Interventions to increase clinical incident reporting

Review question
What is the effectiveness of interventions that aim to increase the rate of clinical incident reporting in healthcare systems?

Nursing implications
A culture of patient safety requires that nurses and other health professionals identify, report and learn from errors or near-misses, and therefore need a reliable system for doing this. A number of systems are available for this purpose.

Study characteristics
This Cochrane review included a controlled before-and-after study conducted in Australian hospitals and three studies that were reanalysed as interrupted time-series studies conducted in US hospitals. The overall aim of all four studies was to improve the systems for reporting medical incidents by health professionals. The specific behavioural goals varied across the studies, and included:

- Increasing the number and quality of voluntary reports;
- Standardising and enhancing the incident reporting through use of a web-based system;
- Changing the type of incidents that were reported;
- Identifying patterns of events and assessing the reporting behaviour of physicians.

The interventions to increase clinical incident reporting also varied. One described a standardised, voluntary, paper-based system that focused on the medication-use system, competency assessment and reporting incentives. This intervention allowed anonymous reporting, included near-miss data, provided in-service training programmes, and moved feedback reporting to the frontline.

The second intervention involved an electronic, web-based patient occurrence system. Key elements of this system included confidential (not anonymous) reporting, standardised reporting information, provision of educational programmes to all staff and timely feedback.

The third intervention was a “package” consisting of intense education, a range of reporting options, a change in report management and provision of enhanced feedback. Additional key elements included anonymous reporting, reduced reporting burden and improved feedback through four newsletters.

The fourth intervention was an online morbidity, mortality and anonymous near-miss reporting system that included weekly reminders to report complications and near misses. All four studies used “incident reporting rate” as an outcome measure. One also measured time to report and another measured change in the type of report being made.

Overall quality of the evidence was rated as very low.

Summary of key evidence
It was not possible to combine the results of these studies quantitatively so the individual study findings were presented and discussed.

The before-and-after study involved 10 interventions and 10 control units in two regional hospitals in four cities, but there was considerable heterogeneity across units. Compared with the control units, the intervention results showed an absolute increase of 60.3 reports per 10,000 occupied bed days and 20.2 anonymous reports per 10,000 emergency department and occupied bed days combined. The study was unable to demonstrate an increase in reporting in intensive care units. This intervention involved intense education, anonymous reporting, reduced reporting burden and enhanced feedback.

The remaining three studies were all conducted at one site and had no control group. Just one of the time-series studies reported a statistically significant increase in clinical incident reporting after implementation of the intervention. The other two studies that were included in the review reported no significant improvements in the reporting of clinical incidents. The study examining weekly reminders to report complications and near-miss events actually showed a decrease in incidence reporting.

Best-practice recommendations
It is not possible to draw any firm conclusions from this review to guide clinical practice. However, the review results suggest that certain programme elements – such as anonymous reporting, simplified reporting forms, intense education, and timely feedback to frontline staff – may help to increase the reporting of clinical incidents and near-misses.

The full review report can be accessed at tinyurl.com/Cochrane-incident

Katherine R Jones is professor, Frances Payne Bolton School of Nursing, Case Western Reserve University, and heads the Sarah Cole Hirsh Institute for Best Nursing Practices. Based on Evidence. She is a member of the Cochrane Nursing Care Field

Reference