Best Practice Alerts in EMR Provide Near-Time Education to Physicians

Researchers in New Hampshire have discovered that the implementation of an alert function in the electronic medical record (EMR) can inform physicians about the most up-to-date best practice guidelines. The EMR’s “best practice alert” allowed pathologists to remind physicians about the latest evidence at the moment of each transfusion order, which resulted in fewer two-unit transfusions for patients who were not bleeding. Physicians were then more likely to comply with evidence-based practices.

The study showed a drop in the proportion of two-unit transfusions, from 47 to 15 percent, after the implementation of electronic best practice alerts. The research was conducted by Nancy M. Dunbar, MD, of the Dartmouth-Hitchcock Medical Center in Lebanon, New Hampshire. Dunbar and her colleagues from the departments of Pathology and Medicine performed the research with lead author Swaroopa Yerrabothala, a hematology-oncology fellow at Dartmouth-Hitchcock’s Norris Cotton Cancer Center.

**EMR As Educational Tool**

Physicians may have a love-hate relationship with the electronic medical record, but there is no denying its impact on clinical practice. By embracing information technology, the quality of medical care can be improved throughout institutions, Dunbar said. The adoption of new guidelines and the need to inform physicians about the most recently available best practices in transfusion is what prompted the research team to consider the EMR as a tool for educating clinicians in near-time.

"We figured out how to harness the power of the electronic medical record to embed evidence based transfusion criteria into the computerised physician order entry process through the best practices alert functionality," explained Dunbar. The EMR is proving especially useful, she noted, given the challenge of provider compliance with evidence-based guidelines at large academic medical centres. Frequent reminders at the point of order entry may result in behaviour which is less temporary in nature.

**Evolving Evidence For Best Practices**

The research team continues to identify opportunities for improving transfusion practices, based on the newest evidence available. "Best practices in transfusion medicine are updated continuously and it is our role in pathology to adopt the changes for our institution and spread the word," Dunbar said. Those who practice outside of evidence-based criteria stand to benefit from the near-time updates and reminders through the alert function embedded into the EMR.

The study has been published in *Transfusion.*

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