

PHARMACEUTICAL INTERVENTION IN A BRAZIL HOSPITAL: ANALYSIS OF INTERVENTIONS FOCUSING ON PATIENT SAFETY

GRP-134

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Background

Drug interactions (DIs) occur when one drug affects the activity of another drug when both are administered together. This is clinically relevant as it may cause drug-related adverse events, and is generally preventable. ^{1, 2, 3}

Purpose

To analyse potential DIs in prescriptions for hospitalized patients. The drugs investigated were lithium, levothyroxine, phenytoin, risperidone, clozapine, olanzapine, quetiapine and ziprasidone.

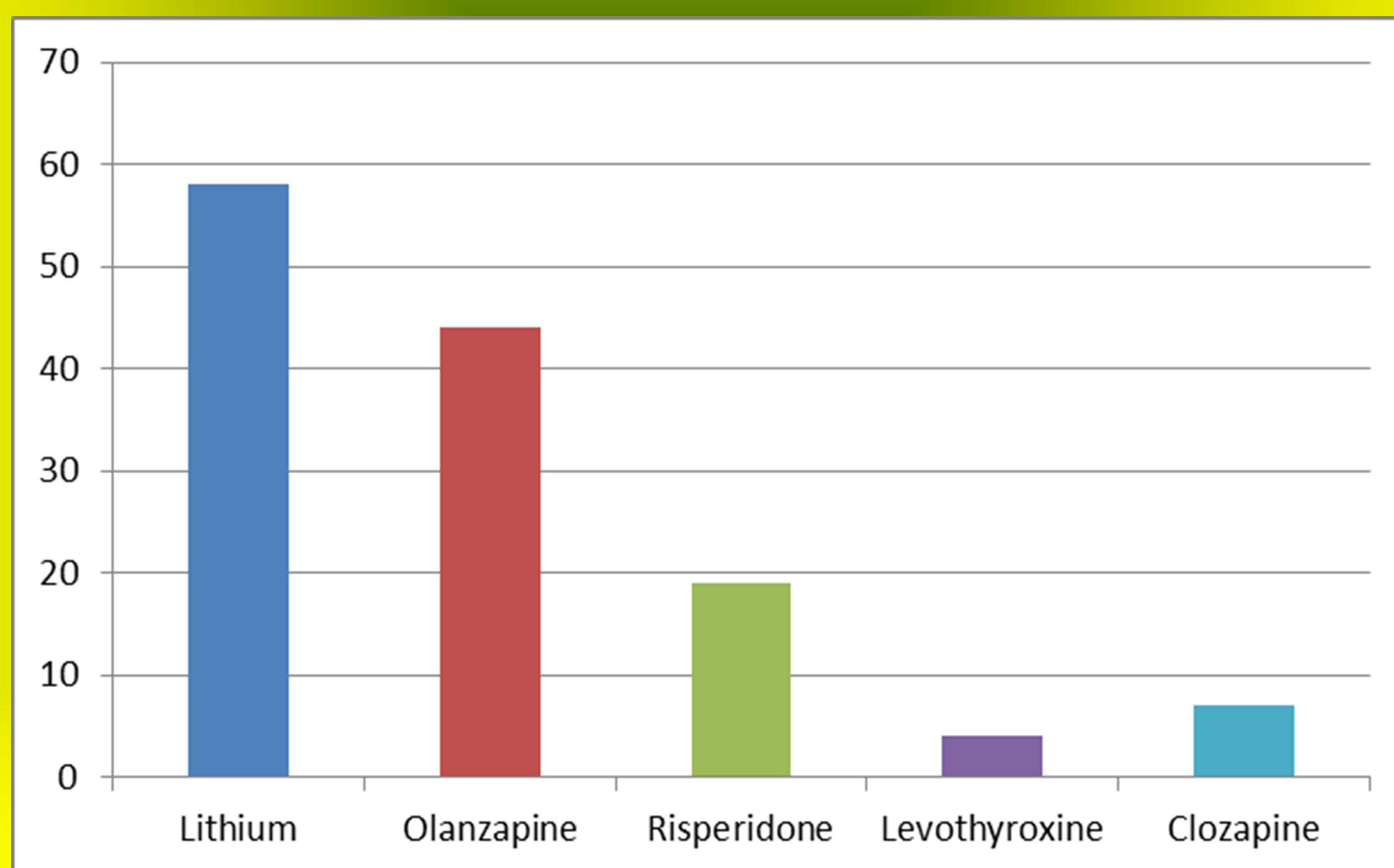
Materials and Methods

A longitudinal and descriptive study of pharmaceutical interventions (PIs) conducted in a Brazilian public hospital specializing in psychiatry with 145 beds, from 5th January to 30th September 2012. The drugs analysed were lithium, levothyroxine, phenytoin, risperidone, clozapine, olanzapine, quetiapine, and ziprasidone. The searches for DIs were done once a week and categorized according to severity (mild/moderate/severe).⁴

Results

134 DIs were analysed in 108 patients. Of the 134 DIs 59.85% were mild; 19.71% moderate and 2.92% severe risk. 1.46% of all prescriptions showed moderate to severe risk and 11.68% showed mild to moderate risk. Of the 134 DIs detected, 59 resulted in a written communication to the physician. The 59 written communications sent to physicians resulted in 25 prescriptions interventions, therefore 34 did not generate a medical intervention. The drugs most frequently involved in an interaction were: lithium (58); olanzapine (44); risperidone (19); levothyroxine (4) and clozapine (7). Of all 25 prescription interventions, 14 removed the potentially risky drug; in 4 the doctor reduced the dose and the other 7 the appearance of adverse reactions was monitored. In all prescriptions with severe and moderate/ severe risk the drug with potential risk was replaced and the number of DIs decreased due pharmaceutical interventions.

Drug Interactions



Conclusions

The study demonstrated the importance of pharmaceutical evaluation of potential DIs in prescriptions and provided information for the prescribing physician to increase patient safety. In addition this study showed that potential DIs generally unnoticed by the prescribing physician were detected by pharmaceutical intervention.

References

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