

*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 KOTIUZHYNska

" " 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 № 5 Topic: Pneumonia of newborns

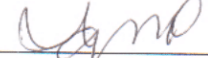
\_\_\_\_\_  
*(topic name)*

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.*

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*(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.

**Seminar lesson № 3**\_\_\_\_\_

**Topic:** Pneumonia of newborns .

**Purpose:** Deepening of knowledge in the issues of etiology, pathogenesis, diagnosis, differential diagnosis, treatment, prevention of pneumonia in newborns and mastering the skills of substantiating the clinical diagnosis of pneumonia in newborns and calculating antibacterial drugs, prescribing adequate respiratory support.

**Basic concepts:** Respiratory disorders, respiratory failure, artificial lung ventilation.

**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:**

1. Adverse risk factors during this pregnancy of the mother.
2. Classification of pneumonia.
3. Clinic, diagnosis of pneumonia in newborns.
4. Prevention of pneumonia in newborns
5. Prognosis and complications of pneumonia in newborns.

III. Discussion of theoretical issues:

1. Etiology and pathogenesis of pneumonia in newborns. Classification.
2. Clinic, diagnosis of pneumonia in newborns.
3. Differential diagnosis of pneumonia in newborns with RDS, transient tachypnea, congenital lung anomalies, sepsis, meconium aspiration syndrome.
4. Prevention of pneumonia in newborns.
5. Prognosis and complications of pneumonia in newborns.

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. Etiology and pathogenesis of pneumonia in newborns. Classification.
2. Clinical signs of RDS in premature newborns. Diagnostics.
3. Justification of the clinical diagnosis of pneumonia.
4. Differential diagnosis of pneumonia in newborns with RDS, transient tachypnea, congenital lung anomalies, sepsis, meconium aspiration syndrome.

5. Prevention of pneumonia in newborns.

6. Prognosis and complications of pneumonia in newborns.

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 ©  
No of pages 1656  
<https://www.sciencedirect.com/book/9781437701340/averys-diseases-of-the-newborn>
3. R. M.ViscardiPrenatal and postnatal microbial colonisation and respiratory outcome in preterm infants. In Bancalari E, Polin R. (eds). The newborn lung. 2nd edition, 2012 6135162
4. Centers for Disease Control and Prevention. Criteria for defining nosocomial pneumonia.  
Available at: [http:// www.cdc.gov/ncidodc/hip/NNIS/members/pneumonia/final/Pneu](http://www.cdc.gov/ncidodc/hip/NNIS/members/pneumonia/final/Pneu)
5. Howie SRC, Murdoch DR. Global childhood pneumonia: the good news, the bad news, and the way ahead. Lancet Glob Health. 2019 Jan;7(1):e4-e5. [PubMed]
6. Rüdinger M, Friedrich W, Rüstow B et al. Disturbed surfactant properties in preterm infants with pneumonia. Biol Neonate 2011;79:73-78
7. Costa S, Rocha G, Leito A, Guimaraes H. Transient tachypnea of the newborn and congenital pneumonia: a comparative study. Journal of Maternal-Fetal and Neonatal Medicine 2012; 25; 7; 992-994
8. Tan K, Lai NM, Sharma A. Surfactant for bacterial pneumonia in late preterm and term infants. Cochrane Database of Systematic Reviews. 2012, Issue 2, Art.No.CD008155
9. Kugelman A, Durand M. A comprehensive approach to the prevention of bronchopulmonary dysplasia. Pediatr Pulm 2011; 1-13

#### **Electronic information resources**

1. <http://moz.gov.ua>

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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/>
6. <https://www.cdc.gov/nhsn/pdfs/pscmanual/6pscvapcurrent.pdf>
7. [https://cdn.intechopen.com/pdfs/44446/intech-neonatal\\_pneumonia.pdf.html](https://cdn.intechopen.com/pdfs/44446/intech-neonatal_pneumonia.pdf.html)