Smart technology and AI could help improve detection of sepsis in children in Canada

Smart technology and artificial intelligence could be used to improve detection of sepsis in children in Canada, write authors of a commentary in CMAJ (Canadian Medical Association Journal).

Canadian physicians do not often encounter children with sepsis, because pediatric sepsis in Canada is uncommon, unlike in developing countries. However, several recent deaths highlight the need for reliable, fast identification of early sepsis, as the condition can be lethal if not treated quickly.

“The optimal sepsis trigger tool needs to be rapid, objective, accurate and low cost; must easily integrate into the current workflow of a busy clinical setting; should require minimal training and require minimal additional effort; and offer a clear clinical benefit, particularly in community settings where the prevalence and clinical experience with sepsis is likely to be low,” writes Mark Ansermino, University of British Columbia and BC Children’s Hospital, Vancouver, BC, with coauthors.

The authors suggest that current smart technologies, like those used to program washing machines and automate medical imaging processing, could be utilized to automate data combinations of sepsis symptoms and other relevant information.

“The recognition and anticipation of sepsis represents an important opportunity for artificial intelligence to revolutionize health care, by optimizing algorithms to a degree of accuracy that would avoid alert fatigue and optimize efficiencies in work flow,” they write.
Better collection of patient outcome data and integration into medical records is needed.

“We need smarter trigger tools for diagnosing sepsis in children in Canada” is published September 10, 2018.