

An Infographic Utilized As A Just-In-Time Tool For Paramedic EKG Interpretation

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Study Objectives: Just-In-Time (JIT) training is a newer style of learning which allows rapid on-site practice followed by immediate application. JIT can be used in simulation training, at the bedside just prior to clinical opportunities and in the field such as the pre-hospital setting. The purpose of the study was to determine the utility of using infographics as JIT for paramedics to deliver more efficient and effective patient care prior to arrival to the emergency room. We hypothesize that the use of an infographic displaying evaluation and management of arrhythmias in accordance with Osceola County, Florida protocols will allow paramedics to delivery timely and correct patient care in the moments leading up to emergency room arrival. A number of studies have attempted to examine the utility of JIT for in-hospital training but to current date, no literature has been published on the utility of JIT in the pre-hospital setting with implementation into paramedic field training.

Methods: The study group consisted of paramedics within the Kissimmee Fire Department. Each subject was explained the study, and consent was obtained prior to study. The study consisted of a pre-test and post-test with infographic. The study took place within the fire and rescue stations. The pre-test and post-test were identical, consisting of nine-teen real life scenarios regarding evaluation, and management of various arrhythmias. The pretest was taken without assistance and the post test was taken after with use of the infographic. The unique code was able to match pre-test to post test results. Each test was given a total score and pre-test was compared to post test scores. Standard deviations were calculated from data. A post study survey was conducted to determine utility of the infographic.

Results: 58 total study participants completed both pre-test and post-test. Average scores of pre-tests displayed (10.32 +/- 4.45) out of 19 and post-tests displayed (13.01 +/- 4.31) out of 19. The study showed there was a 26% increase in test scores after the use of an infographic. Post study results on a Likert scale of (1-5) resulted in a 32% increase in comfort level of both interpretation and management on arrhythmias after the use of an infographic tool. Study subjects also reported they were likely to use the infographic on shift and would recommend to others.

Conclusion: It was shown that using a Just-In-Time learning tool had implications in real life problems. The infographic allowed study participants to more accurate evaluate and manage a study of real-life scenarios. As a result, having an infographic alongside paramedics during rescue calls may have underlying value for increased patient care and safety.