



## ***Tapping Into Clinical Decision Support Solutions at the Point of Care***

***Having evidence-based information at your fingertips is key to excellence in care delivery***

**K**ate O'Neill, DNP, RN, was in the trenches, providing the latest, most accurate data and best practices to those treating COVID-19 patients at a large New York hospital. With no real-time method for disseminating important information, she was forced to comb periodicals and websites for the evidence-based information that was being released with unprecedented frequency. She would then circulate photocopies of this printed information regarding new equipment, guidelines and reports to her front-line care team.

“It was really frustrating to the providers because we all want to spend time with patients, not looking in dusty and crusty books for the best information,” O'Neill said. “That’s why mobile solutions like Dynamic Health and DynaMed are key to bringing the latest evidence and critical information to care teams who are at the bedside.”

Disruptions like these don't just annoy physicians, nurses and health professionals – they also impact patient care and clinical performances. Healthcare organizations are now recognizing the costs of these disruptions and investing in modern clinical decision support systems (CDSS) that provide the right information at the right time and place to ensure the best outcomes.



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SARAH MCKINLEY, MD | Consulting Physician | EBSCO

## Evidence-based CDSS improves quality of care

CDSS came into use as clinicians began accessing computers in healthcare settings. These computerized programs expanded with the widespread U.S. adoption of electronic health and medical records.

Some CDS solutions now use advanced technologies like machine learning to analyze electronic patient data instantly and match it to the most recent, vetted medical literature tied to patient care, such as drug warnings and preventative care recommendations. Today’s CDS tools are also available as mobile apps for interdisciplinary care teams both on the go and at the bedside.

The primary purpose of any CDS tool is to find timely information from approved knowledge centers and apply it to patient assessments to help determine the best course of care. Having this information handy not only improves clinical workflows but can also boost a practitioner’s competence and confidence. In addition, these tools can facilitate deeper conversations between patients and providers, resulting in greater patient engagement.

The Department of Health and Human Services’ Agency for Healthcare Research and Quality found that CDSSs provide a variety of benefits. “CDS can potentially lower costs, improve efficiency, and reduce patient inconvenience,” the agency noted.<sup>1</sup> “In fact, CDSSs can sometimes address all three of these areas at the same time – for example, by alerting clinicians about possible duplicate tests a patient may be about to receive.”

Similarly, the Centers for Disease Control and Prevention point to CDSS successes in cardiovascular disease prevention, giving rise to significant improvements in three areas of quality care practices: screenings and preventative care;

evidence-based clinical tests; and treatments. They also report that CDSS can eliminate barriers to hypertension-related care in underserved communities.<sup>2</sup>

## Improving both patient and provider experience

The pandemic took a toll on healthcare organizations that were forced to pivot to telehealth and telemedicine or to delay visits until it was safe for patients to return. Even with COVID-19 now considered endemic, many physicians and health professionals continue to address in-office patient backlogs without compromising quality of care. That includes making sure the technology in the room facilitates productive patient visits – something that’s difficult if the IT tools pull clinicians away.

“When a patient talks to their provider, they must feel safe to share very personal information about potentially sensitive topics involving their health, concerns and family. Seeing a provider distracted by a computer can damage that connection the patient needs to be heard and treated compassionately,” said Sarah McKinley, MD, who specializes in internal medicine, pulmonary and critical care and serves as a consulting physician for EBSCO Information Services (EBSCO), provider of CDS tools designed to improve patient care.

That’s one reason why physicians sometimes view desktop computers in patient rooms as a barrier to patient engagement – especially as value-based care continues to gain traction.

Care plans developed as a collaboration between patients and their health care providers achieve better engagement, patient and provider satisfaction – and likely better outcomes. This requires trust between patients and providers. Modern CDSS tools should serve as a tool to support those collaborations between patients and providers rather than as a barrier or distraction.



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“But now, as these clinical support tools are fine-tuned, clinicians are seeing them as an assistant, a partner and a way to improve communication quickly,” McKinley noted. “These tools are actively refined daily to be streamlined, efficient and usable for the tasks someone is already doing. This helps heal that patient-provider relationship that’s been under fire recently.”

ONeill agrees that having to leave a patient’s room to look up information in a textbook or binder can impact customer satisfaction and care quality – specifically if it is outdated. If a patient feels listened to and like they’re part of the solution, they are more apt to follow a treatment plan. That can then translate to high(er) satisfaction scores, whether on a government survey or online review.

### **Alleviating some sources of clinician burnout**

It’s no secret that many physicians, nurses and other health professionals suffer from burnout after almost three years of grueling schedules and stressful patient loads tied to COVID-19.

In October 2021, a Morning Consult survey revealed that one in five healthcare workers quit their job during the pandemic.<sup>3</sup> Nursing, in particular, took a big hit. The U.S. Department of Labor Statistics showed more than 100,000 nurses left their jobs in 2021, with the highest number of leaving nurses being under the age of 35, according to Health Affairs.<sup>4</sup> This represents the largest U.S. decline in registered nurses in four decades.

These workforce shortages not only reduce the quality of patient care, but also impact patient safety. Practitioners who are chronically stretched thin increase their risk of medical errors, which is why healthcare organizations must find ways to remove redundancies that slow down workflows and leave less time to consider clinical options.

“Providers feel, ultimately, unsupported and responsible for facing the shortcomings of the health-care system alone,” McKinley said. “As a physician, knowing you have the tools you need to feel confident in your care plans is invaluable.”

### **The importance of evidence-based data in clinical decision-making**

Healthcare providers also need to feel confident in the information they receive, given how much new scientific information is generated that impacts medical and public health communities. It’s impossible for a busy person to keep up with the relevant literature and critically review it for the best evidence-based, accurate and timely information – whether that information is a study on emerging therapeutics or an update to established guidelines.

“You need an army of people digesting that literature for you to stay current,” McKinley pointed out. CDS tools provide that review, resulting in accessible, strictly reliable and evidence-based medicine.

Using AI-driven technology to find timely medical information quickly also reduces bias in what information is collected. “It builds confidence when the provider and patient know there are layers of protections in place to minimize the effect of bias in the data that is disseminated,” McKinley said.

### **Learning while on the job**

To help ease nursing shortages in recent years, hospitals called retired nurses back into service and hired novices and nursing students – two groups likely to lack confidence and competence due to having too much to learn in too short a span of time. This is yet another way the right CDSS can contribute to patient care excellence and boost productivity, according to O'Neill.

“If I send people off the unit and into required or regulation-mandated training, I’m taking them away from patient care,” explained O'Neill, who also is a nurse consultant for EBSCO.

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Having access to evidence-based information online or via a mobile app is key to building a culture of lifelong learning. This new feature of in-context learning by searching the evidence not only helps onboard new staff, but also supports staff certifications through continuing education credits. “The best CDS tools provide that information in micro-learning minutes, so that they are able to acquire 0.1 CE credits every time they use the tool to query for information,” O’Neill noted.

That information can include everything from skills checklists to lab results to patient handouts automatically written for third- and fifth-grade reading levels in different languages. And it can be consumed by clinicians from any location – from the bedside to a breakroom, hospital hallway or home office.

“Clinical decision support systems have been at the forefront of healthcare for the last few years,” O’Neill said. “These tools lessen workloads and save time. Providers no longer need to

search Google for content or ask their peers where a policy resides; it’s right there in a mobile app they can easily access. Solutions such as Dynamic Health and DynaMed bring digital tools to front-line care teams that help reduce provider burnout and improve staff retention.

“Ultimately, our goal at EBSCO is to improve staff satisfaction, productivity and efficiency while also improving patient outcomes,” O’Neill concluded.

**To learn more about EBSCO and their award-winning Clinical Decision Support Solutions to support patient experience, quality and safety, visit [www.ebsco.com/health-care/clinical-decision-support](http://www.ebsco.com/health-care/clinical-decision-support).**

#### References

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