

Lead ChristianaCare Inventor

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The Invention

CritiTrac is a software application purpose-built for use on mobile devices; it allows for standardized documentation, in real time, at Code Blue¹ rescue events.

The app can be used in any setting with Code Blue / Rescue teams responding to cardiac arrest resuscitation events.

Unmet Need

Health systems nationwide struggle with keeping their Code Blue documentation accurate and complete. Most systems use post-event documentation in critical situations, some including paper forms, resulting in errors and reduced ability for compliance with the Joint Commission² documentation requirements, for review, and for resulting process improvement.

Opportunity

A Code Blue event is extremely chaotic and stressful for health care personnel, for the patient, and for the patient's family. Because rescue events are life or death, documentation is a secondary activity after life saving measures.

Today, detailed, accurate Code Blue documentation is frequently deficient. Because the focus is on life saving measures, completing documentation after the fact can result in missing or incorrect due to the emergency nature of the event, leaving incomplete data for the hospital records, and no thorough information for the patient's family.

The CritiTrac application allows response team members to follow and document with the clocks, counters, and steps informed by the American Heart Association (AHA) algorithm with an electronic guide. These steps are designed to reduce variability, to better coordinate care delivery, and to introduce data collection efficiencies.

Very few products are available that allow for guided, standardized documentation in real time at Code Blue rescue events in the same way.

Unique Attributes

CritiTrac has few competitors.

This mobile application prompts the user to follow American Health Association (AHA) ACLS guidelines, critical when providers need to respond to patient needs, while watching the clock, remembering the guidelines, and documenting interventions. CritiTrac is designed to lead users through the guidelines by providing a sequential series of visual indicators and prompts, while documenting the interventions / events occurring. Current users report the logic creates value over a traditional clinical system form.

¹ A Code Blue event is a medical emergency where a patient's heart stops beating or their lungs stop functioning.

² An independent, not-for-profit organization, The Joint Commission accredits and certifies nearly 21,000 health care organizations and programs in the United States. Joint Commission accreditation and certification is recognized nationwide as a symbol of quality that reflects an organization's commitment to meeting certain performance standards.

Its design ensures all information meets current standards. CritiTrac helps the user to capture the Code Blue event completely and accurately, by using timers to keep the user informed about when to perform CPR or administer Epinephrine; giving the user access to regular occurring events with easy to use pop-up menus; educating the user on what steps are required and when to perform them, and by prompting them with messages that guide the user through the algorithm.

This functionality allows even untrained personnel to confidently walk through the American Health Association ACLS guidelines and to enter all the information required to complete documentation accurately. It provides medical documentation assistance for the bedside staff with real time stamps during a Code Blue event and standardized documentation with patient demographics; it feeds event summaries to the patient's chart.

Clinical Applications

CritiTrac has reporting capabilities that assist with capturing of pharmacy and performance improvement data. Users can also enter pre-arrival information, review time stamped activity logs of all the events that have taken place, and capture the signatures from all personnel that were involved in the Code Blue event.

All patient information and Code Blue documentation is secure and gives the physician a complete, accurate log of all events that occurred during the Code Blue event and enables them to speak with the family about exactly what happened and what steps were taken.

Stage of Development

The CritiTrac application is in use within ChristianaCare. To similarly deploy CritiTrac, configuration and implementation services are available as needed.

Intellectual Property

Patent Pending. The CritiTrac software and system are the subject of US provisional and US non-provisional utility patent applications.

Collaboration Opportunity

Actively seeking licensee for commercialization or collaboration. A full feature list plus a competitive study will be made available with the execution of a Non-Disclosure Agreement.

References and Publications

- Poster presentation; Business Transformation & Operational Excellence World Summit (BTOES), Atlanta, Georgia, March, 2018.
- Poster presentation: Business Transformation & Operational Excellence World Summit Healthcare, New Orleans, Louisiana, May, 2018.

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