



### Adverse Reaction to Antipsychotic Medications: Neuroleptic Malignant Syndrome (NMS)

*BQIS Fact Sheets provide a general overview on topics important to supporting an individual's health and safety and to improving their quality of life. This document provides general information on the topic and is not intended to replace team assessment, decision-making, or medical advice. This is the sixth of ten Fact Sheets regarding psychotropic medications.*

#### Intended Outcomes

Individuals will learn about the causes, signs and symptoms, diagnosis, and treatment of neuroleptic malignant syndrome.

#### Definitions

**Neuroleptic malignant syndrome:** A life-threatening neurologic disorder caused by an adverse reaction to antipsychotic medication.

#### Facts

- Symptoms usually occur within the first two (2) weeks of starting the medication.
- The syndrome occurs more commonly with higher doses of antipsychotic medication.
- Examples of antipsychotic medications include but are not limited to: aripiprazole (Abilify), chlorpromazine (Thorazine), clozapine (Clozaril), fluphenazine (Prolixin), haloperidol (Haldol), loxapine (Loxatine), olanzapine (Zyprexa), perphenazine (Trilafon), pimozide (Orap), risperidone (Risperdal), and ziprasidone (Geodon).
- Signs and symptoms of neuroleptic malignant syndrome include:
  - Rigidity or stiffness (often the first symptom)
  - High fever (often the second symptom)
  - Sweating
  - Unstable blood pressure
  - Confusion
  - Agitation
  - Unconsciousness



# HEALTH & SAFETY: PSYCHIATRIC MEDICATIONS

## Adverse Reaction to Antipsychotic Medications: Neuroleptic Malignant Syndrome (NMS)

### FACT SHEET

- Signs and symptoms will:
  - Progress quickly and peak in about three (3) days
  - Last from eight (8) hours to forty days
- Neuroleptic malignant syndrome may be caused by:
  - A negative reaction to an antipsychotic medication
  - Rapid or large increases in antipsychotic medications
  - Suddenly stopping or reducing anti-Parkinsonism drugs
- Those individuals who are identified as experiencing this syndrome and are treated early do much better.
  - Getting treatment as soon as possible can prevent fatalities.

### Recommended Actions and Prevention Strategies

1. Give antipsychotic medications as prescribed.
2. Watch for signs and symptoms of neuroleptic malignant syndrome.
3. If signs and symptoms of neuroleptic malignant syndrome are noticed, stop antipsychotic medications and take the individual to the emergency room immediately.
4. Write down any signs and symptoms of neuroleptic malignant syndrome that you notice.
5. Tell your supervisor or nurse about any noted signs or symptoms of neuroleptic malignant syndrome immediately after getting the necessary emergency treatment for the individual.



# HEALTH & SAFETY: PSYCHIATRIC MEDICATIONS

## Adverse Reaction to Antipsychotic Medications: Neuroleptic Malignant Syndrome (NMS)

### FACT SHEET

### Learning Assessment

The following questions can be used to verify a person's competency regarding the material contained in this Fact Sheet:

1. Antipsychotic medications that can cause neuroleptic malignant syndrome include:
  - A. Haloperidol
  - B. Chlorpromazine
  - C. Aripiprazole
  - D. All of the above
2. Signs and symptoms of neuroleptic malignant syndrome include:
  - A. Muscle rigidity or stiffness
  - B. Low body temperature
  - C. Seizures
  - D. Hair loss
3. Treatment for neuroleptic malignant syndrome includes:
  - A. Staying at home
  - B. Going to the emergency room immediately
  - C. Stopping antipsychotic medication
  - D. B and C
4. Signs and symptoms of neuroleptic malignant syndrome last from:
  - A. Eight (8) hours to forty days
  - B. Five (5) minutes to eight (8) hours
  - C. At least forty days
  - D. A lifetime



# HEALTH & SAFETY: PSYCHIATRIC MEDICATIONS

## Adverse Reaction to Antipsychotic Medications: Neuroleptic Malignant Syndrome (NMS)

### FACT SHEET

### References

Benzer, T. I. & Tarabar, A. (2015). Neuroleptic malignant syndrome clinical presentation. Medscape. Retrieved 08/01/2015 from <http://emedicine.medscape.com/article/816018-overview>.

Berman, B. D. (2011). Neuroleptic Malignant Syndrome: A Review for Neurohospitalists. *The Neurohospitalist*, 1(1), 41–47. Retrieved 08/01/2015 from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3726098/>.

National Organization for Rare Disorders. Neuroleptic malignant syndrome. Retrieved 08/01/2015 from <https://rarediseases.org/rare-diseases/neuroleptic-malignant-syndrome/>.

### Related Resources

Psychiatric Medication Series Fact Sheets: “Atypical Antipsychotics”, “Typical Antipsychotics”, “Depakote”, “Lithium”, and “SSRIs and SNRIs”

### Learning Assessment Answers

1. D
2. A
3. D
4. A