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Applying the Global Trigger Tool in German Hospitals: A Retrospective Study in Surgery and Neurosurgery

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Abstract : Background: The identification of critical incidents in hospitals is an essential component of improving patient safety. To date, various methods have been used to measure and characterize such critical incidents. These methods are often viewed by physicians and nurses as external quality assurance, and this creates obstacles to the reporting events and the implementation of recommendations in practice. One way to overcome this problem is to use tools that directly involve staff in measuring indicators of quality and safety of care in the department. One such instrument is the global trigger tool (GTT), which helps physicians and nurses identify adverse events by systematically reviewing randomly selected patient records. Based on so-called 'triggers' (warning signals), indications of adverse events can be given. While the tool is already used internationally, its implementation in German hospitals has been very limited. Objectives: This study aimed to assess the feasibility and potential of the global trigger tool for identifying adverse events in German hospitals. Methods: A total of 120 patient records were randomly selected from two surgical, and one neurosurgery, departments of three university hospitals in Germany over a period of two months per department between January and July, 2017. The records were reviewed using an adaptation of the German version of the Institute for Healthcare Improvement Global Trigger Tool to identify triggers and adverse event rates per 1000 patient days and per 100 admissions. The severity of adverse events was classified using the National Coordinating Council for Medication Error Reporting and Prevention. Results: A total of 53 adverse events were detected in the three departments. This corresponded to adverse event rates of 25.5-72.1 per 1000 patient-days and from 25.0 to 60.0 per 100 admissions across the three departments. 98.1% of identified adverse events were associated with non-permanent harm without (Category E–71.7%) or with (Category F–26.4%) the need for prolonged hospitalization. One adverse event (1.9%) was associated with potentially permanent harm to the patient. We also identified practical challenges in the implementation of the tool, such as the need for adaptation of the global trigger tool to the respective department. Conclusions: The global trigger tool is feasible and an effective instrument for quality measurement when adapted to the departmental specifics. Based on our experience, we recommend a continuous use of the tool thereby directly involving clinicians in quality improvement.

Keywords : adverse events, global trigger tool, patient safety, record review
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