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A new chapter in clinical decision-making

Lessons from healthcare leaders at the forefront of AI

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Clinical decision-making forms the foundation of high-quality patient care. As hospitals and health systems strive to decrease the administrative burden and the cognitive load facing providers, many are turning to technological solutions like artificial intelligence (AI).

During a recent Becker's Healthcare webinar[1] sponsored by Elsevier, clinician leaders weighed in on how AI is introducing a new chapter in clinical decision-making:

- Abigail Baldwin-Medsker, MSN, RN, senior director, emerging digital programs, digital informatics & technology solutions, Memorial Sloan Kettering Cancer Center (New York)
- Paul Helmuth, MD, physician clinical executive, Elsevier (Massachusetts)
- Morgan Jeffries, MD, associate medical director for AI, Geisinger (Pennsylvania)
- Maulin Shah, MD, chief medical information officer, Providence (Washington)

1 Becker's Hospital Review, A new chapter in clinical decision-making — Lessons from healthcare leaders at the forefront of AI, June 27, 2024. https://go.beckershospitalreview.com/hit/a-new-chapter-in-clinical-decision-making-lessons-from-healthcare-leaders-at-the-forefront-of-ai

AI is an additional tool in the toolbelt for supporting healthcare providers

Hospitals and health systems have engaged with clinical decision support tools for decades. Over time, however, the tools available have evolved. "Clinical decision support is simply trying to influence and nudge behavior so that clinicians do a better job with patients," Dr. Shah said. "Using data, we are focusing on evidence and what will actually change practice. We're looking at AI and generative AI with that same lens."

Organizations are committed to deploying AI in thoughtful ways that drive value, rather than simply implementing AI for the sake of it.

"We are always looking to invest in innovative solutions to support clinical researchers during decision-making that hopefully lead to better operational and clinical processes, drive value and ultimately provide better experiences for clinicians, care teams, patients and caregivers," Ms. Baldwin-Medsker said. "We see AI as an innovative solution for that — it's one tool in the tool belt."

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Morgan Jeffries, MD

Associate Medical Director
for AI, Geisinger

To improve clinical decision support, hospitals and health systems must engage with providers

When AI-based solutions are deployed well, they complement clinicians' workflows. Attaining this goal is often an iterative process. This requires active participation and feedback from providers. Providence, for example, partners with clinical and operational partners, CMOs and CNOs to determine where to apply new tools.

"If our clinical leaders are worried about catheter-associated bloodstream infections, for instance, what can we bring to bear to identify those?" Dr. Shah asked. "Sometimes it's traditional tools and logic, sometimes it's traditional AI and predictive algorithms, sometimes it's generative AI."

To evaluate different clinical decision-support solutions and generate provider buy-in, Geisinger uses pilot programs. "We're starting a pilot of an AI scribe solution," Dr. Jeffries said. "Our clinicians spend a lot of time in patient encounters, as well as outside of them on documentation. The more we can free them to be in the room and have good face-to-face encounters with patients, the more we will empower them to make good decisions and keep them engaged in their work."

Governance is essential when deploying AI solutions, but many different approaches exist

At a recent event, Dr. Helmuth heard about three distinct strategies that hospitals and health systems are using for AI governance.

"One is that AI is in everything already, so let's do business as usual and not make any significant changes," Dr. Helmuth related. "A second is a very centralized approach, with an AI committee that vets the different options and decides on priorities. The third approach is to encourage employees to investigate AI solutions that add specific value for their clinical workflows but make sure they inform the established cross-functional advisory group to ensure scalability."

Providence has established an AI council that evaluates different categories of AI-based solutions. One is the "operational here and now." Another is tools that might be used in the next three to five years. The third is a category of solutions that will be broadly applicable to all of healthcare.

"In the operational arena, we have an overload of patient messages," Dr. Shah said. "We took generative AI tools and

brought them to bear in that space. In terms of future-looking projects, we'd like to educate residents about how to have great palliative care conversations with patients. We're also looking at chatbots to help patients navigate their care so they can short-circuit phone calls."

Geisinger is moving slowly and cautiously in the generative AI space. The organization is focused on expanding its governance and oversight frameworks first. "A lot of this work involves cross-walking our existing policies with what we think needs to be in place for AI," Dr. Jeffries said. "Some of that depends on regulations or standards. In some cases, we have to do novel work. We also have to figure out what to measure and what constitutes good performance."

Like Providence, Geisinger has some projects that are operationally focused. It also has "lighthouse projects" that are built partly for the value they deliver, but also partly to develop internal capabilities and inspiration for additional operational projects.

Memorial Sloan Kettering Cancer Center's AI governance structure determines whether projects are tied to the organization's strategy goals and whether strong key performance indicators (KPIs) will show value such as good clinical or financial outcomes.

When it comes to AI-based tools for clinical decision support, healthcare leaders don't want point solutions

Enterprise clinical decision-support solutions are the preferred approach for many hospitals and health systems. One reason is that multiple point solutions create more overhead from an IT implementation and maintenance standpoint. Another is that many different tools can have a negative impact on the provider experience.

Rather than implementing a lot of AI-based point solutions, Providence is instead focusing its efforts on a single area at a time. "We want to bring a lot of things to bear in one space so our clinicians feel there is a real improvement," Dr. Shah said.

Geisinger's and Memorial Sloan Kettering Cancer Center's AI governance teams also prefer enterprise AI solutions for clinical decision support. "We are focused on finding high-impact and low-risk use cases," Ms. Baldwin-Medsker said. "When we choose pilots, we always want an executive sponsor, an operational lead and clinician support. For future investment, we need a strong business case to support future implementation across the enterprise. We don't want to implement point solutions."

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Chief Medical Information Officer, Providence

Communication, education and caution are key to overcoming barriers to implementing AI technologies

Transparency and clear communication can improve solution adoption among healthcare providers.

"There are real challenges to overcome when we communicate with clinicians and staff across the enterprise," Ms. Baldwin Medsker said. "We are hearing questions about what AI-based solutions will mean to them in the long term and whether it will change the way they interact with patients."

A lack of education is a big contributor to provider trepidation about AI. Once organizations inform people about what AI tools can and can't do, these solutions become more real and the fear begins to decrease. Providence, for example, has built video courses and other resources internally so employees can learn more.

Taking a cautious and considered approach to AI can also reduce implementation barriers. Geisinger hasn't faced many challenges because the organization is moving slowly.

"We get a lot of requests to build different things with AI," Dr. Jeffries said. "We're pumping the brakes on many of those, however, rather than rushing into them headlong. We embrace what we think will deliver big wins."

Providence is embracing a "fast, slow, fast" approach to AI adoption. "We have to take quick wins where we can for things that are low risk. But we need to be slow and cautious about the moonshots and make sure we are doing things in a methodical way in terms of investment, implementation and safety," Dr. Shah said.

Smart integration of AI into clinical decision-making can improve the provider experience and health equity

The hope is that generative AI and automation will relieve providers of burdensome tasks, leaving them free to focus on patient care. "What we say here is that this lets doctors be doctors again and it lets nurses be nurses again," Dr. Shah said.

Part of this vision is acknowledging that AI and generative AI are decision-support tools, not decision-making tools.

Clinicians should be able to see the information they want to see and navigate to it quickly. “The ideal state is when the technology gets out of the way almost entirely and lets providers have face-to-face conversations with patients,” Dr. Jeffries said.

An exciting prospect is leveraging AI to develop an ecosystem that supports clinical care by delivering services more efficiently and improving health equity. “There’s a lot of excitement about how we document and summarize what’s in the electronic health record,” Dr. Helmuth said. “For example, are there ways to look at patient information and perhaps social risk data from public sources, compare that to a knowledge database and deliver insights?”

Balancing innovation with caution

AI technology has the potential to revolutionize clinical decision support, but governance structures, communication and education are essential to ensure that solutions are implemented safely and effectively. The goal isn’t to replace people but to deliver great care by optimizing interactions between clinicians and patients.

“I’m excited about this new frontier,” Dr. Shah said. “We can’t be in a rush, but we also need to move with pace. We need to understand the risks and how to measure them.”

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