Introduction

Level 1 trauma centers treat a diverse patient population with unpredictable medical complaints. Nurses must be prepared to use critical equipment 24 hours a day. Although many devices for treating high-acuity patients are used infrequently, all trauma nurses must maintain competency on these high-acuity, low-use devices.

QR codes are designed to allow fast decoding of large amounts of data. This design facilitates education because any type of data (videos, graphics, documents) can be accessed instantly by any user with a smartphone. Educators can determine which resources are needed at the point of care, and QR codes will link nurses directly to those resources. The education can be viewed at the bedside, during downtime, or in preparation for an anticipated new arrival.

Methods & Materials

An anonymous pre-project survey assessed nurses’ educational preferences, identified high-acuity devices with chronic learning gaps, and assessed baseline confidence with the identified devices. Educational videos were created for six high-acuity, low-use ED devices and these videos were linked to QR codes. The QR codes were attached directly to each device, and an overview sheet was placed at each nursing station as an additional resource. Nurses unable or unwilling to utilize their smartphones were given access to the education through a desktop link to an online survey.

A anonymous post-project survey assessed nurses’ awareness of the QR code resources, efficacy of the QR codes as educational tools, and post-project confidence with the targeted devices.

Results

Nurses’ confidence with high-acuity, low-use equipment increased after implementation of the QR code project, according to online surveys before and after the project was implemented. Nurses also reported QR codes improved their access to education in the ED. In addition, nurses expressed support for the project through their free text comments at the end of the post-project survey.

Confidence with High-Acuity, Low-Use Equipment in ED

“QR Codes Improved My Access to Education!” (self-reported data from ED nurses)

Nurses’ free text comments about the QR code project:

- Super helpful! I can watch them at home or even when walking to work, also during downtime at work!
- Great use of technology.
- This is the best.
- Super fabulous!

Conclusions

QR codes effectively increased nurses’ access to education in Albany Medical Center’s ED. Nurses appreciated the ability to view education at the point of care, as well as on their own prior to a patient arrival. One example of the effectiveness of the education was that staff created miniature QR code charts to wear under their name badges in order to review critical equipment whenever needed. In addition, nurses from other units reported viewing the QR code links in order to stay up-to-date on ED devices.

Project findings mirror published studies showing QR codes at the point of care meet clinical needs better than desktop resources1 and that QR codes in nursing education are clinically useful and well-received by learners.2,3,4

References