Empowering physicians with fast, accurate clinical answers

How innovative clinical decision support technology drives better care decisions and patient outcomes

Wolters Kluwer

healthleaders
an hcpro brand

Thirty years ago, a physician with a clinical question on a patient case had two choices: consult with a colleague or other healthcare professional (research shows this leads to answers less than 30% of the time[1]), or seek guidance from the medical literature, which required a time-consuming trip to the medical library. Thankfully, advanced clinical decision support (CDS) solutions now help clinical teams make the right medical decisions in real time. These solutions help reduce care variation and improve care coordination by enabling physicians to connect within their workflow to evidence-based clinical-, pharmacy-, and patient-engagement content.

"Given the voluminous amount of healthcare information available today, clinicians need medical and faculty experts to distill it down into a discrete recommendation for a specific patient type, and they need an entire experience that is easy and transparent,"

Peter Bonis, MD,
Chief Medical Officer at
Wolters Kluwer, Health

Influencing care decisions with the right information

Research shows that widespread usage of CDS technology is associated with improved patient outcomes and hospital processes. Multiple studies — including one from the University of Chicago[2] — have found that over 30% of CDS topic views were associated with changes in clinical decisions, including diagnoses and treatment approaches. Additionally, a Harvard University study found that one CDS tool was associated with many benefits over three years, including 372,000 hospital stays saved per year, fewer complications, improved patient safety measures, and even a reduction in mortality rates with 11,500 lives saved.[3]

As patient data increases, thanks to Electronic Health Record (EHR) advances, improved interoperability, and a growing body of medical research, CDS allows clinicians to bypass volumes of information to access what they need, such as information on emerging medical breakthroughs and hard-to-predict health events. They can even drill down to nuanced details, such as precision dosing for specific medical conditions.

Bonis adds, "Physicians use CDS tools as part of their daily clinical routine across a variety of areas, including to help solve complex clinical cases, justify admissions, confirm clinical decisions, assist clinical pharmacists in providing patient care support, and treat unfamiliar conditions." However, not all CDS systems are created equal. According to Bonis, CDS solutions must be backed by deep technology expertise and machine learning that allows organizations to do the following:

Share clinical information that is evidence-based, current, and highly trusted.

Improve patient outcomes by removing variability and inconsistencies from one care team to another.

Improve quality and patient satisfaction metrics. CDS helps your clinicians make consistent, accurate decisions that reduce length of stay, mortality, and readmission rates.

"Clinical decision support enables physicians to get answers to their clinical questions quickly at the point of care. Clinical Decision Support helps build clinician knowledge through an editorial process that taps clinical experts who synthesize their understanding of the literature plus their clinical experience to provide evidence-based answers to those clinical questions."

Ted Post, MD,
Nephrologist and Editor-in-Chief of
UpToDate, Wolters Kluwer

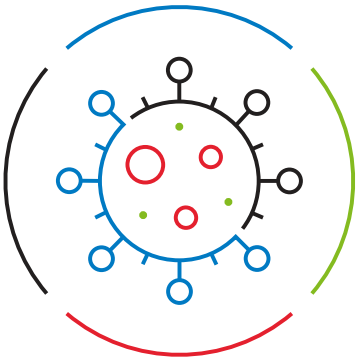
Keeping in step with breaking trends

"As providers continue to experience increasing burnout and numerous challenges, from staffing shortages to ongoing COVID-19 challenges, CDS technology has become even more essential in providing accurate patient information at the point of care," says Bonis. For example, during the pandemic, when healthcare organizations and clinicians faced a new virus with little knowledge of its impact on patients, UpToDate® quickly expanded to evidence-based guidance on 90 topics on the disease and refreshed more than 2,000 times to synthesize new learnings as quickly as they were being published.[4]

Creating consistency in an inconsistent world

CDS has also been indispensable to your clinical teams sharing information across growing provider networks, which puts them at risk for information gaps and care variations. As healthcare data grows and busy providers find themselves with less time at the bedside, healthcare organizations increasingly see the value in adopting CDS technology that enables your clinical users to search, locate, and review the information they need in as little as one minute. "Whether it's on a mobile device or through the EHR mobile devices use the internet, so this is redundant/feels outdated. CDS technology has gotten much better and much more sophisticated," says Bonis.

He adds that offering clinicians the best clinical evidence at their fingertips not only improves quality care and patient outcomes but also gives them more leverage to close information gaps in a rapidly changing healthcare space that is generating more healthcare data from new entrants into the primary care ecosystem. While Bonis is optimistic about the tremendous progress of CDS, he says that the global healthcare system faces more work ahead.



"There is still a great deal of care variability, depending on who you see, where you're seen, how much insurance and social support you have, and numerous other factors. The challenge for the future will be to ensure that no matter where you're getting your care, you receive the most optimal care possible."

Peter Bonis, MD,
Chief Medical Officer at
Wolters Kluwer, Health

[1] Covell DG, Uman GC, Manning PR. Information needs in office practice: are they being met? Ann Intern Med. 1985 Oct;103(4):596-9. doi: 10.7326/0003-4819-103-4-596. PMID: 4037559.

[2] Blackman D, Cifu A, Levinson W. Can an electronic database help busy physicians answer clinical questions? J Gen Intern med 2002; 17Suppl1:220.

[3] Isaac T, Zheng J, Jha A. Use of UpToDate and outcomes in US hospitals. J Hosp Med. 2012 Feb;7(2):85-90. doi: 10.1002/jhm.944. Epub 2011 Nov 16. PMID: 22095750.

[4] 30 years of UpToDate: The evolution of clinical decision support and the future of evidence-based medicine: https://www.wolterskluwer.com/en/expert-insights/30-years-of-uptodate-evolution-of-clinical-decision-support-future-of-evidence-based-medicine#video

 01.24 | 000973