Resuscitation Quality Improvement (RQI)

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Introduction

Centers for Disease Control (CDC) reports more than 200,000 in-hospital cardiac arrests occur annually in the United States. Survival rates from adult in-hospital cardiac arrest at less than 26%. Patients who suffer a cardiac arrest must receive the highest quality cardiopulmonary resuscitation (CPR) possible, which is known to be the cornerstone for survival.

Clark Regional Medical Center recognizes the importance of high-quality CPR competence, performance and delivery in saving more lives. That's why the HeartCode Complete® program, co-developed by the American Heart Association® (Association) and Laerdal® Medical, was being implemented to help Clark Regional Medical Center achieve sustained mastery of high-quality CPR skills and verified performance, resulting in improved patient outcomes. The hospital is the first in Central Kentucky to implement the RQI system and have a simulation station placed at the point-of-care.
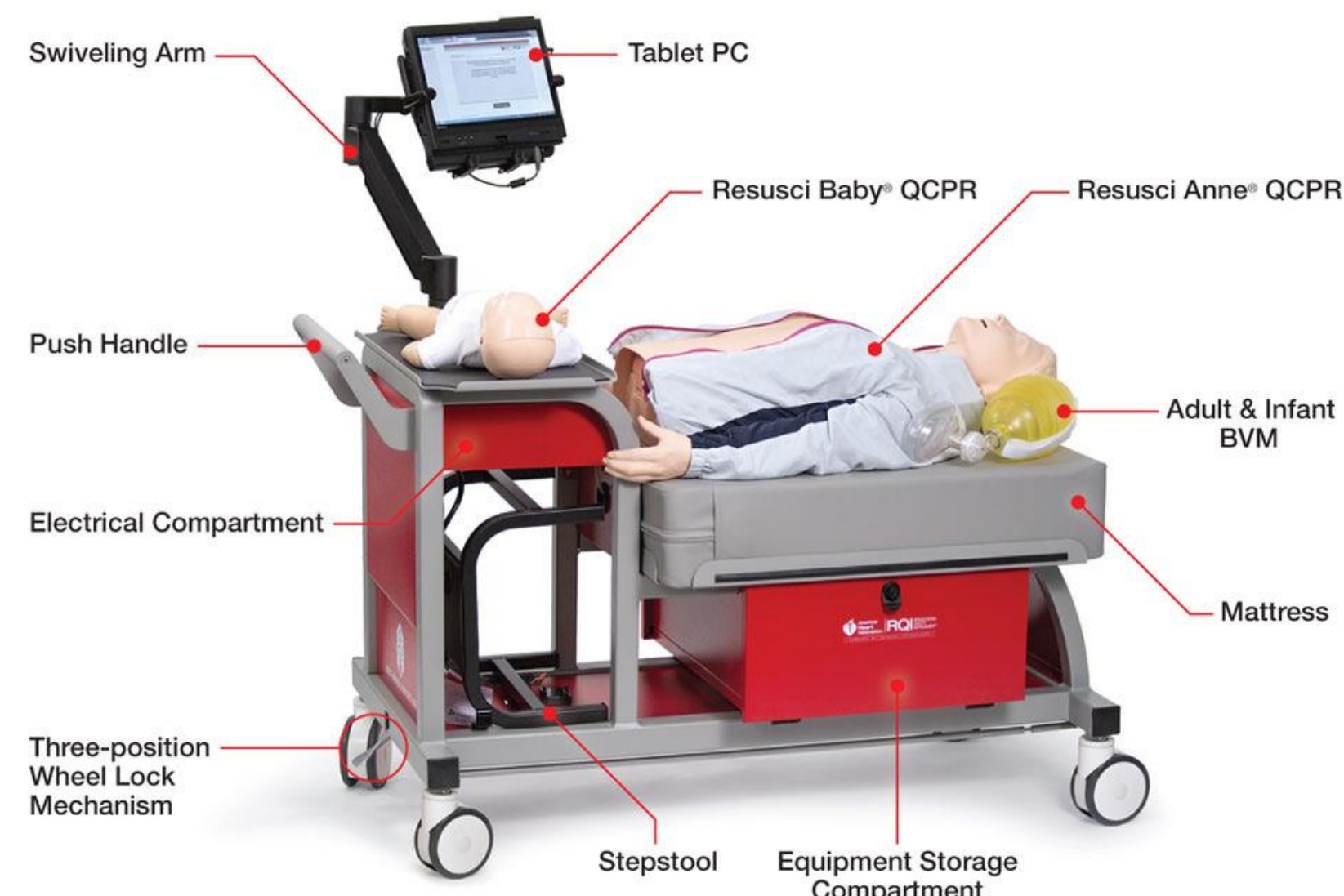
Methodology

HeartCode Complete uses True Adaptive™ learning to deliver BLS, ACLS and PALS course instruction to healthcare providers that is tailored and personalized to meet an individual's specific knowledge level and unique needs, adapting in real time to a learner's performance. This approach gives everyone – learners and administrators – more control of their time, schedules, and resources.

Thirty-one "Super-Users" were chosen from all departments and varying shifts to provide assistance to users as needed. The "Super-Users" were required to attend an online training and hands-on session with On-site Administrator between December 2020 and January 2021 prior to Go-Live.

A lunch and learn, as well as, a dinner and learn was provided for staff to come by and see the newly implemented RQI system set for Go-Live on January 18, 2021.

All 391 providers required to certify in Basic Life Support (BLS) were assigned a RQI BLS Provider Prep Course in HealthStream Learning System by January 18, 2021.
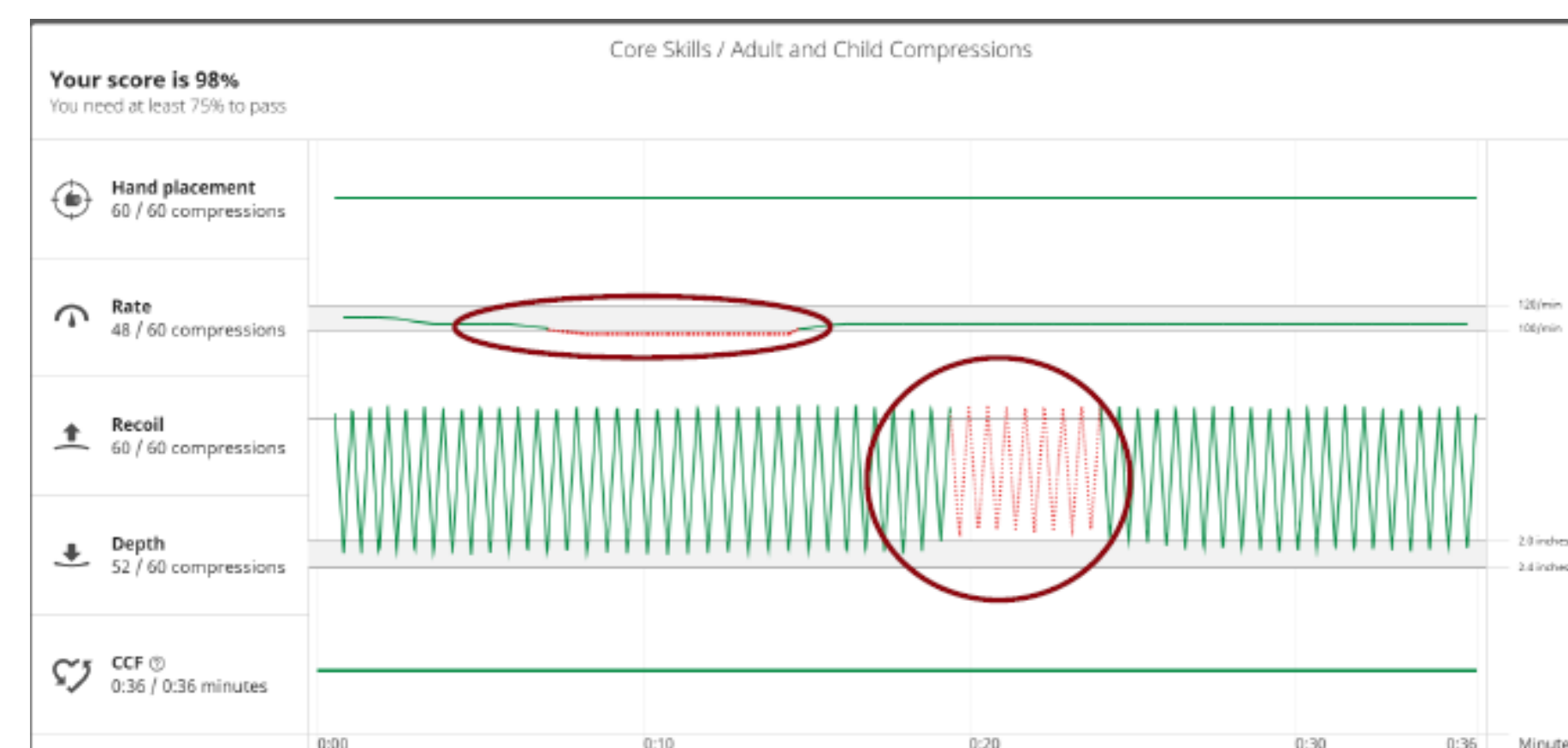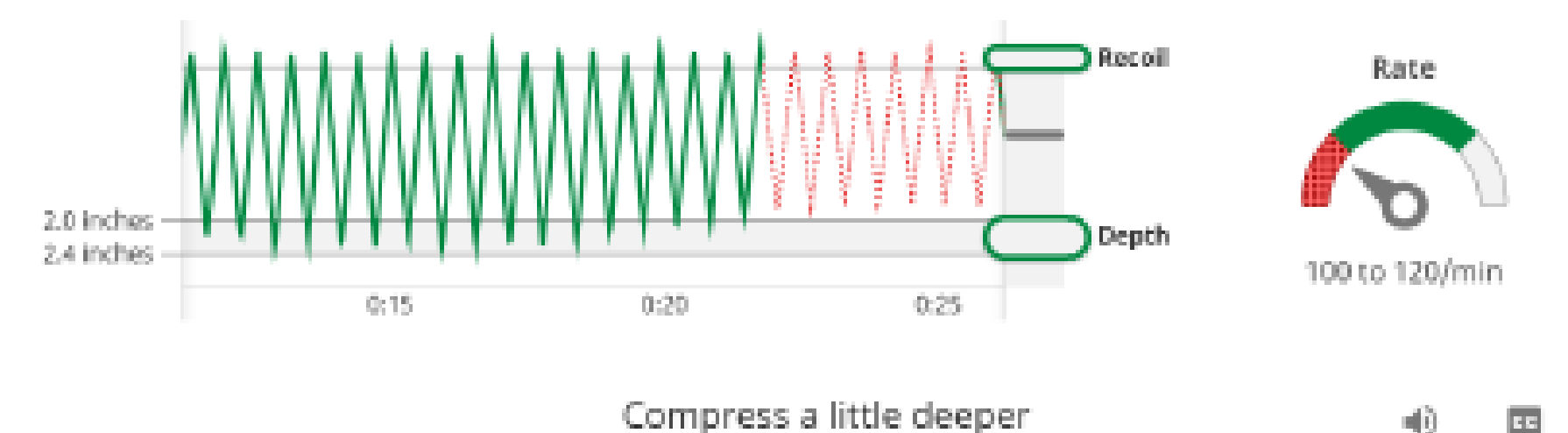

Process Measures & Outcome Data

The focus of our improvement project is to educate, develop, and enhance staff CPR skills as evidenced by:
- Educating staff utilizing the online True Adaptive™ learning provided by HeartCode Complete.
- Ensuring that staff chest compressions and bag-mask valve skills are >75% compliant.
- Developing muscle memory for skills sets by requiring quarterly check offs at the RQI cart manikins.
- Enrich provider confidence providing CPR skills with frequent skills check offs every quarter.
- Reports readily accessible for completions of online courses, manikin check offs, and learner failure.
- Real-time audio and visual feedback & post activity debrief provided at the RQI cart during performance for providers to review.
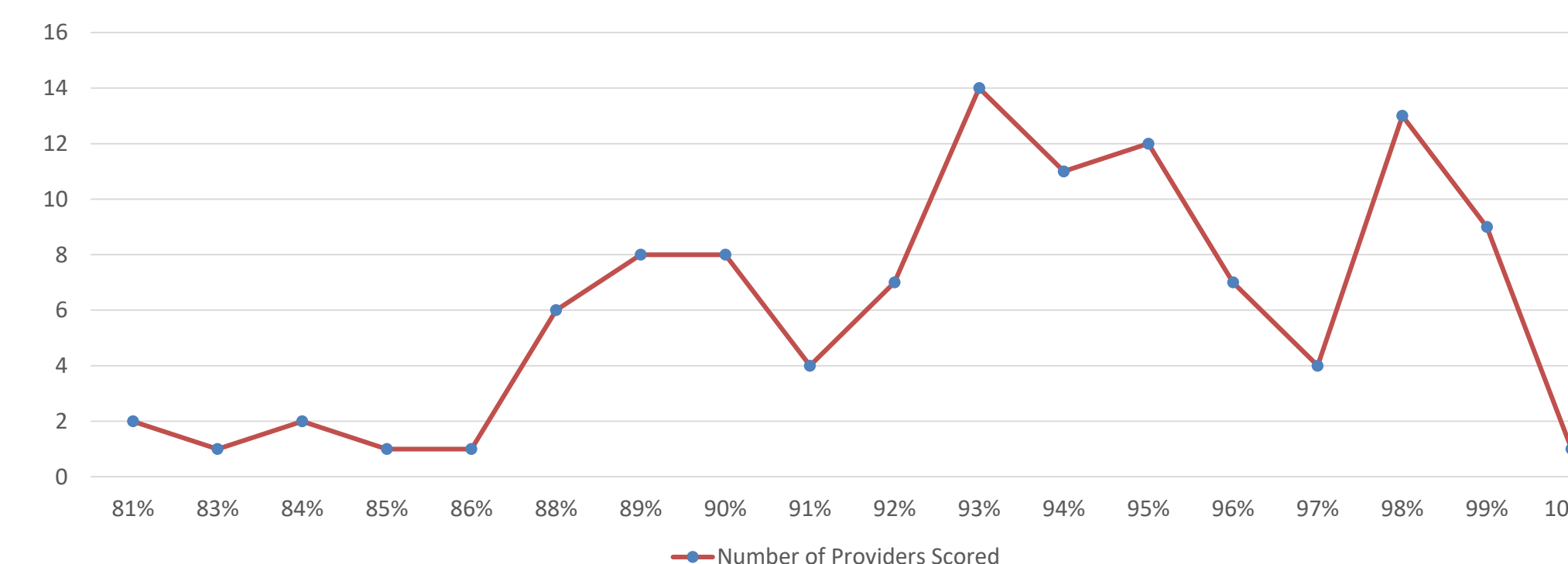

Discussion & Reliability

- All learners complete with a demonstration of competency
- Learner experience tailored to discrete knowledge vs high-level themes
- Novice learners will have faster knowledge acquisition
- Mastery learners will only receive content they need
- All learners will receive rapid-iterations of recall to promote retention
- Low dose / High frequency program: allows quarterly cognitive learning in lower doses than traditional classroom settings that allows learners to retain information. High frequency skills assessments quarterly allows learners to enhance CPR skills.
- Providers must pass the hands on skills assessment with >75% to successfully complete.

Results

- As of February 17, 2021, a total of 111 providers out of 391 assignments made have successfully completed the RQI BLS Provider Prep Course and cart check off obtaining their Quarter 1 credentialing.
- 84 of the 111 completions (76%) passed skills check off in <3 attempts.
- Learner Failure Activity are those learners that required more than 3 attempts to pass the skills station check off. There were 27 of the 111 (24%) that required >3 attempts.
- Of the 111 completions, core skills assessment scores range from 81-100% with an organizational average of 85%.

Conclusion: Sustainability & Next Steps

- Providers ability to access their resuscitation credentials through HealthStream that are auto populated and updated each quarter.
- Management availability to access their department resuscitation credentials via HealthStream.
- Purchased 10 courses of ACLS and PALS to trial for future implementation. 5/10 ACLS have been assigned with 3 completions. 8/10 PALS have been assigned with 4 completions.
- Positive staff feedback on ACLS and PALS completions thus far.
- Monitoring quarterly averages for performance improvement. Organizational goal by Quarter 4 2021 is >95% in core skills assessment.

Contact Information

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