Machine learning system makes more alerts for med errors

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(HealthDay)—A machine learning system can generate clinically valid

alerts for medication errors that might be missed with existing clinical decision support (CDS) systems, according to a study published in the January issue of *The Joint Commission Journal on Quality and Patient Safety*.

Ronen Rozenblum, Ph.D., M.P.H., from Harvard Medical School in Boston, and colleagues examined the ability of a machine learning system (MedAware) to generate clinically valid alerts, and estimated the associated cost savings with potentially prevented adverse events. Alerts were generated on outpatient data from two academic medical centers between 2009 and 2013. MedAware alerts were compared with those in an existing CDS system.

The researchers found that 10,668 alerts were generated. Using the existing CDS system, 68.2 percent of MedAware alerts would not have been generated. Based on structured data available in the record, 92 percent of a random sample of 300 chart-reviewed alerts were accurate; 79.7 percent were clinically valid. Potentially prevented adverse events had an estimated cost of more than $60 per drug alert in an outpatient setting and $1.3 million when extending findings to the full patient population.

"The true value of such alerts is highly contingent on whether and how clinicians respond to such alerts and their potential to prevent actual patient harm," the authors write.

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More information: Abstract/Full Text
Editorial

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