If a clinical prediction rule falls off the shelf of a physician’s office, does it make a sound? I think not.

Many clinical prediction rules to improve the quality and efficiency of medical care have been developed and published, but they are not widely used. There are many complicated reasons for their underuse. First, not all clinical prediction rules have been validated on independent samples in diverse clinical settings; therefore, physicians have reason to question the reproducibility of the results. Second, even when validated clinical prediction rules are available, physicians tend to favor their own judgment when caring for a specific patient. Perhaps most important, physicians do not use clinical prediction rules because most of them are time-consuming and cumbersome, requiring entering data into a calculator or computer, interrupting the flow of our clinical encounter and thought processes.

Electronic health records could potentially promote the use of clinical prediction rules by integrating the decision rule into the clinical workflow. The authors of “Efficacy of an Evidence-Based Clinical Decision Support in Primary Care Practices” demonstrate the value of this approach by embedding 2 underused clinical prediction rules—the Walsh rule for pharyngitis and the Heckerling rule for pneumonia—into the electronic health record used by 2 primary care practices in a large academic medical center.

Physicians randomized to the intervention were prompted when they typed in keywords, such as sore throat or possible pneumonia, to open an electronic tool in the margin. They could then enter the necessary information into the calculator embedded in the electronic tool, and the result would produce a bundled order set that they could sign. The control physicians simply received information about the 2 rules.

By making it easier for physicians to complete the clinical prediction rules and take the appropriate actions, the authors demonstrated an impressive decrease in the ordering of antibiotics and a 50% decrease in the ordering of the broad-spectrum quinolones. Of note, the tool was developed with focus group input from physicians and usability testing, and supportive training was provided to physicians. Here too is a lesson for all health systems developing electronic health records: physician input, customization, and training are critical for success. Otherwise, we will have electronic health records, accessible and legible, full of cut-and-pasted material, and our care will be little improved.