

Maintenance Doses of Antipsychotics in Schizophrenia: Experience of the HMIMV Psychiatry Department

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Abstract

Original Research Article

Introduction: Various research studies have looked at average maintenance doses in the treatment of schizophrenia, with the observation that these doses are likely to be influenced by multiple variables. The objective of this study is to examine the maintenance doses of antipsychotics in a sample of patients with schizophrenia who are stabilized and who are followed in our department. We will also seek to evaluate the relative impact of the various variables mentioned in the literature on these doses. **Material and Method:** This cross-sectional study was conducted among patients with schizophrenia who had been on stable treatment for at least three months, during the period from November 1, 2021 to November 1, 2022. Data were collected from medical records, and in total, 37 patients were included in the study. **Results:** The average dose of antipsychotics prescribed to the patients in our sample during their last hospitalizations was 509.45 mg. Maintenance doses of antipsychotics in our sample had a mean of 340.54 mg CPZ eq. The average maintenance dose in patients with a combination of antipsychotics was 384.6 mg CPZ eq, and that in patients with a single antipsychotic was 236.36 mg CPZ eq. 29.7% of our patients had only one antipsychotic prescribed. **Conclusion:** The aim of this work was to try to study as many factors as possible identified in the literature likely to influence the maintenance dosages of neuroleptics in schizophrenia and to compare them to the experience of our psychiatry department.

Keywords: Schizophrenia, Antipsychotics, Maintenance Doses.

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INTRODUCTION

Several studies have looked at average maintenance dosages in the treatment of schizophrenia. These doses appear to be influenced by several variables. The aim of this work is to study the maintenance doses of antipsychotics in a sample of stabilized patients followed in the psychiatry department of the Mohammed V military hospital and the impact of the different factors which could act on these doses maintenance.

MATERIAL AND METHOD

This is a cross-sectional study which concerned patients suffering from schizophrenia and considered to be stabilized. The patients suffering from schizophrenia, followed at the service during the period between November 1, 2021 and November 1, 2022, whose last hospitalization was more than three months ago and whose treatment was unchanged for at least one month, were included. Sociodemographic, biographical, clinical

and therapeutic variables were collected from medical records. The quality of family care was judged on the number of visits during hospitalizations, moral or financial support, and the involvement of the family in taking treatment as well as support during check-up visits. Post-treatment. The different types of antipsychotics prescribed in these patients, as well as their doses during and after hospitalization were listed. These doses were converted into chlorpromazine equivalent (CPZ eq) according to the Patients Outcome equivalence table. Research Team ("PORT") [1].

RESULTS

The sample consisted of 37 patients, all men, 67% were aged between 18 and 30 years, 78% were single, residents in an urban area in 77% of cases (Table 1). Eight patients had an associated non-psychiatric comorbidity. A psychiatric family history was noted in 36% of patients.

Table 1: Sociodemographic variables

Sociodemographic status	Values (%) N= 37
Age (Years)	
18-30	25 (67.6%)
31-40	10 (27%)
41-50	2 (5.4%)
Male gender	37 (100%)
Marital Status	
Single	29 (77.8%)
Married	6 (16.7%)
Divorced	2 (5.5%)
Residence	
Urban	29 (77.1%)
Rural	8(22.9%)

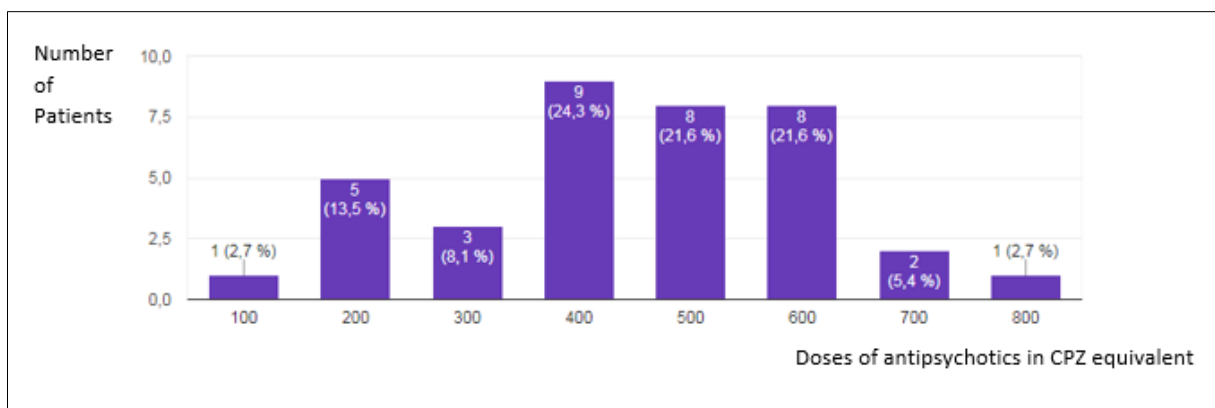


Figure 1: Dose of antipsychotics prescribed at discharge from the last hospitalization, converted into chlorpromazine equivalent according to the Patients Outcome Research Team equivalence table.

The average dose of antipsychotics prescribed during their last hospitalization was 509.45 mg in chlorpromazine equivalent.

The dose prescribed at their discharge from the last hospitalization was 448.64 in chlorpromazine equivalent (Figure 1), and the average of the last dose prescribed during the consultations was 340.54 in chlorpromazine equivalent (Figure 2).

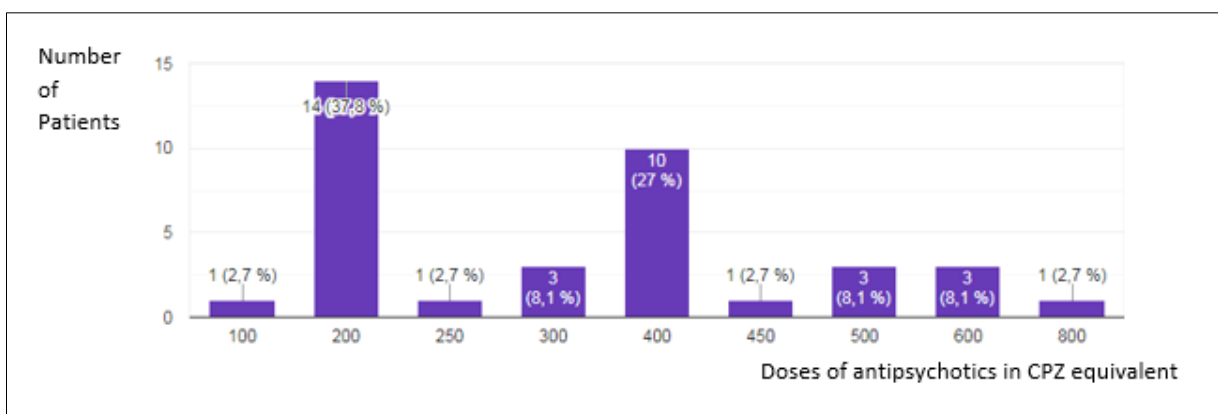


Figure 2: Current outpatient monitoring dose of antipsychotics, converted to chlorpromazine equivalent according to the Patients Outcome Research Team equivalence table

40.5% of patients had a maintenance dose of neuroleptics less than 200 mg in CPZ eq. 10.8% of patients had a maintenance dose greater than 600 mg in CPZ eq. In our sample the average maintenance dose in patients with a combination of antipsychotics which

represents 75% of the sample was 384.6 mg CPZ eq, and that in patients with a single antipsychotic was 236.36 mg CPZ eq.

29.7% of our patients had a single antipsychotic prescribed, 67.6% had two antipsychotics, and only one patient had a prescription with 3 antipsychotics. The

most prescribed antipsychotics in our sample were Haloperidol and Olanzapine (Figure 3).

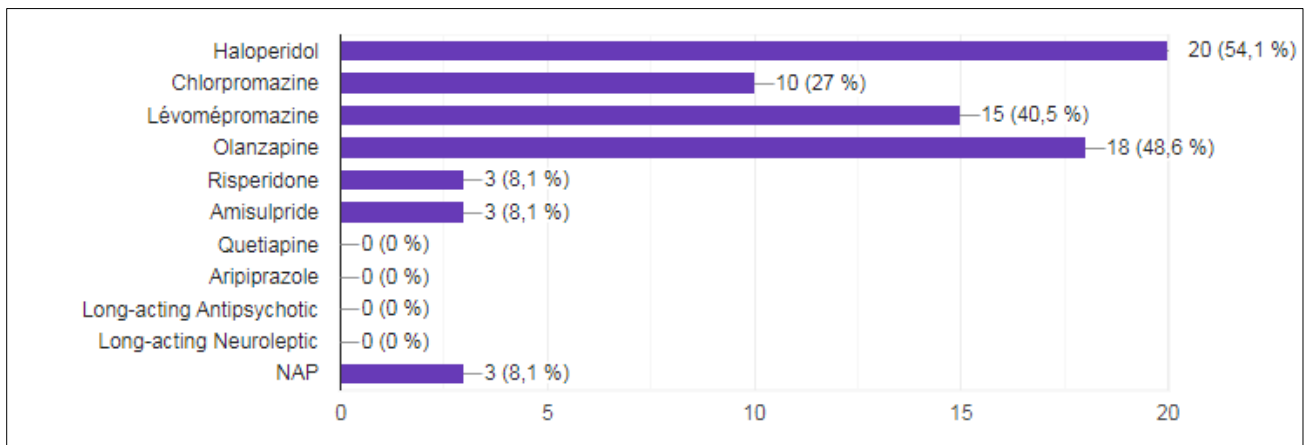


Figure 3: Neuroleptics and Antipsychotics prescribed.

86% of our patients were involved in their care, with good therapeutic compliance and respect for aftercare appointments and 59.5% of families were involved in patient care.

DISCUSSION

The average dose of antipsychotics prescribed to the patients in our sample during their last hospitalizations was 509.45 mg. In people with schizophrenia who are experiencing an acute exacerbation of their illnesses, the daily dose of antipsychotic medications should be between 300 and 1000 chlorpromazine (CPZ) equivalents [1].

Maintenance doses of antipsychotics in our sample had a mean of 340.54 mg CPZ eq. They are within the lower limits of the recommendations provided by the “PORT” [1]. In people with treatment-responsive multiple-episode schizophrenia who experience acute and sustained relief of symptoms with an antipsychotic medication, the maintenance dose of antipsychotics should be between 300 and 600 CPZ equivalents per day. The maintenance dosage for aripiprazole, olanzapine, paliperidone, quetiapine, risperidone, and ziprasidone should be the dose considered effective in reducing positive psychotic symptoms in the acute phase of treatment [1]. However, more than half of the patients had a maintenance dosage outside the doses recommended by the “PORT” and none of the patients had a maintenance dose greater than 1000 mg in CPZ eq. A dose equivalent greater than 1000 mg of chlorpromazine is considered by several guidelines [2], to be high doses of antipsychotic whose added therapeutic value is negligible but which are associated with a significant increase in side effects. These doses justify sustained somatic monitoring [3]. On the other hand, doses below 300 are considered low maintenance doses and insufficiently therapeutic for certain patients [4]. This discrepancy between prescribed doses and those

recommended is a result that is frequently found in the literature. Walkup JT *et al.*, [5], by studying the doses of neuroleptics upon discharge from hospitalization in 293 patients suffering from schizophrenia and schizoaffective disorder, found that only 65% of patients received antipsychotic doses in accordance with recommendations.

For all patients included in this study, the maintenance dose was lower than that administered during their last hospitalizations. Kuno E *et al.*, [6], also found a significant difference between the dosages of antipsychotics received during the last hospitalization and the current maintenance dosages, the latter being lower. Remington GJ *et al.*, [7], found opposite results. In fact, they noted maintenance doses higher than the doses received at discharge from the first admission. They noted, moreover, that the dosages received upon discharge from the first admission constituted a sort of reference: the lower they were, the more the subsequent doses tended to increase; and the greater they were, the more the subsequent dosages tended to decrease.

In our sample the average maintenance dose in patients with a combination of antipsychotics was 384.6 mg CPZ eq, and that in patients with a single antipsychotic was 236.36 mg CPZ eq. The combination of combination therapy and large doses of neuroleptic is a result frequently found in the literature [8-2]. It constitutes, according to several authors and in particular for Lelliott PL *et al.*, [9], one of the characteristics of patients suffering from schizophrenia who receive large doses of antipsychotics.

86% of our patients were invested in the care, with good therapeutic compliance and respect for aftercare appointments, this could be explained by the role of the institution and in certain cases the military

status of certain patients, as well as the family's investment in care (59.5%).

CONCLUSION

The aim of this work was to study the doses of antipsychotics at different stages in a sample of stabilized patients followed in the psychiatry department of the Mohammed V Military Hospital of Instruction and to study the impact of the different factors which could act on the maintenance doses prescribed in this group of patients while comparing them to literature data.

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Disclosures of Conflicts of Interest: None of the authors has any conflict of interest to disclose in link with the present study.

Ethical Approval: There is no ethical issue.

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