Commentary

Artificial Intelligence: An Emerging Challenge for State Medical Boards

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Many healthcare regulators are familiar with artificial intelligence (AI) through ChatGPT and its applications in clinical practice. State medical board members and staff need to appreciate and understand the growing integration of AI into patient care and medical decision making. The evolution of AI is supporting algorithm designed treatments, interpretation of clinical data and medical images, and suggests potential diagnosis. Terkonda and

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Fish have pointed out this has significant implications in the patient-doctor relationship, autonomy of physician clinical decision making, and ethical standards.[1] It is critically important that state medical boards begin focusing on regulatory considerations of rapidly expanding AI in the practice of medicine. The regulatory goal would be to allow integration of technology into clinical management while maintaining standard of care, ethical practice, and avoiding patient harm. The past challenges of state medical boards in regulating telemedicine reflect the importance of an early focus on AI regulation.

The use of AI has been utilized in pathology, radiology, and is being introduced into dermatology. In dermatology, AI devices have been developed that assess risk factors for melanoma and evaluate skin lesions with image models. Direct to consumer apps to diagnosis melanoma based on photographic images of pigmented lesions have been introduced in Europe, however, there is concern expressed that the data involved in the creation of AI models may lack patient diversity or different stages of melanoma. AI data sets should have data transparency and avoid potential biases. It is important that AI models or programs not exacerbate healthcare disparities.

State medical boards need to consider the appropriate regulatory steps to take if AI leads to an inaccurate diagnosis and patient harm. Boards will need to determine who is ultimately responsible for the patient harm and the source of the error.[1] The AI data set, the program derived from the data set, and physician participation will need to be carefully investigated.

The expanding integration of AI into the clinical practice of medicine has tremendous potential for advancing patient care. With this rapid expansion of AI, the patient-doctor relationship, autonomy of physician decision making, and ethical standards need to be preserved. Biases, discrimination, and worsening of healthcare disparities needs to be avoided in AI development. Now is the time for state medical boards to begin focusing on the regulatory oversight of AI.

As this fast-moving field continues to evolve, we hope that you will look to *JMR* as a resource for insights and research on the intersection of AI and medical regulation.

Reference:

1. TerKonda SP, Fish EM. Artificial intelligence viewed through the lens of state regulation. *Intelligence-Based Medicine* 2023 (7): 1-4. https://doi.org/10.1016/j.ibmed.2023.100088