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

GBZ 43-2002

**Diagnostic Criteria of Occupational Acute Pyrethroids
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 11510-1989 inconsistent with this standard, the standard shall prevail.

Pyrethroid is a widely used insecticide in China, its production and use of organic phosphorus insecticide. In a professional job Moving in a short period of time exposure to higher concentrations or a greater amount of cyano group-containing pyrethroids, can occur acute poisoning. To this end our country in 1989 issued a GB 11510-1989. The standard for 10 years since the implementation of pyrethroids and organic phosphorus insecticide mixed with the cause of acute occupational poisoning cases increased year by year; occupational disease diagnosis standard writing format with a new unified requirements, So there is a need for further revision.

Appendix A to this standard is an informative appendix and Appendix B is a normative 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 diagnostic criteria and principles of pyrethroid poisoning.

This standard applies to the use of cyano group-containing pyrethroid insecticides (such as deltamethrin, Cypermethrin, etc.) caused by the diagnosis and treatment of acute poisoning. Non-occupational poisoning may also participate in this standard.

2 Normative reference documents

The terms of the following documents are hereby incorporated by reference into this standard. Any date that references the date of the document all subsequent amendments (excluding corrigenda) or revisions do not apply to this standard, however, the parties to the agreement are able to use the latest version of these documents. Those who do not mind the date of the reference file, its latest the version applies to this standard.

GBZ 8 Occupational Acute Organophosphorus Pesticide Poisoning Diagnostic Criteria GBZ 20 diagnostic criteria for occupational contact dermatitis GBZ 71 Occupational Acute Chemical Poisoning Diagnostic Criteria (General) GBZ 76 Occupational acute chemical poisoning Nervous system disease diagnostic criteria

3 Diagnostic principles

According to the short term close contact with a large number of pyrethroids occupational history, the emergence of the nervous system excitability abnormalities Clinical manifestations, combined with field investigation, a comprehensive analysis, and exclude similar clinical manifestations of other diseases before they can be diagnosed.

4 Contact reaction

Contact with the face after the abnormal feeling (burning sensation, acupuncture or a sense of tight nausea), skin, mucous membrane irritation, and no Manifestation of systemic symptoms.

5.1 Mild poisoning

In addition to the above clinical manifestations, there are obvious systemic symptoms including headache, dizziness, fatigue, loss of appetite and nausea, Vomiting and mental malaise, increased oral secretions, or muscle tremors.

5.2 Severe poisoning

In addition to the above clinical manifestations, with one of the following, can be diagnosed as severe poisoning.

- a) paroxysmal convulsions;
- b) severe disturbance of consciousness;
- c) Pulmonary edema.

6.1 Principles of treatment

6.1.1 Immediately leave the scene of the accident, skin care immediately with soapy water and other alkaline liquid or clean water thoroughly.

6.1.2

acute poisoning to symptomatic treatment, severe poisoning and should strengthen the supportive therapy (see GBZ 71).

6.1.3

Pyrethroids and organic phosphorus mixed with pesticides Acute poisoning, should be based on acute organic phosphorus pesticide poisoning treatment Treatment principles, and then give the appropriate symptomatic treatment.

6.2 Other treatments

6.2.1

mild poisoning can be done after the original work.

6.2.2

severe poisoning according to the condition of rest, after the cure can be engaged in the original work.

7 Correctly use the instructions in this standard

See Appendix A (informative).

Appendix A

(Informative)

Correctly use the instructions in this standard A.1 The scope of application of this standard this standard applies to occupational activities due to exposure to higher concentrations or a greater amount of alpha-cyano-containing pyrethroid insecticides (Such as deltamethrin, fenvalerate, cypermethrin, etc.) caused by acute poisoning. Non-occupational poisoning may also be used in this standard quasi.

Pyrethroids and organic phosphorus mixed with pesticides, because of which the organic phosphorus component toxicity is generally higher than pyrethroid Points of the high toxicity, "its mixture caused by acute poisoning clinical manifestations often similar to acute organophosphate poisoning.

Ester and organic phosphorus pesticide mixed with acute poisoning caused by the need to participate in GBZ 8 for diagnosis.

A.2 different varieties of alpha-cyano-containing pyrethroid insecticides, adverse reactions to occupational exposure and toxicosis Similar to the shape. Adverse reactions in the face after the abnormal feeling is more common, and more than 24 hours after the resumption of contact to restore, can be associated with eye, nasal irritation symptoms. Contamination mucosa (such as the eye, perineum) can cause local swelling, some patients can be skin Appear erythema, pimples and bullies. The expression of these contact dermatitis (see GBZ 20) and poisoning is not necessarily related, Must be based on systemic clinical manifestations, combined with occupational history, site investigation and related information such as comprehensive analysis, to make Correct judgment.

A.3 mild production of mild pyrethroid poisoning, the first symptoms are mostly face are abnormal feeling, although the whole body symptoms of God the main symptoms of the system, but the lack of specificity, usually in contact with the rest and 2 to 6 days after the break can be restored. Oral Jujube poisoning who appear abnormal facial feeling are relatively rare, the first symptoms are mostly nausea, vomiting and upper abdominal pain.

A.4 Classification and classification of consciousness disorder in severe poisoning can be found in Appendix D in GBZ 76.

A.5 contact with the appearance of the face of abnormal feeling (numbness, burning sensation), mild poisoning occurs when the muscle beam tremor and severe Poisoning occurs paroxysmal convulsions (attack limbs rigidity, angular arch anti-Zhang, unclear), all around or central nervous system Increased excitement. If the conditions can be applied to the electrical stimulation of the nerve - EMG, check whether the peripheral nerve excitement Increased sexual or muscle repetitive discharge phenomenon; or for EEG examination to see whether the repeated discharge of the brain, but the negative results can not Eliminate the diagnosis of poisoning.

A.6 The disease in the differential diagnosis to exclude upper respiratory tract infection, heat stroke, food poisoning or other pesticide acute poisoning and other diseases.

Due to the smell of pyrethroid and organic phosphorus similar, especially with organic phosphorus pesticide poisoning phase identification, in addition to exposure to history, the urgent Sexual pyrethroid poisoning erythrocyte cholinesterase activity is normal, can be atropine test treatment. Acute pyrethrum Ester poisoning, most can not tolerate more than 5mg of atropine treatment, and after symptomatic treatment 2 to 6 days to restore, the prognosis is better.

A.7 pyrethroid in the human body metabolism and excretion very quickly, urine prototype compounds within 24 h after exposure can be detected, part Metabolites can be measured within 3-5 days. The content of pentamethrin was determined by gas chromatography or detected by high pressure liquid chromatography Urinary cypermethrin metabolites (Br2A),