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110. Retrospective clinical audit of high risk medication use in an emergency department of a public teaching hospital

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Objective: To examine the types, causes and contributing factors associated with medication incidents for high risk medications in an emergency department.

Methods: A retrospective clinical audit was conducted of patients presenting to the emergency department of a public teaching hospital who were prescribed at least one high-risk medication. A random sample of 108 medical records was accessed over a 12-month period. Patient, medication and environment data were obtained from medical records and analysed using descriptive and inferential statistics.

Results: Of the 408 high risk medications prescribed, 397 medication incidents were identified. Common types of medication incidents related to documentation (n=385, 94.1%), prescription (n=164, 40.2%) and administration (n=74, 18.1%). Causes of medication incidents related to human factors such as performance deficits (n=397, 100%) and poor communication (n=151, 37%). The contributing factor of policies and procedures was associated with all medication incidents.

Binary logistic regression modeling showed patient, medication and environment factors contributed to medication incidents. Significant patient factors that contributed to a medication incident included patients with a hearing deficit (OR=4.01, 95%CI=1.93-8.7) and those with a concession card (OR=2.01, 95%CI=1.30-3.10). Significant environmental factors that contributed to a medication incident included: transferring patients to more than 5 different wards during their stay (OR=3.3, 95%CI=2.18-4.99), staying for more than 8 days in hospital (OR=2.9, 95%CI=1.72-4.89) and receiving high risk medications on a public holiday (OR=7.52, 95%CI=2.99-18.92). Significant medication factors that contributed to a medication incident included: the number of high-risk medications prescribed to the patient (OR=1.07, 95%CI=1.04-1.11) and the prescription of an injection or oral formulation (OR=2.5, 95%CI=1.34-4.63).

Conclusions: The factors that contribute to high risk medication incidents are complex and multifocal. Understanding these factors can facilitate the development of strategies aimed at reducing the rate of high risk medication incidents.