



Editorial

Use of AI for Manuscripts in the SMART-MD Journal of Precision Medicine

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This journal exists so experts can turn mechanistic and probabilistic insight about what causes or modifies complex disease into practical advice. These *clinical decision support tools* guide management of individuals with emerging disease features through diagnostic and treatment options, written so a working clinician can use them. This is the application of *Precision Medicine*, and why the Journal is named SMART-MD—**S**ystems **M**odeling and **A**dvanced **R**eport **T**echnology for **M**edical **D**ecisions.

Structure of Medical Science Manuscripts

Medical and scientific papers are highly formulaic. That structure helps authors develop their papers in a systematic way and allows readers to move from results to tables, figures, methods, references, discussion, and supplements and back again, and still find key details without wasting time. It is also why large language models (LLMs) can produce a review that *sounds* as if a domain expert carefully reviewed and summarized the literature. ChatGPT, Claude, Gemini, Llama, Grok, and the rest were trained on millions of documents that reinforce those scripts and stock conclusions. LLMs can follow explicit instructions; they do not have a brain. For well-worn topics that have already been reviewed many times, they often do a fairly good job. At other times the output is a hallucination: fluent, confident, and wrong. Thus, authors cannot rely in AI for generating manuscripts. Indeed, the author who submits a manuscript *owns every sentence*.

I am dyslexic and I love AI.

Dyslexia is a language-processing disability that affects spoken and written language, including spelling and

proofreading. For years I relied on assistants, fellows, and collaborators to catch spelling errors, grammar problems, homophones (to / too / two), and long sentences that confused my intended meaning. As Professor Emeritus I no longer have that bench of human editors. An LLM can take on some of those tasks and can even generate critiques from imagined reviewer standpoints. That only takes me halfway. After drafting the initial document and getting an LLM review and recommendations, I must still carefully go through each sentence and paragraph – as I am doing now on draft 6 of this editorial! The bottom line – AI is a terrific tool, but a tenuous tutor.

AI in Medicine: One Name, Many Models.

Classic computer software follows specified instructions and, on a fully specified task, is fast and nearly perfect. AI systems infer patterns from examples and apply them to *new* cases. Both are software; only the second is built to *improvise* inside a domain. Conventional programs are more reliable when the task can be fully specified. AI dominates when the problem is unstructured, poorly specified, or novel.

Discriminative imaging AI models (task-specific vision models)

The greatest advances of AI in medicine in narrow models evaluating physical measurement and a defined endpoint that were trained on thousands of examples that were first evaluated and annotated by human experts. A system reading a retinal photograph can detect referable diabetic retinopathy and beat many human readers *on that*

Abbreviations: AI, artificial intelligence; LLM, large language model; ICD-10, International Classification of Diseases, Tenth Revision; NNT, number needed to treat; RI, real intelligence

Keywords: artificial intelligence; large language models; generative AI; discriminative AI; medical publishing; authorship; research integrity; hallucination; precision medicine; complex chronic disease; clinical decision support; peer review; disclosure policy

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one question. Similar tools can detect a polyp on an endoscopic frame, mitosis on a pathology slide, etc. That is pattern recognition. It does not tell you *why* the patient has a pathologic feature or complex disorder.

Generative AI Models

Generative AI creates new content; an LLM is a subtype of generative models specialized for language. Generative models used to answer clinical questions are a different story than AI for image analysis. The trap is that LLM models perform well on board-style items, a clean vignette, high expert consensus, and published decision trees, because they can retrieve and average dense, similar text.

LLMs typically perform poorly in uncommon disorders or where new evidence conflicts with the weight of longstanding dogma. LLM models follow text density, not evidence quality. They lean on abstracts and easily accessed reviews, miss papers behind firewalls, and may invent citations. They cannot interpret a figure the way an expert does. Furthermore, given an anchored diagnosis, they cling to it more than an experienced clinician would. In short, in clinical medicine LLMs fall short.

The Big Black Box

The ongoing challenge in clinical medicine is in complex chronic disease—chronic inflammatory, neurologic, and functional diseases. These syndromes typically have multiple etiologies under one ICD-10 code and very widely in severity, rates of progression and type of complication. Furthermore, treatment must be individualized since the number needed to treat (NNT) is often high for a desired response or to avoid one bad outcome, and some patients will suffer from unexpected drug intolerance or toxicity from standard treatments. Managing complex chronic diseases requires understanding patient-specific function / dysfunction of the specialized cells, complex organs and well-orchestrated systems that are built and controlled by a genome with millions of small and large variants. That biology is invisible to an LLM that only sees syndromic names and billing codes. AI cannot unscramble an egg, nor predict that a fertilized, warmed egg becomes a chicken, *unless* someone has already solved the problem and written the answer on the web.

Complex disease is where true innovation is needed. SMART-MD JPM is designed to help meet this challenge.

Table 1. SMART-MD JPM — AI policy

AI is a powerful assistant. It is not an author. Transparency is required; authors own every sentence.

Allowed as assistant, not author

Spelling, grammar, clarity, formatting, and lining up sections the author has already conceived. Name analytic models in Methods, or in the Acknowledgment if there is no Methods section.

Must be disclosed

Any generative use that wrote or substantially rewrote text, tables, or figure legends (for example, a “what is known” section). Name the tool and version.

Not permitted

- AI listed as an author
- Unverified citations, data, or recommendations
- Letting a model invent the mechanistic claim or “read” the figures
- Submitting prose the authors cannot explain
- Using AI to generate the reference list

Authors must check and verify every reference, DOI, and PMID.

AI will take over much manual work. It will not replace insight into complex disease. Use it for what it does well. Progress still requires real intelligence—the standard this journal expects.

Why SMART-MD JPM paper cannot be generated by IA.

LLMs looks backwards, training on existing information and generating prose without understanding what it means. It cannot resolve the mechanistic etiology of complex disorders using billing codes and cannot gain true insight into specific cases when scraping available world-wide writings.

The outstanding Editorial Board of SMART-MD Journal of Precision Medicine helps identify true experts with forward-viewing insights into clinically relevant topics and the ability to organize, simplify and deliver these insights in final manuscripts. Use of several manuscript types provide a broad mechanistic landscape of complex systems, diseases or technologies that complement SMART-Approach (expert “How we do it) papers.

The journal wants translational insights, including genetic risk factors and polygenic risk scores for earlier detection, diagnosis, trajectory, and management. **This is precision medicine.** Legitimate SMART-MD JPM papers must come from domain experts using *real* intelligence.

SMART-MD JPM AI policy.

The JAMA Network's August 2026 guidance ⁽¹⁾ offers a balanced account of use and misuse of AI in publishing. AI is a powerful assistant in reducing technical workload. However, transparency as to its role in developing a paper must be part of the record; **authors remain responsible for every sentence.** SMART-MD JPM policy is summarized in Table 1. An optional Acknowledgment template appears after the References (applied to this Editorial) and on the journal site.

References

1. Flanagin A, Perlis RH, Bibbins-Domingo K. Updated Guidance for Author Use of AI in Medical Publication. *JAMA*. 2026;336(11):926-8 D.O.I: 10.1001/jama.2026.16613. PMID: 42574208

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The authors used Grok 4.6 (xAI) only as an assistant for spelling / grammar / clarity / formatting / lining up sections already conceived by the authors and other permitted task. No generative model wrote or substantially rewrote the scientific argument, tables, figure legends, or reference list. No Analytic tools, were used. All citations, DOIs, and PMIDs were checked by the authors. The authors take full responsibility for every sentence.