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Ethical implications surrounding use of AI in healthcare

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Artificial Intelligence (AI) can transform healthcare by diagnosing, implementing treatment plans, and helping to obtain positive outcomes. Conversely, these developments accompany many ethical concerns that need to be deliberated upon and dealt with effectively. The biggest issue is securing the confidentiality of patients.

AI systems involve connecting to many private health records, which may be subject to potential data breaches and misuse of private health information. To address these menaces, stringent cybersecurity policies should be implemented, and existing privacy regulations such as the EU General Data Protection Regulation and the US Health Insurance Portability and Accountability Act should be consistently enforced. Privacy of personal information should be guaranteed not only by the access limitation but also by performing regular security audits and encryption of data. This is needed to meet the necessary standards of healthcare AI systems' reliability, credibility, and data security.

Additionally, another ethical question is algorithmic biases. The machine learning models that form the basis of AI systems are structured according to their training data sets. There is a possibility that the training data used is based on historical inequalities or biases. This could lead to a system that keeps worsening these injustices, making some groups receive poorer healthcare quality and even the wrong diagnosis. Diversified and inclusive training of data as well as the development of highly sophisticated algorithms that can identify and correct the bias would be required to deal with the algorithmic bias.

Moreover, proper clinical validity is essential for responsible deployment in healthcare. AI tools that are safe and effective need to be tested exhaustively before they will be deployed to real situations. Following deployment, tracking should be continued to verify that anything unforeseen or erroneous consequence does not take place. The process of AI in healthcare should be transparent as accountability and trust among caregivers and patients can only be established this way. Some AI is a black box, meaning that the decision-making process is impossible to comprehend. Hence, solving the issue of the AI black box is the key to the acceptance of AI by healthcare professionals, and the integration of AI insights in patient care.

AI is the last thing that needs to be treated as a human skill substitute and it should be seen as an additional tool. The role of humans cannot be replaced in the care of patients and clinical judgment should not be ignored due to AI predictions which practitioners should not solely rely on.

However, the responsible entanglement of AI in healthcare is an intricate dance between the embrace of innovation and the suppression of ethical accountability. Through detailed implementation of aspects of privacy, bias, transparency, safety, fairness, and ethical usage while encouraging collaboration across disciplines and public dialogue, organisations can fully benefit from the great power that artificial intelligence possesses. This approach ensures that healthcare at the forefront is patient welfare and societal values.

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