

The AI Liability Frontier: Can Doctors Be Sued for Relying on Artificial Intelligence?

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Abstract

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The integration of Artificial Intelligence (AI) into clinical practice is rapidly transforming healthcare, offering unprecedented capabilities in diagnostics, treatment planning, and patient management. From sophisticated deep-learning algorithms that analyze medical images to predictive models that flag high-risk patients, AI is becoming an indispensable tool. However, this technological leap introduces a complex and pressing question: **When an AI system makes an error that leads to patient harm, where does the legal liability fall? Can the treating physician be sued for relying on faulty AI advice?**

The short answer, under current legal frameworks, is a resounding **yes**.

The Enduring Standard of Care: The Physician as the Final Filter

In medical malpractice law, the central tenet is the **standard of care**. A physician is generally held liable if their actions or inactions fall below the accepted standard of care for a reasonably prudent practitioner in the same field, resulting in patient injury. The introduction of AI does not fundamentally change this principle; rather, it complicates the assessment of what constitutes the "accepted standard."

Currently, AI is viewed by the legal system not as an autonomous decision-maker, but as a sophisticated **tool**—much like a laboratory test, a specialized piece of imaging equipment, or a medical textbook. The physician remains the ultimate decision-maker and, crucially, the **final human filter** for any AI-generated recommendation.

Several academic and legal analyses confirm this view. As one systematic

review noted, under existing malpractice law, the physician could be considered liable in negligence for harmful medical errors, even when an AI algorithm is involved [^1]. The physician's liability can arise in several scenarios:

1. **Negligent Selection or Use:** The doctor failed to properly vet the AI tool, used it for an unapproved purpose, or failed to understand its limitations and potential biases. 2. **Failure to Override:** The doctor relied on the AI's recommendation despite clear clinical data or their own professional judgment suggesting the advice was flawed. The physician is expected to exercise independent judgment and not blindly follow the machine. 3. **Failure to Integrate:** The doctor failed to properly integrate the AI's output with the patient's complete clinical picture, leading to a diagnostic or treatment error.

The "AI Penalty" and the Shifting Standard of Care

A more nuanced challenge arises when AI begins to outperform human physicians. If an AI system becomes demonstrably better at detecting certain conditions—such as subtle anomalies in a mammogram or a complex pattern in genetic data—a new legal expectation may emerge.

Legal scholars suggest that if a clinically validated AI tool becomes the **de facto standard of care** in a specialty, a physician who *fails* to use it, or who misses an error that the AI would have caught, could face liability [^2]. This is sometimes referred to as the "AI penalty" or the "failure to use" liability. The standard of care is not static; it evolves with technology. As AI becomes more prevalent and proven, the failure to leverage its capabilities could itself be deemed negligent.

The Complexity of Product Liability for AI Manufacturers

While the physician is the primary target in a malpractice suit, the liability landscape is broader. The manufacturer of the AI system may also be held liable under product liability law if the error is due to a **design defect, manufacturing flaw, or inadequate warnings** [^3].

However, pursuing a product liability claim against an AI developer is complex for several reasons. Traditional product liability law is designed for static, tangible products. AI, particularly machine learning models, is dynamic and constantly evolving. The "black box" nature of deep learning makes it difficult to prove a specific design defect, as the decision-making process is often opaque. Furthermore, the iterative nature of machine learning means the system is constantly changing, complicating the legal definition of a "defective product" at the time of injury.

The legal system is struggling to adapt to this dynamism. Some proposed solutions include creating a separate liability regime for AI, or shifting the burden of proof to the manufacturer to demonstrate the AI was not defective. Until such changes are implemented, the path of least resistance for plaintiffs remains the physician, who is covered by malpractice insurance and operates under a well-established legal framework.

Navigating the Future of AI and Liability

For the foreseeable future, the onus of responsibility will remain with the human practitioner. Physicians must adopt a stance of **informed skepticism** and treat AI recommendations as expert consultations that require critical review, not as infallible commands. The key is documentation: a physician must document their reasoning for accepting, modifying, or rejecting an AI's recommendation.

The medical-legal community is actively grappling with these issues, pushing for new regulatory frameworks that can keep pace with innovation. Clearer guidelines on AI validation, transparency, and accountability are essential to protect both patients and practitioners. For more in-depth analysis on this topic, the resources at www.rasitdinc.com provide expert commentary and professional insights into the intersection of digital health, ethics, and the evolving legal landscape.

Ultimately, the physician's duty to the patient—to act with reasonable skill and care—remains paramount. AI is a powerful assistant, but it is not a shield against professional responsibility. The liability question is not *if* a doctor can be sued, but *how* the use of AI will redefine the very standard against which their actions are judged.

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References

[^1]: Cestonaro, C., Delicati, A., & Marcante, B. (2023). *Defining medical liability when artificial intelligence is applied on diagnostic algorithms: a systematic review*. *Frontiers in Medicine*, 10. [^2]: Tobia, K. (2021). *When Does Physician Use of AI Increase Liability?* *Journal of Nuclear Medicine*, 62(1), 17-18. [^3]: Price II, N. W. (2024). *Liability for Use of Artificial Intelligence in Medicine*. In *Handbook of Artificial Intelligence in Healthcare**. University of Michigan Law School.