

O.O. Bogomolets National Medical University

Pediatric station

OSCE - 2

"Initial care and resuscitation of a newborn child"

Kyiv-2019

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PASSPORT OF OSCE-2 STATION

The name of the station "Initial care and resuscitation of a newborn child"

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Authors: Docent Loginova I.O., Docent Shevtsova T.I.

Station type - OSCE 2 practical skills.

Objective. A 6th year student conducts the initial steps of newborn care (provision of heat, provision of the right head and neck position, respiratory rehabilitation, drying, stimulation), artificial lung ventilation, indirect heart massage, medicines introduction (adrenaline, physiological solution) in accordance with the unified clinical protocol "Initial, resuscitation and post-reanimation care for the newborn in Ukraine" during 10 minutes.

Conditions for the OSCE station proceeding

The patient – training manikin of a newborn child.

Consumables -medical gloves, ligature, adrenaline solution, physiological solution, antiseptic solution.

Equipment - room equipped as a delivery room, resuscitation table, radiant heat lamp, roller, rubber syringe, stethoscope, device for lung ventilation under positive pressure, mask for newborns, laryngoscope, endotracheal tubes 2,5; 3.0; 3.5 mm, kit for umbilical cord vein catheterization, pulse oximeter.

Instruction for the student

Provide initial care and resuscitation assistance to a newborn child according to the current situation.

Runtime - 10 min.

Instruction for teacher/observer

- Identify the student
- Register student
- Rate (fill in the check list)
- Intervene only in case of unforeseen situations

Algorithm

1. Put the radiant heat lamp "on", apply the antiseptic solution on hands, wear the medical gloves.
2. Provide the right position to a child.
3. Carrying out of the sanitation of the respiratory tract.
4. Drying and stimulating the baby.
5. Conducting the lung ventilation under positive pressure.
6. Intubation of the trachea.
7. Carrying out an indirect heart massage.
8. Drug administration through the umbilical vein.

SCENARIO of the OSCE-2 station
"Initial care and resuscitation of a newborn child"

Expected scenario: mature newborn (body weight – 3000 g), muscle atony, there is no cry.

1. Start the initial care steps (30 seconds):

- provide the heat
- apply the antiseptic solution on hands, wear the medical gloves.
- provide the right position to the head
- conduct respiratory sanitary
- drying
- take the wet diaper off
- tactile stimulation.

Condition of a child after the initial steps: a child does not breathe, heart rate – 70/min.

2. The next step is lung ventilation under the positive pressure (30 seconds).

Condition of a child in 30 seconds of lung ventilation under the positive pressure: a child does not breathe, heart rate – 50/min, oxygen saturation - 50%.

3. The following effect: tracheal intubation and indirect heart massage (60 seconds).

Child's condition in 60 sec since the lung ventilation and conduction of indirect cardiac massage: a child does not breathe by itself, heart rate – 50/min.

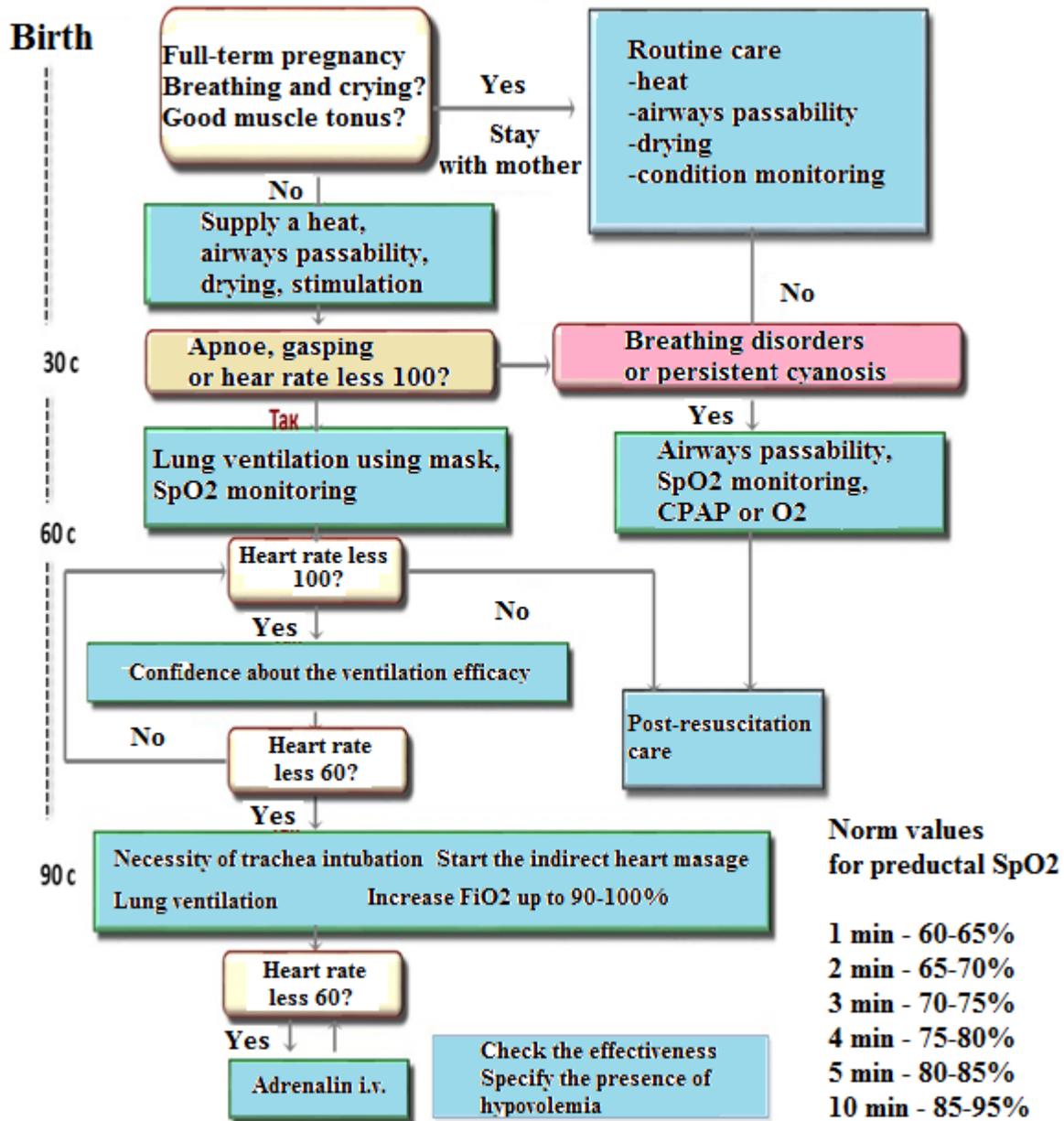
4. Next action

- wear clean medical gloves
- umbilical vein catheterization
- preparation and 0,9 mL of 0,01% of adrenaline solution injection simulation

In 30 seconds - the heart rate is 100/min.

Algorithm of the OSCE-2 station

"Initial care and resuscitation of a newborn child"



Instructions for student at the OSCE-2 station
"Initial care and resuscitation of a newborn child"

1. A child of 39 weeks of gestation (expected body weight – 3000 g), amniotic fluid is clean, cavernous loops fallout, caesarean section. At birth, there is no respiration, muscular atony. Required measures?
2. Condition of a child after the initial care giving: a child does not breathe, heart rate – 70/min. Required measures?
3. Condition of a child after the initial resuscitation measures: the child does not breathe, heart rate – 50/min, oxygen saturation - 50%. Required measures?
4. Condition of a child after the cardiopulmonary resuscitation: a child does not breathe by himself, heart rate – 50/min. Required measures?
5. Condition of a child after the medicines administration: heart rate – 100/min.

Instructions for examiner at OSCE-2 Station

"Initial care and resuscitation of a newborn child»

Clinical situation: a child of 39 weeks of gestation (expected body weight – 3000 g), amniotic fluid is clean, cavernous loops fallout, caesarean section. At birth, there is no respiration, muscular atony. Required measures?

1. Put the heat radiation lamp “on”.
2. Student washes hands and wears gloves.
3. Provides a correct position (put a roll under the shoulder).
4. Carries out the respiratory tract sanitation (using a rubber syringe sucks the contents of the oral cavity first, then the nose cavity for 5 seconds).
5. Drying the child.
6. Takes a wet diaper away.
7. Conducts tactile stimulation (by rubbing the back and extremities).
8. Evaluates the condition of child using auscultation: breathing absent, heart rate (70/min).
9. Attaches a mask to the device for the lung ventilation under the positive pressure and attaches a mask to the child's face (should cover the chin, mouth and nose).
10. Conducts the ventilation with air at a frequency of 40-60/min (breath-one-two), observing the chest movements.
11. Evaluates the condition of child using auscultation in 30 sec after doing ventilation: breathing (absent), heart rate (50/minute).
12. Attaches a pulse oximeter to the child’s right wrist (50% saturation).
13. Inserts the tube into the trachea using a laryngoscope.
14. Connects the intubation tube to Ambu Bag and conducts the cardio-pulmonary resuscitation: indirect heart massage by pressing on the lower third of the sternum (under the nipple line) with thumbs, other fingers - under the child's back, while assistant performs ventilation with ratio of 3:1 for every 2 seconds (and one, and two, and three, and breath).
15. Evaluates the condition of child in 60 sec after the cardio-pulmonary resuscitation using auscultation: breathing (absent), heart rate (50 per minute).
16. Changes gloves to sterile.
17. Cleaning of the umbilical cord with antiseptic and imposes the ligature on the basis of the umbilical cord.
18. Simulates the the umbilical cord cutting using scalpel 1-2 cm above the umbilical ring and enters the catheter to a depth of 3-4 cm.
19. Makes and injectes the adrenaline solution (mix 1.0 mL of 0.01% of adrenaline solution and 9.0 mL of 0.9% of NaCl). Simulates the injection.
20. Evaluates the child's condition (heart rate - 100 per minute).

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