How medical libraries can keep pace with the rapid developments of artificial intelligence in healthcare

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Executive summary

Applications of artificial intelligence (AI) are making inroads and headlines in healthcare. Accordingly, the need for researchers and clinicians to find the latest, most accurate, clinically relevant information about AI in healthcare (AIH) has grown exponentially. However, the vast sea of databases from which one can draw often presents overwhelming noise, requiring users to possess significant expertise in searching and appraising information.

In contrast, the NEJM Collection published by the NEJM Group, particularly *NEJM AI*, offers a guiding light by purposefully curating signals from noise to provide the latest, most clinically relevant, and immediately transformative information on all AIH topics.

Introduction

AIH is a topic of intense discovery and discussion. Articles alternately spotlight AIH's promise or its perils. Many proofs of concept exist for AI-enabled technologies; however, studies to date on those technologies have been small and sparse. Moreover, patient outcomes have not been consistently measured, so the effectiveness of the technology is unclear.[1] The crucial question of performance gain — what measurable improvement is due to the AI model alone — needs to be rigorously addressed.

The average clinician often struggles to interpret the results of an AI study while trying to determine whether the tool is safe and effective enough to use in practice, partly due to the time-intensive nature of appraisal and the sheer volume of new publications.[2]

Medical librarians can bridge the gap

Medical librarians are uniquely positioned to fill those information and skill gaps as they increasingly field user questions regarding how to find good research on AIH and interpret the results. AIH information can be drawn from a vast sea of databases, but the onus is on the user to apply the right filters and be an expert in evaluating the information. In contrast, the NEJM Complete Collection, including *NEJM AI*, provides a guiding light to the latest, most clinically relevant information about AIH. Librarians can support clinicians not only in searching but also in developing algorithmic literacy and critically appraising AI outputs, a crucial skill in a rapidly evolving landscape.

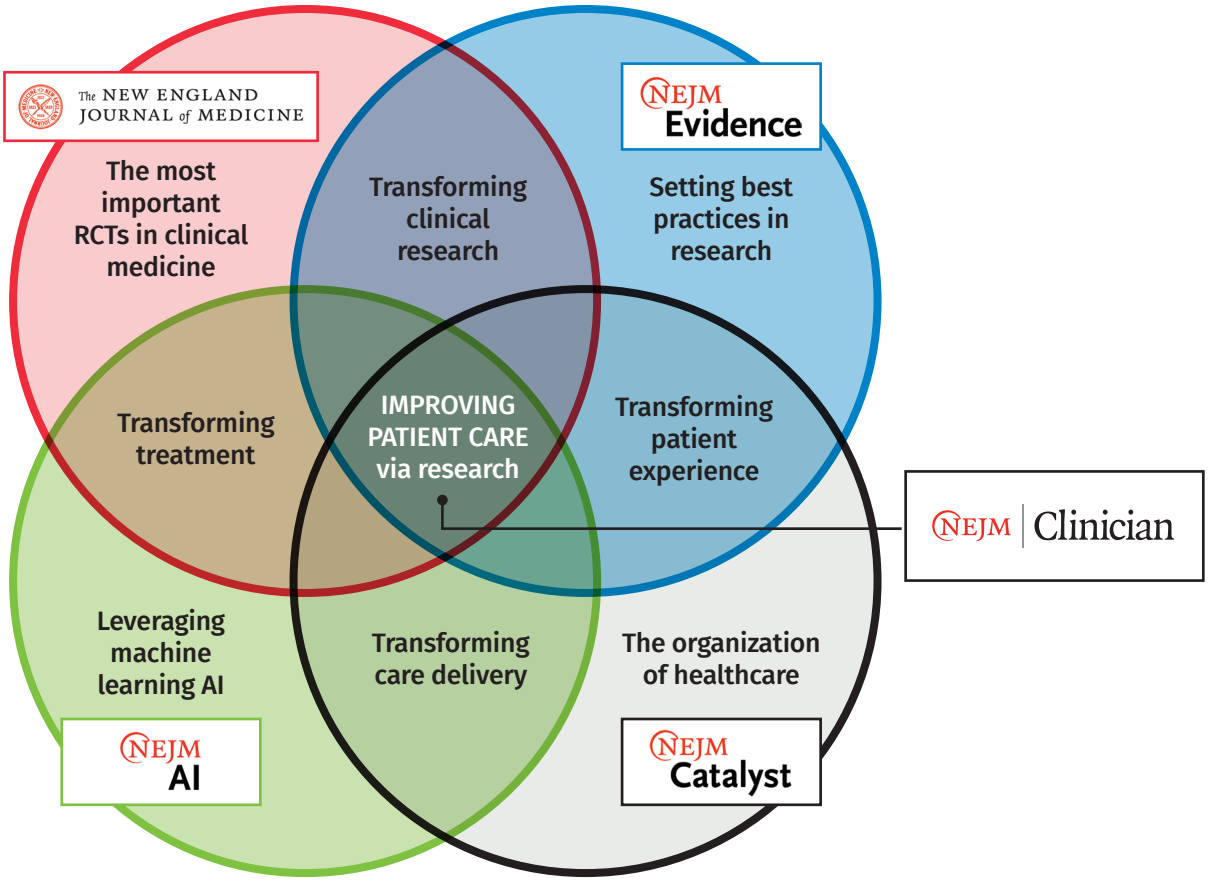
The NEJM Complete Collection is a product suite of high-impact, peer-reviewed content curated for researchers, physician learners, and educators at medical schools. The collection stands alone as an entire ecosystem that deliberately separates signal from noise, offering only the most relevant, immediately transformative information for proactively advancing care. Beyond simply presenting information, the portfolio curates content for accuracy and clinical relevance, while also offering physician-editor commentary to provide essential context and clinical decision-making support.

The average clinician often struggles to interpret the results of an AI study

How to optimize the use of the NEJM Collection

For all users, NEJM Clinician can serve as the primary entry point for research. Its authors cull information from more than 150 medical journals, generating succinct summaries of clinical studies, highlighting key findings and clinical implications, and providing expert commentary. This effectively offloads the overwhelming task of staying current and appraising diverse literature for clinicians and researchers. Topics can then be explored in more depth within the primary articles.

For librarians, this product serves as a valuable starting point for researching information about AI in healthcare.



For librarians, this product serves as a valuable starting point for researching information about AI in healthcare. Coupled with reviews published in *NEJM Evidence* and *NEJM AI*, the NEJM Complete Collection can provide a comprehensive, focused literature survey of AIH. Moreover, *NEJM AI* is the only publication dedicated to the entire field of AIH. One of its goals is to promote more rigorous evaluation of emerging technologies, which uniquely requires all studies involving patients to be pre-registered before being considered for publication — a critical step in ensuring robust evidence.

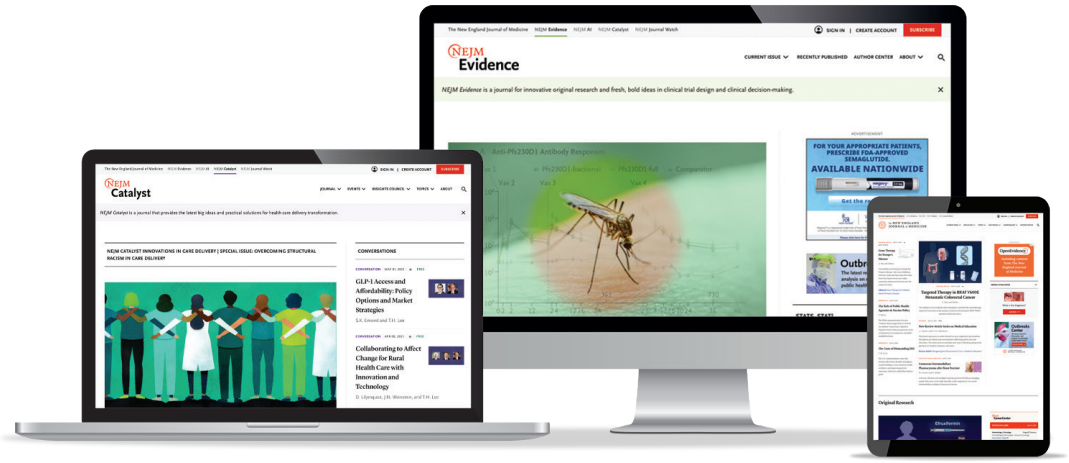
Complementary publications

The journals in the NEJM Complete Collection are designed to complement each other, each with a distinct and necessary mission aligned towards specific improvements in research and medicine, rather than merely increasing publication volume. Consider this AIH example:

Product	What it offers	Example of an AI Article
The New England Journal of Medicine	Practice-changing, clinically relevant, peer-reviewed research; recognized as the world's leading medical journal.	(2023) Groundbreaking analysis of GPT-4's capabilities in medicine[3]
NEJM Evidence	Illuminates best-in-class clinical trials, how they work, and provides researchers with tools/insights to improve their research/trial designs to yield more powerful clinical evidence. It serves as a manual for how to improve research, often publishing "null results" to provide crucial lessons in trial methodology.	(2023) The statistics behind large language AI models and how they work in clinical medicine[5]
NEJM Catalyst	Brings together healthcare executives, clinical leaders, and clinicians to share innovative ideas and practical applications for enhancing the value of healthcare delivery. It addresses the organizational complexities of bringing innovations to patients in real-world health systems.	(2024) Healthcare leadership in the AI era[6]
NEJM AI	The first publication dedicated to covering the entire field of AIH; seeks to improve patient care by providing clinical-grade evidence for evaluating AIH applications to determine their incremental benefit. Its existence is driven by three key factors: AI maturity requiring rigor, the critical gap in evidence and trust in AI tools, and the vital concerns around ethics and equity.	(2025) Safety and regulatory oversight of AI applications in medicine[7]
NEJM | Clinician	Curates essential research and guidelines across specialties, with expert physician commentary in concise, actionable summaries—quick to review and designed to help clinicians stay current and confident in their decisions.	(2024) Study + expert commentary on how a large language AI model fared in clinical reasoning[4]

NEJM AI is the only publication dedicated to the entire field of AIH.

Benefits to medical libraries



NEJM AI is the sole publication that comprehensively covers all matters pertaining to AIH. With articles that speak to machine scientists, researchers, and physicians, its content includes:

- **Original research:** preclinical and clinical trials of AI or AI-assisted technology for diagnosis or treatment; new AIH applications, and rigorous evaluations of that research
- **Datasets, benchmarks, and protocols:** reports describing new datasets, shared benchmarks for the medical machine learning community, and reproducible or novel protocols or study designs that could be adapted for other trials
- **Case studies:** first-person accounts of implementation challenges and lessons learned from a specific deployment of AIH
- **Reviews:** clinically relevant new machine learning methods, emerging applications, and educational topics published in peer-reviewed articles
- **Perspectives:** timely AIH-related topics, written in a brief, accessible style
- **Policy Corner:** longer commentaries on policy issues surrounding AIH, from multiple stakeholders' perspectives
- **Editorial:** commentary and context for published original articles

NEJM AI content also extensively covers responsible AI principles, including discussions on bias, transparency, privacy, accountability, human-centric design, robustness, safety, collaboration, and overall societal impact, all crucial for the ethical integration of AI in healthcare.

Acquiring *NEJM AI* along with the rest of the NEJM Complete Collection will increase library usage, bring incremental value to the department, and provide its users a competitive edge in research and clinical decision-making related to AIH.

The NEJM Complete Collection is a cost-effective addition to medical libraries in many ways, including:

Streamlining searches for AIH by proactively filtering out noise and curating essential signals

Ensuring medical librarians and other users have access to the most relevant, current AIH information

Positioning medical librarians as subject matter experts on finding the best sources of AIH content

Positioning the medical library as a one-stop shop for all its users' needs regarding AIH information, encompassing diverse facets of medical knowledge.

Conclusion

Artificial intelligence in healthcare is a rapidly expanding field, and medical libraries must stay current with its latest developments. The NEJM Complete Collection, including its unique publication *NEJM AI*, can position medical libraries as a reliable source for the latest, most accurate information in all matters pertaining to AIH, by providing curated, high-quality content that not only informs but also sets and enforces standards for the ethical and effective application of AI in clinical practice.

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