



**FOUNDATIONS OF RESUSCITATION: SCIENTIFIC-THEORETICAL AND
PRACTICAL ASPECTS**

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Abstract. Resuscitation is the process of providing emergency care necessary to save life. Resuscitation is the process of providing emergency care necessary to save life. This article discusses the scientific-theoretical and practical aspects of resuscitation. The main approaches to the resuscitation process, special strategies for children with developmental disabilities, and ethical issues important for medical professionals are considered.

Key words: Resuscitation, Clinical death, Biological death, Primary assessment, Cardiopulmonary resuscitation, Specialized resuscitation measures.

Introduction

Resuscitation is one of the most important and responsible areas of medicine, a set of medical measures aimed at restoring the vital functions of the body in cases where they have ceased or sharply decreased. Resuscitation and intensive therapy are considered the main means of saving human life in modern medical practice. This area is closely related to physiology, pathophysiology, anesthesiology, cardiology and many other medical disciplines.

The concept and purpose of resuscitation

The term “resuscitation” is derived from the Latin words “re” - again and “anima” - soul, and means “to revive”. The main purpose of resuscitation is to restore the vital functions of the body, including breathing, the activity of the cardiovascular system and the central nervous system.

When a state of clinical death occurs, blood circulation and breathing in the body cease. In this case, brain tissues are very sensitive to oxygen deficiency, and irreversible changes begin within 4-6 minutes. Therefore, it is vitally important to start resuscitation measures as early as possible.

The concepts of clinical and biological death

In resuscitation practice, it is important to distinguish between the concepts of clinical death and biological death.

Clinical death is a state in which breathing and heartbeat have stopped, but reversible processes in the body's cells persist. During this period, resuscitation measures can be effective.

Biological death is a state in which irreversible changes have occurred in the body, in which resuscitation measures are ineffective.

Indications for resuscitation

Resuscitation measures are carried out in the following cases:

- cardiac arrest (asystole, fibrillation);
- cessation or severe respiratory failure;
- traumatic shock and massive blood loss;
- myocardial infarction, stroke;
- electric shock;
- drowning;
- poisoning with drugs or chemicals;
- anaphylactic shock and other emergency situations.



The main stages of resuscitation measures

In modern medicine, resuscitation measures are carried out based on international standards.

Its main components are as follows:

1. Primary assessment (ABC algorithm)

A (Airway) – ensuring airway patency;

B (Breathing) – restoring breathing;

C (Circulation) – restoring blood circulation.

2. Cardiopulmonary resuscitation (CPR)

Cardiopulmonary resuscitation is the most basic and initial stage of resuscitation. It includes two main methods:

- artificial respiration;

- external heart massage.

In adults, the ratio of chest compressions to artificial respiration is usually 30:2. When heart massage is performed correctly, minimal blood circulation to the brain and other organs is ensured.

3. Specialized resuscitation measures

The following modern methods are used in medical institutions:

– defibrillation;

– intubation and artificial lung ventilation;

– oxygen therapy;

– infusion therapy;

– use of drugs (adrenaline, atropine, etc.);

– monitoring of cardiac activity.

Factors affecting the effectiveness of resuscitation

The effectiveness of resuscitation depends on a number of factors:

– the speed of assistance;

– correct and consistent implementation of measures;

– the age and general condition of the victim;

– the nature of the underlying disease;

– the timely provision of specialized medical care.

The importance of resuscitation in first aid

The correct actions of a first aid provider in emergency situations play a decisive role in saving human life. Therefore, teaching the basics of resuscitation not only to medical personnel, but also to the population is an urgent issue.

Conclusion

Resuscitation is one of the most important medical areas aimed at saving human life. Knowledge and skills in this area are necessary for every medical worker, and their correct application allows you to save the lives of many people.

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