



---

## Arcadia Solutions and Boston Children's Hospital Unveil New Version of its ICU Analytics Product: T3



---

**Team seeks to build hospital consortium with revolutionary analytics platform to further increase quality of care within Pediatric ICUs.**

[Arcadia Solutions](#), a leading provider of data-driven quality improvement solutions, along with the Cardiac Intensive Care Unit (CICU) and Medical/Surgical Intensive Care Unit (MSICU) at Boston Children's Hospital, announced on March 5, 2013, the next version of its T3 platform. This web-based, scalable, clinician designed computer application aggregates physiologic information from many monitoring devices at the patient's bedside to create a single view of patient vitals and allow real-time remote monitoring of each child in the CICU and MSICU.

"We've been working with Arcadia Solutions on the T3 platform for over three years and continue to improve its functionality by including features that will make this system highly invaluable within the ICU and other care units," said Dr. Melvin C. Almodovar, MD, Medical Director of the CICU, Boston Children's Hospital. "The T3 platform is critical as it increases the quality of care by helping the care providers make predictive, data-driven decisions, rather than prescriptive, intuitive ones. It will also help capture, archive and analyze information to create new critical care best practices and procedures in the future."

"I have been a part of this project from the beginning and will continue to work with Boston Children's Hospital and Arcadia Solutions in my new role. Our goal is to form a consortium of hospitals using T3 to collaborate, coordinate and collect additional data across an entire network of pediatric units to help predict outcomes based on that data. While the platform has been fully functioning for many months we are excited about deploying our first predictive algorithm to aid patient stability assessment. In the ICU, stability is paramount," said Peter Laussen, MB.BS., FCICM, Chief, Department of Critical Care Medicine, Hospital for Sick Children in Toronto.

T3 stands for "Tracking, Trajectory and Trigger" and brings together and streamlines the multiple flows of information that critical care doctors and nurses use to make life-saving decisions. T3:

- **Tracks** all information coming out of patients' bedside monitors.
- Calculates trends in the data and displays a patient's real-time **trajectory**: are they getting better or has their condition stabilized, is their condition deteriorating, or are they responding to treatment strategies as expected?
- **Triggers** actions to avoid crises and makes the most efficient use of the resources available in the care units.

Arcadia Solutions and Boston Children's Hospital have worked together to add the following functionality to further increase the quality of care within its ICUs:

- **Stability Index Algorithm** - a numeric index is generated that reflects the extent to which the patient's physiologic measurements deviate from clinician chosen parameters. The index ranges from 0-4; higher index values indicate that a patient is in a more severe clinical state (less stable) while a lower index value indicates a less severe state (more stable). This will be used to provide an early warning to prevent adverse events.
- **Data Visualization for Morbidity and Mortality Reviews** - With full T3 user interface capabilities, hospitals can now access historical data through the user friendly and highly configurable interface that is currently used only for patients currently receiving treatment in the ICU.
- **Software Development Kit (SDK)** - To support the rapid development and deployment of algorithms that improve patient care, SDK allows algorithms to be seamlessly integrated into the T3 platform for hospital use.
- **Historical Data Repository** - To provide researchers access to all the historical data for large scale analysis, users will now have access to a data repository for patient population studies that evaluate the efficacy of surgical procedures and therapeutic care pathways in order to develop new quality improvement standards that reduce resource utilization while improving patient outcomes.
- **Integration with Additional Demographic Information**
- **Integration with Intermittent (Aperiodic) Blood Pressure Data**

"Within the ICU, doctors can have more than 10 devices at each bedside, all recording vital information about how each patient is responding to treatment. Given the information overload they face daily, we're extremely proud that they not only use T3 but see the value it provides," said Michael Gleeson, Senior Vice President of Product Strategy, Arcadia Solutions. "We are excited to release a new version of this tool as it

provides a visual tool for clinicians within the ICU that is equivalent to the tools meteorologists use to predict weather patterns. With T3, the hospital can prevent deteriorations in the patient's condition by making the data transparent and easily analyzed through advanced visualization."

T3 is currently being used in nearly 60 beds across the Cardiac and Med-Surg ICU units at Boston Children's Hospital.

Published on : Wed, 6 Mar 2013