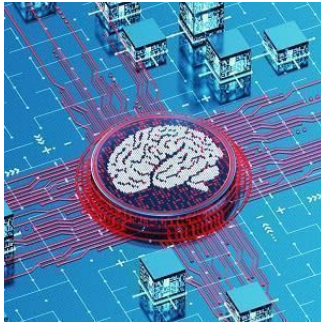## AI to Revolutionise Surgical Care

According to experts, AI will have an expanding role in healthcare administration and patient care. This technology will make operations that hospitals and health systems run more efficiently, less costly and will help to address challenges such as workforce shortages. For example, AI will help hospitals better plan their available hospital bed resources.

Furthermore, AI is anticipated to play a significant role in enhancing surgical decision-making processes. It can help to integrate information from many different data sources before, after and even during a surgical procedure. This will ultimately enhance surgical decision-making.

It is expected that AI will help assess risks and anticipate outcomes based on reviews of patient databases and multicenter national registries.

AI has the potential to handle large volumes of multimodal data and enhance surgical decision-making by considering various factors, including postoperative complications risk, leading to more informed patient management and improved surgical outcomes.

AI and machine learning have the potential to leverage large and complex datasets to develop more robust predictive algorithms in the field of surgery. By analysing millions of historic surgeries along with patient characteristics, AI can assist surgeons in stratifying the risks associated with a particular surgery for a patient.

Christopher J. Tignanelli, general surgeon and scientific director of the Program for Clinical AI at the University of Minnesota, said "AI could help inform decisions and better inform patients and providers about their individualized risks and benefits of certain surgeries".

AI will also have a role to play during surgery. AI is especially effective in robotic surgery, where a video screen will present information or instructions during the operation.

Dr. Tignanelli said, "AI will analyze surgeries as they're being done and potentially provide decision support to surgeons as they're operating".

The effective use of AI and other tools in medicine relies on the regular adoption and use by healthcare practitioners. However, there is still a large amount of skepticism and resistance to change from medical practitioners, as there is often nervousness surrounding new technologies.

Overcoming this resistance requires efforts in implementation science, which focuses on how to facilitate the uptake of evidence-based practice and research to help promote AI usage. For example, simulation exercises can play a role in understanding what surgeons like or don't like about various AI tools, and determine the reasons for not using them.

Source: [American College of Surgeons](#)

Image Credit: [iStock](#)

Published on : Mon, 26 Jun 2023