Simulation of cardiac arrest cases: a pathway for improving the ERC ALS algorithm teaching and learning on medical students

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Fig. 1 Age distribution

Fig. 2 Gender distribution

Purpose of the study: Emergency medicine is a continuously changing environment which require team communication, leadership, correct clinical judgement and quick decision, usually under time pressure. Improvement in teaching and learning resuscitation methods can be achieve in this field be using simulation scenarios, being impossible to give the student the opportunity to learn by effectively participating to real resuscitation cases.

Results: We involved 68 students, the mean age was 22,7 year, 38,2 were male and 61,8% female. 100% were agree with integration of simulation cases in university curricula. 100% considered that training on simulations will help them to perform better in real cardiac arrest cases and will improve the outcome of patients, augmenting that the transfer of knowledge from classes to real situation is improved and the level of confidence in managing this situation is increased.

	Table 1. Samples with some stem questionnaire and answers from students	Yes	No
1.	After a simulation case scenario, how you consider your level of confidence regarding management of a real case? increased / decreased / no influence	100%	0%
2.	Do you consider that after an ALS simulation scenario you will perform better in real situation of ALS cases?	100%	0%
3.	Do you consider that simulation training improves in the end the patient outcomes?	100%	0%
4.	Simulation could improve teamwork practices?	100%	0%
5.	Do you consider that the “fidelity” is important for the success of simulation and for the participant?	100%	0%

Material and methods: A questionnaire of 10 stems was used to explore students’ attitudes and interests in using the interactive clinical simulation as part of their medical studies. They respond to this questionnaire after 4 hours of simulated cardiac arrest scenarios, where they worked in team and were guided by teachers. Data collection was conducted over March and April 2019, being addressed to fourth year medical students from University of Medicine and Pharmacy "Grigore T. Popa" Iasi. Gathered data were analyzed with IBM SPSS v.25.

Conclusions: Medical education is evolving, shifting from traditional methods to modern tools like interactive simulations. We found big opening from students to this approach which can enhance and improve the learning skills of medical students. Simulation offers a great platform for training medical students, facilitating interaction and giving the participants the opportunity to learn both–technical and non-technical skills in CPR.