CLAHRC BITE

NHS National Institute for Health Research

A bite-sized summary of a piece of research supported by CLAHRC for Birmingham and Black Country

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Can an electronic prescribing system detect doctors more likely to make a serious prescribing error?

Improving patient safety by studying medication errors

Background

- Patient safety is one of the most important aspects of healthcare. Many innovative technologies have been used to improve the safety of patients in hospitals.
- Our research took place at a large teaching hospital in Birmingham. We looked at whether small errors produced by an electronic prescribing system might be useful in identifying doctors at higher risk of making a serious prescribing error.
- Nearly one million prescriptions issued by junior doctors were analysed over a 12 month period.
- During the 12 months, over one million prescribing alerts were generated. 83% of these were low level alerts and 1% were high level alerts indicative of a serious prescribing error.

Turn over to find out more

Findings

Our findings showed that there is very little correlation between a doctor's propensity to make serious and minor errors.

- There are large differences in the tendency to make major prescribing errors among doctors, even in the same specialty. However, doctors who make small errors are not the same as those who make large errors. This argues against the idea of a 'sloppy doctor'.
- A new intervention study has therefore commenced to evaluate the effect of providing individualised feedback to junior doctors. This will test the idea that informing doctors they have high rates of prescribing error compared to their peers will result in improved performance.
- We also found that the majority of computer generated error messages are ignored as doctors experience 'alert fatigue'. A more selective approach to reduce alert fatigue is now being designed.

References

Coleman, J.J., Hemming, K. and Nightingale P.G. et al. (2011) Can an electronic prescribing system detect doctors more likely to make a serious prescribing error? **Journal of the Royal Society of Medicine.** 104;5:208-218
http://171.66.127.115/content/104/5/208.full.pdf+html

Recommendations for practice

"The use of routine data collected from an electronic prescribing system to identify doctors at risk of making serious prescribing errors has little value. There is potential in using this form of data to evaluate and monitor the quality of care in hospitals."

What is CLAHRC for Birmingham & Black Country?

The Collaborations for Leadership in Applied Health Research and Care (CLAHRC) is a partnership between the University of Birmingham and a number of NHS organisations in Birmingham and Black Country. We are funded by the National Institute for Health Research with a mission to undertake high-quality applied health research focused on the needs of patients to improve health services locally and beyond.

For further information, visit:
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