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ClinicalKey AI

Embracing AI for evidence-based clinical decisions

Artificial intelligence (AI) technologies are not new to the clinical setting. However, the burgeoning inclusion of generative AI has started to make an increased impact in the industry and pique the interest of forward-thinking clinicians.

According to Elsevier's Clinician of the Future report[1]:

11% of today's clinical decisions are assisted by generative AI tools.

48% of physicians globally find using such tools desirable in the future.

Although there's strong promise with AI technologies in healthcare in a variety of applications, using AI for evidence-based decision making comes with pressing issues that clinicians face.

With medical knowledge doubling every 73 days[2], clinicians struggle to keep up with the overwhelming amount of medical information that is being published, making it more difficult and time consuming to find resources to support their treatment decisions.

Additionally, patient conditions are more complex due in part to an aging population and a growing number of patients with multiple comorbidities. Looking up potential conditions, factoring in these complexities, from multiple sources on top of an already busy workload takes time that many clinicians don't have.

It can take clinicians up to **32 minutes** to find answers to their questions.[3]

Up to 60% of questions that arise during clinical encounters go unanswered because of inadequate time.[4]

Physicians make approximately **158** decisions a day and **80%** of these decisions lack support of evidence-based information as a part of the decision-making process[5]

AI technologies have been seen as a way to increase efficiency and are weaving their way into the clinical workflow process, but they have yet to effectively solve the problems clinicians face when it comes to decision making.

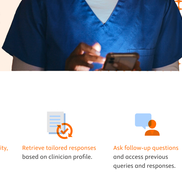
With the recent launch of ClinicalKey AI, clinicians who have used the product were able to interact with the conversational search engine to find answers to their pressing clinical questions. Elsevier conducted a survey and interviews[6] with these users who gave feedback on the usability, responses, and time savings that were offered from ClinicalKey AI.

Asking complex clinical questions

Over 93%

of participants rated the responses received using ClinicalKey AI as above average.

With ClinicalKey AI, clinicians can ask questions the way you would speak to a trusted specialist—getting an answer in a fraction of the time.



Clinicians can:

- Account for patient complexity, such as comorbidities and current medications.
- Retrieve tailored responses based on clinician profile.
- Ask follow-up questions and access previous queries and responses.

ClinicalKey AI's conversational search engine streamlines the knowledge retrieval process to support clinicians in making evidence-based decisions.

"I think the speed of the answer and the ability to ask questions in natural language, as opposed to going in and trying to do a search, gives it a real edge over other clinical resources. Just to be able to ask a question in natural language and get a very prompt answer that is accurate is great."

Barry Wendt, M.D
St. Elizabeth Healthcare

"What sets ClinicalKey AI above anything else that I've ever experienced is the ability to dialogue back and forth. You ask a question. It responds. Based on the answers that it provides you dig a little deeper and you ask a further question, and you can dialogue back and forth in virtually real time."

John D. Walker, MD, FAWM, FNAP
University of Texas

Finding the right information efficiently

91% of participants reported strong positive affirmation for ClinicalKey AI meeting their expectations as a reference tool.

ClinicalKey AI is specifically designed for medical application and each query generates a summarized response based on evidence-based content sources, cited with references.

This technology has been tested with over 30,000 clinicians and there are over 200 specialty trained clinicians who are dedicated to continuously testing the accuracy of ClinicalKey AI's output.

Robust safeguards ensure your queries don't find their way into the public domain. Utilizing vetted AI tools specifically designed for clinical application mitigates against the rogue use of generic AI tools and allows you to innovate within sensible guardrails.

"The fact that it's pointing to evidence-based, peer-reviewed articles is really the key. Because I get it, people could say, 'Well, you know, you could use Chat GPT,' but the answers you get are all over the place because of it not being evidence based."

Barry Wendt, M.D
St. Elizabeth Healthcare

"I appreciate ClinicalKey AI for its user-friendly presentation style and meticulous attention to detail in the reference section. The platform's clear and concise format, including the use of the bullet points, significantly enhances the overall user experience."

Edwidge Thomas, DNP
Northwell Health, Sunrise Health, Community Healthcare Network

"I've been asking [ClinicalKey AI] specific and detailed questions, as well as very high level, refined clinical judgment questions. And I have just been astonished at the speed, the nuance and the attention to detail in providing references to back up the statement."

John D. Walker, MD, FAWM, FNAP
University of Texas

Spending less time searching through content

91% of participants stated they were likely to use ClinicalKey AI if their institution were to purchase.

ClinicalKey AI pulls from multiple evidence-based sources, including Elsevier's proprietary point of care content, journal abstracts indexed on Medline and copyright cleared for use, selected US government publications from the FDA, CDC and NLM, and medical reference texts.

Clinicians can:

- Access the most current and trusted information on demand.
- Explore a variety of disease conditions and medication alternatives, basing decisions on proven clinical practices.
- Investigate emerging treatments from trusted sources.

This is possible with our intuitive clinical reasoning assistant, which is designed so clinicians can quickly search a comprehensive base of clinical research—all from one place.

"Before I started using ClinicalKey AI, it would take me hours and hours and days to bore through the literature to find exactly the details that I need … Now, in seconds, I can find an answer that would have taken days. It's a huge time saver."

John D. Walker, MD, FAWM, FNAP
University of Texas

"Using ClinicalKey AI I've found I'm able to find things in just a minute or two. This was probably the most valuable thing when asking more esoteric questions."

Barry Wendt, M.D
St. Elizabeth Healthcare

AI solution development with the clinician in mind

By putting clinicians first in the development of these new technologies, generative AI solutions can have a positive impact in addressing disease management, supporting clinicians' journeys, and delivering more efficient and effective solutions, among other benefits.

ClinicalKey AI makes it possible for clinicians to quickly and easily **extract precise knowledge** from the vast body of clinical information, ensure decisions are based on the latest evidence, and help hospital leaders provide the right AI technology for supporting clinical decision making. Elsevier is committed to making **credible, current information easily discoverable** to help clinicians drive optimal care.

Request a free trial to see the power of ClinicalKey AI firsthand at elsevier.com/clinicalkey-ai

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[1] https://www.elsevier.com/clinician-of-the-future [2] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5116442/ [3] Clinical Information Seeking Behavior of Physicians: A Systematic Review. International Journal of Medical Informatics, July 2016 [4] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3540464/ [5] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4768766/ [6] Interviews included 12 participants, interviews included 5 participants