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Drug Related Problems in Emergency Department at a Major Tertiary Hospital in Riyadh, Saudi Arabia.

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Background

Drug related problem (DRP) is an event involving drug treatment that actually or potentially interferes with the patient's experiencing an optimum outcome of medical care. Pharmaceutical care services have been implemented to optimize drug therapies and ensure medication safety by preventing, identifying and solving DRPs. The aim of this study is to identify the most common types of DRPs and the drug classes causing these DRPs among patients admitted to the Emergency Department (ED) and to find out the impact of the ED clinical pharmacist in identifying and solving DRPs.

Materials and Methods

A prospective, observational study included all adult patients ageing ≥ 18 years who were admitted to the ED for at least 48 hours and required pharmacological intervention. All DRPs were identified and recorded as part of the routine clinical pharmacist daily job duties. All Categorical variables were presented as frequency and percentages. Continuous variables were expressed as Mean ± S.D. Chi-square test was used to determine the significant relationship between the study outcomes and categorical variables.

Results

The study included a total of 171 patients with the mean age of 56.36 ± 20.14 years, while 57.3% were adults and 42.7% were elderly. A total of 114 DRPs were reported; 85.5% were preventable by clinical pharmacists. Among studied patients, 48.2% had at least one DRP. The most frequently DRPs found were unnecessary drug therapy (41.2 %) and the most frequently drug classes causing DRPs were antibiotics (28.9%). With regard to antibiotics and anticoagulants, the most common DRP encountered was unnecessary drug therapy ($p<0.000$ in each group). DRPs caused by antihypertensive, antiplatelets, and antidyslipdemic agents were more frequently found in elderly patients ($p=0.001$, 0.009, and 0.041 respectively).

Conclusion

This study showed the importance of clinical pharmacists in identifying potential DRPs in ED. The rational use of various drugs; especially antibiotics, in ED is very important. These findings require further studies to show the impact of clinical pharmacists in improving the quality of care among patients admitted to ED.

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