

ICS 13.100
CCS C 60



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

GBZ 14-2015

Replacing GBZ 14-2002

Diagnosis of occupational acute ammonia poisoning

职业性急性氨中毒的诊断

(English Translation)

Issued on: April 21, 2015

Implemented on: November 1, 2015

Issued by: National Health and Family Planning Commission

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Foreword

According to the "People's Republic of China Occupational Disease Prevention Law" to develop this standard.

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

Chapter 6 of this standard is recommended and the remainder is mandatory.

This standard instead of GBZ 14-2002 "occupational acute ammonia poisoning diagnostic criteria".

Compared with GBZ 14-2002, the main modifications are as follows.

- change laryngeal edema to throat obstruction at diagnostic grade;
- in the diagnosis of moderate poisoning increased interstitial pulmonary edema and necrosis of the bronchial mucosa off two indicators;
- adjust the contents of the treatment principle.

This standard is responsible for drafting units. Dahua Group Co., Ltd. Hospital.

This standard participates in the drafting unit. China Center for Disease Control and Prevention Occupational Health and Poisoning Control, Shanghai Chemical Industry Occupational Disease Prevention and Control Institute.

1 Scope

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

This standard applies to the diagnosis and treatment of occupational acute ammonia poisoning.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 16180 Labor capacity - Identification of workers' injury and occupational disease
GBZ 51 Occupational chemical skin burns diagnostic criteria
GBZ 54 Occupational chemical eye burns diagnostic criteria
GBZ 73 Occupational acute chemicals - Criteria for the diagnosis of toxic respiratory diseases

3 Diagnostic principles

According to a short period of time inhalation of higher concentrations of ammonia occupational history, with acute respiratory system damage-based clinical manifestations and chest X-ray as the main basis for the study, combined with blood gas analysis and on-site occupational health survey results, a comprehensive analysis, excluding other causes caused by the disease, before diagnosis.

4 Contact reaction

According to a short period of inhalation of ammonia professional history, eye and upper respiratory tract irritation symptoms, such as cough, tears, runny nose, throat, etc., the lungs without any signs, chest X-ray examination no abnormal findings, 48h symptoms significantly reduced or disappeared.

5.1 Mild poisoning

Has one of the following manifestations.

- a) cough, sputum, sore throat, hoarseness, chest tightness, dry rales in the lungs, chest X-ray examination showed enhanced lung texture, Acute tracheal - bronchitis performance;
- b) One to two throat obstruction (see GBZ 73).

5.2 Moderate poisoning

Has one of the following manifestations.

- a) severe cough, respiratory rate, mild cyanosis, lungs appear dry, wet rales; chest X-ray examination showed lung field within the edge of the model Paste with scattered patchy oozing infiltration of shadow, consistent with the performance of bronchial pneumonia;
- b) cough, shortness of breath, difficulty breathing more severe, reduced lung breath sounds, chest X-ray examination showed hilar shadow widened, the two lungs scattered Small dotted shadows and reticular shadows, lung field transparency reduced, often seen horizontal crack thickening, and sometimes visible bronchial cuff sign or grams of B line, consistent with interstitial pulmonary edema performance; blood gas analysis often mild to moderate hypoxemia;
- c) coughing with a necrotic bronchial mucosa accompanied by dyspnea, depression;
- d) Three-degree throat obstruction (see GBZ 73).

5.3 Severe poisoning

Has one of the following manifestations.

- a) severe cough, a large number of pink foam sputum with obvious difficulty breathing, cyanosis, lungs are widely wet rales, chest X-ray examination was Showing the lungs of the size of the edge of the blurred patchy or cloud-like shadow, and some can be integrated into large pieces or butterfly shadow, in line with Alveolar pulmonary edema; blood gas analysis often severe hypoxemia;
- b) acute respiratory distress syndrome (ARDS);
- c) four throat obstruction (see GBZ 73);
- d) complicated with severe pneumothorax or mediastinal emphysema;
- e) suffocation.

6.1 Principles of treatment

6.1.1

Rapid Safety Remove the patient from fresh air and give warmth; thoroughly rinse the contaminated eye and skin (see GBZ 51, GBZ 54).

6.1.2

to maintain airway patency. to give bronchial antispasmodic agents, to the foam agent (such as 10% dimethyl silicone oil), atomization inhalation therapy;

To the tracheotomy, especially bronchial mucosal shedding caused by severe asphyxia

patients should be immediately tracheotomy, timely aspiration off the mucous membrane, to prevent suffocation.

6.1.3

Prevention and treatment of pulmonary edema. early, adequate, short-term application of glucocorticoids, scopolamine, theophylline, diuretics and other drugs, with particular attention to limit Make the amount of liquid, maintain water, electrolyte and acid-base balance.

6.1.4

reasonable oxygen therapy, if necessary, to give mechanical ventilation.

6.1.5

active control of infection, timely and rational use of antibiotics, prevention and treatment of complications.

6.1.6

When ARDS occurs, refer to GBZ 73.

6.2 Other treatments

Mild poisoning can be back to the original posture, moderate and severe poisoning should generally be transferred from the stimulating gas operations, for the identification of labor capacity, can refer to GB/T 16180 treatment.

7 Correctly use the instructions in this standard

See Appendix A.

Appendix A

(Informative)

Correctly use the instructions in this standard A.1 ammonia poisoning to trachea, bronchial damage as a prominent performance, and the disease is easy to repeat, so the diagnosis, classification should be comprehensive analysis, comprehensive consideration. artery Blood gas analysis to determine the disease, guiding treatment has important reference significance, should be detected as soon as possible.

A.2 prevention and treatment of pulmonary edema is the focus of acute ammonia poisoning treatment, and should not be a lot of rapid rehydration, so as not to induce, increase pulmonary edema;

Strong corrosive easy to cause pneumothorax, mediastinal emphysema, such as the use of mechanical ventilation positive pressure oxygen should be careful and the pressure should not be too high.