### **Appendix 1: Advisory issued to health care professionals**



# Drug of Abuse Advisory:

# Ecstasy/Ecstasy Derivatives

Date: February 3, 2012

From the office of the Medical Officer of Health

#### Context:

MDMA (3,4-methylenedioxymethamphetamine) is known by many different names, including "ecstasy", "X", "E", "Adam", "Molly", "XTC", "M&M" and "MDM", "rolls", "beans", and others. It tends to be distributed in colorful, branded tablets and is taken by mouth. It is one of the most widely abused drugs by both university students and teenagers, and is popular with the rave and party scene.

PMA (paramethoxyamphetamine) and PMMA (paramethoxymethamphetamine) are in the same class of drugs as MDMA and are known by the street name "death" or "Dr. Death". PMA/PMMA is often sold as "Ecstasy" or an "Ecstasy substitute" and is available in pill and powder formats. PMA use was first reported in Ontario, Canada in 1973 and within the last 15 years there have been cases in Canada, USA, Australia, Taiwan, Israel and Europe. Within Calgary, there have been multiple PMMA related deaths since November 2011.

PMMA is considered to be more toxic than MDMA. The initial effects of PMMA are often delayed and milder than MDMA, leading users to believe they have taken a weak MDMA product. This then leads to repetitive dosing in an attempt to get the desired effects. PMMA has also been shown to cause higher incidence of dysrhythmias and ECG abnormalities, including QRS prolongation, hypoglycemia and hyperkalemia.

### Clinical symptoms/signs:

MDMA or PMMA overdose is characterized by symptoms consistent with serotonin syndrome including:

- Agitation, delirium, diaphoresis, mydriasis, clonus (lower extremities), tremor, hyperreflexia, bruxism, nystagmus, visual hallucinations
- Tachycardia, hypertension, tachypnea, hyperthermia

Hyperthermia is a late and ominous finding and should prompt immediate initiation of treatment. It is representative of severity of illness and may be followed by rhabdomyolysis, seizures, multiple organ dysfunction, significant metabolic acidosis and DIC.

#### Actions:

- 1. Contact PADIS directly for any suspected cases of MDMA or PMMA ingestions at (403) 944-1414 or 1-800-332-1414.
- 2. Treat agitation with aggressive use of benzodiazepines. Physical restraints should be used sparingly as they may increase injury.
- 3. Use cooling measures including ice packs, cold saline infusions, or cool air to keep patient temperature within the upper limit of normal range.
- 4. If despite aggressive treatment measures the patient remains hyperthermic, intubation and paralysis may be appropriate.
- 5. A comprehensive urine drug screen to test for methamphetamine and amphetamine derivatives including PMA and PMMA should be ordered and sent to Calgary Lab Services.
- 6. Anyone wishing to surrender drugs or drug related paraphernalia (pipes, etc.) should call Calgary Police Service at 403-266-1234.
- 7. Advise accompanying friends/family that there is no safe street drug, no safe dose, and no one is immune from the risk of these drugs.

#### Additional Resources:

PADIS. Drug information – MDMA and PMA/PMMA FAQs. <u>www.albertahealthservices.ca/5426.asp</u> AHS Addiction and Substance Abuse. <u>www.albertahealthservices.ca/addiction.asp</u>