# AI & ML's Role in Increased Operational Efficiency & Patient Outcome

Artificial intelligence (AI) and machine learning (ML) are poised to have a significant impact in healthcare settings, and their potential to improve operational efficiency cannot be overstated. AI and ML are currently helping and will continue to aid in creating efficiencies in healthcare settings, including their ability to streamline workflows, improve diagnoses, and enhance patient outcomes. Components of these technologies are already being leveraged in various capacities throughout the healthcare ecosystem. However, there is a thirst amongst those on the frontlines for these capabilities to expand.

The alignment and integration of AI and ML within electronic medical records (EMRs) has been transformative. With the large-scale adoption of EMRs over the past couple of decades, there is an inordinate amount of medical and demographic data available for analysis. AI and ML algorithms can leverage this data to identify patterns and trends that may not be apparent to human clinicians. For example, analyzing data from thousands of EMRs can identify patients who are at the greatest risk for various chronic conditions that lead to hospitalization. Additionally, it can also aid in the improvement of the accuracy and completeness of medical record data. By analyzing patient data, the identification of missing and/or incorrect information can prompt suggestions and corrections. This can help to maintain the integrity of EMRs, which is essential for providing the most optimal care and ensures healthcare organizations' reimbursement streams are not impacted.

The incorporation of AI and ML in healthcare settings will not only align with the evolution of EMRs, but also enhance their capabilities and usefulness. By leveraging the vast amounts of EMR data, AI and ML can help healthcare providers make more informed decisions, improve patient outcomes, and deliver care in a more efficient manner. Another benefit that's often overlooked is how this technology has the capacity to restructure workflows. By automating tasks, such as appointment scheduling, patient check-in, and medical record management, healthcare workers can improve efficiency and reduce administrative burdens that have plagued them for years. This shift in workflow will undoubtedly free up valuable time for physicians and nurses to care for their patients.

Moreover, it could lead to greater job satisfaction reducing the issue of healthcare provider burnout.

Most healthcare administrators, providers, and nurses I have spoken to are proponents of this technology and support further investment and development. For healthcare organizations, investing and adopting EMRs that leverage AI an ML technology to collect and analyze data, as well as automating tasks, is essential for industry experts to develop and implement effective AI and ML solutions. In conclusion, it is paramount these systems are properly regulated in compliance with ethical and legal standards to avoid compromising patient privacy.


Kyle Keenan, MBA, MHA, BSN, health provider SME, Peraton Health Solutions