"Anaphylactic Shocker!": The Use of a Dynamic QR Code Medical Bracelet to Administer a Practice Epinephrine Auto-Injector during a Staged Medical Emergency

France, Katelyn

Medical bracelets can save lives, but often lack sufficient information for appropriate medical care. The question was: Will a dynamic QR code based medical bracelet allow participants to react to a staged medical emergency and administer a practice epinephrine auto-injector faster than either a standard medical bracelet or a static QR code based medical bracelet? In this study, sixty participants were presented individually with a mock medical emergency. The person receiving medical attention wore one of three medical bracelets (standard, static and dynamic). The dynamic and static medical bracelets had QR codes. The dynamic QR code displayed the location of the auto-injector and how to use it, whereas the static QR code only informed participants of the need for an auto-injector. The standard bracelet displayed the medical condition. The original hypothesis was that a dynamic QR code based medical bracelet would allow participants to react faster to a medical emergency than either a standard medical bracelet or a static QR code based medical bracelet. The results supported the hypothesis. The dynamic QR code was faster and more accurate in all trials. Those with a medical condition would benefit from using the dynamic bracelet to improve appropriate medical response time and care. This could lead to fewer hospital stays and possibly save many lives. In the future, a GPS bracelet locating feature and a carrying case for important medical equipment that is linked to the bracelet will be added. Additionally, a text-to-speech feature will be available upon scanning the QR code.

Awards Won: