

V. GARCIA ZAFRA, I. CASTEJÓN GRAO, S. MACIA SORIANO, G. MIRALLES ANDREU,
D. MARTINEZ-CABALLERO MARTINEZ, A.C. MURCIA LOPEZ.
Hospital General Universitario de Elche, Pharmacy Department. farmaelx@gva.es

BACKGROUND AND IMPORTANCE

📌 Monitoring clozapine plasma concentrations is crucial to optimize efficacy and prevent hematological toxicity.

🚬 Smoking significantly decreases plasma concentrations, potentially compromising treatment effectiveness.

AIM AND OBJECTIVES

🎯 To assess the efficacy and safety of clozapine in patients with schizophrenia or psychosis by determining trough plasma concentrations.

MATERIAL AND METHODS

🔍 Retrospective observational study. 📅 January 2023 - September 2024.

🔄 Dose adjustments and acceptance was evaluated.

Variables	
• Sex	• Dose
• Weight	• Trough concentrations (therapeutic range: 250-700ng/mL)
• Age	• Hematological parameters (leukopenia, neutropenia, eosinophilia and thrombocytopenia).
• Diagnosis	
• Smoking habits	

RESULTS

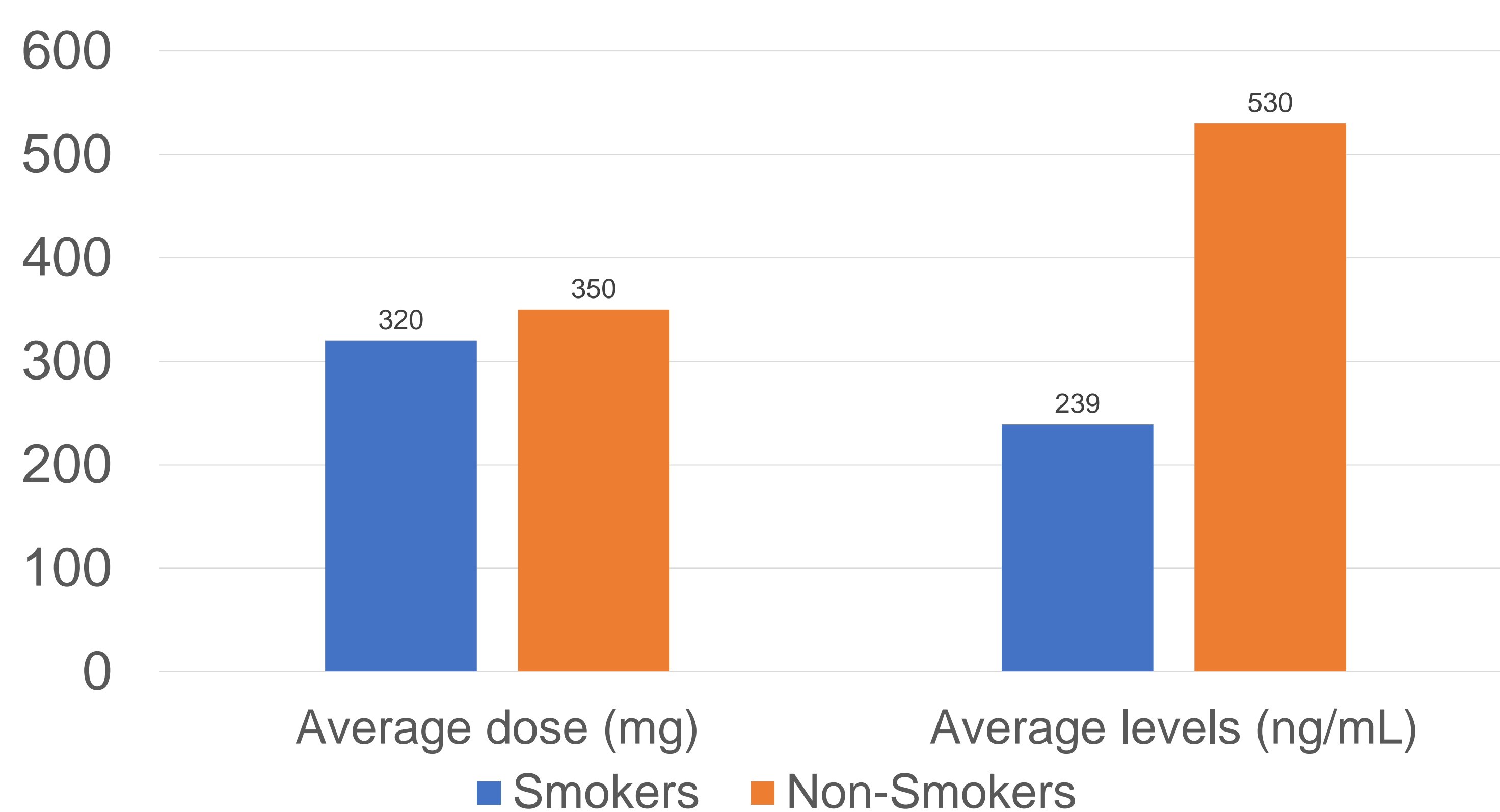
👥 N = 31 patients
Median age = 46 y
19 smokers (61.3%)



75 plasma levels
✗ 42 outside concentration range

📈 8 suprathreshold concentrations
📉 34 subtherapeutic concentrations

Dose adjustment recommendation



47,6% NOT ACCEPTED
due to the patients stable clinical condition



No leukopenia, neutropenia or eosinophilia.



6 patients with mild thrombocytopenia (<math><150.000/mm^3</math>).

CONCLUSION AND RELEVANCE

✅ Some patients benefit from clozapine despite subtherapeutic plasma concentrations.

🚬 Smoking significantly reduces clozapine plasma concentrations.

🔬 Monitoring plasma levels is essential to ensure treatment safety and efficacy.

