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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Classification of transfusion reactions
(English Translation)**

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Foreword

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

This standard was drafted. Shanghai Sixth People's Hospital, Beijing Hospital, the First Affiliated Hospital of China Medical University, Peking Union Medical College Hospital, Xiangya Hospital of Central South University, Tongji Hospital affiliated to Tongji Medical College of Huazhong University of Science and Technology, West China Hospital of Sichuan University, Blood Center of Fujian Province, Haishi Blood Center, Beijing Tongren Hospital affiliated to Capital Medical University, Sino-Japanese Friendship Hospital of Jilin University, First Affiliated Hospital of Zhengzhou University, New People's Hospital of Xinjiang Uygur Autonomous Region, Second Affiliated Hospital of Kunming Medical University, First Hospital of Lanzhou University.

1 Scope

This standard specifies the classification of transfusion reactions.

This standard is applicable to the diagnosis and treatment of blood transfusion reactions at various levels of medical institutions across the country, as well as the management supervision and evaluation of the health administrative department.

Provide the basis for the trial.

2 Terms and definitions

The following terms and definitions apply to this document.

Transfusion reactions/transfusion reactions/transfusion reactions/complications Adverse reactions with timing correlation with blood transfusion. The cause of the adverse reaction may be an adverse event, or it may be the patient and the blood transfused interaction.

Acute/immediate transfusion reactions; ATR/ITR the transfusion reaction occurs during the blood transfusion process, immediately after transfusion, and within 24 hours after transfusion.

Chronic/delayed transfusion reactions; CTR/DTR the transfusion reaction occurred 24h to 28d after the end of blood transfusion.

Transfusion-transmitted infections;

TTI/transfusion-transmitted infectious reactions; TTIR the pathogen enters the recipient's body from the blood donor through a blood transfusion process and causes a corresponding infection or disease.

Transfusion-transmitted non-infectious reactions; TTNIR Adverse reactions caused by non-pathogens with time-series correlation with blood transfusion.

3.1 Transfusion-transmitted infections (TTI)

There was no history of pathogen infection before transfusion, no clinical symptoms, and serum markers were negative. But after the blood transfusion, the corresponding pathogen infection Symptoms, and the isolation of the pathogen from the recipient is highly homologous to the pathogen in the donor.

3.1.1.1 Viral hepatitis. caused by hepatitis virus, mainly involving hepatitis B, C, D and E

virus.

3.1.1.2 Acquired immunodeficiency syndrome (AIDS). immunodeficiency by human

Caused by human immunodeficiency virus (HIV), which can be complicated by various opportunistic infections and tumors. In severe cases, it can lead to death.

Die.

3.1.1.3 cytomegalovirus infection (CMVI). by cytomegalovirus (cytomegalovirus, CMV) causes the virus to be confined to the parotid gland and some to systemic infection. CMV infection is mostly subclinical, dominant infection There are a variety of clinical manifestations, and severe cases can lead to death.

3.1.1.4 Epstein Barr virus infection (EBVI). caused by EB virus, more than 95% of adults can carry

Band, and is associated with the occurrence of nasopharyngeal carcinoma, childhood lymphoma, and the like.

3.1.1.5 Human parvovirus B19 infection (HPB19I). by human parvovirus B19

(human parvovirus B19) can cause infectious erythema and acute joint disease. In some blood system diseases and immune damage Patients can cause a crisis of aplastic disorders.

3.1.1.6 Adult T-cell leukemia/lymphoma (ATLL). by human T lymphocytes

Caused by human T-lymphotropic virus (HTLV-1), may cause acute or chronic onset, may cause skin damage, Peripheral blood lymphocyte counts were significantly increased, liver and spleen and lymph nodes were enlarged.

3.1.1.7 West Nile virus infection (WNVI). caused by West Nile virus, 80% sense

Dyeing as a recessive infection; a few people may have symptoms similar to upper respiratory tract infections; very few people may present with viral encephalitis, meningoencephalitis and brain Membrane and so on.

3.1.1.8 The virus infection not mentioned above.

3.1.2.1 Gram positive cocci infection. common in Staphylococcus aureus, epidermal grape

Bacteria, Enterococcus and Streptococcus.

3.1.2.2 Gram negative bacilli infection. common in Escherichia coli, Klebsiella pneumoniae, Pseudomonas aeruginosa, Proteus, Yersinia, Serratia marcescens, and the like.

3.1.2.3 Anaerobic infection. commonly found in Bacteroides, Clostridium, and Clostridium perfringens.

3.1.2.4 Bacterial infection not covered by the above.

3.1.3 Transfusion-transmitted parasitic infections (TTPI)

3.1.3.1

malaria (malaria). caused by Plasmodium infection, with repeated episodes of intermittent chills, high fever, and subsequent sweating Point, can cause splenomegaly, anemia and other performance.

3.1.3.2

Babesiosis. A zoonotic infection caused by Babesia (babesia) infection through a sputum. hair at the beginning of the disease, the symptoms are very different. Acute onset is quite similar to malaria, with intermittent heat, splenomegaly, jaundice and hemolysis. Chronic patient Bacterial septicemia can last from a few months to several years.

3.1.3.3

Trypanosomiasis. caused by trypanosoma cruzi. Fever can occur in the acute phase, Systemic lymphadenopathy, enlarged heart, etc.; chronic phase may have myocarditis, enlarged heart, esophageal or colonic expansion.

3.1.3.4

Parasitic infections not covered by the above.

3.1.4 Transfusion to spread other pathogen infections

3.1.4.1

syphilis. caused by Treponema pallidum, usually in addition to invasion of the skin mucosa, it can also affect the corresponding clinical manifestations of internal organs.

3.1.4.2 Creutzfeldt-Jakob disease. caused by prion virus infection

A comorbid degenerative disease of the central nervous system. A prion is a protein virus, a protein-infecting particle, and the only one that does not use DNA.

RNA is a genetic material of a virus.

3.1.4.3 fungal infection. Candida albicans is the vast majority, also found in Candida tropical, Mucor.

4.1.4.4 The above does not involve other pathogen infections.

3.2.1 Allergic reaction

The interaction between allergens and existing antibodies in the body. In some cases, the input comes from blood donation with hereditary allergies.

The antibody will also occur. Partially seen in patients with congenital IgA deficiency. According to clinical manifestations can be divided into local and systemic allergic reactions.

3.2.2 Hemolytic transfusion reaction (HTR)

3.2.2.1

acute/immediate hemolytic transfusion reaction (acute/immediate hemolytic transfusion reaction, AHTR/IHTR) often occurs during transfusion, immediately after transfusion, or within 24 hours after transfusion. Because the input blood is not compatible with the patient's immunity Capacitance leads to accelerated red blood cell lysis or/and clearance. Often caused by IgM antibodies, mostly intravascular hemolysis, most common in ABO blood group incompatibility Blood transfusion.