

# OFF-LABEL USE OF KETAMINE FOR RESISTANT DEPRESSION: ROLE OF THE HOSPITAL PHARMACIST



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## Background

An intravenous slow infusion of Ketamine, glutamate receptor antagonist, has emerged as an effective, safe and rapidly acting antidepressant in different studies. Its efficacy is reported in treatment of resistant recurrent major depression and bipolar depression.

In our country, Ketamine is not currently authorized for these indications therefore it's used off-label.

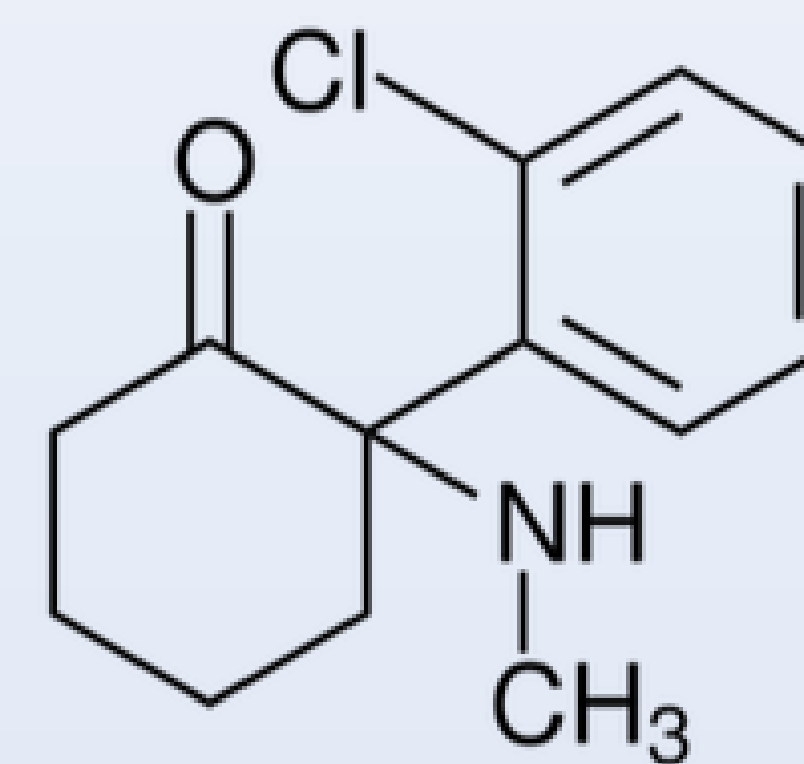


Figure 1 Ketamine's chemical formula

## Aim and Objectives

The purpose is to present the role of pharmacists monitoring Ketamine's off-label prescriptive appropriateness and give treatments data of 2021 and the first eight months of 2022 in our hospital.

## Methods

The authors present their role in the authorization process for off-label use, in compliance with current legislation, and monitoring data which are collected from specialists' assessments/re-evaluations. Psychiatrists collect the patient's informed consent, fill out the authorization form and deliver it to pharmacists. Pharmacists assess whether exist the conditions under which the Ketamine infusion is sustainable in terms of both appropriateness and costs. Once the treatment has been authorized, the collected data are entered in a database periodically updated with authorization and dispensing information.

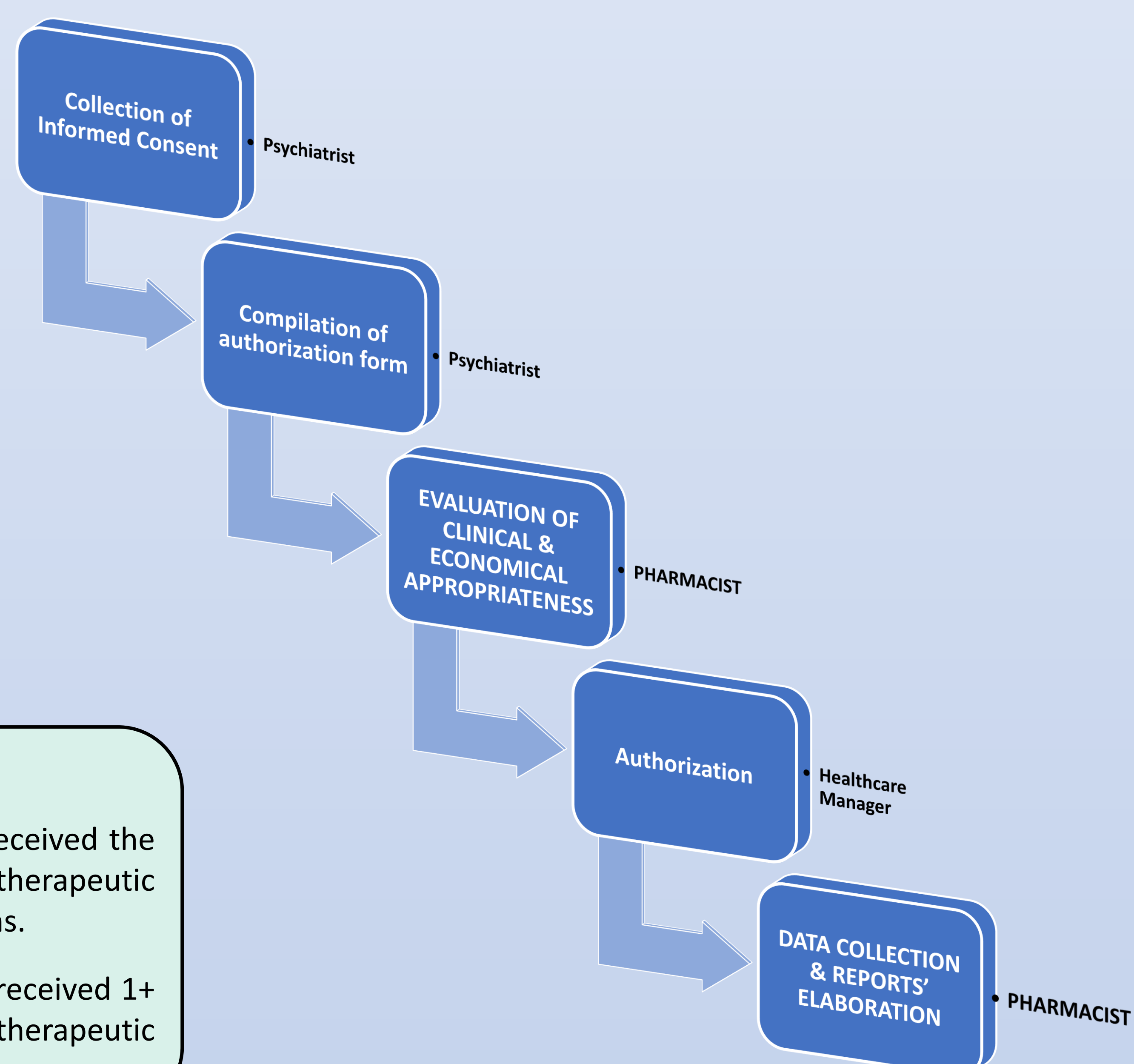


Figure 2 Ketamine's authorization process

## Results

37 patients were treated from 01/01/21 to 31/08/22, 17 in 2021 and 20 in 2022.

In 2021, 4 patients had already received 1+ treatments the previous year, whilst 13 patients received the induction dose. Of these patients, 10 switched to a standard maintenance dosage as rapid therapeutic benefit was observed; only 3 discontinued treatment or had a different dosage for clinical reasons.

Between 01/01/22 and 31/08/22, 12 patients received the induction dose while 8 had already received 1+ treatments the previous year; of the 12 patients, 10 switched to a standard dose as a rapid therapeutic benefit was observed whereas only 2 discontinued treatment.

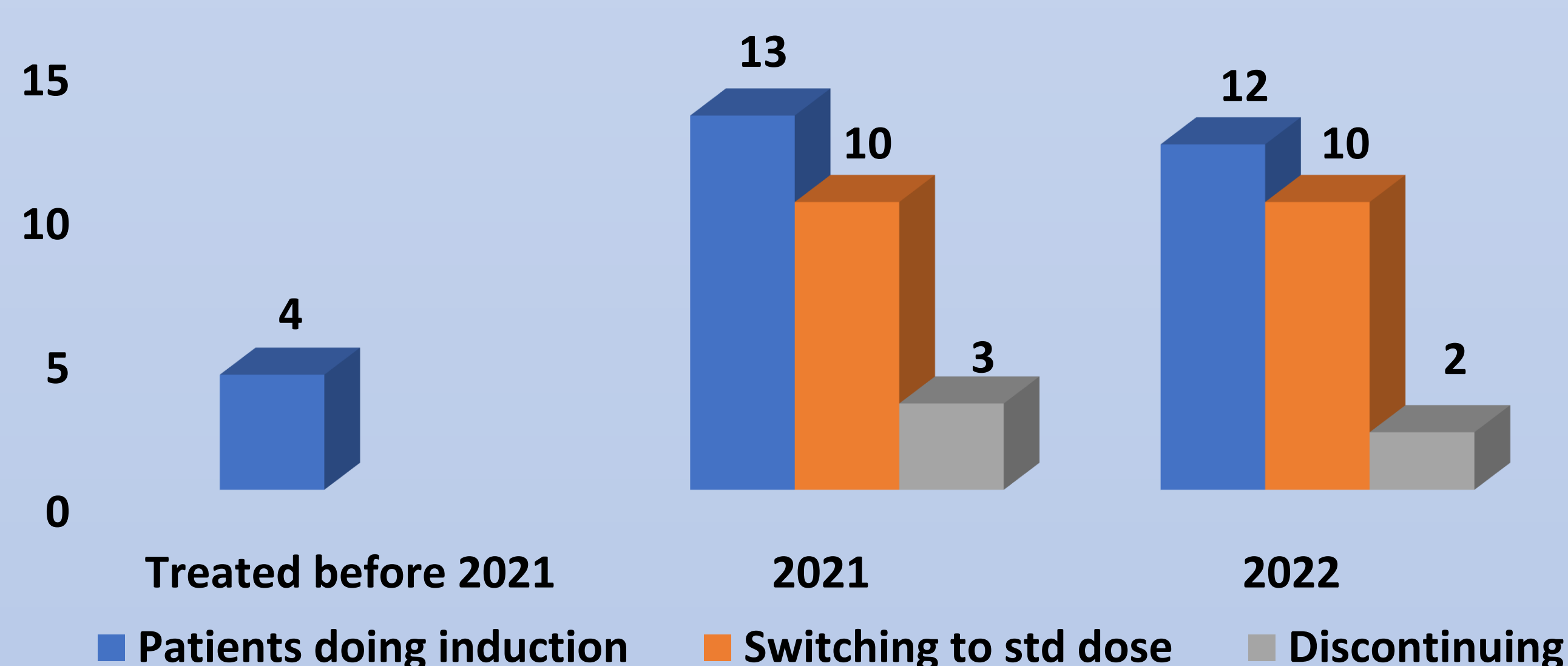


Figure 3 Ketamine's Induction and Maintenance patients' situation

## Conclusions and Relevance

An intravenous slow infusion of ketamine is safe and effective in the symptoms' stabilization.

The role of the pharmacy will be to continue monitoring and improve a database to be used to propose ketamine's administration in depression for inclusion in the list of medicines supplied by the National Health Service to be used for a therapeutic indication other than the authorized ones.

