

Department of Pediatrics № 1, Odesa National Medical University  
Elective course "Critical conditions in neonatology.  
Practicing communication skills on simulation equipment"

MINISTRY OF HEALTH OF UKRAINE  
ODESSA NATIONAL MEDICAL UNIVERSITY

Faculty: medical

(faculty name)

Department of pediatrics №1

(name of department)

APPROVE

Acting pro-rector for scientific and educational work

prof. \_\_\_\_\_

Svitlana KOTIUZHYNKA

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\_\_\_\_\_ 2022 y

**METHODICAL RECOMMENDATION OF THE SEMINAR LESSON  
FROM THE SELECTIVE EDUCATIONAL DISCIPLINE**

Faculty medical, course 5 \_\_\_\_\_

Selective educational discipline: ""Critical conditions in neonatology. Practicing  
communication skills on simulation equipment."

(name of academic discipline)

Seminar class № 8 Topic: Respiratory disorders in newborns

(topic name)

Approve:

Meeting of the Department of Pediatrics №1 \_\_\_\_\_

Odesa national medical university

Protocol № 1 of "29" \_\_\_\_\_ 08 \_\_\_\_\_ 2022 y \_\_\_\_\_.

Head of the department \_\_\_\_\_

(Mykola ARYAYEV)

(signature)

(name, surname)

Developers:

*Department of Pediatrics № 1, Odesa National Medical University*

*Elective course "Critical conditions in neonatology.*

*Practicing communication skills on simulation equipment"*

*(indicate surnames, scientific degrees, scientific titles and positions of developers; everyone who teaches the specified academic discipline must be among the developers)*

Developers:

Prof. Mykola ARYAYEV as. of prof. PhD Ludmila SENKIVSKA, Irina TALASHOVA,  
Daria USENKO, Natali BYSHLEI

*(name of academic discipline)*

*Note.* In the case of publication of methodological developments as an independent printed work, the academic council of the faculty provides a recommendation for publication in the presence of two reviews, one of which is external — from a reviewer of another institution of higher education.

**Topic:** Respiratory disorders in newborns. Definition. Causes of respiratory disorders in newborn children. Assessment according to the Dovnes, Silverman-Anderson scale and the WHO scale. Methods of examination of newborns and their interpretation (radiological, laboratory). Treatment. Role-playing games.

**Purpose:** Mastering the skills of diagnosing respiratory disorders in newborns. Assessment according to the Dovnes, Silverman-Anderson scale and the WHO scale. Drawing up a plan for the examination of a newborn child with respiratory disorders.

**Basic concepts:** Respiratory disorders, respiratory insufficiency, artificial lung ventilation. Scales for the assessment of respiratory disorders (Dovnes, Silverman-Anderson and WHO).

**Equipment:** newborn baby dummy

**Study time:** 3 hours

#### **Plan**

- I. Organizational moment (greetings, checking those present, announcing the topic, the purpose of the lesson, motivating applicants to study the topic).
- II. Control of basic knowledge (frontal survey on basic terminology).

#### **Questions to check basic knowledge on the topic of the seminar:**

III. Discussion of theoretical issues:

1. Definition and causes of respiratory disorders.
2. Definition of respiratory failure.
3. Rating scales for respiratory disorders (Dovnes, Silverman-Anderson and WHO).
4. Degrees of severity of respiratory disorders.
5. Respiratory support of a newborn depending on the degree of severity of respiratory disorders and respiratory insufficiency. Indications for oxygen therapy (methodology of independent breathing under constant positive pressure and mechanical ventilation).
6. Drug therapy of respiratory disorders.

Discussion of theoretical issues can take place in the form of role-playing, answers to questions, debates, discussions, presentations with reports, abstracts, discussion of reports and abstracts, review of applicant answers, etc.)

#### **Themes of role play/reports/ summeries**

1. Definition and causes of respiratory disorders.
2. Definition of respiratory failure.
3. Rating scales for respiratory disorders (Dovnes, Silverman-Anderson and WHO).
4. Degrees of severity of respiratory disorders.
5. Respiratory support of a newborn depending on the degree of severity of respiratory disorders and respiratory insufficiency. Indications for oxygen therapy (methodology of independent breathing under constant positive pressure and mechanical ventilation).
6. Drug therapy of respiratory disorders.

When preparing a report, role-play, abstract, analytical review, etc., applicants can, along with this, prepare didactic visual aids in the form of tables, code diagrams, slides, drawings, portraits of famous specialists, preparations, etc.).

#### IV. Summing up

#### **List of recommended literature**

1. Nelson Textbook of Pediatrics / Edition 2 volume set. Edition: 21st, 2019.
2. Avery's Diseases of the Newborn Book Tenth Edition •2018. Copyright © 2018 Elsevier Inc. All rights reserved./ No of pages 1656  
<https://www.sciencedirect.com/book/9781437701340/averys-diseases-of-the-newborn>
3. Whitsett JA, Alenghat T. Respiratory epithelial cells orchestrate pulmonary innate immunity. Nat Immunol. 2015 Jan;16(1):27-35. [PMC free article] [PubMed]
4. Reuter S, Moser C, Baack M. Respiratory distress in the newborn. Pediatr Rev. 2014 Oct;35(10):417-28; quiz 429. [PMC free article] [PubMed]
5. Committee on Fetus and Newborn; American Academy of Pediatrics. Respiratory support in preterm infants at birth. Pediatrics. 2014 Jan;133(1):171-4. [PubMed]
6. Pinheiro JM, Santana-Rivas Q, Pezzano C. Randomized trial of laryngeal mask airway versus endotracheal intubation for surfactant delivery. J Perinatol. 2016 Mar;36(3):196-201. [PubMed]
7. Anne Greenough, Anthony D. Milner Neonatal Respiratory Disorders, 2nd Edition

#### **Electronic information resources**

1. <http://moz.gov.ua>
2. <http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21st-edition/>
3. <https://www.ama-assn.org/about>
4. <https://www.who.int/>
5. <https://www.ipa-world.org/>