TRAUMATIC DATA BANK "SEVERE HEAD INJURY"

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The authors present a traumatic data bank for patients with severe head injury based on Foxpro software. The program product is characterized by simple management of the data bank. All parameters are standardized (up to 8 answers) and the operator chooses the true one. Main advantages of the the product are: good design, help file, possibility for actualization of the parameters and thus at the stage of data collecting to select the most informative of them. The primary deffect of the data bank consists in the absent possibility to use Internet. Next stage in the development of the system is the adaptation of hypertext transmission protocol. By this way the system will make use of Internet and data collection from any point will be no problem.

Key-words: Traumatic data-bank, Foxpro software, design, architecture, importance

Adequate therapeutic behaviour in the cases with severe head injury is exclusively important for their outcome. As a dynamic process it needs back statistic information about improvement of the management process. PC introduction in the medical practice enables the collection of important data about patient's condition at different stages of the disease. Its statistical evaluation proves eventual mistakes in management at any stage causing deterioration of the outcome. In 1978, Jennett et al. created a traumatic data bank for three countries (Britain, Scotland, and the Netherlands). Since 1985 traumatic

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data banks are functioning in most European countries. Since 1990 the National Institute for Neurologic Diseases (NIND) developed Traumatic Coma Data Bank (TCDP) in four trauma centers: Richmond, VA; San Diego, CA; Galveston, TX, and Charlottesville, VA.

Task of our work was to create such a data bank for patients with severe head injury. We limited the head trauma data data because of two main reasons: a) in this group of traumatic patients there are more often mistakes in the early stages of treating procedure, and b) creating the larger data bank requires a server with enough capacity of the memory and high operating speed which is not available at this moment. That is the reason to create an experimental data bank in time of its

exploitation to optimize the clinical parameters used.

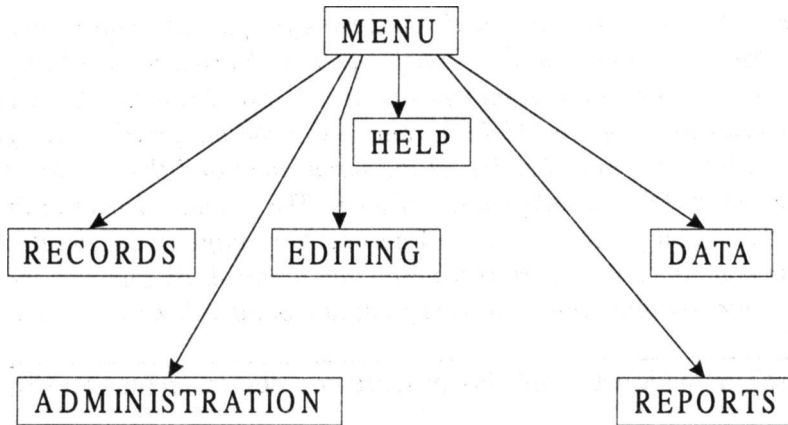We used Foxpro software respecting main demands like:

1. Easy handling the data bank.

2. Limitation of the parameters and use of the most informative ones.

3. Covering all the stages of the treatment.

4. Use of standard answers for easy statistic evaluation.

5. Possible actualization of the parameters.

6. Joining the graphic sofware.

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All the parameters are with conventional answers up to 8. Operator has to choose the true one.

The data are distributed in five main groups of questions:

1. Basic data: date, names, sex, time to first aid from the accident, time to admission of the patient in an intensive care unit (ICU).

2. Praeclinical stage: skin wounds, bleedings, breathing, circulation, consciousness, pupillary reflex, intubation, CPR, etc.

3. On admitting in ICU: the same parameters like in 2 plus: blood parameters like haemoglobin, gas analysis, etc.

4. After 24 hours: the same parameters like in 2 and 3 plus: surgical treatment if present, complications from other systems (cardiopulmonary, infections, etc.), metabolic disorders.

5. X-ray examinations: conventional radiographs, contrast examinations, CT, MRI..

6. Intracranial pressure (ICP): on admission, the biggest value, on which day of the disease, duration of persisting ICP increase.

7. Outcome: according to the Glasgow Outcome Scale.

The data bank is now in stage of data collection for one-year period. At the end of this stage the effectiveness of the parameters will be evaluated and an optimization will be done if needed. In the next period the system for regional data col-

lecting will start. If the parameters are informative enough the next stage will consist in the establishing of a National data bank.

A main disadvantage of the system is that it is not Internet-compatible for use in the network for data collecting at international level (e. g., the Balkan region). It will be our next priority of development of the traumatic data bank.

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База данни по травматология "Тежка черепно-мозъчна травма"

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Резюме: Авторите демонстрират база-данни на болни с тежка черепно-мозъчна травма (ТЧМТ) на основа на програмен продукт Foxpro. Продуктът се отличава с простота на обслужването - всички параметри са със стандартни отговори (до 8), като се избира най-достоверният. Предимства на продукта са: съвременен дизайн, наличие на помощен файл и възможност за актуализиране на параметрите в хода на натрупване на данните. Така ще се подберат само най-информативните. Системата е затворена за Интернет, което е недостатък. На следващ етап се готви адаптация на продукта към HTML-протокол. Това позволява достъпа до Интернет и прави предаването на данни безпроблемно.