

AI in Oncology: Opportunity and Accountability

BETH FAIMAN, PhD, MSN, APRN-BC, AOCN, TCTCN, FAAN, FAPO



Recently, I presented a webinar for the Advanced Practitioner Society for Hematology and Oncology (APSHO) on the topic of artificial intelligence (AI) in cancer care, where I reviewed practical, ethical, and clinical applications. We discussed how advanced practitioners (APs) can use AI tools for clinical documentation, research, and scholarly communications. We discussed AI subcategories, including machine learning (ML), deep learning (DL), large language models (LLMs), and generative AI (GenAI), which are now common in medicine (Celik, 2025; Oermann et al., 2025).

Tools like ChatGPT, Claude, and OpenEvidence are transforming academic and clinical research, supporting idea generation, literature review, writing, and revision. But how can AI help you in clinical practice? In addition, what standards will you be held to for publishing and scholarly writing?

AI IN PRACTICE

AI is already being applied in cancer screening, early detection, diagnosis, pathology, molecular profiling, treatment planning, prognostication,

survivorship monitoring, and patient communication. Examples include AI-enhanced mammography, low-dose CT interpretation for lung cancer screening, colonoscopy polyp detection, histopathologic image analysis, actionable mutation identification, radiation therapy planning, and symptom monitoring.

As a busy clinician, AI helps me in both the clinic and research. In the clinic, I use Health Insurance Portability and Accountability Act (HIPAA)-compliant speech recognition software (natural language processing tools) to respond to patient messages rather than typing my responses to save time. During patient encounters, I use ambient listening services that are also HIPAA compliant. Both AI tools improve documentation accuracy, streamline coding, and save precious time in completing necessary documentation tasks. While the information generated always needs editing for accuracy, the after-visit summary is overwhelmingly popular with patients and cuts documentation time in half.

For rare conditions I need to learn more about, I may turn to OpenEvidence, which pulls data from reputable medical journals to

answer clinical questions efficiently when time is limited. OpenEvidence is useful for researching disease diagnoses and management strategies, verifying information, and drafting appeal letters for denied medications. Would you like to learn the most up-to-date approach to diagnosing and treating idiopathic thrombocytopenic purpura? Just ask OpenEvidence, and then verify the validity of the information you are given by double-checking references before making any treatment decisions. Do you need to write an appeal letter for a denied drug you believe is clinically indicated for your patient? OpenEvidence can write a letter for you to submit, with some editing and accuracy checks.

While the information generated by OpenEvidence is generally reliable and accurate, drawing from sources such as *JAMA* and NCCN, it is intended to supplement, not replace, clinical expertise, as it is not all-inclusive of the latest information. Substantial human revision and verification are needed.

For patients, AI can support education, communication, and self-advocacy. Patients are increasingly turning to AI platforms for health questions. However, there are risks of misinformation, lack of context, and data bias that advanced practitioners need to address with their patients.

AI IN PUBLISHING

Several AP colleagues have asked how GenAI can support scholarly writing. Tools are available for literature review and writing support, but some authors misuse GenAI by submitting mostly AI-generated content for publication. Most academic groups require disclosure of AI use, verification of facts and sources, and sometimes extensive editing of content to maintain an author's voice.

Ethical issues in AI-assisted writing include authorship, accountability, transparency, verification, and bias. Key ethical considerations for using GenAI in academic writing, especially for *JADPRO* submissions, are in place. Major journals require that AI tools cannot be listed as authors; only humans can take responsibility for the content. Authors must verify all facts, references cited, and interpretations in AI-assisted work. Authors remain fully accountable for the integrity, accuracy, and originality of their work

regardless of AI involvement. If you plan to submit a paper to *JADPRO*, please review the submission guidelines, which include a policy on AI use. These same guidelines are used for abstract submission to our annual educational conference, *JADPRO Live*. There is still time to submit an abstract, as submissions are due July 1, 2026, at jadprolive.com/abstracts.

LIMITATIONS

Although AI is a powerful tool, it raises important concerns. One such concern is bias. AI tools are only as reliable as the datasets used to train and validate them; when these datasets are not representative of the populations in which the tools are applied, the resulting outputs may be biased or less generalizable.

There is also a lack of transparency with “black box” models, most commonly seen with LLMs. Because LLMs are trained on massive datasets and can generate a wide range of outputs, it may be difficult to determine which factors influenced a given response or how those factors were weighted. As a result, AI-generated outputs should be interpreted with caution and require human judgment to assess their accuracy.

CONCLUSIONS

I hope you found this information helpful in using GenAI tools to enhance your understanding, efficiency, and impact. Just remember that GenAI can assist with complex topics and organization, but it is meant to augment, not replace, human expertise and judgment.

IN THIS ISSUE

Read about how a distress screening tool helped increase referrals for psychosocial needs in patients with head and neck cancer. A retrospective study of patients with gliomas in Denmark revealed trends in referrals to palliative care. One reason the management of newly diagnosed transplant-ineligible multiple myeloma remains challenging is the complexity of treatment decision-making with frail patients. A Review article in this issue clarifies findings on quadruplet therapy vs. triplet therapy in this population.

There are exciting advances in the treatment of advanced-stage Hodgkin lymphoma; this

issue's Grand Rounds article reviews the nivolumab, doxorubicin, vinblastine, and dacarbazine (Nivo-AVD) regimen. Another case study discusses a woman diagnosed with colorectal cancer while pregnant. In a Practice Matters article, read about how interactions between medical science liaisons and advanced practitioners can help bridge the gap between scientific innovation and clinical application.

Sexual dysfunction is a lasting effect of breast cancer treatment. An article in this issue discusses how physical activity can improve sexual outcomes. Tamoxifen, which is commonly prescribed for hormone receptor-positive breast cancer, is also associated with weight gain. Learn how

APs can support weight management for breast cancer survivors. Finally, if you're interested in writing for *JADPRO* or another publication, see the article on professional development through publication, which reviews strategies on the path to publication. ●

References

- Celik, S. U. (2025). Integrating artificial intelligence into scientific writing: A narrative review for clinical and surgical researchers. *American Journal of Surgery*, 250, 116657. <https://doi.org/10.1016/j.amjsurg.2025.116657>
- Oermann, M. H., Owens, J. K., Carter-Templeton, H., Peterson, G., & Bailey, H. E. (2025). Using artificial intelligence for scholarly writing. *The American Journal of Nursing*, 125(11), 52–55. <https://doi.org/10.1097/AJN.0000000000000179>