

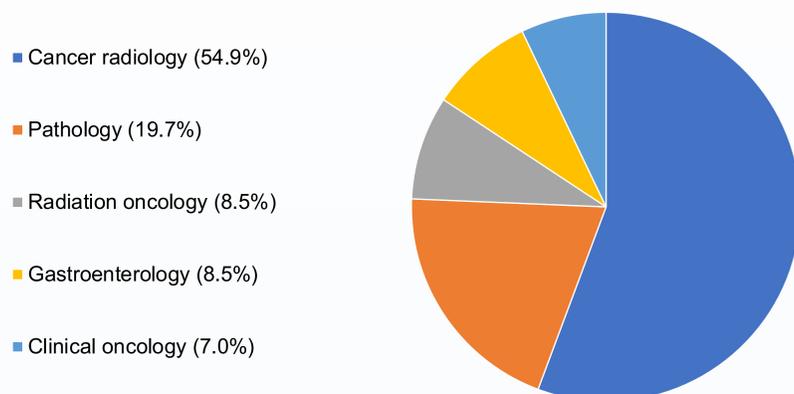
INTRODUCTION & OBJECTIVES

- AI has the potential to address the challenges in cancer diagnosis and treatment. ^{1 2 3 4}
- AI can be used for early detection, diagnosis, treatment planning, precision medicine, and clinical decision support. ^{1 2 4}
- By harnessing the power of AI, we can accelerate progress in cancer research and improve patient outcomes. ²

RESULTS

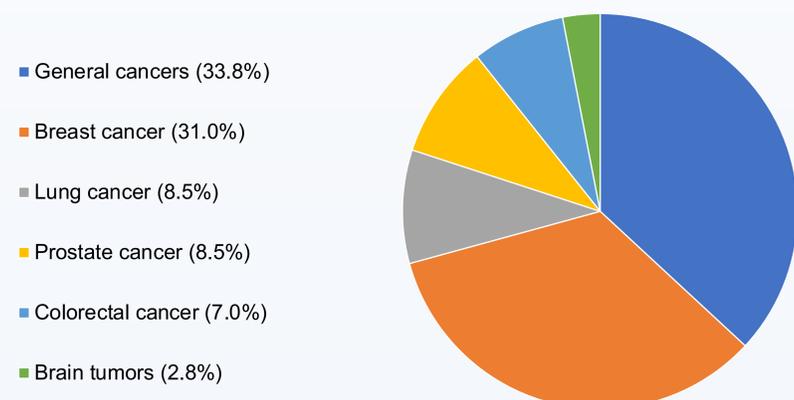
- AI has been applied to a variety of oncology-related medical areas, including: ³

AI application in medical areas



- The most devices approved by the FDA for AI-associated use in oncology are for: ³

FDA-approved AI devices for oncology



- AI-associated devices are being used to:
 - Develop new cancer drugs and treatments
 - Improve the accuracy of cancer screening and diagnosis ⁴

APPROACHES & METHODS

- AI algorithms analyze vast amounts of medical data to aid in the early detection and diagnosis of cancer. ²
- Machine learning models can detect subtle patterns and anomalies that may be indicative of cancer. ⁴
- AI helps healthcare professionals make accurate diagnoses and identify tumors at earlier stages. ²
- AI plays a critical role in precision medicine by analyzing genetic data, clinical records, and treatment outcomes. ¹
- AI can identify biomarkers, predict treatment responses, and optimize treatment plans. ²

CONCLUSIONS

- AI has the potential to transform cancer research and precision medicine. ¹
- AI could enable more precise diagnoses, personalized treatments, and improved patient outcomes. ^{1 2}
- However, there are significant challenges that need to be addressed, such as:
 - Data privacy and security.
 - Algorithm transparency and interpretability.
 - Biases in data and algorithms.
 - Regulatory and ethical considerations. ²

REFERENCES

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