



## PREPARATION OF STUDENTS FROM MEDICAL UNIVERSITY – VARNA TO RENDER ASSISTANCE IN CASE OF TRANSPORT ACCIDENT

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### ABSTRACT

**PURPOSE** of the research is a determination of the level of the knowledge and the preparation of students V university term in Medical University about the rendering first medical help of sufferers after transport accident. **METHODS:** We used an inquiry method – individual inquiry with 16 questions. **RESULTS:** The preparedness of students for rendering first medical help in case of transport accident is sufficient in nearly 1/3 from the inquired students. – could cope successfully in real situation, which corresponds of their self valuation. Insufficient knowledge the students manifested about several questions, count on their general culture like (What is the correct behavior in the road in case of storm and snowfall?). **CONCLUSIONS:** The preparedness of the students for the exam is necessary to raise their knowledge for reaction in case of transport accident, as well as their readiness for coping with the situation. The basic knowledge for rendering first medical help in the region of the accident the students from Medical University receive in their classes of Disaster medicine during their training in V university term.

**Key words:** first medical help, road-transport accident, disastrous situation, level of preparedness, self-valuation

### INTRODUCTION

Traumatic injuries take a basic place in case of disastrous situations. The transport accidents are daily companions in our life, because of the raised mobility of the contemporary person.

According to researches made in Bulgaria in case of road transport accident around 20-25 % from the dead died during the transportation (1, 2). Probably the percentage of the dead in big amount sufferers is bigger. This data gives us a reason to maintain that the hasty transportation often is incorrect and dangerous(3, 4, 5). The majority from the sufferers need first of all an effective first medical help for restoration and maintenance of the breathing and the circulation of the blood and master the bleeding in the region of the accident (6, 7, 8).

One of the important tasks in the training of students by the Disaster medicine in Medical

University – Varna is due rendering medical help of sufferers in case of transport accidents.

Our goal is researching the level of knowledge and preparation of students V university term in Medical University by the questions, concerned to rendering first medical help of sufferers after transport accident.

### MATERIALS AND METHODS

We used sociological methods – individual inquiry with 16 questions, 5 closed (all possible question preliminarily specified and defined), 6 open (with given possibility for personal attitude) and 5 compounded.

The units of the research we defined by the lottery method – 30 % from the students (162 persons) V university term in Medical University – Varna, trained by the branch of knowledge Disaster medicine, before the self-dependent preparation for term examination.

The research is made for one week in December 2009. We observed the principle of the anonymity of the inquired.

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The reliability of our conclusions for the students' preparation is based on representativity of the collected information, the amount of the researched students is sufficient.

**RESULTS AND DISCUSSIONS**

Half of the participants in the research are from 20 to 24 years old. The age is presented on **Table 1**.

**Table 1.** Allocation by age.

	Age			
By age	until 20	from 20 to 24	from 25 to 30	from 30 to 50
Number	39	81	30	27
%	24 %	50 %	15 %	27 %

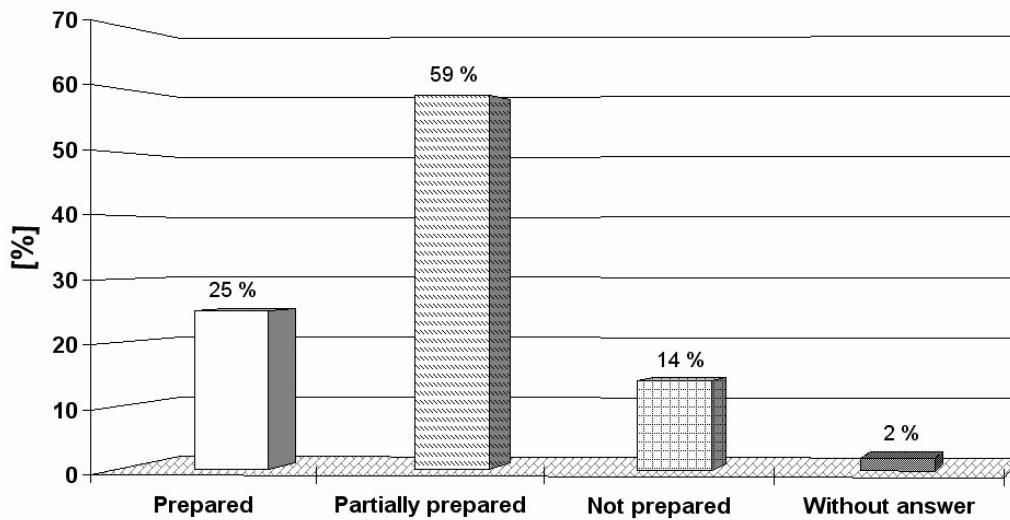
By gender the inquired are mainly women (92%), which confirms the feminization of the medical profession.

From the inquired 41 % travel out of Varna city each week, 38 % – each month and 20 % – several times yearly. The basic transport means is car for 43 % from the inquired, 41 % – bus, 30 % – train and only for 1 % – airplane (the data are more than 100 % because some of the inquired used two or three transport means). The inquired consider that they receive the best

protection in traveling with car (40.1 %) and train (36.4 %).

The witnesses of accident are more than 1/4 – 28.4 %, but without victims and necessity of medical help.

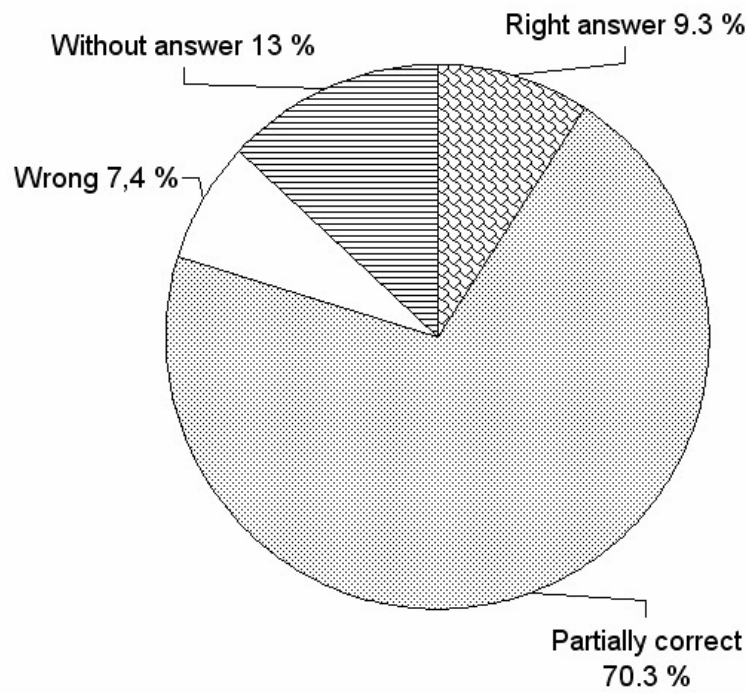
Only 25 % from the inquired have very good self – evaluation and consider that they are ready to render first medical help in the region of the accident. **Fig.1**.



**Fig. 1.** Self-evaluation – Are you prepared to render first medical help?

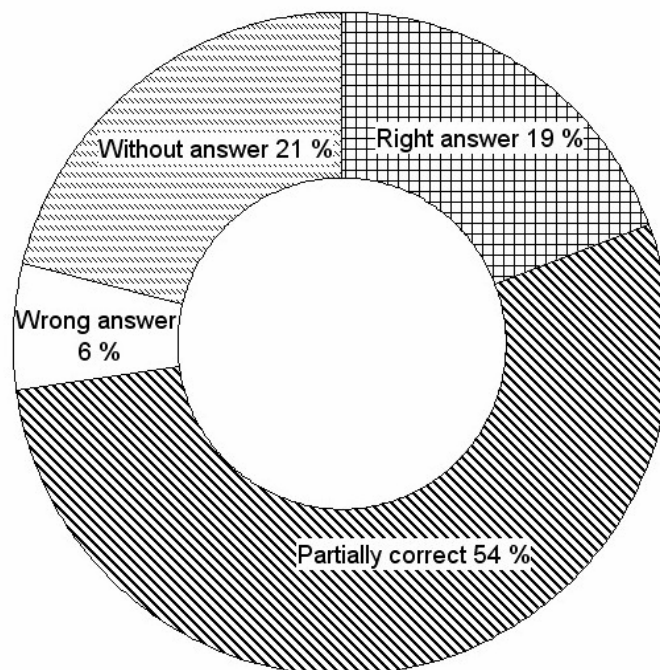
The lack of self-confidence is a mark for the omissions in the preparation, but we explain that with the fact, that in the moment of the research the inquired did not pass the exam, which will raise their knowledge.

With some questions we check their specific knowledge. For example “For how long should render first medical help in the region of transport accident?”, only 9.3 % give right answer, 70.3 % partially correct (as quickly as possible and other). **Fig. 2**.



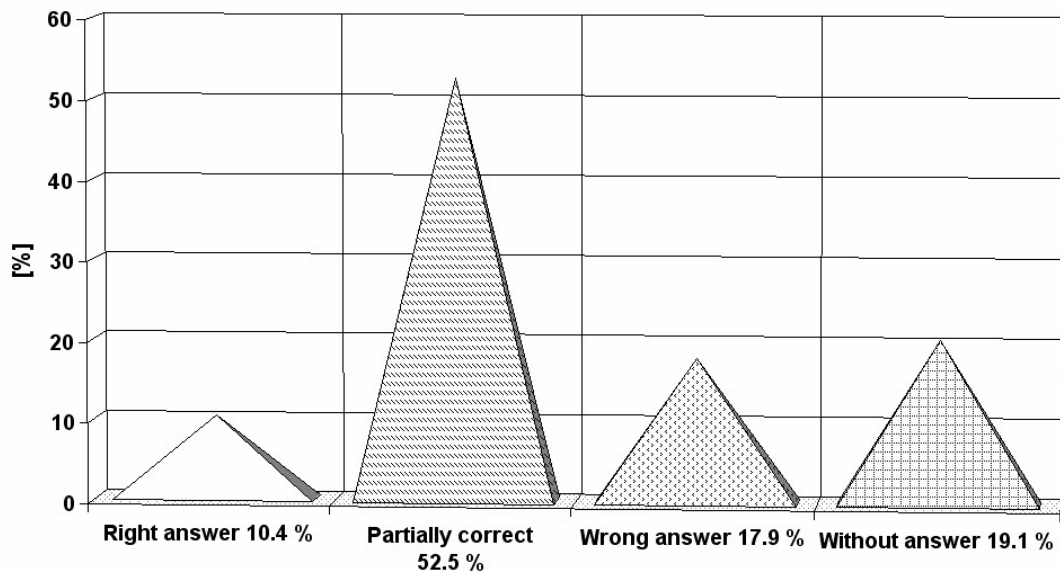
**Fig. 2.** Until what time have to render first medical help.

How to make reanimation of the breathing and cardio activity know 1/5 from the inquired (19 %) and 54 % give partially right answer. **Fig. 3.**



**Fig. 3.** How to make a artificial breathing and cardiac massage.

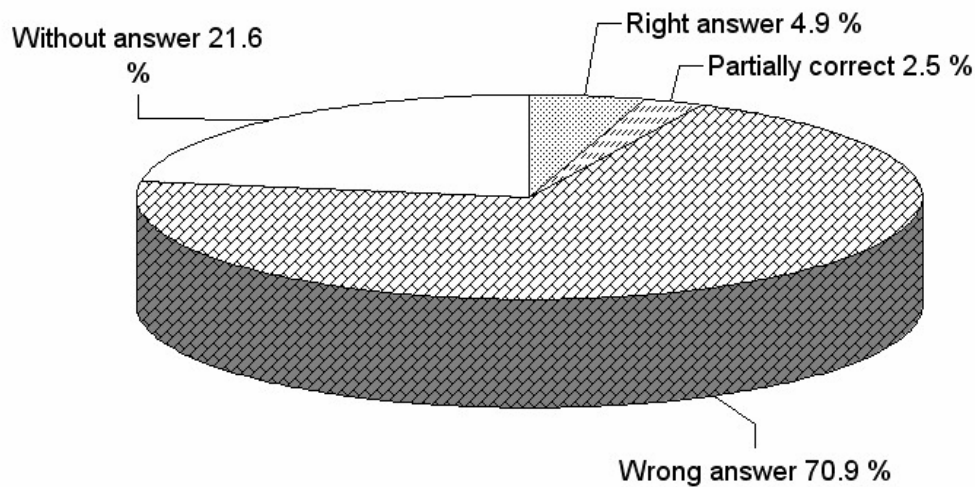
Right answer for getting control of the bleeding give 10.4 % from the inquired, but partially correct are answered more than a half – 52.5 %. **Fig. 4.**



**Fig. 4.** How to getting control of the bleeding at the place of the accident.

The students are allocated insufficient attention to questions concern the right behavior in case of storm and snowfall on the road. Incorrectly

they consider that they have knowledge. Right answer give only 4.9 % and partially correct 2.5 %. **Fig. 5.**



**Fig. 5.** Behavior in case of storm and snowfall on the road.

First aid-kit in the car are prepared more than a half of the inquired (57 %), which manifests that they play attention of our advices and instructions. **Fig. 6.**

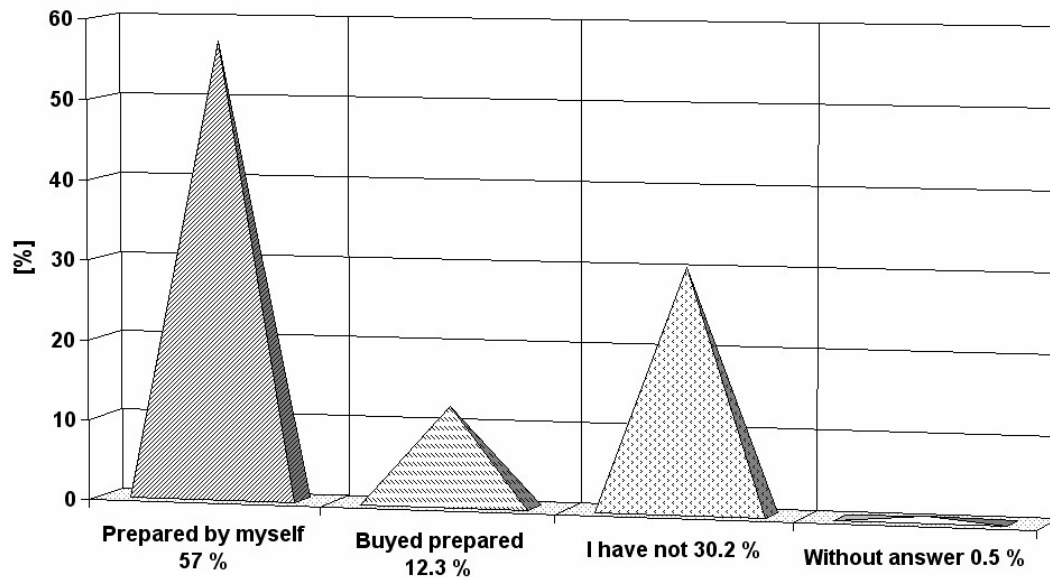
The contents of the first aid-kit for the car is known for ¼ from the respondents (69.8 % give very good answer and 3 % excellent).

How to define the area in case of burning, incomplete right answer give 40.8 % and 3 % absolutely right, but 46.9 % do not give an

answer, which means that they are not known with this question.

The gravity in case of burning could define correctly only 29.6 % and 57.4 % give wrong answer.

The basic knowledge for rendering first medical help in the region of the accident the students are received in the classes of Disaster medicine, but the knowledge still is not good assimilated.



**Fig. 6.** Available first aid-kit for a car

The training of the students in the classes is very good balanced in respect of theory and practice (15 hours lectures and 30 hours exercises), according to United State Requirements. We have suggestions in other branch of knowledge, especially included in the Medical colleges, for raising practical knowledge. In the training of the students, specialty Pharmacy, by the United State Requirements for the moment there are not included classes for Disaster medicine, which is essential omission.

### CONCLUSION

In the moment of the research almost 1/3 from the inquired students could cope successfully in real situation, which correspond to the self-evaluation.

Not enough attention is devoted from the students of some questions, which are considered like easy (for example: What is the right behavior in case of storm and snowfall on the road?).

The preparation for the exam will give the possibility for the other to raise the knowledge and self-confidence.

The basic knowledge for rendering first medical help in the region of the accident, the students from Medical University – Varna receive in the classes of Disaster medicine during the V university term.

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