cases by HES, it is suggested to be promoted greater coordination between the attention points that make up the network of health services\(^5\).

In the HES B, the Information items about the wait time and satisfaction with the results of the ARC, this obtained the worst ratings. These data, one more time, can mean ignorance or negligence of humanization and precepts of the ARC, as defines the Ministry of health\(^1\).

The results obtained in the HES A and HES B, the item satisfaction with the results of the ARC, the dimension result, may be linked to dissatisfaction with one’s professional service. This fact certainly echoes in do emergency service, once that link issues of extreme importance on daily life experienced by nursing professionals who work directly in the HES, serving as lookout for the managers rethink the way in which the ARC is conceived and carried out.

In relation to the low professional satisfaction score for the results of the ARC, qualitative study performed in a public HES Porto Alegre-RS points out that there is gap between what should be done and what is being done on this, and has implicated ARC directly into feelings of nursing professionals, that are required to sustain a statement that not even they believe\(^12\).

Thus, the professional dissatisfaction with the results of the ARC may be linked to issues that do not depend exclusively on the worker, because this cannot be for you all responsibility of the process, to ensure the quality and humanization of assistance in ARC, requires the proper functioning of referrals between services.

According to the results of Table 2, note that in both HES investigated there is need for improvements in structure, Process and Result, because none of the items of these dimensions reached WA = 5 which, according to the standard adopted in this study is regarded as “Great”.

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**Table 2.** Sum of weighted averages, representativeness of the evaluation of each dimension and overall assessment of the ARC, per HES. Maringa - PR, 2013

<table>
<thead>
<tr>
<th>HES</th>
<th>Sum of the WA</th>
<th>Representativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>HES A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>20.91</td>
<td>Precarious</td>
</tr>
<tr>
<td>Process</td>
<td>22.50</td>
<td>Precarious</td>
</tr>
<tr>
<td>Result</td>
<td>23.86</td>
<td>Precarious</td>
</tr>
<tr>
<td>General Assessment</td>
<td>67.27</td>
<td>Precarious</td>
</tr>
<tr>
<td>HES B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>22.59</td>
<td>Precarious</td>
</tr>
<tr>
<td>Process</td>
<td>22.50</td>
<td>Precarious</td>
</tr>
<tr>
<td>Result</td>
<td>23.39</td>
<td>Precarious</td>
</tr>
<tr>
<td>General Assessment</td>
<td>68.48</td>
<td>Precarious</td>
</tr>
</tbody>
</table>

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Overall, in all the dimensions of the two services, poor evaluation; however, the sum of the WA of the dimension result was greater than in other dimensions, which can be indicative of nursing professionals realize positive changes in the attendance of their respective service upon the implementation of ARC, even with limitations in structural and operational level.

Despite the differences noted between the HES A and HES B, related to reviews of the items of the ARC in each dimension, both services presented the highest WA in item Risk Classification (of the Dimension Result). This can be an indication that despite the difficulties reported by professionals, in the dimensions structure and process, they realize that users are being met as the classification of the severity of your condition.

Research related to the ARC in the HES reveal that flaws in the “gateway” of such services, in particular on risk classification, the host of the user and date, which should be based on principles of humanization can lead users and their families/escorts to the understanding that the ARC is an isolated action guideline on service network, with limited range for the resolution of cases. Therefore, the authors suggest that HES (re)organize the service, giving priority and the most serious cases, also promote periodic training of staff on the principles and guidelines of the ARC.

With the deployment of the ARC expected that the operationalization of the qualification process and prioritization of care in the HES was already effective, but at sites investigated, even if notes the presence of old practices, based on the fragmented care, performed through technologies titled “tough”, characterized by the use of technological equipment of type machines, inflexible rules, organizational structures, which often, do not value the relations between professional/team/ user (“light” technologies), which allow the construction of the link between user and professional, essential to the safety and quality of care.

CONCLUSIONS AND IMPLICATIONS FOR PRACTICE

We conclude that the General Assessment Welcoming with Risk Classification in the researched HES was regarded as Precarious in three dimensions. Items that have obtained the lowest score in the HES they were: Companion Admittance, the Dimension Structure; Discussion on the flowchart, Dimension Process and scale; Counter-Reference in the Dimension Result. HES B in the lower values referred to items User Comfort/ companion, the Dimension Structure; Reassessment of cases on hold, the dimension and process; Waiting time information, in the Dimension Result.

It is considered that the ARC in HES surveyed still need to move forward in many ways to achieve their goals because there was the realization that fundamental aspects of the principles and guidelines recommended by the Humanization Policy, in particular those related to knowledge and functioning of the ARC are still difficulties to be faced by managers of services in practice.

As limitation of this study, it is considered the exclusive participation of professionals from nursing staff, which certainly limits the scope of the conclusions. As a suggestion for further investigation, suggested the expansion of the number of subjects and also, inserting the entire health team who plays in the HES, including managers of different hierarchical levels of the institution.

In the field of nursing, the results of this study enables managers HES investigated, evaluate the ARC deployment process and also reflect and act on items that were assessed with low scores, giving emphasis on training workers for the actions effective implementation of this guideline.

REFERENCES


