

**Guidelines for Interns
on Teaching Clinical Skills
at the Practical Skills Center
(using the execution algorithm)**

Educational programm: Pediatrics

Subject: Children's disease

Course : V

Cathedra : Pediatrics 2

Done: Shagiraeva S.K




Cathedra «Pediatrics-2»

Clinical Skills Educator's Guide

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Considered at the meeting of department
protocol № 5 29 12 2022г.

Head of department, professor  Bektenova G.E.

1. Name of the clinical skill: "Algorithm for the provision of emergency care for neonatal asphyxia."

Manikin - BabySim Simulation Robot

2. Purpose of learning:

1. Mastering practical skills on the rules and techniques for providing emergency care for asphyxia of newborns on a mannequin.

2. Development of a technique for providing emergency care for asphyxia on a mannequin.

3. Development of advanced clinical skills with regard to application in real clinical situations.

4. The time required for training and demonstration of skills on the mannequin is 10 minutes.

5. The time required for independent development - 15 minutes.

6. Necessary theoretical knowledge for mastering skills

1. Indicators of emergency care for neonatal asphyxia.

2. Causes of respiratory arrest

3. Causes of cardiac arrest

4. Diagnosis of clinical death

5. Rules and techniques for providing emergency care for asphyxia of newborns.

6. Basic emergency measures

7. Methods for monitoring the effectiveness of emergency care for newborn asphyxia.

8. Possible complications and safety precautions in the provision of emergency care for asphyxia of newborns.

4. Trainer, simulator, mannequin, model list

Robot Stimulator BabySim

5. Medicine

1. phonendoscope

2. alcohol 96%

3. Aspirator

4. Ambu bag

6. Skill execution algorithm:

| № | Action algorithm | Done | Not done | warnings |
|---|--|------|----------|----------|
| 1 | rapid suction of mucus from the mouth and nose at birth; | | | |
| 2 | separate the child from the mother; | | | |

| | | | | |
|----|---|--|--|--|
| 3 | place the baby under a source of radiant heat and quickly and thoroughly wipe him/her with a warm, sterile diaper | | | |
| 4 | give the child the correct position (tilt his head back a little, put a roller under his shoulders); | | | |
| 5 | clear the airways (repeated suction of mucus from the mouth and nose); | | | |
| 6 | Breathing stimulation (tactile stimulation - press hard on the child's leg or rub his back) | | | |
| 7 | evaluate the child according to three vital criteria (respiratory rate, CHF, skin color) | | | |
| 8 | If breathing is irregular (apnea), CPR is performed. | | | |
| 9 | Artificial ventilation of the lungs is carried out using a mask and breathing bag. | | | |
| 10 | If the heart rate is less than 80 per minute, go to the third stage of resuscitation. Indirect cardiac massage | | | |

9. A task:

Step by step tasks:

- 1) Formation of skills to identify risk factors for fetal hypoxia and neonatal asphyxia.
- 2) the formation of skills for diagnosing fetal hypoxia.
- 3) the formation of skills for choosing obstetric tactics in case of danger to the fetus.
- 4) diagnosis of asphyxia in newborns, assessment of severity, development of first aid skills.

10. Literature:

1. Современные методы лечения асфиксии новорожденных. Чередникова Е.Н., Шерстнев Д.Г. Бюллетень медицинских интернет-конференций, 2016. с.824

2. Протокол проведения лечебной гипотермии детям, родившимся в асфиксии. Ионов О.В., Балашова Е.Н., Киртбая А.Р., Антонов А.Г., Мирошник Е.В., Дегтярев Д.Н. Неонатология: Новости. Мнения. Обучение, 2014. с. 81-83
3. Проведение лечебной гипотермии у новорожденных, родившихся в асфиксии. К. Б. Жубанышева, З. Д. Бейсембаева, Р. А. Майкупова, Т. Ш. Мустафазаде. Наука о жизни и здоровье, 2019. с. 60-67
4. Асфиксия новорожденных. Жетписова Л.Б. WestKazakhstanMedicalJournal, 2011
5. Гипоксия плода и асфиксия новорожденного. Кузнецов П.А., Козлов П.В. Лечебное дело, 2017. с. 9-15

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