



Neuroleptic Malignant Syndrome (NMS)





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Neuroleptic Malignant Syndrome (NMS) is a rare but potentially life-threatening reaction to neuroleptic medications such as those used to treat psychosis. It causes fever, muscular rigidity, and altered mental status. It then affects the autonomic nervous system, meaning that it can stop the heart, bladder, intestines, blood vessels and pupils working properly. NMS is most common after starting or increasing the dose of these types of medicines, and in 90% of cases this occurs within 10 days. The onset is usually gradual over 1 to 3 days, however, it can occur at any time in those taking antipsychotic medication.



Signs and Symptoms

- There will be hyperthermia with temperature above 38°C
- Muscular rigidity (lead-pipe type) may be present
- There is likely to be an alteration in mental status with confusion or agitation and altered consciousness
- Autonomic instability may manifest as
 - Pale appearance
 - Tachycardia
 - Fluctuating blood pressure
 - Excessive sweating/salivation
 - ▶ Tremor
 - Incontinence



Causes

- Patients may report shortness of breath (due to hypoventilation caused by muscle rigidity), dysphagia or difficulty walking with the development of a shuffling gait
- There may be increasing tremor or involuntary movements
- Rarely, there may be oculogyric crises, seizures or chorea
- Prolonged involuntarily upward movement of the eyes
- Jerky involuntary movements, particularly affecting the shoulders, hips and face



Ward Based Management

- Airway and breathing need to be protected if there is evidence of compromise
- Physical restraint is best avoided or minimised, as it can worsen the hyperthermia
- Stop any neuroleptic drugs under medical supervision
- Fluids should be given for dehydration
 - Cool patient down
 - Physical observations
 - ▶ Heart rate
 - ▶ Blood Pressure
 - ▶ Temperature
 - Respiratory rate
- Call a doctor