# High Fidelity Simulation to Teach Therapeutics of Anaphylaxis to Medical Undergraduates

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Therapeutic management of anaphylaxis is an important learning outcome in clinical medicine. Gaining pharmacotherapeutic knowledge in relation to the situation where it will be applied, benefits the speed and quality of recall. High fidelity simulations (HFS) provide safe and controlled real life learning environment in which students can gain hands on experience. Hence, we introduced HFS to teach therapeutics of anaphylaxis. This paper describes the perception of the students and the knowledge gain. A group of final year medical students (n=46) during their professorial paediatric appointment were included in the study. Students who volunteered were included in the study. Scenario of anaphylaxis using HFS was given to groups of 5 to 6 students at a time. Initial briefing was given for 05 minutes and then the simulation conducted for 20 minutes followed by debriefing for 10 minutes. Perception about the simulated session was assessed using a self-administered questionnaire in five-point Likert scale. Acquisition of knowledge was assessed using a pre and post-test. Data were analysed using SPSS version 23. Percentage of the responses in Likert scale for the perception of the simulated session was calculated. The total pre and post- test marks were compared using the Wilcoxon signed rank test. Students scored significantly higher marks for the post-assessment of knowledge compared to the pre-assessment $p=<0.001$. All the students opined that simulation contributed to their understanding of drug therapy in anaphylaxis. 91.3% of students mentioned that the session was appropriate to their knowledge and experience and 89.1 % agreed that the training session resembled a real-life situation. All of them agreed that it encouraged their active participation. 95.6% of the students believed simulated sessions are better than small group discussions and 95.7% mentioned that HFS is an effective tool to teach clinical drug therapy of anaphylaxis. All the students mentioned that it is a valuable use of their time and they want to have further sessions. In conclusion, the use of High-fidelity simulations to teach therapeutics of anaphylaxis is well received by the students.

**Key words:** High fidelity simulation, Therapeutics, Anaphylaxis, Medical undergraduates