

# AN EVALUATION OF THE PRESCRIBING OF CLOZAPINE FOR TREATMENT-RESISTANT SCHIZOPHRENIA IN ONE

**NHS TRUST IN ENGLAND** 

S. Brannen1, K.A. Gunnell<sup>1</sup>, H. Cooper<sup>2</sup>, M. Azar<sup>2</sup>, A. Campbell<sup>2</sup> and S. White<sup>1</sup>,



1. School of Pharmacy and Bioengineering, Keele University, Keele, UK. 2. Pharmacy and Medicines Optimisation, Midland Partnership NHS Foundation Trust, Stafford UK.

# **INTRODUCTION**

As research on the impact of the delay of initiating clozapine had recently been published (1), and because a merger of two NHS trusts had occurred, this study was initiated to investigate if NICE guidelines for the management of treatment-resistant schizophrenia (TR-SCZ) were followed. NICE recommends that clozapine is offered after a trial of two antipsychotic drugs of appropriate dose and duration (2). The risk of potentially fatal side effects and the need for regular blood monitoring can deter patients and prescribers in initiating clozapine at an earlier stage (1), (3).

The overall aim for this project was to evaluate the prescribing of clozapine in patients with TR-SCZ in a large NHS trust against NICE guidelines. Individual study objectives were established (see figure 1).

#### FIGURE 1- STUDY OBJECTIVES

The objectives were to:

- Determine if NICE guidelines are followed when prescribing clozapine
- Quantify how many antipsychotics patients have been prescribed before clozapine has been initiated
- Establish how many patients remain on clozapine 9 months after initiation
- Determine the reason clozapine was stopped (where applicable).

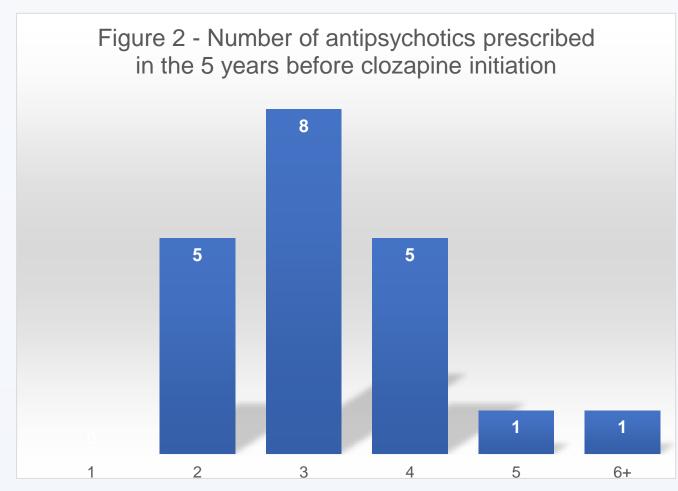
### **METHODS**

Due to a fixed project time scale of 3 months, the medical records of 20 patients with TR-SCZ were accessed in November 2019 in order to determine compliance with NICE guidelines (2). Inclusion criteria for the study included a diagnosis of TR-SCZ in patients over 18 but under 60 years-old, and a first attempt of prescribing clozapine after 2017. The records were analysed to establish how many antipsychotics were prescribed before clozapine was initiated, the number of patients remaining on clozapine after nine months, and the reason for stopping (where appropriate). A collection tool was created in Excel and data was analysed using descriptive statistics.



Marco Castellani, CC BY-SA 2.0 <a href="https://creativecommons.org/licenses/by-sa/2.0">https://creativecommons.org/licenses/by-sa/2.0</a>, via Wikimedia Commons

# RESULTS



All 20 patients had tried at least two antipsychotics, with 75% (n=15) having tried more than two before the initiation of clozapine. The mode number of antipsychotics prescribed was three (see figure 2).

At the point of data collection, 75% (n=15) of the patients remained on clozapine. Of the five patients no longer taking clozapine, three patients remained on it for more than nine months before it was stopped.

Documented reasons for stopping included side effects (neutropenia (n=1) and tachycardia (n= 1)) and patient choice (n=3).

# CONCLUSIONS

Clozapine is an effective treatment for TR-SCZ (1), (2). This is backed up by the majority of patients in this study remaining on the treatment after nine months. This study also agrees with previous research (1) indicating guidelines for prescribing clozapine are not followed. 75% of patients were prescribed more than the recommended two antipsychotics before clozapine was initiated. However, the patient notes did not indicate the reasons for using more than two other antipsychotics before trialling clozapine or impact of the delay of its initiation. It would therefore be prudent for future research to determine the reasons for and impact of prescribing clozapine after more than two other antipsychotics had been trialled.

### REFERENCES

- Shah P, Iwata Y, Plitman E, Brown EE, Caravaggio F, Kim J, Nakajima S, Hahn M, Remington G, Gerretsen P, Graff-Guerrero A. The impact of delay in clozapine initiation on treatment outcomes in patients with treatment-resistant schizophrenia: a systematic review. Psychiatry research. 2018 Oct 1;268:114-22.
- National Institute for Health and Care Excellence. Psychosis and schizophrenia: treatment and management. (Clinical guideline 178.) c2014. [Updated 2021; cited 2021 Oct 14]. Available from: http://guidance.nice.org.uk/CG178
- 3. Warnez, S, Aless-Severini, S. Clozapine: a review of clinical practice guidelines and prescribing trends. *BMC Psychiatry*. 2014; 14(102).

### CONTACT

For further information please contact Karen Anne Gunnell at k.gunnell@keele.ac.uk