# BECKER'S RAPIDAL

## Going beyond the algorithm: Maximizing Al in healthcare with a three-pronged approach

Compared to other industries, healthcare has been slow to adopt artificial intelligence. However, it is one of the industries where wisely selected and effectively deployed AI has the potential to yield transformational benefits. During a summit hosted by RapidAI as a part of Becker's Hospital Review's 14th Annual Meeting, Karim Karti, CEO of RapidAI, and healthcare leaders from across the country discussed how organizations are deploying AI-powered technology and opportunities to further improve clinical, operational and financial performance by leveraging AI's full potential.



#### Key themes from the event are summarized below.

#### 3 criteria for made-for-healthcare AI

Amid AI hype and excitement, numerous AI technology vendors are pitching their products to healthcare organizations. To choose wisely, healthcare leaders must ensure that any AI technology or tool they pick meets the following criteria:

- 1. The AI algorithms underpinning the technology are changing clinical decision-making.
- 2. The technology can be integrated into clinical workflows while removing friction for providers.
- 3. The product has an analytics component that provides feedback on the algorithm's performance.

"We have consistently found that organizations that are implementing all three of those elements are the ones that are getting the most out of their AI programs," said David Stoffel, MD, chief business officer of RapidAI. "But every single one of those elements involves partnerships with the vendors – it's not just the vendors coming in, dropping in a box and saying 'Here, you're done.'"

Sowmya Viswanathan, MD, executive vice president and chief physician executive at Tampa, Fla.-based BayCare Health System, stressed the importance of the second component. "If we don't bring the clinical and operational teams into [the vetting process] early on and make sure that the technology is *not* going to burden them more, it will be a failure model."

Mr. Karti shared a similar observation: "If it is not integrated with the workflow, AI has very little chance of having an impact." To further support buy-in from clinicians, healthcare leaders may consider introducing AI technology as a trial rather than as something providers will have to use indefinitely going forward. "The way we got buy-in is we like to turn things into a pilot. The term pilot allows [an attitude of] 'let's just try and see what we get by utilizing this data," said Mary Schramm, MSN, assistant chief nursing officer at St. Louis-based Ascension. "Giving that security and assurance has helped us implement AI better at our site."

A similar logic applies when working to secure buy-in from hospital administrators and overburdened IT teams, Dr. Stoffel noted. He added that peer-to-peer sharing of experiences with AI technology also helps tremendously in building awareness of its value.

### Staff buy-in isn't the only barrier to implementing AI technology

There are at least two additional barriers for healthcare organizations considering investing more in Al.

One is the "cost creep" associated with many new tools claiming to have an Al component. Al-driven patient engagement chatbots that "nudge" patients via automated reminders to seek preventive care, such as screenings, are an example of this. Despite the tools' relative simplicity, vendors that pitch such technologies tend to inflate their complexity and cost.

"There are platforms that are coming out and saying, 'We'll charge you this much per campaign, so this is how much it costs for a nudge mechanism for getting a mammogram and this is how much it is for a nudge mechanism for colonoscopy," Dr. Viswanathan said. She noted that vendors of "nudge" tools are not truly Al vendors, yet "the minute they use Al [in their marketing pitch], the cost is going up." The other challenge is related to AI-driven tools intended to alleviate clinician burnout. An example is ambient intelligence technology that optimizes clinician note-taking, coding and documentation. Suppose an organization has a strong clinical documentation improvement (CDI) team that accurately captures most clinical queries or a good coding team that submits reimbursement claims with complete clinical documentation. In that case, the value of using AI-driven CDI tools may be only marginal – yet the perception they can create in full-time employees that they may be at risk of getting laid off can outweigh the benefits.

### Keeping ROI top of mind is key to selecting the right AI technology and vendor

Return on investment for AI technologies can take different forms. Some ways to measure ROI include:

- Reduction of healthcare-associated costs and expenses.
- Increase in total patient volume, including by reducing patient leakage through out-of-network referrals.
- Increase in patient throughput by reducing postsurgery complications and length of stay.
- Reduction of operational burnout, employee turnover, and recruitment and training costs.

Regardless of the chosen method for measuring ROI, it is important to diligently track and measure the impact of AI technologies.

"Anything we do from an innovation perspective, especially as it concerns AI, has to have a solid ROI because none of us can throw money around just to do things," said Michelle Stansbury, vice president for innovation and IT applications at Houston Methodist. "If a pilot is successful, we'll roll it out quickly – but if it is not bringing a return for us, we walk away from it very quickly."

Finding the AI technology with the right ROI and implementing it requires striking a balance between staff buy-in and financial considerations. To find that balance, hospitals and health systems must foster a culture of collaboration both within their in-house teams and between the teams and third-party vendors.

"In collaborating, you spend time to educate your revenue cycle folks, your clinicians, your patient access individuals and your digital functional experts, as the case may be," said Babatope Fatuyi, MD, chief medical information officer at UT Health Science Center in Houston. "To be able to do that, you must immerse yourself in understanding [the technology the organization has decided to invest in] and how it will impact them."

Mr. Stoffel suggested leaders should "think of Al not as a product but as a program."

"Al as a program is a team sport," he said. It requires multiple stakeholders and feedback on how to optimize it."





## RapidAl enables provider organizations to respond to some of their biggest challenges

Jason Daniels, RapidAl's national director for market access and hospital analytics, explained how the company's technology aligns with and helps address the healthcare industry's main challenges. Echoing earlier comments, he said addressing those challenges starts by ensuring that AI technologies are evaluated and selected based on clinical utility.

RapidAl's tools provide extremely detailed brain imaging analysis that helps physicians improve neurovascular and vascular care for stroke, aneurysm, and pulmonary embolism. The tools use machine learning and other Al techniques to extract greater meaning from medical imaging data and deliver that information to physicians via a mobile app in real-time. By presenting brain imaging analysis in that way, neurologists and neurointerventionists no longer have to be at their computers to access such critical information and react immediately in cases that can lead to rapid patient deterioration in minutes. "Many neuro interventionists used not to be able to go to dinner or see their children's game because they needed to be close to a computer at the hospital because they were worried that they would not get the information fast enough," Mr. Karti explained. "With our application, they get alerted within seconds, and once they make a decision, they have time to drive to the hospital while the stroke care team gets the patients ready."

Another aspect of RapidAl's solution's added value is that it provides accurate information that is usually not readily available otherwise. For example, when analyzing stroke images, the solution detects and highlights where there is blood in the brain and which areas can be salvaged, which is very difficult to determine through manual analysis. It does the same thing for aneurysms.

In this way, the RapidAl system allows physicians and nursing staff to quickly triage patients and ensure that the right patients get to the right place. This capability is crucial not only from a health outcomes perspective but also operationally due to the limited number of beds hospitals typically have for attending stroke cases.

"Our system is as much about increasing the number of patients you're treating as it is about avoiding treating the wrong patients," Mr. Karti said. "Because if you start treating a patient who should not be treated, they're probably taking the place of somebody who should be."