ANTIPARKINSONIAN MEDICATION RECONCILIATION: HOW PREVENTING MEDICATION ERRORS PROMOTES THERAPEUTIC QUALITY AND SAFETY

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OBJECTIVES
To analyze the impact of developing an antiparkinsonian medication reconciliation program led by clinical pharmacists to identify and correct potential medication errors related to Parkinson’s Disease (PD) pharmacotherapy at the time of admission to the hospital.

MATERIAL AND METHODS
Design: prospective (February 2021-January 2022), interventional study developed in a tertiary hospital. Study population: hospitalized patients with an antiparkinsonian drug prescribed on admission. Intervention performed: medication reconciliation on admission, considering neurology reports, list of prescribed drugs on the clinical record and performing a pharmaceutical interview with the patient, within the first 24 hours from admission. Evaluation of the reconciliation programme: number of antiparkinsonian treatment lines, number, and type of reconciliation errors, erroneous doses prevented by the reconciliation programme. Data analysis: absolute and relative frequency of parameters, median, interquartile range, mean and standard deviation (Excel®).

RESULTS

1 PATIENT DEMOGRAPHICS
n = 94 (55.0%)  
♂ n = 49 (52.1%)  
♀ n = 45 (47.9%)  
80.5 years (73.3-85.4)  
Median (IQR)
Hospital stay 8.8 days (7.4)  
Mean (SD)

2 Analysis of antiparkinsonian prescription lines

134 (59.8%) prescriptions with medication error
Timing: 75 (41.8%)
Contraindication: 51 (29.8%)
Frequency: 38 (21.1%)
Dose: 35 (19.6%)
Omission: 15 (8.4%)
Release form: 10 (5.7%)
Drug: 13 (7.3%)

3 Erroneous doses avoided due to reconciliation
Wrongly prescribed doses avoided: 2716 (60.2%)
Correctly prescribed doses: 1799 (39.8%)

4 Association between medication errors and number/type of antiparkinsonian drug prescribed

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
<th>Medication error</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Number of antiparkinsonian drugs prescribed</td>
<td>1 drug</td>
<td>78 (76.5%)</td>
<td>49 (71.0%)</td>
</tr>
<tr>
<td></td>
<td>2 drugs or more</td>
<td>24 (23.5%)</td>
<td>20 (29.0%)</td>
</tr>
<tr>
<td>Type of antiparkinsonian drug prescribed</td>
<td>Levodopa</td>
<td>112 (90.3%)</td>
<td>67 (77.0%)</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>12 (9.7%)</td>
<td>20 (23.0%)</td>
</tr>
</tbody>
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CONCLUSIONS
Clinical pharmacists’ implementation of an antiparkinsonian reconciliation program sharply reduced medication errors and prescription of contraindicated drugs at the time of admission.