

Leverage 'Low-Hanging Analytics' to Make Patient Data More Powerful

Already-available data can improve patient care – just one of the many innovative traumatic brain injury research ideas that the Feb. 17 Massey TBI Grand Challenge aims to fund.



In health care, we constantly seek new ways to deliver and improve care. Countless ideas have been tried and tested, and people often think that coming up with the next great innovation requires thinking outside of the box. This notion has been instilled in most of us from a young age, and those in all industries — not just health care — often strive to show their creativity through this approach.

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However, in my experience, thinking outside of the box doesn't always lead to the best new ideas. Sometimes, we need to focus on thinking better inside the box.

At the [University of Michigan Center for Integrative Research in Critical Care \(MCIRCC\)](#), we are working to improve care for patients with traumatic brain injuries (TBIs). One of our approaches is finding new ways to leverage and act upon data that are already available.

Think of it as low-hanging analytics.

In a nutshell, here's how it works: By using a single dashboard and applying analytics in real time, we provide our physicians with more precise monitoring of individual patients. By fusing the existing data with additional parameters, physicians will have immediate access to vital insights that can help better predict both a patient's outcome and the risk of additional injuries or secondary effects.

Thanks to improved visualization of the data and a more complete understanding of the patient's condition, we can take measures to work toward more favorable outcomes.

Several pieces of patient information are critical to fully understanding a patient's condition; this is particularly true with TBI patients. That information has been underutilized in the past, and we are working to synthesize it in ways that become far more useful for clinicians.

This is vital when one considers how a TBI patient's condition can drastically change in minutes. Right now, even when interventions do happen, they may be too late.

A comprehensive approach

As the health care information technology industry has grown, we have focused heavily on capturing individual pieces of patient information. While each piece of data is important and we want to make sure that every piece is captured, pieces of data in isolation may not be useful in making care decisions or predicting outcomes.

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For instance, some patients may have a higher intracranial pressure than considered normal but are otherwise fine. If a physician determined that a patient's intracranial pressure is high, it still may not be appropriate for the physician to alter medications or other aspects of the care plan.

Physicians need to look at multiple parameters when working to improve patient outcomes. This is key in the new era of precision health.

Leveraging low-hanging analytics entails looking at multiple pieces of patient data so physicians can make more informed decisions. When taking steps to repurpose and re-evaluate existing data, physicians can improve the outcomes of their patients thanks to improved visualization of the patient's status, followed by timely intervention.

Educating more clinicians about the power and potential of this process will move us ever closer to the widespread industry goal of achieving precision health.

Help us innovate

On Feb. 17, MCIRCC will host its [Massey TBI Grand Challenge](#) kickoff event, to highlight the challenges health care providers face when diagnosing and treating traumatic brain injuries. I invite you to join us and help us explore how to better treat traumatic brain injuries.

Register for this event to learn how you can win funding from a pool of up to \$600,000 for your innovative [severe traumatic brain injury](#) research idea.

This article was originally published on [Mobile Health Matters](#). Read the original article [here](#).

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