Training of hospital managers in system-based analysis of incidents by online evaluation and feedback.

Authors: Chang H.T., Talbot A.R., Su T.S., Li F.C., Hsu W.C.

Objective:
To promote a systems approach to managing incident reports within our league of eight hospitals.

Methods :
Prior to July 2000, our incident reporting system depended on completion of specialist forms for reporting of adverse events. Since then, the system has been upgraded to an electronic one, encompassing all eight of the affiliated hospitals in our league, but all managed from the Department of Quality and Safety in the main hospital. At the same time, the content of reports has been expanded to include incidents and near misses in addition to adverse events. This process has been accompanied by widespread staff training programmes focusing on what should be reported, and how to analyse incidents by a systems-based approach rather than the earlier culture of blaming the “bad apple”.

All reports are processed sequentially by a hierarchy of managers (e.g. the ward manager where the incident occurred, that manager's department chief, and the associate superintendant responsible for that work area), in a timely fashion, each documenting his/her assessment and management strategy online.

Beginning January 2008, all such reports have been reviewed online and assessed for the extent to which systems-based analysis promoted in the associated employee education programmes was applied. Examiners were all full-time staff in the Department of Quality and Safety, each with a Master Degree in Healthcare Administration, who underwent special training within that department. Inter-rater reliability (Cohen's κ) was assessed at the end of the initial training, and during the first month of each year since.

Each manager was assessed monthly. The content of all his/her documentation was considered together, and a single grade given for that month's work. Grading was based on the national hospital accreditation protocol which gives a mark from "A" to "E" where "A" is of benchmark standard, "C" is a passing-mark for systems in place but poorly utilised, and "E" indicates serious deficiencies. We modified these grades as following: Grade A: Analysis from a system point-of-view (process, patient, staff, ward, hospital, external organizations) with an improvement plan so innovative it deserved to become the national standard. Grade B: Analysis and improvement plan from a system point-of-view, focusing on preventing the incident reoccurring, but probably comparable to what other hospitals would do. Grade C: At least one analysis and improvement plan from a system point-of-view. Grade D: Description of what happened and some analysis, but not from a system point-of-view. Grade E: Just described what happened, adding little to the initial report. We added a further Grade F: Wrote nothing at all, or just copied parts of the original report.

The timeliness of the manager's response (time from receiving the report to completion of response online) was assessed for each incident, and graded as follows: Grade A: <12 hours; Grade B: ≧12~24 hours; Grade C: ≧24~48 hours; Grade D: ≧48~72 hours; Grade E: >72 hours.

The reports that were assessed, associated statistics, and the opinions of the reviewers were used as teaching material in workshops for the management staff from January 2008 onwards.

Results:
At the beginning of the study, inter-rater reliability was 92%, and rose to 95% when repeated in January 2009. During 2008, 3,010 incident reports were assessed. Results for content were: Grade A: 0%, Grade B: 0%, Grade C: 1%, Grade D: 22%, Grade E: 14%, Grade F: 64%. For timeliness: Grade A: 29%, Grade B: 13%, Grade C: 14%, Grade D: 8%, Grade E: 36%. Results were similar for all 8 hospitals.

Conclusions:
Managers proved to be diligent in their response to incident reports, but the poor result for content reflects a lack of competence/training in handling incidents by systems analysis rather than a lack of cooperation. The workshops have helped to bridge this gap, and both the monitoring and training workshops have now been incorporated as routine quality management activities.