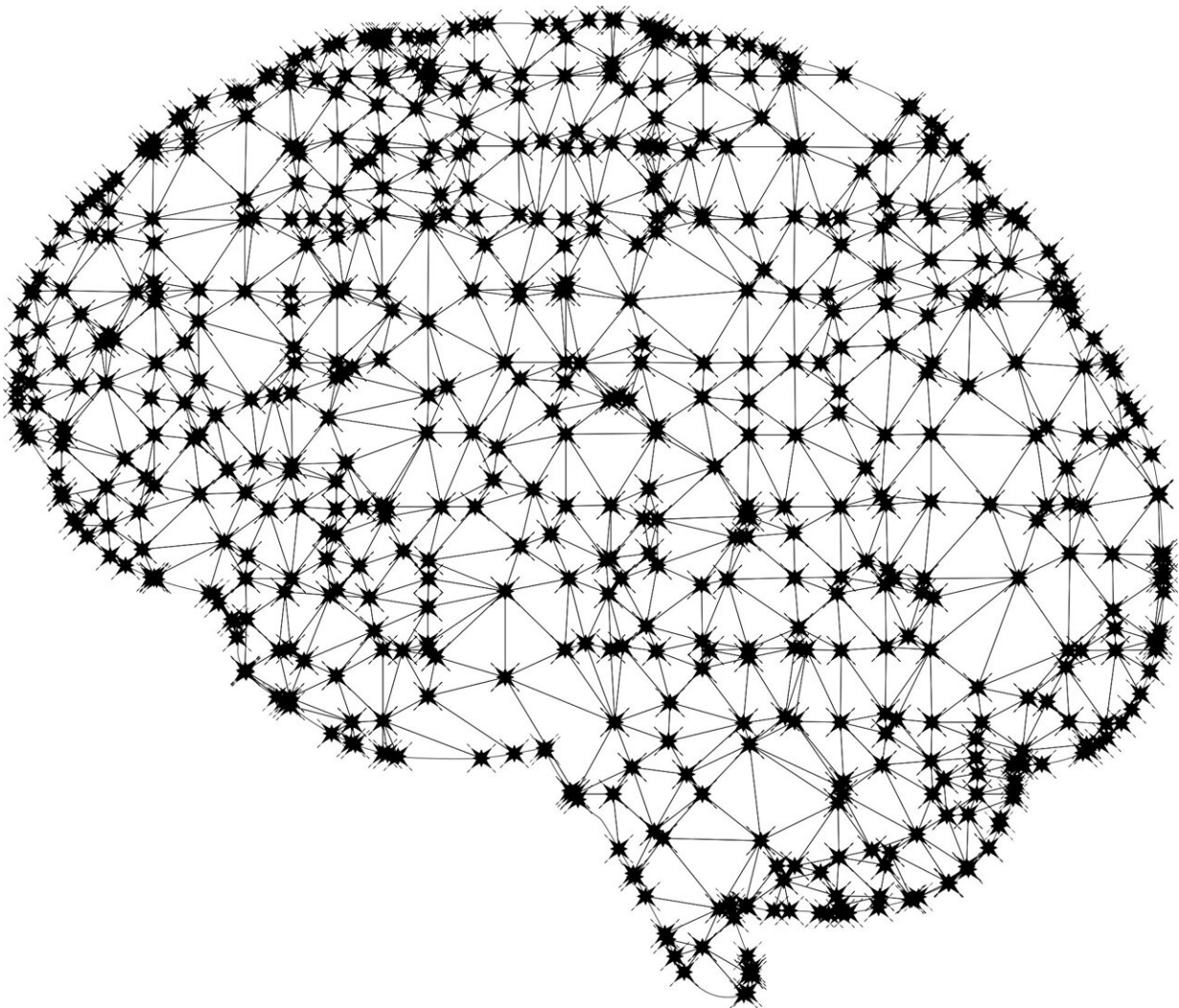


Most parents welcome use of AI in pediatric emergency department, but reservations remain

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Parents are generally receptive to the use of artificial intelligence (AI) tools in the management of children with respiratory illnesses in the Emergency Department (ED), according to a survey from Ann & Robert H. Lurie Children's Hospital of Chicago. However, some demographic subgroups (non-Hispanic Black and younger age parents) had greater reservations about the use of these technologies. These findings point to the importance of involving a broad representation of parents from the earliest stages of development of AI systems for pediatric healthcare. The study was published in the journal *Academic Pediatrics*.

"Our results suggest that development of AI tools to improve the care of children in an acute care setting needs to involve a diverse set of patient and parent stakeholders early on in the process to ensure that they are comfortable with the technology and that the new tools do not contain unintentional bias," said lead author Sriram Ramgopal, MD, Pediatric Emergency Medicine physician at Lurie Children's and Assistant Professor of Pediatrics at Northwestern University Feinberg School of Medicine.

Currently, AI is rarely used in pediatric acute care settings, but there is an increasing research interest in its potential.

"In pediatric research, an increasing number of AI or [machine learning](#)-based models have been reported," said Dr. Ramgopal. "These models promise to provide greater diagnostic accuracy, identify patients at risk of severe outcomes, or detect patients in need of diagnostic testing or treatment."

For the current study, surveys were completed by 1,620 parents in Chicago. Most respondents were comfortable with the use of computer programs to determine the need for antibiotics (77 percent) or

bloodwork (76 percent), and to interpret radiographs (77 percent). The greatest perceived benefits of computer programs were finding something a human would miss and obtaining a more rapid diagnosis. Areas of greatest concern were diagnostic errors and recommending incorrect treatment.

"It is inevitable that AI will make it into routine pediatric practice," said Dr. Ramgopal. "In the ED, we already use computer-based decision supports systems, which are precursors to AI. For example, we use a sepsis prediction model that alerts physicians to patients with higher risk. As with all such tools, these systems don't dictate a particular course of action, but rather inform a physician's approach to care in situations where a human might easily miss an important pattern in how illness presents itself. Our goal is to provide the most accurate and timely management for children in our care."

More information: Sriram Ramgopal et al, Parental perceptions on use of artificial intelligence in pediatric acute care, *Academic Pediatrics* (2022). [DOI: 10.1016/j.acap.2022.05.006](https://doi.org/10.1016/j.acap.2022.05.006)

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