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

GBZ 81-2002

**Diagnostic Criteria of Occupational Phosphorus 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 this standard date, the original standard GB 17059-1997 inconsistent with this standard, the standard shall prevail.

In contact with yellow phosphorus in occupational activities can cause acute or chronic poisoning, both between the two, there are differences in the incidence of regulation Law and clinical manifestations are not the same. To protect the health of contacts, regulate the diagnosis of phosphorus poisoning, effective prevention and treatment of phosphorus poisoning, the system Fixed standard.

This standard is based on the unity of the diagnosis of occupational diseases, external disease, the same target organ damage, clinical manifestations are consistent Principle, in the preparation of chemical liver damage as the main clinical manifestations of acute phosphorus poisoning diagnostic criteria cited GBZ 59, GBZ 51 in the diagnostic and grading standards; in the differential diagnosis of acute and chronic liver disease routine functional test part, also refer to the Standard implementation.

This standard is based on the occupational hazards of occupational groups have health records and system tracking observation of the industry advantages, do a good job in disease Do not diagnose, especially early clinical manifestations of poisoning and common

diseases are difficult to distinguish between the special population to treat a special view to find out the relationship between progressive changes in disease and continuous contact as a guiding ideology for the preparation of chronic phosphorus poisoning classification criteria.

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.

This standard by the Liaoning Provincial Occupational Disease Prevention and Control Hospital, Yantai City, Shandong Province, responsible for the drafting of occupational disease prevention and control. Guangxi Zhuang Autonomous Region Institute of Occupational Disease Prevention and Control, Wuhan Institute of Chemical Industry and Disease Control, Shandong Province, Institute of Occupational Disease Prevention and Control, Zibo City, Zhejiang Province, Occupational Disease Prevention and Prevention Department of Shandong Medical University Department of Oral Department to participate in the drafting.

This standard is interpreted by the Ministry of Health of the People's Republic of China.

Diagnostic criteria for occupational phosphorus poisoning Occupational phosphorus poisoning refers to the workers in occupational activities in contact with yellow phosphorus caused by systemic diseases. Short-term exposure to large doses the amount of yellow phosphorus or yellow phosphorus burns caused by liver and kidney damage as the main manifestation of acute phosphorus poisoning; long-term contact caused by the teeth Teeth and mandible damage as the main manifestation of chronic phosphorus poisoning, may be associated with liver and kidney damage.

1 Scope

This standard specifies the diagnostic criteria and principles of occupational phosphorus poisoning.

This standard applies to occupational activities due to exposure to yellow phosphorus caused by poisoning, does not apply to red phosphorus, purple phosphorus, black phosphorus caused by of poisoning. Non-occupational activities in contact with yellow phosphorus caused by poisoning, can also refer to the use of 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.

Diagnostic criteria for occupational toxic liver disease GBZ 51 Occupational chemical skin burns diagnostic criteria

3 Diagnostic principles

3.1

According to a short period of time inhalation of a large number of yellow phosphorus or yellow phosphorus burns occupational history, with acute liver and kidney damage Bed performance, comprehensive analysis and exclude other causes of similar diseases, can be diagnosed with acute phosphorus poisoning.

3.2

According to long-term close contact with yellow phosphorus or yellow phosphorus dust in the occupational history, with progressive periodontal tissue, teeth and the next Jaw damage-based clinical manifestations, but also liver and kidney damage, combined with on-site labor hygiene data comprehensive analysis, excluding Other causes caused by similar diseases, can be diagnosed with chronic phosphorus poisoning.

4 Observation object

Long-term close contact with phosphorus vapor or yellow phosphorus dust, the emergence of periodontal atrophy, periodontal pocket deepening, loose teeth, mandible X-ray visible on both sides of the alveolar ridge slightly absorbed, was horizontal.

5.1.1 Mild poisoning

Inhalation of high concentrations of yellow phosphorus vapor after a few hours or yellow phosphorus burns after 1 to 10 days or so headache, dizziness, fatigue, appetite Sluggish, nausea, liver pain and other symptoms, and liver swelling and tenderness, accompanied by abnormal liver function test, in line with acute mild Toxic liver disease; may have hematuria, proteinuria, tubular urine, in line with acute mild toxic kidney disease.

5.1.2 Moderate poisoning

The above performance is aggravated and one of the following occurs.

- a) the liver was swollen and tenderness, liver function was abnormal, in line with acute moderate toxic liver disease;
- b) renal insufficiency, urea nitrogen and plasma creatinine increased, in line with acute moderate toxic nephropathy.

5.1.3 Severe poisoning

On the basis of the above clinical manifestations, and one of the following circumstances.

- a) acute liver failure;
- b) acute renal failure.

5.2.1 Mild poisoning

Clinical observation of more than a year, the symptomatic treatment, the above symptoms were progressive increase, alveolar bone absorption more than root 1/3, periodontal ligament widening, narrowing or disappearing, thickening of the bone plate, mandibular body visible bone texture thickening or sparse, row Disorder; may have respiratory mucosal irritation and digestive system symptoms.

5.2.2 Moderate poisoning

The performance of the above, mandibular posterior teeth appear symmetrical bone dense shadow, perimeter unclear, may have mental hole, blurred edges.

5.2.3 Severe poisoning

In the above clinical manifestations, the mandible jaw necrosis or fistula formation.

6.1.1.1 Cause of treatment

- a) inhalation of high concentrations of yellow phosphorus vapor should quickly leave the scene, moved to fresh air;
- b) yellow phosphorus burns the skin should immediately rinse with water, extinguish the fire, remove the embedded yellow phosphorus particles in the organization, to prevent the yellow Phosphorus absorption, can be treated with GBZ 51.

6.1.1.2 Symptomatic and supportive care

- a) may be appropriate to use adrenal cortex hormones, oxygen free radical scavenger, calcium channel blockers;
- b) keep the water, electrolyte and acid and alkali balance;
- c) the use of liver and nutritional therapy for toxic liver disease and other symptomatic treatment;
- d) the treatment of toxic nephropathy to prevent blood volume deficiency, improve renal microcirculation and other symptomatic treatment and supportive care, necessary can be used when the blood purification therapy.