



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

Adrián Viudez-Martinez (PharmD, PhD)¹, Ana Ramírez-López (PharmD)¹, Javier López-Nieto (PharmD)¹, Eduardo Climent-Grana (PharmD, PhD)¹ and Geronima Riera (PharmD)

Hospital General Universitario Doctor Balmis Alicante, Spain

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.

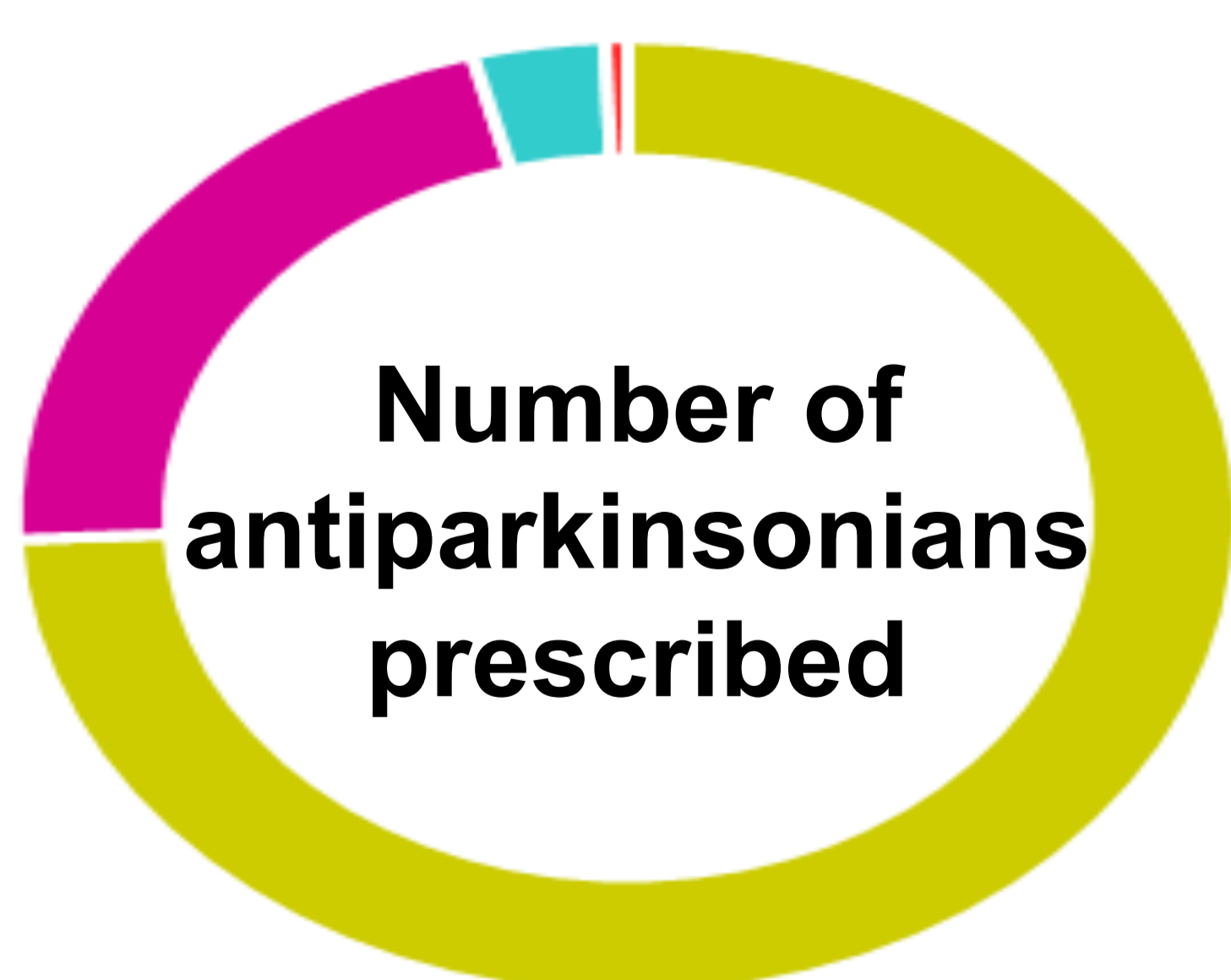
Data analysis: absolute and relative frequency of parameters, median, interquartile range, mean and standard deviation (Excel®).

RESULTS

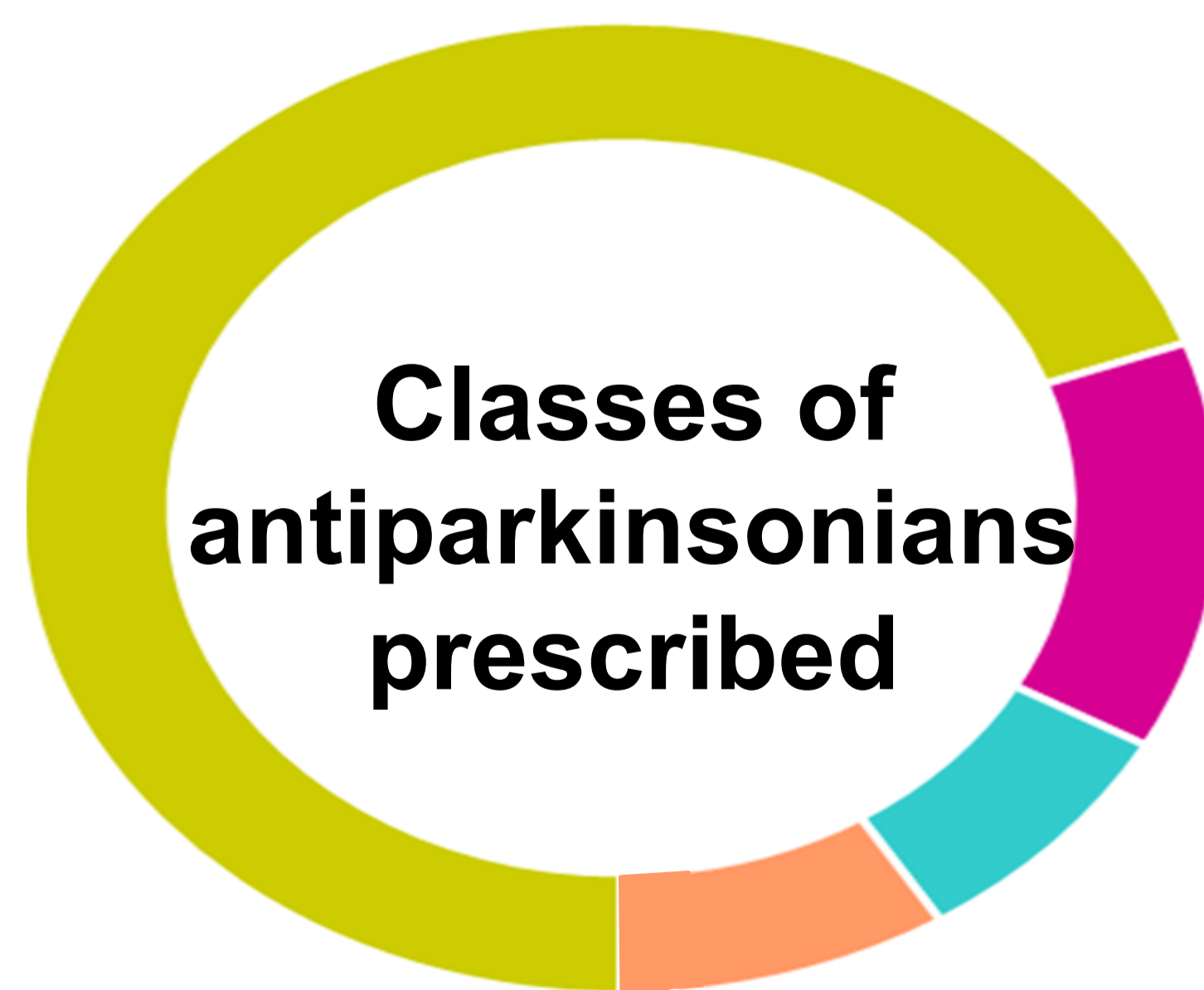
1 PATIENT DEMOGRAPHICS

♂ n = 94 (55,0%) 80.5 years (73.3-85.4)
♀ n = 77 (45,0%) Median (IQR)

Hospital stay 8.8 days (7.4)
Mean (SD)

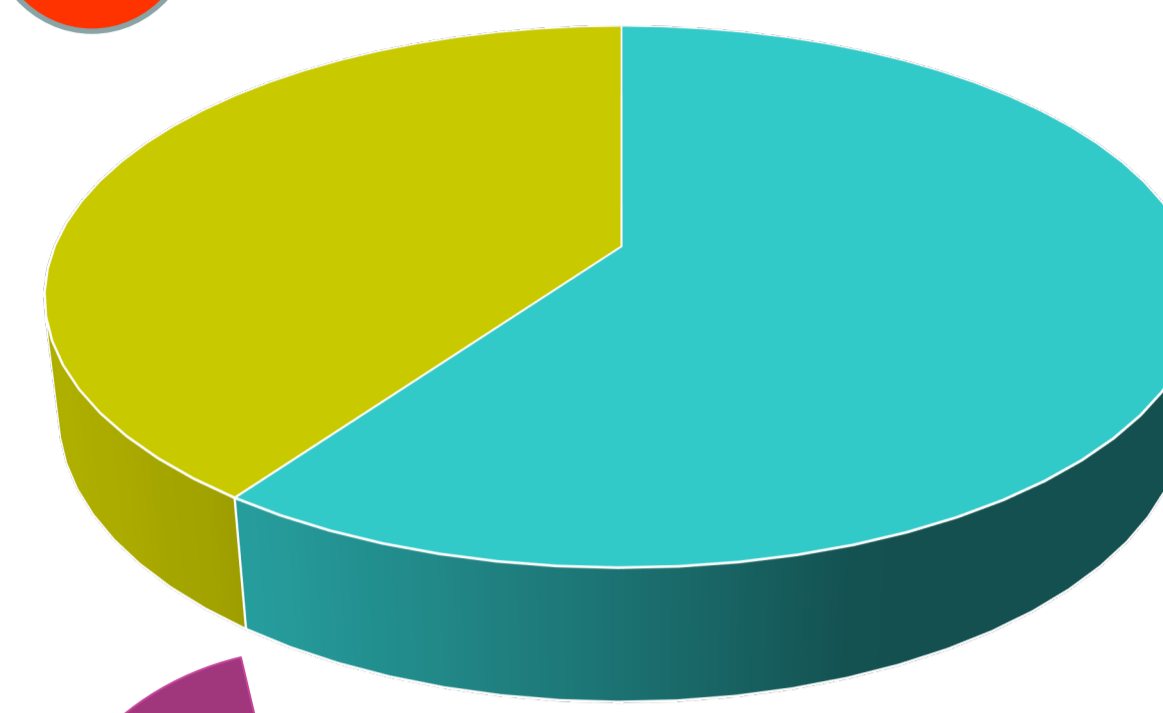


1 → n = 127 (74.3%)
2 → n = 37 (21.6%)
3 → n = 6 (3.5%)
4 → n = 1 (0.5%)

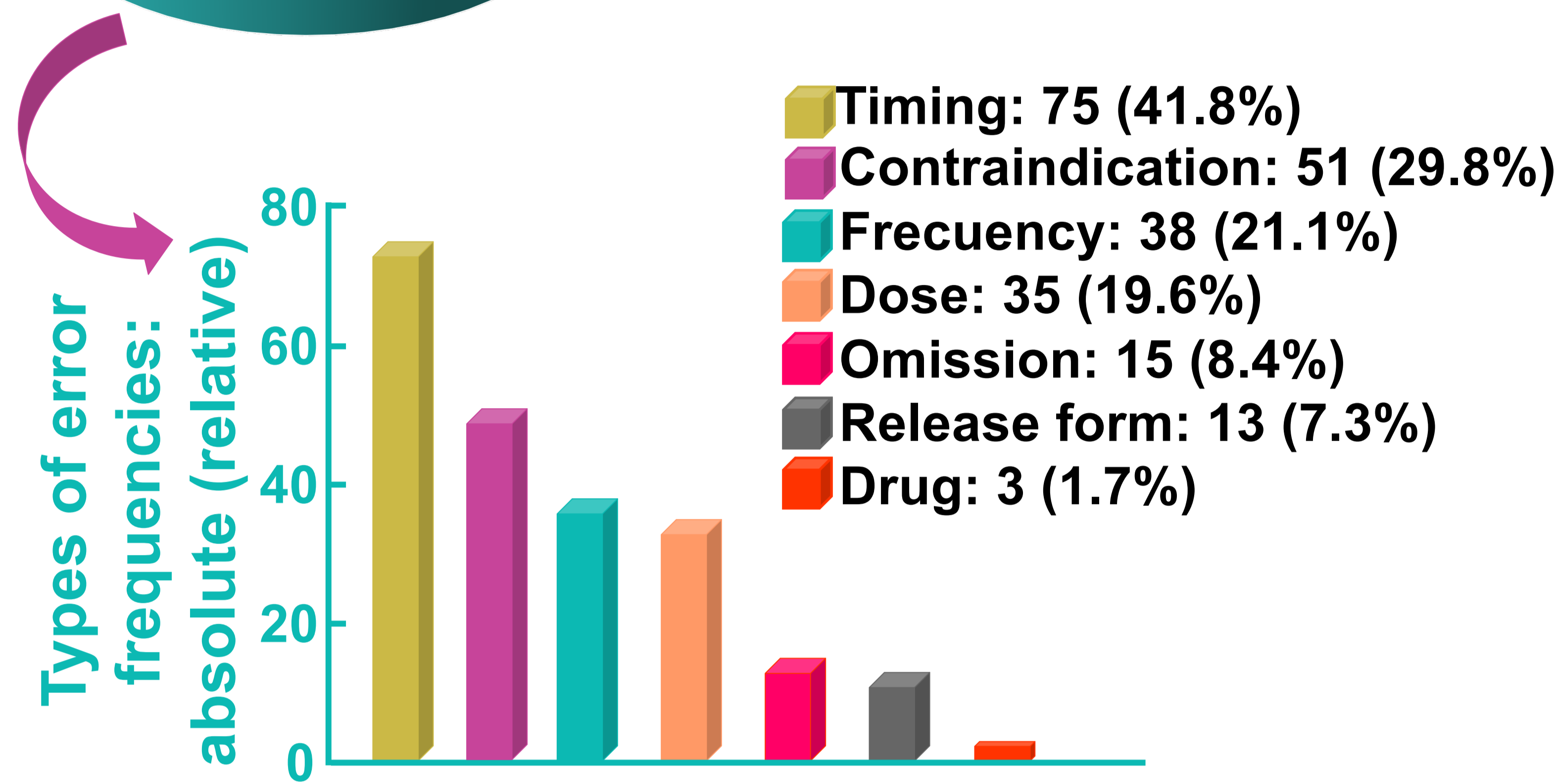


Levodopa/carbidopa: 148 (69.5%)
Levodopa/benserazida: 29 (13.6%)
Other: 19 (8.9%)
IMAO-B: 17 (8.0%)

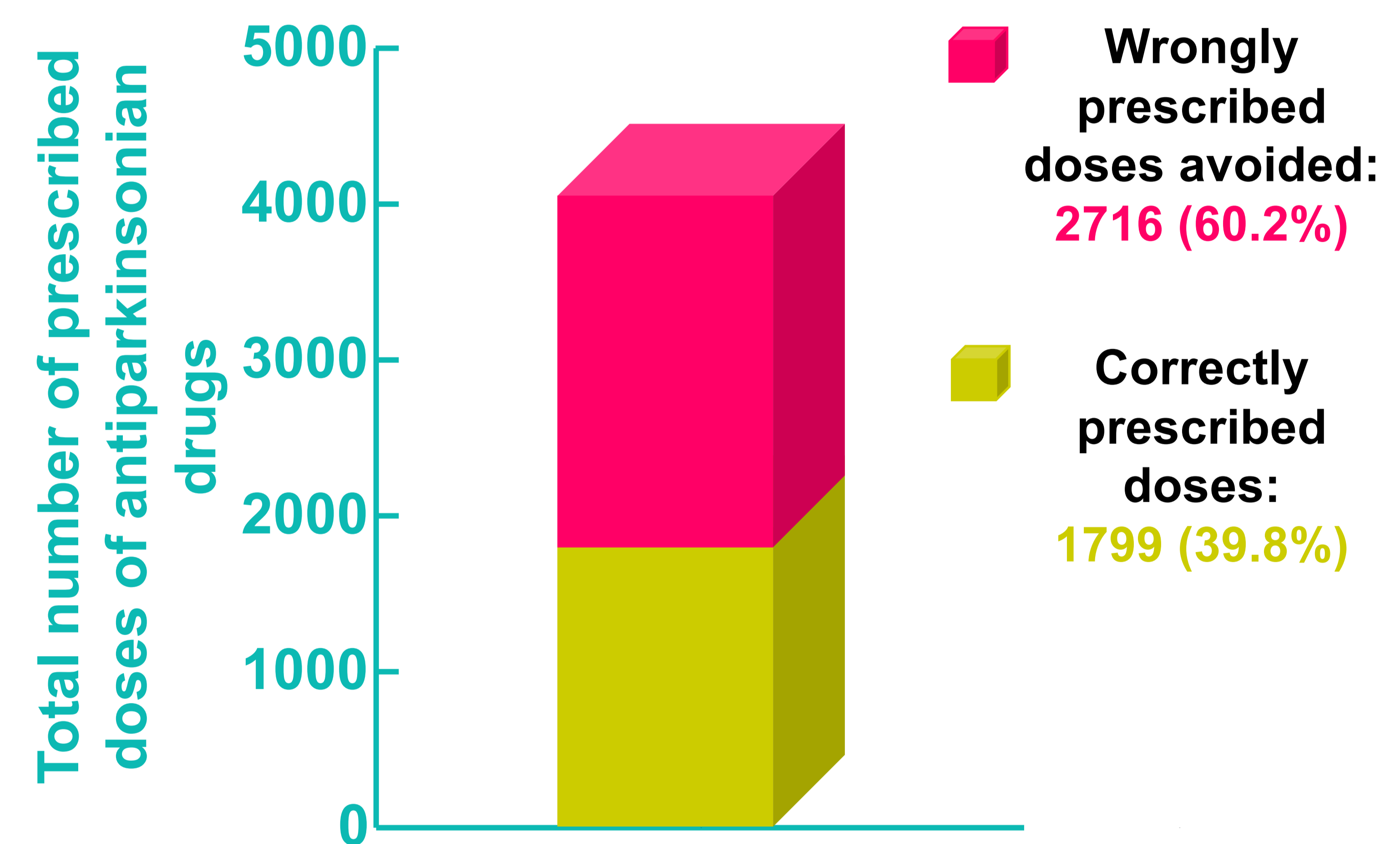
2 Analysis of antiparkinsonian prescription lines



134 (59,8 %) prescriptions with medication error



3 Erroneous doses avoided due to reconciliation



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

Characteristic	Description	Medication error		p value Chi-Square
		Yes	No	
Number of antiparkinsonian drugs prescribed	1 drug	78 (76.5%)	49 (71.0%)	.534
	2 drugs or more	24 (23.5%)	20 (29.0%)	
Type of antiparkinsonian drug prescribed	Levodopa	112 (90.3%)	67 (77.0%)	<.05*
	Others	12 (9.7%)	20 (23.0%)	

CONCLUSIONS

Clinical pharmacists' implementation of an antiparkinsonian reconciliation program sharply reduced medication errors and prescription of contraindicated drugs at the time of admission.