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

GBZ 64-2002

**Diagnostic Criteria of Occupational Acute Thallium Poisoning
(English Translation)**

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Foreword

Section 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 16385-1996 inconsistent with this standard, the standard shall prevail.

In contact with thallium in the professional activities, can occur acute thallium poisoning. In order to protect the health of contacts, effective prevention and treatment of emergency Sexual thallium poisoning, has been published GB 16385-1996. This standard is a revision.

This standard highlights the damage to the nervous system of thallium and has been diagnosed and graded according to its degree of damage.

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 diagnostic criteria and principles of occupational acute thallium poisoning.

This standard applies to the diagnosis and treatment of occupational acute thallium

poisoning, non-occupational acute thallium poisoning can also refer to the implementation.

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.

Standard for Diagnostic Standard of Occupational Chronic Chloropropene

3 Diagnostic principles

According to the exact history of occupational exposure, combined with clinical symptoms, signs and on-site hygiene survey data, comprehensive analysis, and Excluding other causes of similar diseases can be diagnosed. Urinary thallium content increased, can be used as exposure indicators.

4 Observation object

After contact with dizziness, headache, fatigue, nausea, vomiting, abdominal pain, pharyngeal burning and other symptoms, urinary thallium content increased.

5.1 Mild poisoning

In addition to a dizziness, headache, fatigue, loss of appetite, lower limb symptoms, but also have any of the following.

- a) distal limbs, especially lower extremity numbness, hyperalgesia, pain, touch loss was gloves, socks distribution or Achilles tendon Weakened
- b) Neuro-electromyography shows neurogenic damage. Check the method and judgment criteria see GBZ 76.

5.2 Severe poisoning

The above symptoms are aggravated and have one of the following manifestations.

- a) toxic encephalopathy or toxic psychosis;
- b) distal limb atrophy and affect motor function, or multiple cranial nerve damage;
- c) electromyography showed neurogenic damage and more spontaneous neurodegeneration potential;
- d) accompanied by significant heart, liver or kidney damage.

6.1 Principles of treatment

6.1.1

Immediately leave the site, skin or eye contaminated should be immediately rinse thoroughly with water.

6.1.2

Observe the subject to bed rest, observe at least 48h, and give the necessary inspection and treatment.

6.1.3 Symptomatic treatment support therapy

Strengthen the use of B vitamins. Adrenal glucocorticoids are required for severe poisoning.

Oral poisoning, gastric lavage after the use of Prussian blue. General dosage 250 mg/(kg · d), divided into four times each time Need to dissolve in 15% mannitol 50mL. Can also be used catharsis, diuretic prompted thallium discharge. Severe poisoning can be considered blood through Treatment or hemoperfusion and other treatment.

6.2 Other treatments

6.2.1

mild poisoning treatment after short-term rest, health recovery can be arranged after work.

6.2.2

Severe poisoning should be transferred from the original work, and according to the condition recovery, decided to rest or arrange 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 Scope this standard applies to exposure to various thallium compounds caused by acute poisoning. Non-occupational acute thallium poisoning can also refer to the implementation, but because of different routes of poisoning, such as the first symptom of oral poisoning to gastrointestinal symptoms as prominent.

A.2 Diagnostic principles Thallium is highly toxic, but thallium poisoning from the toxic intake to the symptoms there is a period of incubation. Clinical manifestations of acute poisoning Do not have early specific symptoms and signs, so the diagnosis must be based on the exact history of occupational exposure and can cause poisoning labor

Environmental conditions, combined with clinical manifestations and special laboratory tests comprehensive diagnosis, and attention with the corresponding disease identification.

A.3 Diagnostic and grading standards.

Acute thallium poisoning mainly clinical manifestations in the digestive tract, nervous system, hair loss and so on. Peripheral nerve damage symptoms are usually present 2 to 5 days after poisoning. Diagnosis of mild poisoning to the peripheral nervous system damage as the main basis, severe poisoning peripheral nervous system Increased damage, or the emergence of central nervous system and multiple brain damage. Hair loss is thallium poisoning one of the specific signs, one Like in the poison 2 to 3 weeks after the emergence of a bunch of hair off, serious within a month can be stripped; beard, armpit hair, pubic hair and eyebrows can also fall off or easy to pull, but eyebrows within 1/3 often not involved. There are also poisoning patients do not occur hair loss. This standard provides Urine thallium test, can be used as a contact indicator can also be used as a reference for diagnosis. Other indicators of nerve - electromyography suggest nerve source Sexual damage.

A.4 treatment

Mainly to symptomatic support treatment, a large number of B vitamins, liver, kidney, heart and other organs. On the complexing agent should be with the problem, had tried sodium edetate, sodium dimercaptopropane, mercapto ethylamine, but there is no positive detoxification effect, it is not advocated so use. Can be given oral administration of blue soil.