Abstract

Assessing the quality of health care service is an important issue of international relevance. The main cause of adverse events in a health care set up relate to surgical procedures, medical procedures, diagnosis and medications. The rate of AE among the hospitalized patients is one of the important indicators of patient safety. The manual record review by using triggers was initially developed by the Institute of Healthcare Improvements (IHI) in 1999 to identify only adverse medical events. The development of correct and appropriate trigger tool will allow rapid, systematic and standardized review by the trained reviewers.

In India, there is no system for continuous monitoring of patient safety in terms of adverse events and there is a strong need for such systems with potential for automation. At present, there are no specific adverse event monitoring programs focused on surgery department of the study hospital. Developing, validating and implementing a trigger tool adverse event identification system will help the hospital in general and surgery department in particular towards its effort to improve patient safety in the long run.

This study was aimed to develop and validate a trigger tool system to identify adverse events in the surgery department and assessment of its effectiveness in identifying adverse events from the medical records. The list of triggers was prepared from the published literatures and validated by expert panel and Delphi panel. The appropriate trigger needed in study set up was finalized by the Delphi panel. After three rounds the final list of triggers were identified and finalized. This list contained 77 triggers of three different categories such as critical care, surgical care and medical care module. This list was used for the presence of triggers in the reviewed case records.

Of the 77 items of the developed list of triggers, 38 items were found to be significant and able to identify adverse events. Totally 679 triggers were present in the 236 cases with an average of 2.88 ± 2.92 triggers per case and in 211 case records, the triggers were able to identify actual adverse events, which was found to be 40.11%. When the severity of the harm was assessed, majority of the events were minor in nature. At the end of the review process, the perception of surgeons on the trigger tool methodology for identifying AEs was assessed. Surgeons were of the opinion that AEs are a problem in their practice and there is a need to monitor and prevent them and the present trigger tool system appears to be effective in monitoring AEs and electronic records will enhance the ability to monitor AEs.

Developed trigger tool had 77 items under three different modules. Higher the number of triggers in a case record, it was found that higher chances for occurrence of AEs. The trigger tool methodology is equally effective in the current study setting like other settings where it has been already implemented. The surgeons of the department gave positive feedback about the system and thereby making its implementation in routine practice possible. This study concluded that the developed trigger tool system was found to be an effective, practical and relevant approach for ensuring appropriate monitoring of AEs in the surgery department of the study hospital.