

# Protocol 7-2

**SECTION:** Toxicological Emergencies

**PROTOCOL TITLE:** Medical – Overdose/Poisoning – Stimulant

**REVISED:** 06/2017

## STIMULANT OVERDOSE

**OVERVIEW:**

Hyperdynamic “stimulant” drugs, also known as sympathomimetics, include cocaine, methamphetamine, amphetamine, and MDMA (ecstasy). Patient care should be focused on preventing / mitigating hyperthermia, agitated delirium, positional asphyxia, hypoxia, and physical self-harm. With a stimulant overdose (tachycardia, agitation, hyperthermia, and / or hypertension), treatment with benzodiazepines is indicated in addition to rhythm specific therapy or anti- hypertensive meds (with the exception of beta-blockers). Unfortunately, the history of poisoning / overdose is notoriously unreliable whether it is obtained from the patient, friends and family members or emergency services personnel. Despite the possible inaccuracies, the most important historical factors include **what** poison was involved, **how much** was taken, **how** it was taken, **when** it was taken, **why** it was taken, and especially **what else** was taken. Poison Control may be contacted at any time for information on poisoning (1-800-222-1222) but **only Medical Control may give patient treatment orders.**

HPI	Signs and Symptoms	Considerations
<ul style="list-style-type: none"> <li>• Use or suspected use of a potentially toxic substance</li> <li>• Substance ingested, route, and quantity used</li> <li>• Time of use</li> <li>• Reason (suicidal, accidental, criminal)</li> <li>• Available medications in home</li> <li>• Past medical history</li> </ul>	<ul style="list-style-type: none"> <li>• Mental status changes</li> <li>• Hypertension</li> <li>• Hyperthermia</li> <li>• Tachypnea</li> <li>• Tachycardia, other dysrhythmias</li> <li>• Seizures</li> </ul>	<ul style="list-style-type: none"> <li>• Anticholinergic</li> <li>• Solvents</li> <li>• Cleaning agents</li> <li>• Insecticides</li> </ul>

	EMR	EMT	A	I	P
1. Obtain general assessment of the patient.	•	•	•	•	•
2. Administer Oxygen to maintain <u>SPO<sub>2</sub></u> 94 - 99%	•	•	•	•	•
3. Suction oropharynx as necessary.	•	•	•	•	•
4. Obtain blood glucose sample. If glucose is < 60 mg / dL or > 300 mg / dL, refer to <u>Hypoglycemia</u> or <u>Hyperglycemia</u> protocol.	•	•	•	•	•
5. Establish IV of Normal Saline. Titrate to maintain a systolic BP > 90 mmHg.			•	•	•
6. Place the patient on a cardiac monitor and obtain / interpret <u>12 lead ECG</u> .		•	•	•	•

# Protocol

# 7-2

Continued

## STIMULANT OVERDOSE

	EMR	EMT	A	I	P
7. For chest pain due to suspected <u>cocaine</u> use, WITHOUT ST elevation, administer <u>MIDAZOLAM</u> 5 mg IV. If Midazolam is not available, administer <u>DIAZEPAM</u> 2.5 - 5 mg IV. Refer to <i>Medical – Chest Pain – Cardiac Suspected</i> as needed.				•	•
8. If patient is seizing, refer to the <u>Medical Care Seizure protocol</u> .	•	•	•	•	•
9. Transport promptly in position of comfort. Reassess vital signs as indicated.		•	•	•	•

### Toxidrome

<ul style="list-style-type: none"> <li>• Restlessness</li> <li>• Excessive speech and motor activity</li> <li>• Tremors</li> </ul>	<ul style="list-style-type: none"> <li>• Insomnia</li> <li>• Tachycardia</li> <li>• Hypertension</li> </ul>	<ul style="list-style-type: none"> <li>• Hyperthermia</li> <li>• Hallucinations</li> <li>• Seizures</li> </ul>
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### PEARLS:

1. Do not rely on patient history of ingestion, especially in suicide attempts.
2. Bring bottles and contents to ER with patient.
3. Ecstasy (MDMA), and the more toxic drug para-Methoxyamphetamine (PMA), have both amphetamine and hallucinatory like effects. The stimulant effects of MDMA / PMA, which enable users to perform physical exertion (like dancing) for extended periods, may also lead to dehydration, tachycardia, and hypertension. MAOI's may potentiate toxic effects. While any of the hyperdynamics can be dangerous, MDMA and PMA especially have been known to cause a marked increase in body temperature (malignant hyperthermia) leading to rapid onset of muscle breakdown, DIC, seizures, renal failure, and cardiovascular system failure.