

Revised Risk Priority Number in Failure Mode and Effects Analysis Model from the Perspective of Healthcare System

Authors : Fatemeh Rezaei, Mohammad H. Yarmohammadian, Masoud Ferdosi, Abbas Haghshnas

Abstract : Background: Failure Modes and Effect Analysis is now having known as the main methods of risk assessment and the accreditation requirements for many organizations. The Risk Priority Number (RPN) approach is generally preferred, especially for its easiness of use. Indeed it does not require statistical data, but it is based on subjective evaluations given by the experts about the Occurrence (O i), the Severity (Si) and the Detectability (D i) of each cause of failure. Methods: This study is a quantitative - qualitative research. In terms of qualitative dimension, method of focus groups with inductive approach is used. To evaluate the results of the qualitative study, quantitative assessment was conducted to calculate RPN score. Results; We have studied patient's journey process in surgery ward and the most important phase of the process determined Transport of the patient from the holding area to the operating room. Failures of the phase with the highest priority determined by defining inclusion criteria included severity (clinical effect, claim consequence, waste of time and financial loss), occurrence (time- unit occurrence and degree of exposure to risk) and preventability (degree of preventability and defensive barriers) and quantifying risks priority criteria in the context of RPN index. Ability of improved RPN reassess by root cause (RCA) analysis showed some variations. Conclusions: Finally, It could be concluded that understandable criteria should have been developed according to personnel specialized language and communication field. Therefore, participation of both technical and clinical groups is necessary to modify and apply these models.

Keywords : failure mode, effects analysis, risk priority number(RPN), health system, risk assessment

Conference Title : ICDEM 2016 : International Conference on Disaster and Emergency Management

Conference Location : Istanbul, Türkiye

Conference Dates : February 15-16, 2016