Micromedex: Improving efficiency and care with AI

EHR integration delivers staggering results for TidalHealth
That was the concern facing TidalHealth Peninsula Regional, a 266-bed hospital in Salisbury, Maryland. Although hospital leaders had invested in a variety of drug information databases and other clinical decision support solutions, they found that clinicians were still spending far too long searching for answers.

See the solution that solved their problem

“Traditional search methods in drug information tools are a bit clunky,” says Rachel Cordrey, PharmD, Supervisor of Inpatient Pharmacy Operations at TidalHealth Peninsula Regional. “You have to open a web browser or open a desktop shortcut, search by the medication name you are looking for and then search through the results to find the information you actually need to make your decision. It can take significant time — in fact, our own research suggested this manual process was taking up to three minutes each time.”

Let’s face it — clinicians are busier than ever. Between growing patient volumes, increasing documentation requirements and navigating daily workflows, it has become difficult for them to focus on what’s most important — delivering the best care possible to their patients.

Clinicians went from spending 3 – 4 minutes per clinical search to > 1 minute on average.

They increased average use of clinical decision support by 10x in a single month.
“It was important to us to streamline this process and make it more efficient. If we could do so, it would be more likely that end users would actually use the tool to get those important questions answered.”

Rachel Cordrey
PharmD, Supervisor of Inpatient Pharmacy Operations,
TidalHealth Peninsula Regional

And when factoring in dozens of patients across a single shift, this time could quickly add up — leaving many providers to abandon using clinical decision support altogether.

“Clinicians are under tremendous time pressure,” said Mark Weisman, MD, Chief Medical Information Officer at TidalHealth. “It’s important to streamline efficiencies where you can — and keep clinicians inside the workflows they are used to using to do these sorts of tasks. If they have to go outside those workflows to find information they need, that’s often a barrier to entry that may prevent them from getting it done.”
“Clinical decision support is not always that well-received by clinicians... But Micromedex was different. When the provider has a question, they can click on the tab, ask a question about a medication in a natural way and know they are going to get good information back quickly.”

Mark Weisman, MD
Chief Medical Information Officer, TidalHealth
In a survey of its clinicians, TidalHealth Peninsula Regional leadership found that 92% of respondents would be more likely to use clinical decision support tool that was integrated into their electronic health record (EHR) from Epic Systems. They found their answer in Micromedex® — an AI-powered clinical decision support software solution.

For nearly 50 years, Micromedex solutions have served as a source of evidence-based medical information for clinicians worldwide. The addition of AI to Micromedex enables healthcare providers like TidalHealth Peninsula Regional to integrate clinical decision support into their EHRs, so clinicians can get fast, reliable answers from within active workflows.

Dr. Cordrey posits that integration could also have additional benefits.

"Every day, nurses and providers call the pharmacy to ask pharmacists drug information questions," she says. "If we could add in an AI tool that would allow users to more easily interact with data sources and get the accurate information they need on that first search, we could reduce the number of those phone calls. That way clinicians only need to call for more complex situations, like questions that are uniquely specific to a particular patient."

Integrating the solution into their Epic EHR took just one day. After that, TidalHealth Peninsula Regional clinicians were able to search for clinical information using a AI-powered search utility within their EHR. They could even use natural language queries — as if they were asking a medical colleague in everyday conversation — and receive answers and links to more detailed, evidence-based information within seconds.

“You don’t have to think about specific keywords or phrase the query in a certain way to get good information back,” says Dr. Weisman. “You can just say, ‘I need to know how to dose ciprofloxacin,’ and the answer comes right up.”

The tool was initially deployed to the pharmacy department.

“We started with our pharmacists because that’s the group of clinicians that are most used to working with drug information tools on a routine basis,” says Dr. Cordrey. “We then rolled it out to other departments across the hospital.”

Results followed immediately.
AI-powered search increases adoption and efficiency

In the month following integration, TidalHealth Peninsula Regional clinicians used the Micromedex solution 489 times — compared to just 275 searches during the previous six months. And when Dr. Weisman and colleagues did time studies on the searches being conducted using AI technology, they discovered that clinicians received their answers in less than one minute 73% of the time.

What drove such a staggering increase in adoption of the tool? Hospital leadership gleaned some insights by once again surveying its clinicians, who overwhelmingly said the tool saved time, was easy to use and made their jobs easier. Users were also impressed with the quality of Micromedex content, with 94% of survey respondents saying they trusted the solution gave them.

“Clinical decision support is a valuable tool for pharmacists and other clinicians,” says Dr. Cordrey. “Having this kind of natural language solution, embedded into the EHR so it can be accessed right at the point of care, is much more efficient for end users. When you make the tool easier, you are making it more likely that clinicians will use it. And that benefits everyone.”

See how Merative’s AI-powered clinical decision support solution can help providers find drug and dosing answers fast.
About TidalHealth Peninsula Regional

TidalHealth Peninsula Regional is an award-winning 266-bed hospital with Level II trauma center designation located in Salisbury, Maryland. Serving nearly 500,000 patients, the facility is well known for taking an innovative approach to care delivery.

About Merative

Merative is a data, analytics and technology partner for the health industry, including providers, payers, life sciences companies and governments. With trusted technology and human expertise, Merative works with clients to drive real progress. Merative helps clients reassemble information and insights around the people they serve to improve healthcare delivery, decision making and performance. Merative, formerly IBM Watson Health, became a new standalone company as part of Francisco Partners in 2022. Learn more at www.merative.com.