Proposal for insertion of nurses in the EMERGENCY REGULATION PROCESS

SISTEMA DE CLASSIFICAÇÃO ONLINE

SISCON

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Entrar

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SUMMARY

1 INTRODUCTION

The product proposal is based on the researcher's perception of the demands of Prehospital Care (PHC) services, to optimize resources and provide comprehensive assistance to health system users regarding urgent mobile care, in addition to present a new strategy for emergency regulation at Médio´s Paraíba region - RJ where nurses would actively act in the process of elaboration, updating and management of the emergency network reference grid providing technical support for the regulator, besides maintaining permanent contact with the decentralized teams acting as a facilitator in order to guide the nursing staff in the intervention procedures, clarify doubts and guide the protocol procedures in emergency care.

1.1 Instrument Development

After compiling the theoretical framework, the information was arranged in the Web system in a didactic, illustrated and accessible comprehension form, with the aid of a schematic structure and a simple language text.

1.2 Web System Functional Specification

After the basic research and requirements gathering, the web system modulation was started and was developed using techniques responsive to its layout thus allowing usability in any device that needs to access its functions, using the HTML programming languages (HyperText). Markup Language), CSS (Cascading Style Sheets), and JavaScript.

We chose not to use heavy frameworks, 3D rendering and high resolution images in order to include the largest number of devices thus speeding the loading and making their use more intuitive. After building and debugging internal tests, different screen resolutions and browsers were used on computers and tablets. In analyzes performed by the author, the site was compatible with all tests proposed on computers, phones / smartphones and tablets tested.

Initial production was evaluated and tested fortnightly by the system analyst in conjunction with the researcher. The definitions, adjustments and changes were discussed at technical team meetings held at the end of each step and the necessary adjustments being applied to improve and eliminate possible failures.

The web system is presented in its first version (1.0), with new versions, adaptations and changes for other realities or other spaces that may be applied.

1.3 Architectural design

The project began through discussion with the advisor to seek technical support defining the feasibility of creating the system in view of the possibility of its use in professional qualification in order to justify its construction.

We then made contact with another researcher who was developing a similar project in order to obtain information about the work developed by the Computer Technician. With a favorable evaluation, we chose to hire the service of the referred professional.

1.4 System development and testing

Telephone contact was made with the professional and a visit was scheduled to clarify and detail the product to be developed. After a brief description of the study proposal, the professional responsible for developing the system, requested a deadline for consolidation of ideas and initial design of the application. After this step, the technician sent a link to the researcher's first review of the product. It was approved and hired the IT professional.

The web system was presented by the developer to the researcher through a link and an initial evaluation was performed by the researcher who then asked other professionals working in PHC and regulation of urgency to advise on the functionality of the web system and its practical application.

1.5   Development of the guiding questions of the web system

The questions were developed through existing risk classification protocols, however these protocols were changed to meet the local reality and internal need of the service. The Manchester protocol was the basis for the elaboration of the product and the color system used was similar to that practiced in the protocol, the orange color existing in the Manchester protocol was suppressed and the blue color used only for illustrative purposes before the definition of sending support units.

In this way we chose to exclude the blue color which in the Manchester protocol is indicated for non-urgent cases and the orange color which is used for "very urgent" cases since for non-urgent cases the immediate sending of a support unit and urgency and "very urgent" levels have been unified and classified in yellow to suppress the ambivalence that urgency levels could cause to the system user.

Patient classified as red (emergency): Needs immediate care and there is a risk of death (immediate dispatch of a USA support unit preferably), there is a need to continue to provide guidance to the care taker in order to provide basic life support. until the arrival of

Patient classified as yellow (urgency): Needs service or evaluation by healthcare professional (shipping from a USA or USB support unit as soon as available).

Patient classified as green (less severe cases): Provides guidance-only care (immediate dispatch of a USA or USB support unit as soon as available).

2   RESULTS

2.1   Classification System Development: SISCON in operation

The screens that make up the SISCON Classification System are referenced by colors where the system classifies each module according to complexity, being red for higher complexity, yellow for moderate complexity and green for low complexity. Thus,

the input methods direct the user to the desired routing. The operation occurs by typing the access link to the platform http://boring-ritchie-4f14d9.bitballoon.com/ after typing opens a login screen where the user previously registered by the web system manager that gives ownership of login and password allowing access to the system.
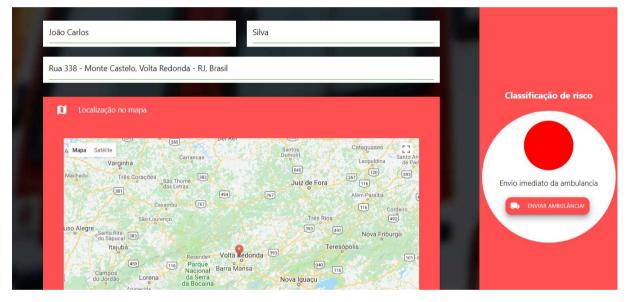
Figure 1: Login Screen

After logging in the system opens a home screen where the user opens the call after the request via telephone through his contact with the emergency control center, in the home screen the professional is able to register the name and address of the as well as identify the location of the ticket on the map. The system also makes it possible to record the beginning and end of care and the proposal to store such information in a specific database for future consultations generating quality indicators and other information.

Figure 2: SISCON System Home Screen

Figure 3: Data Populated with Location

About:

The "About" tab on the home screen describes information about the authors of the project.

Figure 4: Online Classification System

2.2 Initial Screening

After performing the prior registration of the user requesting care, the professional is directed to the initial screening screen where through questions to be asked to the applicant will determine whether or not the support units (ambulances) are sent immediately.

Figure 5: Initial Screening

In cases where the answers are "YES" the rating remains blue and there is no initial indication by the immediate support unit shipping system.

Figure 6: Risk Rating

If the professional accidentally triggers the immediate sending of a support unit in cases where the user answers "YES" the system informs of the need for immediate sending.

Figure 7: Answers

Immediately send a support unit, as an extreme severity event is assumed and the option to choose to direct a advanced life support, however the system makes it possible to continue the assessment more accurately and may choose another type of resource based on the syndromic assessment process where the professional can better assess the situation, noting that the immediate activation of teams reduces response time.

Figure 8: If No

In the initial screening screen there is a field for the assessment of bleeding where there is an exception, in this case the answer "NO" by the user and that does not require the sending of a support unit.

Figure 9: Bleeding Assessment

If the answer is "YES" the system opens a new field where the professional can determine the location of the bleeding.

Figure 10: Bleeding Assessment, Positive Response Case

If the answer is "VERY" it will be advised to immediately send a support unit.

Figure 11: Bleeding Assessment

2.3 Syndromic Evaluation

After the initial screening, the professional should trigger the "proceed evaluation" tab in order to open the syndromic evaluation screen, the first tab being the chest pain where through the user's argument the professional can determine the urgency level of care based in color classification.

2.4 Chest pain

In addition to presenting the commonly used questions and color grading as described above, this screen keeps an alert to forward a support unit proceeding to the

removal of victims with thoracic complaints to the emergency room (UPA), as pain protocol instituted by the Ministry of Health.

Figure 12: Chest pain

Figure 13: Red syndromic assessment

Figure 14: Yellow syndromic assessment

Figure 15: Green syndromic assessment

The following tabs follow the same line and can be added to the system, by establishing internal protocols, the ones we presented was a demonstration of the use of the system.

Figure 16: Getting sick

Figure 17: Respiratory Complaints

Figure 18: General signs and symptoms

2.5   Alteration of the neurological state

In addition to presenting the usual questions, this screen alerts you to specific situations such as the use of alcohol or illicit drugs, and these "tips" may be useful when classifying and sending support units.

Figure 19: General signs and symptoms

3 FINAL CONSIDERATIONS

This product aims to offer software for nurses working in emergency mobile units at Médio Paraíba´s region with the possibility of future use by other professionals working in PHC and / or SAMU 192 services, mainly as support in CRMUs.

The Software is not intended to be a change in the management of mobile care units, but a facilitating tool for decision making regarding the sending or not of a support unit as well as its type and crew, thus enabling nurses to be included in the process. CRMU's workplace.

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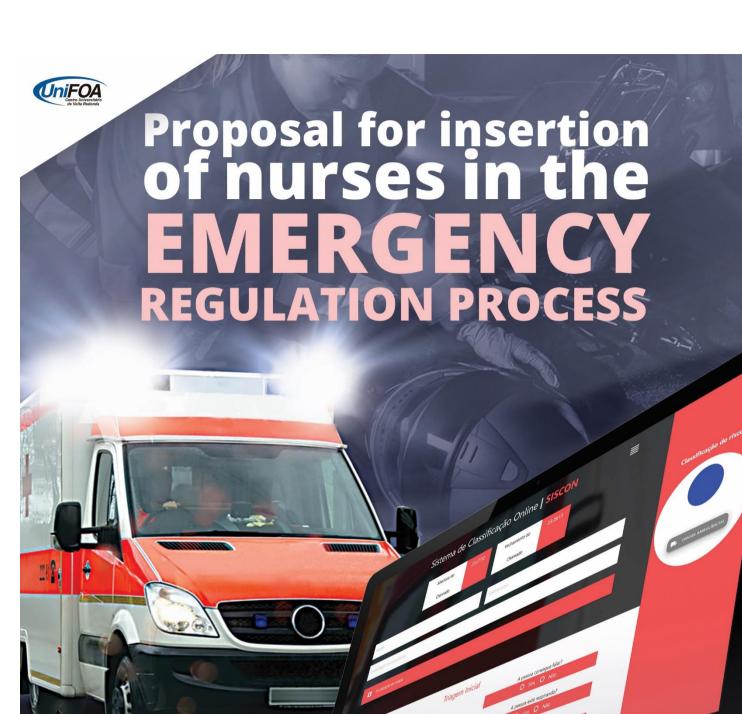
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