

# Artificial Intelligence in Oncology Care

Q&A WITH SANJAY JUNEJA, MD



## Q. What role does artificial intelligence, or AI, have in oncology?

AI can support nearly every stage of cancer care from research to treatment. It can help scientists better understand cancer biology, support drug development and improve clinical trial design. In clinical settings, AI can assist with identifying patients for trials, tracking treatment responses and surfacing key information from patient records.

## Q. How and when did you notice AI enter oncology?

AI has been present in oncology for years through the use of machine learning for algorithms, which is learning patterns and making predictions from data. Understanding, interpreting and generating human language, or what is known as natural language processing, has also been present. The role of AI, however, expanded significantly with the rise of generative AI and large language models. These tools allow clinicians to interact with data in near-real time — asking questions, summarizing records and identifying key insights.

## Q. Have you seen any excitement or concern toward increased AI utilization in oncology?

There is excitement about AI's ability to improve efficiency and accelerate progress, especially in areas like clinical trial matching and data analysis. There are also valid concerns from clinicians about biases in the data that AI is trained on, and it can occasionally produce incorrect or misleading information. Because of this, clinicians should play a crucial role in reviewing AI-generated information.

## Q. What kinds of tasks and duties can AI help clinicians streamline when used appropriately?

AI can help reduce administrative burden and improve workflow efficiency. It can assist with documenting patient visits, reviewing charts, identifying missing information and more. AI can also help with prior authorizations and medical coding by capturing the full scope of a patient encounter. These tools can help clinicians spend more time on patient care.

**Q. Has AI helped improve access to underserved populations?**

It can help identify patients who may have missed screenings or follow-up care and flag important gaps in treatment. It can also support clinicians in community or rural settings by providing access to up-to-date guidelines. AI can help close gaps in care and bring more consistent, high-quality information to patients regardless of location.

**Q. What would you like to see from policymakers in the AI medical space, especially for oncology?**

Policymakers should take a cautiously graduated, permissive approach. AI should be allowed to develop and be used in controlled settings, with clinicians actively involved and oversight in place. Intentional monitoring and regular updates to policy can help ensure safe and effective use.



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**ABOUT THE AUTHOR**

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