Brief description of the discipline (abstract)
for the catalog of elective disciplines

Simulation training course on respiratory pathology

(title of elective course)

Specialty	Medicine 222 (22 – health care)
Educational level	Master
Term of study (course)	90 hours, 3 credits ECTS (6th course)
Form of study	Full-time
Department	Department of Pediatrics and Pediatric Infectious Diseases

Summary of the course "Simulation training course on respiratory pathology". Simulation training - a modern technology for the acquisition of practical skills, abilities and knowledge, based on realistic modeling and simulation of the clinical situation using a variety of modern training equipment. Training in clinical skills through the use of dummies, simulators and standardized patients is the "gold standard" of medical education in developed countries for over 10 years and promotes the formation of professional skills of future professionals who will be competitive in today's labor market. The advantages of simulation training include the acquired clinical experience in a virtual environment without risk to the patient; stress reduction during self-manipulation; the possibility of an unlimited number of repetitions to practice skills; the possibility of practicing actions in rare and life-threatening pathologies; training promotes the development of both individual skills and abilities, as well as the ability of team interaction. It is planned to study the course through simulation training on the basis of the simulation center, as well as with elements of problem-oriented learning with audio and video, with the analysis of patients from the departments of the regional clinical hospital. Very positive feedback was received from the participants of the training in 2020/21 academic year.

Why respiratory diseases were chosen? Respiratory diseases in children are not only common, but also significantly affect mortality. In particular, pneumonia is the leading cause of infant mortality under the age of five (20% of all cases), killing more than 4,000 children each day worldwide, approximately 1.8 million children each year - more than AIDS, malaria and measles taken together. In addition, in childhood bronchiolitis, stenotic laryngotracheitis, bacterial endobronchitis, epiglottitis, pharyngeal abscess, severe pneumothorax, asthmatic status, foreign body respiratory tract can be potentially life-threatening. The need for resuscitation in pediatrics is mostly caused by decompensation of respiratory diseases. In addition, in children, the persistent cough, shortness of breath, cyanosis or other respiratory manifestations are the first symptoms of chronic respiratory diseases onset, for which there are algorithms of diagnosis, differential diagnosis and subsequent management. Thanks to vaccination, the possibilities of primary prevention of infectious diseases of the respiratory system and prevention of exacerbations of chronic pathology are available and wide.

Approximate list of training topics (lectures, practical classes, seminars):

1. Differential diagnosis of acute and persistent cough in children, tactics.
2. Differential diagnosis of dyspnoea syndrome (stridor, grunting, wheezing and other respiratory phenomena), acute and persistent bronchial obstruction syndrome, differential diagnosis, tactics.
3. Differential diagnosis of infectious diseases with tonsillitis syndrome, complications of the ENT organs in ARI cases, tactics.
4. Organization of immunoprophylaxis of infectious diseases in children.
5. Peculiarities of cardiopulmonary resuscitation (BLS, PALS) in children depending on the genesis of sudden death.
6. Anatomical and physiological features of the respiratory system in childhood.

7. Simple colds in childhood. COVID-19. Differential diagnosis.
8. X-ray diagnosis of respiratory diseases in pediatric practice.
9. Pneumonia and its complications. Differential diagnosis and tactics. Emergency care for acute respiratory failure in children.
10. Diagnosis of respiratory allergies in children. Spirometry. Allergy diagnostics.
11. Differential diagnosis of hereditary and congenital diseases of the bronchopulmonary system in children. Bronchopulmonary dysplasia, cystic fibrosis, idiopathic pulmonary hemosiderosis, primary ciliary dyskinesia, Williams-Campbell syndrome, bronchomalacia, aplasia and hypoplasia of the lungs, alpha-1-antitrypsin deficiency, double aortic arch etc.
12. Vaccine prophylaxis of respiratory diseases.

The list of competencies, the acquisition of which the learning of discipline will provide:

GC1	Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.
GC2	Ability to apply knowledge in practical situations
GC3	Knowledge and understanding of the subject area and understanding of professional activity
GC4	Ability to adapt and act in a new situation
GC5	Ability to make an informed decision; work in a team; interpersonal skills
GC7	Skills in the use of information and communication technologies
GC8	Definiteness and perseverance in terms of tasks and responsibilities
SC1	Skills of interviewing and clinical examination of the patient
SC2	Ability to determine the required list of laboratory and instrumental studies and evaluate their results
SC3	Ability to establish a preliminary and clinical diagnosis of the disease
SC4	Ability to determine the required mode of work and rest in the treatment of diseases
SC6	Ability to determine the principles and nature of treatment of diseases
SC7	Ability to determine the tactics of emergency medical care.
SC8	Ability to determine the tactics of emergency medical care
SC9	Emergency care skills.
SC11	Skills of performing medical manipulations.
SC14	Ability to plan and conduct preventive and anti-epidemic measures against infectious diseases
SC15	Ability to determine the tactics of management of persons for their dispensary supervision (follow up)

GC general competences SC special competences

The list of scientific and pedagogical employees who will ensure the conduct of the discipline:

1. Bogutska N.K.
2. Korotun O.P.
3. Horbatyuk I.B.
4. Bilyk G.A.
5. Garas M.N.
6. Ortemenka Ye.P.

Head of the Department _____ prof. O.K. Koloskova

(signature)