ORGANOPHOSPHATE NERVE AGENTS AND PESTICIDES

I. Protocol Overview

Organophosphate Nerve Agents [e.g. Sarin (GB), Soman (GD), Tabun (GA), VX] are rapidly acting and highly toxic. Organophosphate-based pesticides exhibit the same physiological reaction and are considered extremely poisonous. Accidental exposure to these substances may occur. They present a range of symptoms upon exposure, including incontinence, pinpoint pupils, chest tightness, shortness of breath, nausea, vomiting, runny nose, excessive salivation and sweating, abdominal cramps, muscle twitching, confusion, seizures, paralysis, coma, respiratory paralysis, and death (i.e., DUMBELLS or SLUDGE). Incapacitating effects occur within minutes, and fatal effects within minutes for GA, GB, and GD, and hours for VX.

Antidote kits, such as the DuoDote or Mark-I kit, may be given if patient meets appropriate criteria for exposure and administration. These auto-injectors contain Pralidoxime Chloride and Atropine and are approved by the FDA for use for the treatment of chemical nerve agent and insecticide poisoning. Please note, on any submission if an antidote is administered, the quantity and time of administration.

For all suspected chemical exposures, consult the Poison Control Center (800-222-1222) located at Children's Hospital of Philadelphia. Information and treatment advice is available to the public and healthcare professionals at no charge.

Mass spectrometry methods are used to detect the urinary and environmental metabolites for organophosphate nerve agents (OPNA). Samples are extracted and the metabolites are quantified via liquid chromatography (LC) separation followed by isotopic dilution (MS) mass spectrometry analysis.

The Delaware Public Health Laboratory does not perform this testing. Contact the CDC or the Poison Control Center.

II. Contact Information

24/7 CDC Emergency Contact Number: 1-888-295-5156

Poison Control Center: 215-386-2100

III. CDC Website

http://emergency.cdc.gov/agent/nerve/tsd.asp