

Abstract

Background: A clinical decision support system generates medical alerts to prompt health care providers to act on a clinical issue. This system is effective in decisions making and improving health care delivery in health care facilities. However, medical providers complain of frequent nuisance alerts that cause fatigue and burnout. Fatigue alerts lead to unresponsiveness to both clinically relevant and irrelevant alerts.

Objective: The purpose of the study is to create a process that optimizes clinical alerts and assesses the implication of fired alerts to improve patient safety and decrease alert fatigue.

Method: In order to answer this, a systematic review was conducted on PubMed literature and an interview on pharmacists on when they would respond to alerts. The system was improved to allow necessary clinical alerts to be fired at a particular time. Data was then collected to identify relevant and unnecessary medication alerts reaching pharmacists.

Results: The results revealed that system modification reduced the number of medication alerts by 68 percent hence minimizing alert fatigue and increasing the rate of pharmacists' interventions.

Conclusion: Alert optimization ensures that the system only fires relevant alerts to increase patient outcomes. In order to increase patient safety, hospital management should ensure only repeat alerts fires at the right time and to the right person.