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**NATIONAL OCCUPATIONAL HEALTH STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GBZ 8-2002

**Diagnostic Criteria of Occupational Acute Organophosphorus
Insecticides Poisoning
(English Translation)**

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Foreword

Article 6.1 of this standard is recommended and the remainder is mandatory.

According to the "People's Republic of China Occupational Disease Prevention Law" to develop this standard. Since the implementation of the standard date, the original standard GB 7794-1987 inconsistent with this standard, subject to this standard.

Acute poisoning can occur in occupational activities that are exposed to organophosphorus pesticides. To protect the health of the contact person, it is effective to control acute organophosphorus pesticide poisoning, has released GB 7794-1987.

The revised standard comprehensively summarizes the three clinical manifestations of the effects of organophosphorus pesticides on neurological toxicity, namely, inhibitors Acetylcholinesterase-induced acute cholinergic excitability or crisis, manifested as muscarinic, nicotine-like and central nervous system Symptoms; intermediate myasthenia gravis, manifested as the neck muscle and limb proximal muscles, the innervation of the muscles of the brain, and call Muscle strength weakened or paralysis; delayed multiple neuropathy, the performance of the distal limb for the heavy exercise and sensory disturbances.

Appendix A to this standard is an informative appendix.

This standard is proposed and centralized by the Ministry of Health of the People's Republic of China.

1 Scope

This standard specifies the principles of diagnosis and treatment of occupational acute organophosphorus pesticide poisoning.

This standard applies to the production and use of organic phosphorus insecticide and the occurrence of acute poisoning, life of organic phosphorus insecticide Toxic and organic phosphorus insecticide and other pesticide poisoning can also be used in this standard.

2 Normative reference documents

The terms of the following documents are hereby incorporated by reference into this standard. Any reference to the date of the document, all subsequent amendments (excluding corrigenda) or revisions do not apply to this standard, however, the parties to the standard agreement have studied whether the latest versions of these documents can be used. Whichever is not the date of the reference file, its the latest version applies to this standard.

GBZ 76 Occupational acute chemical poisoning Nervous system disease diagnostic criteria
Standard Test Method for Occupational Acute Carbamate Insecticide Poisoning
Identification of Occupational Injury and Occupational Disease Disability in Staff and Workers GB/T 16180

3 Diagnostic principles

According to a short period of exposure to a large number of organic phosphorus pesticide occupational history, to autonomic nerve, central nervous system and peripheral nervous system Symptoms of the main clinical manifestations, combined with the determination of blood cholinesterase activity, reference to the working environment of the labor hygiene survey Information, a comprehensive analysis, excluding other similar diseases, can be diagnosed.

4 Contact reaction

Has one of the following manifestations.

- a) whole blood or erythrocyte cholinesterase activity below 70%, there is no obvious clinical manifestations of poisoning;
- b) have mild muscarinic-like autonomic symptoms and/or central nervous system symptoms, whereas whole blood or erythrocyte choline Esterase activity is above 70%.

5.1 Acute poisoning

5.1.1

mild poisoning exposure to a large number of organic phosphorus insecticide within a short time, within 24 hours of more obvious muscarinic Like autonomic and central nervous system symptoms such as dizziness, headache, fatigue, nausea, vomiting, sweating, chest tightness, Blurred, and so on. Whole blood or erythrocyte cholinesterase activity is generally 50% -70%.

5.1.2

moderate poisoning on the basis of mild poisoning, muscle beam tremor and other nicotine-like performance. Whole blood or erythrocyte cholinester Enzyme activity is generally between 30% and 50%.

5.1.3

Severe poisoning In addition to the above-mentioned cholinergic excitement or crisis performance, one of the following manifestations can be diagnosed as heavy Poisoning.

- a) pulmonary edema;
- b) coma;
- c) respiratory failure;
- d) brain edema.

Whole blood or erythrocyte cholinesterase activity is generally below 30%.

5.2 Interventricular myasthenia syndrome

In the acute poisoning after about 1-4 days, cholines can basically disappear and clear consciousness, the emergence of muscle weakness of the clinical table Present.

5.2.1 Mild intermediate myasthenia syndrome

One of the following weaknesses.

- a) flexor muscle and limb proximal muscle weakness, tendon reflex can be weakened;
- b) Part of the innervation of the brain.

5.2.2 Heavy-term myasthenia gravis

On the basis of either mild primary myasthenia gravis or one of the following manifestations.

- a) respiratory muscle paralysis;

b) Bilateral IX and X on the innervation of the brain caused by muscle paralysis caused by upper airway obstruction.

High frequency repeated stimulation of peripheral nerve EMG examination, can lead to muscle evoked potential amplitude was progressive decline. Whole blood or Erythrocyte cholinesterase activity more than 30%.

Delayed multiple neuropathy About 4 to 4 weeks after acute severe and moderate poisoning, cholinergic symptoms disappeared, feeling, motorized multiple nerves disease. Neuro-electromyography shows neurogenic damage. Whole blood or erythrocyte cholinesterase activity can be normal.

6.1.1 Acute poisoning

a) remove the poison immediately remove the patient from the poisoning scene, take off contaminated clothing, with soap or water thoroughly clean the sewage Dyed skin, hair, finger (toe) A; eye contaminated, quickly washed with water or 2% sodium bicarbonate solution;

b) effects of antidote mild poisoning can be used alone with atropine and other anti-choline drugs; moderate and severe poisoning, combined with Atto and cholinesterase complexing agent (chlorpheniramine, iodized phosphorus, etc.). When the two drugs are used together, the dose of atropine should be compared Reduce when used alone;

c) symptomatic and supportive treatment principles with internal medicine. Moderate and severe poisoning in patients with clinical manifestations should continue after the disappearance Observe the number of days, and avoid premature activity, to prevent the disease mutation.

6.1.2 Interventricular myasthenia syndrome

In the treatment of acute poisoning on the basis of the main given symptomatic and supportive treatment; severe dyspnea, the timely establishment of people Work airway, for mechanical ventilation, while actively preventing complications.

6.1.3 Delayed multiple neuropathy

Treatment principles and neurological principles, can be given in Western medicine and symptomatic and supportive care and motor function rehabilitation exercise.

6.2.1 Contact reaction

Should be temporarily removed from the organic phosphorus 1-2 weeks and review the whole blood or erythrocyte cholinesterase activity.