# ABSTRACT

## Improving Confidence in ACLS among UMKC Internal Medicine Residents

Ray Segebrecht[1], Anweshan Samanta[1], Laith Derbas[1], Alison Scharber[1], Ahmed Elkaryoni[1], Annapoorna Singh[1], Rahul Myadam[1], Adnan Choudhury[1], David Wooldridge[1], Ashraf Gohar[1], Julie Banderas[1]

[1]Department of Internal Medicine, School of Medicine, University of Missouri-Kansas City, Kansas City, MO 64108

Corresponding author: Ray Segebrecht, rsegebre@gmail.com

Winner at ACP MO Chapter 2019 (not peer-reviewed or edited by this Journal)

The American Board of Internal Medicine requires all residents to have their certification in basic life support (BLS) and advanced cardiovascular life support (ACLS) renewed every two years. However, there is concern that residents do not retain the confidence and the medical knowledge gained during this course throughout the two years that follow. The goal of our quality improvement project was to add a training workshop to improve resident confidence in performing ACLS. Internal medicine residents from all post-graduate year classes were invited to participate in a hands-on session, lasting one hour and fifteen minutes. They were divided into groups that consisted of 3-6 residents. The following rhythms were presented: pulseless electrical activity/asystole, ventricular tachycardia and ventricular fibrillation, brady-arrythmias and tachy-arrythmias. By the end of the sessions, the majority of the residents had the opportunity to lead a mega code, and each resident observed and/or participated in at least 3 mega codes. At the end, residents rated their confidence level with running codes before and after the sessions in a questionnaire on a scale of 1 to 10 with 1 being "not confident at all" and 10 being "extremely confident." Data were analyzed using a Wilcoxon signed-rank test. Among the 63 respondents, overall confidence in running codes improved from a median of 6 up to a median of 8 ($p < 0.0001$). Residents also reported improved confidence in multiple subcategories, including correctly identifying rhythms, using the defibrillator, and dosing and administering medications. Refresher courses appear to be helpful to maintain resident confidence in ACLS knowledge and skills.