

## Neuroleptic Malignant Syndrome on Clozapine Monotherapy: A case report

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### **Abstract:**

Neuroleptic Malignant Syndrome (NMS) is a life-threatening medical emergency associated with the use of dopamine blocking agents. There are extensive reports in the literature of this syndrome's association with typical antipsychotics such as Haloperidol or Fluphenazine. There is a lower incidence of NMS in patients on atypical antipsychotics with very few cases in the literature describing this idiosyncratic reaction in patients who are prescribed Clozapine. The evidence further suggests that the symptoms of NMS for patients on this medication may be different to the classical presentation

The pathophysiology of NMS on a receptor level involves a decrease in central dopaminergic activity at the Dopaminergic D2 receptor. This leads to the patient's characteristic physical symptoms which include muscle rigidity, hyperthermia, mental state changes to include alterations in functioning of the autonomic nervous system

To satisfy a diagnosis of NMS, the DSM V criteria must satisfy all 3 major symptoms which include exposure to a dopamine blocking agent, severe muscle rigidity and fever. At least 2 'other criteria' are needed from diaphoresis, dysphagia, tremor, incontinence, altered level of consciousness, mutism, tachycardia, elevated/labile blood pressure, leucocytosis or elevated creatinine kinase (CK)

This case describes a varying presentation of NMS in a patient commenced on Clozapine monotherapy.