Abstract

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Using Information Systems to Detect and Prevent Medications Errors and Adverse Drug Events: A Review Study

Nowadays, detection and prevention of adverse drug events (ADEs) is a vital problem in healthcare. Information systems have the potential to detect and minimize ADEs in a timely and cost-effective way to prevent patient harm. Based on extensive literature review, this paper reviews and categorizes different information systems used to detect ADEs including traditional information systems, modeling and simulation, clinical decision support systems, trigger tools and alerting systems, data mining systems, rule-based expert systems, natural language, artificial neural network and fuzzy logic. This paper recommends new strategies to encourage more research and development of intelligence systems to detect ADEs.