**On approval of the Standard of organizing delivery of anesthetic and resuscitation care in the Republic of Kazakhstan**

*Invalidated Unofficial translation*

Order of the Minister of Health of the Republic of Kazakhstan dated October 16, 2017 No. 763. It was registered with the Ministry of Justice of the Republic of Kazakhstan on November 1, 2017 No. 15953. Abolished by Order of the Minister of Health of the Republic of Kazakhstan dated April 26, 2023 No. 78.

*Unofficial translation*

Footnote. Abolished by Order of the Minister of Health of the Republic of Kazakhstan No. 78 dated April 26, 2023 (effective after ten calendar days after the date of its first official publication).

In accordance with subparagraph 6) of paragraph 1 of Article 7 of the Code of the Republic of Kazakhstan "On public health and health care system" dated September 18 , 2009, I hereby ORDER:

1. To approve the attached Standard of organizing delivery of anesthetic and resuscitation care in the Republic of Kazakhstan.

2. In the manner prescribed by the legislation of the Republic of Kazakhstan, the Department of the organization of medical care of the Ministry of Health of the Republic of Kazakhstan shall:

1) provide the state registration of this order with the Ministry of Justice of the Republic of Kazakhstan;

2) within ten calendar days from the date of the state registration of this order, direct its copy in paper and electronic forms in the Kazakh and Russian languages to the Republican State Enterprise with the Right of Economic Management “Republican Center of Legal Information” for official publication and inclusion in the Reference Control Bank of Regulatory Legal Acts of the Republic of Kazakhstan;

3) within ten calendar days after the state registration of this order, direct a copy of it for official publication in periodicals;

4) place this order on the Internet resource of the Ministry of Health of the Republic of Kazakhstan after its official publication;

5) within ten working days after the state registration of this order, report to the Department of Legal Service of the Ministry of Health of the Republic of Kazakhstan on performance of the actions provided for by subparagraphs 1), 2), 3) and 4) of this paragraph.

3. Control over the execution of this order shall be assigned to Vice Minister of Health of the Republic of Kazakhstan L.M. Aktayeva.

4. This order shall be enforced upon expiry of ten calendar days after the date of its first official publication.

*Minister of Health*
*of the Republic of Kazakhstan* *Ye. Birtanov*

Approved by
order No. 763 of the
Minister of Health
of the Republic of Kazakhstan
dated October 16, 2017

## Standard
## of organizing delivery of anesthetic and resuscitation care in the Republic of Kazakhstan
## Chapter 1. General Provisions

1. The standard of organizing delivery of anesthetic and resuscitation care in the Republic of Kazakhstan (hereinafter - the Standard) is developed in accordance with subparagraph 6) of paragraph 1 of Article 7 of the Code of the Republic of Kazakhstan "On public health and health care system" dated September 18, 2009 (hereinafter - the Code) and establishes general principles for organizing delivery of anesthetic and resuscitation care to the population at the outpatient, inpatient and hospital-replacing level.

2. The staff of healthcare organizations delivering anesthetic and resuscitation care, with the exception of organizations that are state-owned enterprises with the right of economic management, limited partnerships, joint-stock companies, shall be formed in accordance with the model personnel establishment and staff standards of healthcare organizations approved by order No. 238 of the Minister of Health of the Republic of Kazakhstan dated April 7, 2010 (registered in the Register of State Registration of Regulatory Legal Acts under No. 6173).

3. Terms and definitions used in this Standard:

1) anesthetic support - a set of medical and diagnostic measures aimed at protecting the patient from surgical trauma, providing all the components of modern anesthesia and supporting the functions of vital organs and systems during surgery, invasive research methods, in the post-surgical period;

2) anesthetic care - a set of measures aimed at protecting the patient from damaging factors during surgical interventions, childbirth, dressings, invasive interventions and research methods;

3) drug formulary of a healthcare organization - a list of medicines for delivery of medical care within the statutory free medical assistance and in the system of mandatory social health insurance, formed on the basis of Kazakhstan’s national drug

formulary and approved by the head of the healthcare organization in the manner determined by the authorized body;

4) intensive care - prevention and treatment of severe, but reversible functional and metabolic disorders posing threat to the patient's life, with the use of methods of artificial support or replacement of the functions of organs and systems;

5) medical care in the system of mandatory social health insurance - the amount of medical assistance provided to consumers of medical services from the social health insurance fund assets;

6) resuscitation care - a set of measures aimed at withdrawal of patients and injured persons from a terminal state (resuscitation), and also normalizing and maintaining vital functions of the body (intensive care), impaired due to acute diseases, trauma, surgery and other critical conditions independent of the causes of these disorders;

7) statutory free medical assistance (hereinafter- SFMA) - a single volume of medical care provided to citizens of the Republic of Kazakhstan and oralmans in accordance with the list of medical services, determined in keeping with resolution No. 2136 of the Government of the Republic of Kazakhstan "On approval of the list of guaranteed volume of free medical care" dated December 15, 2009.

## Chapter 2. Main activities of organizations delivering anesthetic and resuscitation care in the Republic of Kazakhstan

4. The main activities of medical organizations delivering anesthetic and resuscitation care (hereinafter - MO) are:

1) delivery of qualified and specialized medical care to patients;

2) performing a set of measures for the preparation and administering of anesthesia during surgeries, childbirth, specialized diagnostic and therapeutic procedures;

3) conducting an extensive range of measures to restore and maintain impaired vital functions of the body in various critical conditions due to a disease, injuries, surgical interventions, childbirth until their functioning is stabilized;

4) continuity of actions at all the stages of treatment in order to ensure the safety of patients' lives;

5) constant improvement of theoretical knowledge, practical skills and training of medical personnel in practical skills in the field of anesthesiology and resuscitation.

5. Anesthetic and resuscitation care is delivered in the following forms:

1) outpatient care (in conditions that do not provide for round-the-clock medical supervision and treatment);

2) inpatient care (in conditions that provide for round-the-clock medical supervision and treatment);

3) hospital-replacing care (in conditions providing for medical supervision and treatment, not requiring round-the-clock medical supervision and treatment).

6. Anesthetic and resuscitation care shall be delivered in the following departments of healthcare organizations:

1) the group of anesthesiology and intensive care (hereinafter - the Group);

2) anesthesiology department (hereinafter - AD);

3) intensive care unit (hereinafter - ICU);

4) anesthesiology, resuscitation and intensive care unit (hereinafter- ARICU);

5) the center of anesthesiology, resuscitation and intensive care (hereinafter - CARIC).

7. The list of equipment for the health organizations' departments delivering anesthetic and resuscitation care with medical equipment, medical devices and treatment stations is given in Appendix 1 to this Standard.

8. Anaesthesiological and resuscitation care to the population shall be carried out by a specialist with higher medical education who holds a specialist certificate in the field of "Anesthesiology and Intensive Care (adult, pediatric)" or "Anesthesiology and Resuscitation (perfusionology, toxicology) (adult)", Anesthesiology and Resuscitation (perfusiology, neonatal resuscitation) (pediatric) (hereinafter –anesthetist-resuscitator, intensivist), corresponding to the form approved by order No. 693 of the Minister of Health and Social Development of the Republic of Kazakhstan "On Approval of the Rules for Certification of Healthcare Specialists" dated August 28, 2015 (registered in the Register of State Registration of Regulatory Legal Acts under No. 12134).

9. An anesthetist-resuscitator of the highest (or first, in the absence of the highest) qualification category, with a high level of professional training, shall be in charge of the anesthesiology and resuscitation department of a healthcare organization.

## Chapter 3. Organization of the delivery of anesthetic and resuscitation care in the Republic of Kazakhstan

10. Anesthetic and resuscitation care to the population shall be delivered within the framework of the guaranteed volume of free medical care, in the system of mandatory social health insurance and on a paid basis in medical organizations, regardless of ownership.

11. Anesthesiology and resuscitation units shall be placed close to the surgical departments and the surgery suite.

12. In the surgery suite, in every operating room (dressing room), a workstation shall be provided for an anesthetist-resuscitator, supplied with anesthesia-respiratory and control-diagnostic equipment (cardiomonitor, pulse oximeter, capnograph), a vacuum aspirator, defibrillator, syringe dispenser, and an anaesthesiological table with the necessary drugs and accessories for tracheal intubation. For emergency anesthesia in urgent surgery units, the equipment and accessories for anesthesia shall be maintained in permanent readiness for work.

13. On the territory of the surgery suite, a post-anesthesia care unit shall be provided (for the patient to recover from anesthesia), which enables to vacate the operating table and rationally use the beds of the intensive care unit. Patients after surgical interventions shall be placed in the postanaesthesia care unit under intensive observation until their full regaining of consciousness, stabilization of breathing and blood circulation, with subsequent transfer to the specialized department or, if there are medical indications, to the anesthesiology and intensive care department. Awakening of the patient after anesthesia (surgery) shall be reflected in the anesthesiology chart.

14. A temporary team shall be formed to work in the post-anesthesia care unit, comprised of an anesthetist-resuscitator and a nurse anesthetist from among the staff of the anesthesiology and resuscitation department.

15. The health care organizations that deliver emergency assistance to the population, the admission units shall avail of a resuscitation ward or resuscitation room (part of the ICU or ARICU). Emergency care in the intensive care ward or intensive care room shall be delivered by ICU or ARICU intensivists.

16. Anesthesiological assistance to the population provides for anesthetic management and shall include:

1) preparation of patients (adults and children) for anesthesia and surgery;

2) administering various methods of anesthesia;

3) ensuring patient safety during surgical treatment;

4) case management of patients in the recovery period after anesthesia.

17. Before carrying out anesthetic management, the anesthetist-resuscitator shall perform:

1) assessment of the functional state of the patient, factoring in the underlying and concomitant diseases;

2) contact the patient as part of a communicative relationship (doctor-patient) for the purpose of psychological preparation for anesthesia and surgical intervention;

3) inform the patient or his legal representative about the recommended method of anesthesia, possibility of the most frequent and serious complications during anesthesia , subsequently securing written voluntary consent for anesthetic management in the form of a written voluntary consent of the patient in case of invasive interventions, approved by order No. 364 of the Minister of Health and Social Development of the Republic Kazakhstan dated May 20, 2015 (registered in the Register of State Registration of Regulatory Legal Acts under No. 11386), also for transfusion of components and (or) products of donated blood in accordance with the form of Appendix 4 to the Rules for the storage, transfusion of blood, its components and preparations, approved by order No. 666 of the acting Minister of Health of the Republic of Kazakhstan dated November 6, 2009 “On approval of the Nomenclature, Rules for the preparation, processing, storage, realization of blood and its components,

and also the Rules for storage, transfusion of blood, its components and preparations" ( registered in the Register of State Registration of Regulatory Legal Acts under No. 5925) (hereinafter - Order No. 666);

4) development of the patient management strategy in the pre-, intra- and postoperative period;

5) preparation of the workstation.

18. Drug provision shall be carried out in accordance with the Rules of providing citizens with medicines, approved by order No. 766 of the Minister of Health and Social Development of the Republic of Kazakhstan dated September 30, 2015 ( registered in the Register of State Registration of Regulatory Legal Acts under No. 12199).

19. To determine the surgical-anesthetic risk, to choose the method of anesthesia and to conduct preoperative preparation, the patient shall be examined by an anesthetist-resuscitator before a planned surgical intervention no later than 24-48 hours before the supposed operation, and in case of emergency immediately after the decision on the need to perform it.

Situations are admissible when a patient is examined by one anesthetist-intensivist and anesthesiological support is performed by another anesthetist.

20. To determine the anesthetic risk before the surgery, the anesthetist-resuscitator shall assess the physical condition of the patient and the degree of organ dysfunction on a scale in accordance with Appendix 2 to this Standard.

21. Depending on the urgency of the surgical intervention, the patient shall be given preoperative examination in accordance with Appendix 3 to this Standard.

22. In conditions that threaten the patient's life and require urgent surgical intervention, the patient shall be transferred to the operating room without laboratory diagnostics and at the same time remedial actions shall be taken. Tests for laboratory diagnostics shall be collected according to emergency indications in the operating room.

23. If, during the examination, changes or deterioration of the patient's condition, inconsistency of clinical and laboratory and instrumental data are detected, the anesthetist-resuscitator shall send the patient for additional examination.

24. Recommendations of the anesthetist-resuscitator shall be followed by the attending or standby doctor of the surgical profile. If necessary, preoperative preparation of the patient (depending on the severity of the patient's condition) is carried out in the intensive care unit. Re-examination of the patient shall be carried out immediately before anesthesia.

25. The anesthetist-resuscitator shall prescribe and monitor the execution of treatment and diagnostic measures, and in cases of non-fulfillment of his prescriptions, cancellation or incomplete additional examination, acting in the interests of the patient,

shall postpone the planned operation until his requirements for examination and preparation of the patient are fulfilled. In this case, the anesthetist-resuscitator shall inform the heads of the anesthesiology and of the specialized surgery department about it, and also make a clear and reasoned entry in the medical record.

26. The results of assessment of the functional state of the patient shall be filled before anesthesia and entered on the medical record.

27. The preparation and maintenance of primary medical documentation shall be carried out in accordance with order No. 907 of the Acting Minister of Health of the Republic of Kazakhstan dated November 23, 2010 “On approval of primary medical documentation forms of healthcare organizations” (registered in the Register of State Registration of Regulatory Legal Acts under No. 6697) ( hereinafter - Order No. 907);

28. Before the anesthetic support is carried out, the anesthetist-resuscitator and the nurse anesthetist shall prepare the workstation in the operating room and check:

1) anesthesia-respiratory appliances, test the fan;

2) the oxygen supply;

3) the monitors, defibrillator;

4) the suction;

5) the necessary means for ensuring airway patency (laryngoscope, blades, endotracheal tubes, air ducts, masks);

6) preparedness of the syringes for the injection of anesthetics and resuscitation drugs (all syringes shall be labeled or inscribed);

7) the system for intravenous injection, connections of intravenous systems, in cases where connections of intravenous systems and tubing lines are not visible (under sheets), do not have double fixation;

8) provision of additional equipment.

29. During anesthetic support, the anesthetist-resuscitator shall monitor all changes in the patient’s condition, timely and clearly record them in the medical documentation , correctly interpret the changes that have taken place, and shall apply timely methods for correcting the patient’s condition.

30. An anesthetist-resuscitator shall not administer simultaneously the anesthetic support in several operating rooms, anesthetic support and transfusion of components and (or) donor blood products, shall not combine work in the resuscitation and intensive care departments.

31. The anesthetist-resuscitator shall be in the operating room during the conduct of anesthetic support until the end of the surgery. He/she is allowed a short break (20-30 minutes) every 2-3 hours of work. The total duration of the uninterrupted work of the anesthesiology team shall not be more than 6 hours.

In the event of an extraordinary situation, both related and unrelated to professional activities, the doctor may be replaced.

32. During the replacement of the intensivist, the features of the course of anesthesia and surgery, assessment of the severity extent of the patient's condition, the main vital signs of the body shall be reflected (at the time of replacement and upon return to the operating room) in the patient’s anesthesiology and medical records and signed by two intensive care doctors. In the event that the replacement is caused by a sudden deterioration in the condition or illness of the anesthetist-resuscitator who administered the anesthetic support, the records in the medical documentation shall be signed by the head of the department, on weekends and holidays, by the senior doctor on duty.

33. When carrying out anesthetic support during the surgery, the intensivist shall monitor the main systems of homeostasis: assess the mechanics of respiration ( adequacy of airway and ventilation through examination and auscultation), respiratory system (capnometry, if necessary, blood gases and acid-base balance -ABB) circulatory systems ( carry out invasive or non-invasive measurement of blood pressure , measurement of central venous pressure if necessary, heart rate monitoring, check ECG), check oxygenation ( pulse oximetry), temperature (temperature sensor or thermometer), depth of anesthesia (bispectral index, if any).

34. During anesthesia, the anesthetist-resuscitator shall administer rational infusion and drug therapy, taking into account the severity of the patient’s condition, age characteristics (children, elderly), and prescribe transfusion therapy, which is performed by another doctor in accordance with paragraph 35 of this Standard).

35. Transfusion of components and (or) preparations of donor blood shall be administered by a transfusiologist or a physician (attending physician or doctor on duty ) who is not involved in the operation or anesthetic management, admitted to transfusion therapy by the order of the head of the healthcare organization in accordance with the Rules for the storage, transfusion of blood, its components and preparations, approved by Order No. 666.

36. The decision to transfer the patient from the surgery suite to anesthesiology and intensive care units or to a specialized department shall be made by the anesthetist-resuscitator, who administered anesthesia, in coordination with the head of the department, in his absence, with the senior doctor on duty. Transportation of the patient shall be carried out by the orderlies of the profile department, escorted by an anesthetist-resuscitator.

37. Organization of resuscitation care provides for organization and delivery of intensive care and resuscitation in various critical conditions and pathologies of the vital organs, including restoration of breathing, support of blood circulation, normalization of water-electrolyte balance, acid-base balance, and intravenous volume expansion.

38. Resuscitation care for patients shall include:

1) prevention and treatment of pain and feeling of soreness of the patients with pain syndrome, choice of type of anesthesia in accordance with the somatic status of the patient, the nature and extent of the intervention (childbirth, surgery and other diagnostic procedures);2) support and (or) artificial replacement of reversibly impaired functions of vital organs and systems in conditions that threaten the patient's life;

3) conducting therapeutic and diagnostic measures for patients during resuscitation and intensive care;

4) laboratory and functional monitoring of the adequacy of intensive care;

5) treatment of the disease that caused development of the critical condition;

6) administering treatment on medical indications by methods of extracorporeal detoxification, haemocorrection, hyperbaric oxygenation, various options of electric pulse therapy and routine modern treatment methods;

7) counseling of doctors of other departments on intensive care issues.

39. The patient, while in the ICU on the medical profile, shall remain assigned to his specialized department. The anesthetist-resuscitator shall be the patient’s attending physician.

40. The decision on the therapeutic approach, amount of intensive care and the length of stay in the intensive care shall be taken by the anesthetist-resuscitator, while issues of surgical approach and the specific treatment of the disease are the responsibility of the second attending physician (surgeon, traumatologist, gynecologist or others).

41. The head of the profile (on the main disease) unit (attending physician by profile) or the doctor who operated on the patient before the transfer to the anesthesiology, resuscitation and intensive care unit shall examine the patient daily and carry out treatment and diagnostic measures, draw up the passport of the patient’s medical record, make daily progress notes, rationale of the clinical diagnosis, interim epicrisis, in cases of an unfavorable outcome of the patient's treatment, he shall draw up posthumous epicrisis, convene case conferences, and during the weekends and holidays these activities shall be performed by the profile doctor on duty.

42. The attending anesthetist-resuscitator shall make a note of the patient’s condition in the patient’s medical record every 6-8 hours, i.e. 3-4 times a day, and on the patients in critical conditions, the doctor’s notes shall be made every 2-4 hours, depending on changes in the condition, with assessment of the dynamics and efficacy of the methods of intensive care and resuscitation, prognosis of the situation. The head of the department and (or) the clinical director shall also make entries on the patient’s condition on the medical record, at least once a day (on weekends and holidays - the senior duty anesthetist).

43. If the patient's condition deteriorates or changes, the intensivist shall describe the situation in the medical record in detail indicating the occurrence time of this

situation and the undertaken treatment, diagnostic or resuscitation measures. In the existence of medical indications, specialized professionals' assistance shall be sought for the patient's treatment. Rationale on the need of specialized assistance, conclusion on the consultations held, shall also be included in the medical record.

44. The treatment chart and record of the main indicators of the patient's condition and prescriptions in the intensive care unit (ward), approved by Order No. 907, shall be filled in by the anesthetist-resuscitator for the next 12-24 hours, taking into account the dynamics of the patient's condition, then the intensive care nurse takes over, who shall record with chronological precision the fulfillment of prescriptions, the measured hemodynamics and respiration, body temperature, water balance, diuresis, the amount of discharge by probes, drains, from fistulas, from the surface injuries, losses from vomiting and others, not less than 2 times per day.

45. Patients shall be transferred from the anesthesiology and intensive care unit to the disease profile department or to the intensive therapy wards after the functions of the vital organs are stabilized, by the attending anesthetist-resuscitator in consultation with the head of the department (in his absence by the senior intensivist) and after examination by the head (or the attending physician) of the specialized department, to which the patient is transferred. In emergency cases, the transfer is carried out without the consent of the head of the department (or attending physician) of the profile department.

46. If there are indications requiring highly specialized medical care, the patient shall be transferred from the intensive care unit to another in-patient department in consultation with the head or deputy head of the healthcare organization. The transfer epicrisis is executed by the attending physician of the profile department (or by the doctor on duty on the profile). Transportation shall be carried out by the critical care ambulance team.

47. Patient shall be transferred to anesthesiology and resuscitation units from specialized departments after the consultation of the anesthetist-resuscitator in coordination with the head of the resuscitation and intensive care unit, and in his absence, in consultation with the senior intensivist on duty.

48. Resuscitation measures shall not be carried out:

1) if there are signs of biological death (based on the presence of cadaveric changes );

2) upon the onset of the clinical death affected by progression of previously reliably established incurable diseases or incurable consequences of an acute injury incompatible with life (the presence of a written conclusion of doctors is required on the patient record).

49. Upon the council of the doctors, measures shall be taken to confirm the diagnosis of the brain death of a person in order to decide on the possibility of using

the organs and (or) tissues of the deceased for transplantation, with subsequent notification of the appropriate medical organization that carries out the removal, storage and transportation of organs and (or ) human tissues for transplantation in accordance with the Rules for pronouncement of biological death or irreversible cerebral death (brain death), and termination of life-sustaining treatment after pronouncement of biological death or irreversible cerebral death (brain death), approved by Order No.622 of the Acting Minister of Health of the Republic of Kazakhstan dated August 11, 2010 (registered in the Register of State Registration of Regulatory Legal Acts under No.6449). The medical commission shall fill out and sign the protocol of diagnosing cerebral death, which is essential to termination of resuscitation procedures and organ transplantation.

50. The quality assessment of the organization of delivery of anesthetic and resuscitation care shall factor in the following indicators:

1) mortality rate (general and daily);

2) deaths on the operating table and in the first 24 hours after surgery;

3) frequency of complications after anesthetic support;

4) iatrogenic complications in connection with diagnostic and treatment procedures (each indicator shall be estimated separately: frequency of pneumothorax, hemothorax after catheterization of the subclavian vein and others);

5) cases of nosocomial infection and reinfection.

51. Quality of medical services in medical organizations delivering anesthetic and intensive care, regardless of ownership, shall be assessed in accordance with the Rules for organizing and conducting internal and external examinations of the quality of medical services, approved by order No. 173 of the Minister of Health and Social Development of the Republic of Kazakhstan dated March 27, 2015 (registered in the Register of State Registration of Regulatory Legal Acts under No. 10880).

52. Examination of the performance efficiency of the anesthesiology and resuscitation departments, assessment of their own processes and procedures, implementation of standards in the field of healthcare, use of internal indicators and external indicators, shall be carried out by assessing the compliance of threshold indicators in dynamics.

53. Anesthetic and resuscitation care for patients at the outpatient-polyclinic and hospital-replacing level shall be administered by an anesthetist-resuscitator and shall include:

1) examination of the patient before planned surgical intervention no later than 24-48 hours before the proposed operation, re-examination of the patient immediately before anesthesia;

2) anesthetic support for diagnostic and treatment procedures, surgical interventions;

3) treatment of pain syndrome of various geneses, prevention and treatment of pain in the post-surgery period, including in outpatient conditions;

4) carrying out a set of anti-shock measures;

5) carrying out a set of emergency resuscitation and intensive care measures;

6) monitoring control of vital body functions in administering of anesthesia during surgery;

7) execution and maintenance of primary medical documentation in accordance with Order No. 907.

54. At the onset of complications at the outpatient-polyclinic and hospital-replacing level or deterioration of the patient's condition that requires round-the-clock supervision, he/she shall be immediately transferred to out-patient care and hospitalized to be provided with round-the-clock medical care.

55. Anesthetic and resuscitation care for in-patients shall be administered by an anesthetist-resuscitator and shall include:

1) examination of the patient before the planned surgical intervention no later than 24-48 hours before the surgery, and in case of emergency intervention - immediately after the decision on the need for performing it. When appointing an additional examination, a re-examination shall be carried out immediately before anesthesia;

2) prevention and treatment of pain and feeling of soreness of the patients, choice of the type of anesthesia in accordance with the somatic status of the patient, nature and extent of the intervention and its urgency; 3) performance of a set of anti-shock measures;

4) performance of a set of measures in preparation for anesthesia, its delivery during operations, childbirth, dressings, diagnostic and (or) medical procedures;

5) intensive monitoring of the patient's condition after the end of anesthesia and performing a set of measures to restore and maintain impaired vital functions of the body that arose as a result of anesthesia, surgery, complications of the underlying disease;

6) performance of intensive care and resuscitation of patients of different profiles in various critical conditions;

7) sustaining and (or) artificial replacement of reversibly impaired functions of vital organs and systems in conditions that threaten the life of the patient;

8) performance of medical and diagnostic measures for adults and children during anesthesia, resuscitation and intensive care;

9) the use of various treatment methods depending on the profile (extracorporeal detoxification, cardiac pacing, haemocorrection, hyperbaric oxygenation, parenteral nutrition, various options of electrical cardioversion);

10) monitor control of vital functions of the body during anesthesia and (or) intensive care, resuscitation in order to ensure the safety of patients (adults and children);

11) assistance in resuscitation of patients in other departments of the medical organization;

12) advising doctors of other departments of the medical organization on intensive care and emergency care;

13) conducting examination of the quality of work and developing measures to improve it;

14) execution and maintenance of medical records in accordance with Order No. 907.

56. Medical assistance by anesthetists shall be provided upon written consent of the patient or his legal representative for therapeutic and diagnostic measures, anesthesia.

57. Delivery of medical care without the consent of the patient or his legal representative in accordance with paragraph 1 of Article 94 of the Code shall be allowed in relation to persons in shock, in coma, disabling them from expressing their will; suffering from diseases that pose a danger to others; suffering from severe mental disorders (diseases); suffering from mental disorders (diseases) and having committed a socially dangerous act. Delivery of medical care to the persons without their consent shall continue until the end of the above conditions.

Consent to the delivery of medical care to minors and citizens recognized by the court as legally incompetent shall be given by their legal representatives. In the absence of legal representatives, the decision to administer medical care shall be adopted by consultation of the doctors, and if it is impossible to assemble the doctors panel for consultation - directly by a medical professional with subsequent notification of the officials of the medical organization.

58. Refusal from medical care with indication of possible consequences shall be recorded in the medical documents and signed by the patient or his legal representative, and also by the medical professional. In the event of refusing to sign the refusal from medical assistance by the patient or his legal representative, a corresponding entry shall be made in the medical records, signed by the medical professional in accordance with Article 93 of the Code.

## Chapter 4. Organization of delivery of care by anesthesiology and resuscitation team

59. A team of at least 3 anesthetists-resuscitators shall be established in a healthcare organization (central district, inter-district hospitals, polyclinics, including dental, day inpatient facilities, women's health clinics), which provides patients with therapeutic or surgical, obstetric and gynecological care.

60. For the work of the team, the healthcare organizations shall equip intensive care wards in the surgical or therapeutic departments, for the possibility of placing patients in them after surgery or in need of intensive care.

61. The Team shall be headed by a senior anesthetist-resuscitator with at least 3 years of experience and high qualification.

62. The organization of delivery of anesthetic and resuscitation care shall be carried out in accordance with Chapter 3 of this Standard.

63 Anesthetic and resuscitation care to the population delivered by anesthesiology and resuscitation Team shall comprise:

1) administering of a range of measures for the preparation and conduct of anesthesia during surgeries, childbirth, diagnostic and therapeutic procedures;

2) administering of a set of measures to restore and sustain the vital functions of the patient's body that arose as a result of a disease, trauma, childbirth, surgery

3) monitoring of vital functions of the body during anesthesia (during surgery), intensive care, resuscitation to ensure the safety of patients;

4) clinical assessment of the degree of respiratory, circulatory and excretory system disorders;

5) correction of acute blood loss through infusion-transfusion therapy;

6) sustaining of blood circulation by infusion of crystalloid and colloidal solutions, application of vasopressors, external cardiac massage;

7) complex therapy of acute respiratory disorders, including restoration of airway patency, oxygen inhalation, mechanical ventilation;

8) relief of pain and general neuro-reflex reactions with analgesic and neuroleptic drugs, nerve block anesthesia, inhalation of general anesthetics;

9) therapy of intoxication syndrome by forced diuresis method;

10) prevention and treatment of infectious complications with drugs;

11) restoration of water-electrolyte balance and correction of acid-base balance;

12) energy supply with partial or full parenteral nutrition and enteral administration of nutritional mixtures;

13) monitoring of the patient's condition after the end of anesthesia until recovery and stabilization of vital body systems;

14) measures to restore and sustain impaired vital functions of the body that arose in patients in specialized units of the medical organization;

15) maintaining interconnection and continuity in work with other departments;

16) ensuring correct execution and maintenance of medical records (in accordance with Order No. 907).

64. If it is impossible to deliver medical care in the Anesthesiology and Resuscitation profile by the Team, the patient shall be transferred to a medical

organization delivering round-the-clock care in the Anesthesiology and Resuscitation profile. In the transfer, the patients shall be transported by ambulance aviation.

## Chapter 5. Organization of delivery of care by anesthesiology department

65. Anesthesiology department (AD) shall be established in the structure of healthcare organizations providing inpatient and hospital-replacement care depending on bed capacity, profile of the organization and in the availability of at least 6 anesthetists-resuscitators on the staff.

66. Organization of the delivery of anesthetic and resuscitation care in AD shall be carried out in accordance with Chapter 3 of this Standard.

67. An anesthetist-resuscitator in AD shall carry out:

1) examination and assessment of the functional state of the patient;

2) assessment of the severity of the patient's condition before surgery, determining the degree of anesthetic risk;

3) determination of indications and administration of intensive therapy if need arises, to prepare the patient for surgery;

4) administration of premedication and choice of anesthesia method;

5) anesthetic support and protection of the patient from surgical aggression;

6) postanesthetic care of the patient after general anesthesia or transferring him after the surgery to the postanaesthesia care unit, or to the intensive care unit (ICU).

## Chapter 6. Organization of delivery of assistance by resuscitation and intensive care unit

68. ICU shall be established in the structure of healthcare organizations that provide inpatient care depending on the bed capacity, profile of the organization, and in the availability of at least 6 intensivists on the staff.

69. ICUs (for adults and children) are divided into multipurpose non-specialized and specialized, depending on the patient profile: cardiac, neurosurgical, infectious, anti-tuberculosis, toxicological, obstetric-gynecologic, neonatal and others.

70. At least 6 beds shall be provided in the ICU; if there are more than 12 beds, a second unit is established.

71. Organization of the delivery of anesthetic and resuscitation care shall be carried out in accordance with Chapter 3 of this Standard.

72. Patients shall be subject to hospitalization in ICU (adults and children) with acute disorders of hemodynamics of various etiologies (acute cardiovascular failure, all types of shocks), acute respiratory disorders, other disorders of the functions of vital organs and systems (central nervous system, parenchymal organs and other organs and systems), acute metabolic disorders, after surgical interventions, or other medical interventions and procedures that entailed malfunctions of life-support systems or with

a real threat of their development, requiring hemodynamic monitoring, respiratory support and intensive care, severe sepsis of any etiology, severe anemia, disseminated intravascular coagulation syndrome, with acute cerebrovascular disorders, cerebral hemorrhage, severe burns, poisoning, drowning, patients in the recovery period after agony and clinical death, newborns with severe surgical and somatic pathology, pregnant women, women in labor and new mothers with severe obstetric and extragenital pathology.

73. Patients shall be admitted to the ICU from the admission department if they have indications for resuscitation or intensive care, with the exception of cases of damage to internal organs, ongoing bleeding, or conditions requiring emergency surgery, in which case they shall be immediately transported to the surgery suite.

74. Indications for admission to ICU shall be determined by the intensivist. In case of arising disputes and conflict situations, the final decision on placing the patient in the resuscitation or intensive care unit shall be made by the head of the department or senior anesthetist-resuscitator on duty.

75. Patients from other units with other diseases whose treatment is reduced to palliative therapy (decompensated stages of cancer, liver cirrhosis, decompensation of chronic heart failure) cannot be transferred to ICU. It is unacceptable to hold ICU as the place of stay of incurable patients to vacate other departments from seriously ill patients, patients in a hopeless state.

76. In ICU conditions, patients shall be provided with a set of measures to restore and sustain life support systems impaired by diseases, injuries, complications of labor, surgical intervention, poisoning, drowning.

77. Anesthetic and resuscitation care in ICU shall include:

1) emergency and planned qualified, specialized medical care to patients, including with the application and introduction of new diagnostic methods, treatment of emergency conditions;

2) daily examination of patients with participation of the head of the department, patient monitoring in dynamics, with description of changes in diaries, substantiation of changes in prescriptions. Frequency of diary records depends on dynamics of changes in the condition of patients and the need for correction of prescriptions (on stable patients the interval of fixing their condition in the medical record is 6 hours). Detailed descriptions shall be made of the time of admission and transfer of the patient during the shift, moments of intubation, transfer to spontaneous breathing, extubation and other responsible or complex manipulations, the rationale for the need of transfusion therapy, analgesia with narcotic analgesics;

3) determining the presence in patients of certain syndromes corresponding to the underlying or concomitant disease or complications;

4) continuous monitoring of the functional state of the patient;

5) expanded set of resuscitation and intensive care measures;

6) attracting consultants of any specialization and at any level to verify the underlying and concomitant diseases, differential diagnostics and determine the treatment approaches;

7) establishment of indications for treatment in resuscitation and intensive care units, transfer of patients to specialized units after stabilization of the function of vital organs with recommendations for treatment and examination in the next 24 hours (the heads of specialized units shall provide immediate admission of patients transferred from the ICU);

8) advising doctors of specialized units on practical intensive care issues;

9) convening and holding of clinical conferences on resuscitation and intensive care;

10) execution and maintenance of medical records in accordance with Order No. 907;

11) analysis of the efficacy of medical care, development and performance of measures to improve the quality of medical care and decrease the hospital mortality incidence.

78. During the entire period of the patient's treatment in the ICU, the head of the specialized unit or the attending physician by profile, the surgeon who performed the operation (on weekends and holidays, during the night duty shift, the doctor on duty by profile), shall conduct a daily examination of the patient, fill out the patient's medical records and perform all the diagnostic and treatment measures within his/her competence, control their efficacy, timeliness and quality of treatment.

79. If need arises in carrying out diagnostic and treatment measures for the patient in the ICU, specialists from other diagnostic and treatment departments of the healthcare organization shall be involved.

80. The scope of diagnostic testing shall be determined by the attending intensivist depending on the underlying and concomitant diseases, and also on the presence of organ failure syndromes.

81. To ensure constant readiness for immediate and high-quality treatment of patients in critical conditions, one vacant bed shall always be reserved.

82. Patients in critical condition, urgently admitted to ICU with a non-specified diagnosis shall be transferred to specialized units, to departments of other healthcare organizations only after the urgently administered curative measures and stabilization of vital functions disorders.

83. ICU shall be provided with special equipment and appliances, including for sustaining of vital functions of the body, drugs, medical devices necessary for resuscitation and intensive care measures.

84. In the ICU, specially equipped premises shall be provided for the resuscitation and intensive care, extracorporeal detoxification, hyperbaric oxygenation, for isolation of infectious patients, for the staff, for storage of equipment, medicines and medical devices, transfusion media, linen.

85. Express laboratory shall be an integral part of the ICU. The employees of the express laboratory shall be included in the ICU staff register and report to the head of the department. Withdrawal of the express laboratory from the ICU staffing structure is unacceptable.

86. Specialist doctors of specialized units from among the head of the department or senior physician shall be assigned to ICU for emergency medical and consultative care (by the order of the chief physician). In the event of an emergency, delivery of emergency medical and consultative care in the ICU shall be in priority of the specialist doctors of specialized units from among the head of the department or senior physician.

87. In the medical organizations that have an ICU in their structure for newborns a visiting advisory resuscitation team (hereinafter - visiting team) shall be established with a 24-hour work schedule.

88. To organize the work of the visiting team, 5 doctor positions shall be allocated in the fields of anesthesiology and resuscitation (pediatric) and (or) neonatology, 5 positions of paramedical personnel, 4 driver positions, 1 dispatcher position. A senior doctor of the visiting team shall be appointed from among the team staff.

89. In the absence in the medical organization of an obstetric profile ICU for newborns, the visiting resuscitation team from the resuscitation and intensive care unit for the newborns of the perinatal center or the medical organization of the neonatal or pediatric profile shall be called by the head physician or the responsible doctor on duty at the medical organization.

90. The visiting team from the ICU for newborns, together with the medical organization where the infant was born, shall organize the treatment necessary to stabilize the condition of the newborn before transportation, and after achieved stabilization of the condition, shall transfer the infant to the intensive care unit for newborns of a perinatal center or medical organization of neonatal or pediatric profile.

91. The decision on the possibility of transferring (transporting) the newborn shall be made by the head of the department (doctor on duty) of the obstetric medical organization and the responsible doctor of the ICU visiting resuscitation team for newborns of the perinatal center or medical organization of a neonatal or pediatric profile.

92. In the presence of medical indications, a newborn that does not need resuscitation shall be transferred from the medical organization of the obstetric profile to the neonatal pathology and premature infants unit of the medical organization of the

pediatric profile or to the children's department by disease profile (pediatric surgery, pediatric cardiology, neurology and others).

93. The main activities of the visiting team are:

1) delivery of consultative-resuscitation care to children (newborns) who are in serious condition in other hospitals;

2) delivery of emergency medical care on the spot at the patient’s bedside, during the transportation of children;

3) telephone consultations to provide emergency medical care to children in critical condition;

4) training of medical personnel of pediatric (obstetric) hospitals in the delivery of emergency medical care to children (including newborns) by team members during the visit on call;

5) transportation of the patient to the anesthesiology-resuscitation unit (intensive care and resuscitation unit) if there are indications for transfer.

94. To organize the work of the visiting team, vehicles (reanimobiles) supplied with special medical equipment and medicines shall be provided.

95. On the vehicles providing intensive care and transporting newborns and premature babies, the sanitary and anti-epidemic regime shall be strictly observed.

96. Administration of the healthcare organization shall provide premises for the staff of the visiting team and a parking place for the car.

97. The staff of the visiting team shall:

1) report to the chief physician of the medical organization, where they are based, and the head of the anesthesiology-resuscitation unit (intensive care and resuscitation unit); they are included in the staff of this unit and, in the absence of calls and consultations, they shall be used for work in the department;

2) they must be substitutable, with specialization in pediatric (neonatal) anesthesiology and resuscitation (for the neonatal brigade - in neonatology), have good command in diagnostic methods, experience of working with newborns (premature) and young children.

98. The reanimobile driver shall undergo special instruction and training in working on a specialized vehicle.

99. All the calls of the visiting team staff shall be recorded in the logbook of departures on calls.

100. Senior doctor of the visiting team:

1) is appointed from among the intensivists;

2) perform organizational and methodological management of the resuscitation team;

3) involve in the work of the team, if need arises, specialists of the appropriate profile;

4) control the reanimobile equipment completeness and use (medical equipment, medicines);

5) examine the quality of medical care for children (including newborns, premature infants) in the service region;

6) work at improving continuity in the work of obstetric and children's medical organizations, with the aim of developing resuscitation care for children.

## Chapter 7. Organization of delivery of care by Anesthesiology, Resuscitation and Intensive Care Unit

101. The ARICU shall be organized in the structure of healthcare organizations that provide inpatient care depending on the number of beds, profile of the organization, and with 6 or more anesthetists-resuscitators on the staff.

102. ARICU shall have the following auxiliary premises: premises for medical personnel, for duty personnel, providing for the possibility of short rest (sleep) and meals during the day, with a locker room, sanitary inspection rooms, showers, rooms for personal hygiene of women, bathrooms, storage rooms of equipment, medicines, infusion media, linen. In the presence of intensive care and resuscitation wards, ARICU shall have a separate resuscitation room, a room for detoxification measures, medicinal procedures, treatment room, dressing rooms, separate rooms for young children, septic and infectious patients, an express laboratory, and also pre-anesthesia room and post- anesthesia room in the surgery block (with 2 beds per surgical table, but not more than 12 beds per surgery block, in cases where it is impossible to allocate separate spaces, the pre-anesthesia and post- anesthesia rooms are joined in one unit).

103. ARICU work shall be coordinated by the head of the department, and during the duty night shifts, weekends and holidays by the duty intensive care physician ( anesthetist-resuscitator), appointed by the head of the department from among doctors with the highest (first, in the absence of the highest) qualification category.

104. The organization of delivery of anesthetic and resuscitation care shall be carried out in accordance with Chapter 3 of this Standard.

105. Anesthetic and resuscitation care for patients shall include:

1) provision of specialized medical care to patients in an urgent and planned manner, including high-tech medical services;

2) determination of the method of anesthesia, administering of pre-medication and various methods of anesthesia for various surgical interventions, childbirth, diagnostic and therapeutic procedures;

3) monitoring of patients' condition in the post-anesthetic period in the post-anesthesia wards until recovery of consciousness and stabilization of the function of vital organs;

4) assessment of the degree of dysfunction of vital organs and systems and performance of an expanded set of resuscitation and intensive care measures in various critical situations, including methods of extracorporeal detoxification, hyperbaric oxygenation, cardiac pacing;

5) intensive follow-up (express control of the state of life support systems, also of metabolism using methods of laboratory and functional diagnostics, monitoring of respiration and blood circulation), full and targeted correction of disorders;

6) administering of resuscitation measures for patients (if indicated) in other departments;

7) establishment of indications for further treatment of patients in ARICU, also the transfer of patients from ARICU to specialized departments after stabilizing the function of vital organs with recommendations for treatment and examination for the next day;

8) counseling doctors from other departments on practical anesthesiology and intensive care issues;

9) execution and maintenance of medical records in accordance with Order No. 907 ;

10) analysis of the performance efficacy of the unit and medical care quality, development and carrying out measures to improve the quality of medical care and reduce mortality.

106. The ARICU operating rooms, resuscitation and intensive care wards shall be provided with the following medical equipment:

1) artificial lung ventilation apparatuses or anesthesia-respiratory apparatuses, corresponding to the number of operating tables in the planned and emergency operating rooms;

2) artificial lung ventilation apparatuses in the resuscitation and intensive care wards in the amount of 1 per bed and 1 spare apparatus;

3) monitors by the number of operating tables in the planned and emergency operating rooms;

4) monitors in resuscitation and intensive care wards by the number of beds and 1 spare monitor;

5) electric aspirators (suction devices) by the number of operating tables in the planned and emergency operating rooms;

6) electric aspirators (suction devices) by the number of beds in the resuscitation and intensive care wards and 1 standby device (the use of a centralized vacuum line is allowed);

7) perfusors (syringe pumps) by the number of operating tables in the planned and emergency operating rooms;

8) perfusors (syringe pumps) and infusomats, at least 3 for each bed of the resuscitation and intensive care ward.

107. ARICU shall be provided with medicines and infusion drugs in the quantities required for full administration of pain relief, resuscitation and intensive care (the unit shall store their reserve supply in case of possible mass admissions).

108. ARICU may be used as an educational-clinical facility for the departments of healthcare of education organizations.

109. ARICU shall include an express laboratory for laboratory research by express methods, which shall be placed next to the resuscitation and intensive care wards.

110. The methodological management of the express laboratory shall be carried out by the senior laboratory doctor or the head of the general clinical laboratory of the hospital. Withdrawal of the express laboratory from the ARICU staff register is inadmissible.

## Chapter 8. Organization of delivery of assistance by the Center of Anesthesiology, Resuscitation and Intensive Care

111. CARIC shall be organized in healthcare organizations delivering round-the-clock specialized and highly specialized care, in the presence of three or more units within the structure of the organization of Anesthesiology and Resuscitation profile.

112. The CARIC activity shall be coordinated by an anesthetist-resuscitator of the highest qualification category, with a scientific degree, at least 15 years of work experience and who is a member of the professional association of anesthetists-resuscitators.

113. CARIC shall include the following units in its structure:

1) anesthesiology department;

2) resuscitation and intensive care unit;

3) specialized resuscitation and intensive care units;

4) extracorporeal treatment unit (room);

5) hyperbaric oxygenation unit (room);

6) visiting consultative and diagnostic teams;

7) clinical laboratory;

8) other rooms (laboratories, units) intended for examination and treatment of seriously ill and injured patients.

114.Organization of the delivery of anesthetic and resuscitation care shall be carried out in accordance with Chapter 3 of this Standard.

115. CARIC activities shall comprise:

1) delivery of specialized and highly specialized anesthetic and resuscitation care to patients;

2) organization and provision of visiting consultations for seriously ill patients in any healthcare organization of anesthesiology and resuscitation profile;

3) performance of a range of measures aimed at improving and further developing anesthetic and resuscitation care;

4) provision of organizational, methodological and practical assistance to medical organizations of anesthesiology and resuscitation profile;

5) performance and introduction of measures aimed at improving the quality of diagnostic and treatment work and reducing mortality;

6) development of model work programs for training on in-house developments on innovative technologies.

Appendix 1
to the Standard of organizing
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## The list of equipment in healthcare organizations' departments delivering anesthetic and resuscitation care

| No. | Name of medical devices and medical equipment | Anesthesiology and resuscitation profile | | | |
|---|---|---|---|---|---|
| | | number of products in the availability of hospital beds | | | |
| | | Up to 200 beds | 200-400 beds | 400-500 beds | over 500 beds |
| I. Medical equipment | | | | | |
| 1 | Acid-base balance and blood gases analyzer | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds |
| 2 | Apparatus for measuring central venous pressure | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds |
| 3 | Manual respirator ( respiratory kits for manual artificial lung ventilation ( hereinafter - ALV) | 2 for 6 beds | 2 for 6 beds | 2 for 6 beds | 2 for 6 beds |
| 4 | Portable lung ventilator ( complete with aspirator) | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds |
| 5 | Stationary lung ventilator | by the number of beds in the unit plus 1 | by the number of beds in the unit plus 1 | by the number of beds in the unit plus 1 | by the number of beds in the unit plus 1 |

| | | | | | |
|---|---|---|---|---|---|
| 6 | Mobile x-ray diagnostic apparatus * | 1 | 1 | 1 | 1 |
| 7 | Ultrasonograph (hereinafter US) with duplex attachment | 1 | 1 | 1 | 1 |
| 8 | Portable ultrasonograph with duplex attachment | 1 | 1 | 1 | 1 |
| 9 | Medical scales (different) | * | * | * | * |
| 10 | Monitor defibrillator | 1 | 2 | 4 | 4 |
| 11 | Syringe dispenser | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 12 | Ultrasonic nebulizer | 1 for 3 beds | 1 for 3 beds | 1 for 3 beds | 1 for 3 beds |
| 13 | Bedside cardiac monitor with central remote control and full function set | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 14 | Transesophageal cardiac pacemaker | * | * | * | * |
| 15 | Two-arm resuscitation ceiling console | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds |
| 16 | Functional ( intensive care) bed with side rails | 6 | 12 | 18 | 24 |
| 17 | Examination couch | * | * | * | * |
| 18 | Fiber optic laryngoscope | 4 | 4 | 4 | 4 |
| 19 | Universal laryngoscope | by the number of operating tables +2 | by the number of operating tables +2 | by the number of operating tables +4 | by the number of operating tables +6 |
| 20 | Monitoring system with two central observation units | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds | 1 for 6 beds |

| | | | | | |
|---|---|---|---|---|---|
| 21 | Temporal endocardial pacemaker kit | * | * | * | * |
| 22 | Volumetric infusion pump (infusomats) | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 23 | Infusion syringe pump | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 24 | Enteral nutrition pump | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 25 | General purpose negatoscope | 1 | 1 | 2 | 2 |
| 26 | Mobile bactericidal irradiator | * | * | * | * |
| 27 | Vacuum aspirator | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 28 | Supply of oxygen, vacuum, compressed air | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 29 | Blood pressure measuring device ( tonometer) | 4 | 4 | 4 | 4 |
| 30 | Apparatus measuring cerebrospinal fluid pressure during spinal puncture | * | * | * | * |
| 31 | Patient warming system: 1) heated mattress | 3 | 6 | 6 | 9 |
| | 2) radiant heat lamp | 3 | 6 | 6 | 9 |
| 32 | Infusion solutions heating system | 6 | 12 | 14 | 16 |
| 33 | Patient transporting cart (gurney) | 2 | 3 | 5 | 5 |
| 34 | Combined phonendoscope | by the number of beds and operating tables | by the number of beds and operating tables | by the number of beds and operating tables | by the number of beds and operating tables |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 35 | Apparatus for Holter monitoring of blood pressure and ECG | * | * | * | * |
| 36 | Electrocardiograph | 1 | 2 | 2 | 3 |
| II. Medical furniture | | | | | |
| 1 | Gurney with a lift for transporting patients or medical cart | 1 | 2 | 3 | 3 |
| 2 | Carcass for air dressing of wounds for adults | 1 | 2 | 3 | 3 |
| 3 | Wheelchair | 2 | 4 | 4 | 4 |
| 4 | Bathroom lift | * | * | * | * |
| 5 | Lift for seriously ill patients | * | * | * | * |
| 6 | Anesthesiology table | * | * | * | * |
| 7 | Medicine table | 4 | 6 | 8 | 10 |
| 8 | Manipulation table | 1 | 2 | 4 | 6 |
| 9 | Dressing table | 1 | 2 | 4 | 6 |
| 10 | Table for sterile material | 1 | 2 | 4 | 4 |
| 11 | Instrument tray | 2 | 2 | 4 | 6 |
| 12 | Overbed table | by the number of beds | by the number of beds | by the number of beds | by the number of beds |
| 13 | Combined cart for carrying clean and dirty laundry | * | * | * | * |
| 14 | Multipurpose medical cart | * | * | * | * |
| 15 | Cabinet for "A" and "B" group drugs | 1 | 2 | 2 | 2 |
| 16 | Double-wing medical cabinet | * | * | * | * |
| 17 | Safety cabinet for potent medicines | 1 | 2 | 2 | 2 |

| | | | | | |
|---|---|---|---|---|---|
| 18 | Refrigerator for medicines storage | 2 | 2 | 3 | 4 |

Note: * on requirement

Appendix 2
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## Scale of assessing physical condition of the patient before surgery

| Class | Physical status |
|---|---|
| I | normal healthy patients |
| II | mild systemic pathology, absence of functional limitations |
| III | severe systemic pathology, with significant functional limitations, but not life threatening |
| IV | severe life-threatening systemic pathology |
| V | critical condition, high probability of death of the patient within 24 hours after surgery or without it |
| VI | patients with established cerebral death whose organs can be used for donor purposes |
| In urgent interventions, the letter E (emergency) is added to the class number | |

Appendix 3
to the Standard of organizing
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## The volume of preoperative examination of patients

1. On urgent indications

1) blood type and Rh factor;

2) blood test for hemoglobin, hematocrit, platelets, Lee-White coagulation time;

3) simple urine test (catheter);

4) blood test for human immunodeficiency virus (hereinafter - HIV), Australian antigen, hepatitis C (blood sampling for subsequent test).

2. On emergency indications

1) blood type and Rh factor;

2) general blood test (count of red blood cells, hemoglobin, hematocrit, white blood cells with the formula, platelets, blood coagulation time, bleeding time, erythrocyte sedimentation rate);

3) electrocardiogram (hereinafter -ECG);

4) consultation of therapist or pediatrician;

5) fluorography or chest x-ray (if required);

6) biochemical blood test (alanine transferase, asparaginate transferase, bilirubin, glucose, total protein, urea, creatinine);

7) coagulogram (prothrombin index, activated partial thromboplastin time, fibrinogen);

8) blood test for HIV, Australian antigen, hepatitis C (blood sampling for subsequent test).

3. For planned surgeries

(validity period no more than 10 days)

1) general blood test (count of red blood cells, hemoglobin, hematocrit, white blood cells with the formula, platelets, blood coagulation time, bleeding time, erythrocyte sedimentation rate);

2) simple urine test;

3) blood type and Rh factor;

4) ECG;

5) fluorography (chest x-ray);

6) blood test for HIV, Australian antigen, hepatitis C.

7) liver function tests;

8) residual nitrogen (urea);

9) blood glucose;

10) consultation of therapist;

11) Lee-White coagulation time and duration of bleeding.

Additional tests after examination by intensive care physician (at least 24 hours before surgery).

1) coagulogram;

2) electrolytes of blood plasma;

3) total protein, protein fractions;

4) residual nitrogen (urea);

5) aminotransferase activity;

6) pulmonary function and cardiovascular system tests – if medically required;

7) consultation of specialized professionals - according to indications.

4. For planned surgeries of children

(validity period no more than 10 days)

1) blood type and Rh factor;

2) general blood test (count of red blood cells, hemoglobin, hematocrit, white blood cells with the formula, platelets, blood coagulation time, bleeding time, erythrocyte sedimentation rate);

3) simple urine test;

4) coagulogram;

5) blood plasma electrolytes;

6) total protein, protein fractions;

7) blood urea;

8) aminotransferase activity;

9) blood glucose;

10) ECG;

11) blood tests for HIV, Australian antigen, hepatitis C;

12) electroencephalogram - according to indications;

13) chest x-ray (validity period 3 weeks);

14) consultation of pediatrician.

5. Outpatient surgery (in dentistry, ophthalmology, urology, surgery, etc.) and minor surgical (up to 1 hour) operations (manipulations) under general anesthesia. Validity period is no more than 10 days.

1) blood type and Rh factor;

2) general blood test (count of red blood cells, hemoglobin, hematocrit, white blood cells with the formula, platelets, blood coagulation time, bleeding time, erythrocyte sedimentation rate);

3) simple urine test;

4) examination of the primary care physician (pediatrician);

5) fluorography (radiography);

6) blood test for HIV, Australian antigen, hepatitis C.