MINISTRY OF HIGHER EDUCATION, SCIENCE AND INNOVATIONS OF THE REPUBLIC OF UZBEKISTAN MINISTRY OF HEALTHCARE OF UZBEKISTAN TASHKENT MEDICAL ACADEMY DEPARTMENT OF CHILDREN'S DISEASES IN FAMILY MEDICINE

"APPROVED"

Vice-rector for academic affairs _____Boymuradov Sh.A. 2023 «__ »

WORKING PROGRAM ON NEONATOLOGY (for the 4th course, the 8th - semester)

Branch of education:	510000 -	Healthcare
Direction of education:	5510100 -	General medicine
	5111000 -	Vocational education (General medicine 5510100)

Tashkent-2023

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Working program of the subject was prepared on the basis of the "Pediatrics" subject program approved by the Order No. 107 dated "04.25.2019" (Appendix 2 of the order) of the Ministry of Health of the Republic of Uzbekistan.

The working program of the subject was approved by the Scientific Council of the Tashkent Medical Academy on June 26, 2023 with protocol No. 12

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1. Relevance of educational science and its role in higher professional education

The main place in the permanent work of a general practitioner is the timely diagnosis, treatment, prevention and dispensary control of diseases occurring in infancy. Since children make up more than 65% of the population of our republic, parents with babies visit family polyclinics, so the science of "Neonatology" has a great place in the healthcare system. This work program is designed on the basis of the State educational standard and general practitioner training program, and is designed to teach neonatology to students of treatment and medical pedagogy faculties of medical universities.

2. The purpose and tasks of educational science

The purpose of teaching the subject is to provide students with an understanding of childhood diseases with reference to a general practitioner, to teach the diagnosis and treatment of diseases in infants based on evidence-based medicine and WHO guidelines, to examine them, to conduct monitoring of physical development, neonatal formation of skills for early diagnosis, treatment, preventive and rehabilitation measures of diseases encountered in the period.

The task of the science is to teach the principles of etiology, pathogenesis, classification, clinical manifestations, complications, and treatment of diseases in infants; drawing up a plan of inspection methods and showing the determination of GP tactics; teaching to make a clinical diagnosis and make a comparative comparison; formation of knowledge on the care of babies.

3. Methodological instructions for the teaching of academic subjects

In order for students to master the science of "Neonatology", it is important to use advanced and modern teaching methods, to apply new information-pedagogical technologies. Textbooks, educational and methodical manuals, lecture texts, handouts, electronic materials, case technologies are used in mastering the subject. Lectures and seminars use interactive methods of teaching (visual, problem-based, author's lectures, Insert, cluster, "Venn" diagram, etc.).

		A	Auditorium hour		ent n	
Direction (faculty)	General download	Lecture		Practical lesson	Independe educatio	Type of control
General medicine	54	6		30	18	Control type: FC Shape: OSCE
Vocational education	54	6		30	18	Control type: FC Shape: OSCE

Allocated hours for the academic year:

4.Lecture sessions

#	Lecture topics	Hours		
	The 8 th – semester			
1	Problems of perinatal and neonatal periods	2		
2	Intrauterine infections in infants	2		
3	Jaundice in infants	2		
	TOTAL:	6		

Lecture sessions are held in the classes equipped with multimedia devices for the flow of academic groups.

5. Practical training

No	Topics of practical training	Hours
	The 8 th – semester	
1	Physiology of infants. Situations reflecting the process of	4
	adaptation (limit, transient or physiological situations).	
	Principles of breastfeeding babies.	
2	A baby born with low body weight. Causes, morphological	6
	and functional signs of premature birth.	
3	Fetal hypoxia. Infant asphyxia. International criteria for	6
	resuscitation and intensive care.	
4	Jaundice syndrome in infants.	4
5	Intrauterine infections in infants.	4
6	Purulent skin diseases in infants.	6
	TOTAL:	30

Practical classes are held separately for each academic group in auditoriums equipped with multimedia devices. Classes are conducted using active and interactive methods, "Case-study" technology is used, the content of the cases is determined by the teacher. Visual materials and information are transmitted using multimedia devices. The clinical part of the practical training is conducted in the departments of the hospital and family polyclinic, specific to the topics.

6. Independent education

No	Topics	Hours		
The 8 th – semester				

1	Ethics and deontology in the work of a neonatologist	2
2	Diabetic fetopathy	2
3	Alcohol syndrome in newborns. Children of addicts	2
4	A hemorrhagic disease in newborns	2
5	Growth syndrome in newborns	2
6	Iatrogeny in neonatology	2
7	Sudden death syndrome in children	2
8	Infusion therapy and parenteral nutrition in children	2
9	Candidiasis in children _	2
	TOTAL	18

Independent study topics are mastered by students outside of the classroom and count toward current subject-specific assessments. Abstracts are prepared by students on topics to be learned independently and their presentation is organized.

Recommended educational and methodological resources for organizing independent education: manuals, literature, photographs, phantoms, dummies, simulators, equipment, charts, teaching and control tests, computer programs, clinical evening shifts for subjects, volunteering, working in simulation centers, etc

The following forms are used to organize a student's independent work:

- in addition to classroom training, practical skills confirmed in simulators, simulators and simulation halls/centers are performed under the supervision of a pedagogue in terms of quantity and quality and reflected in practical skills mastery notebooks;

- implementation of proven practical skills in the clinical duty organized outside the auditorium in medical higher educational institutions clinics and clinical training bases in terms of quantity and quality under the supervision of the doctor-pedagogue on duty and reflected in the duty notebooks;

- participating in patient care with the attending physician or nurse on duty;

- carrying out interviews and lectures on sanitary bleaching among the population;

- independent learning of some theoretical topics with the help of educational literature;

- preparation of information (abstract) on the given topic;

- work and lectures on special or scientific literature (monographs, articles) on sections or topics of the module;

- solving situational problems focused on situational and clinical problems;

- -study based on real clinical situations and clinical situations solving.

- making models, making crosswords, making organizers, etc.

Course work on science. Coursework in science is not planned in the model curriculum.

No	No. Name of practical skills		Necessary supplies (equipment)			
110	Ivanie of practical skins	Number	for performing practical skills			
	The 8 th	– semeste	r			
1	Breastfeeding techniques		manuals, literature, photographs,			
2	Nasogastric tube feeding in infants		phantoms, dummies, simulators,			
3	Unconditioned reflexes in infants		equipment, charts, instructional			
			and control tests, computer			
			programs, evening shifts for			
			clinical subjects, volunteering,			
			working in simulation centers,			
			etc.			

Practical skills

Algorithm of step-by-step implementation of practical skills:

1. Breastfeeding techniques

Ν	Actions	Complet	did not
0		ed	complete
1	Show how to hold the child correctly:	40	0
	- The head and body are straight		
	- The nose is like a pacifier.		
	- Face and body facing the chest.		
	- The body is close to the mother		
2	The child's mouth touches the pacifier	30	0
	Waiting for the child to open his mouth		
	Bring the baby to the breast quickly		
3	The child's mouth is wide open	30	0
	The lower lip bends down		
	The child should grasp the nipple and areola with his		
	mouth.		
	Total	100	0

2.Nasogastric tube feeding in infants

No	Actions	completed	did not
			complete
1	Clean the nose of the child, lay him on his back, turn	20	0
	his head to the side		
2	The probe is inserted through the nose or mouth	10	0

3	The probe is measured from the soft part of the ear	10	0
	to the wedge-shaped growth		
4	If there is an obstruction in the nose, the probe is	10	0
	inserted through the other nostril		
5	The probe is checked by opening the child's mouth	10	0
	when it is placed correctly		
6	The probe is fixed to the upper lip with a band- aid	10	0
7	The probe can be stored for 3-5 days	10	0
8	Gastric fluid is sucked with a syringe. (to check)	10	0
9	When the sucking reflex appears, the probe is	10	0
	removed		
	Total	100	0

3. Unconditioned reflexes in infants

No	Actions	completed	did not
			complete
1	Sucking reflex. makes rhythmic sucking movements	10	0
	while bringing the index finger and the plunger closer		
	to the lips		
2	Search reflex (Kusmual reflex) - when the corner of	10	0
	the mouth is touched, the lips drop down, take out the		
	tongue, and turn the head in the direction of the		
	stimulus. When the middle of the upper lip is pressed,		
	the lower jaw goes down		
3	Mouth-palm reflex (Babkina reflex)	10	0
	When the child is pressed with a finger on the palm,		
	the mouth opens and the head bends		
4	Grasping reflex. Occurs when the child presses on	10	0
	the hand. Sometimes the child can be lifted up by		
	holding the fingers tightly (Robinson's reflex). In		
	paresis of the hand, the reflex is weakened or does		
	not occur, in inhibited joints, the reflex is weakened		
	in excitable joints. The reflex is considered		
	physiological up to 3-4 months		
5	Khartoum reflex	10	0
	Hitting the lower lips with the fingers causes chapped		
	lips		
6	Crawling and spontaneous crawling reflex (Bauyer).	10	0
	The baby is placed on the stomach. In this case, he		
	performs crawling movements. If we touch the palm		

	of the foot, the child will push with his feet and crawling will increase		
7	Defense reflex. The reflector turns the head to the side when the child is placed on the stomach	10	0
8	Basal and automatic walking reflex. A newborn child is not ready to stand, but he can show the support reaction. If we hold the child vertically, he will bend his legs in all joints	10	0
9	Moro reflex Consists of 2 phases. Moro reflex phase I. The child opens his hand to the side, makes a fist. After a few seconds, the hands return to their previous position - Moro reflex phase II	10	0
10	Babinski's reflex - bending of the thumb and fan-like writing of the remaining fingers is observed when the finger makes a line-like movement along the outer surface of the foot	10	0
	Total	100	0

Assessment of student knowledge and control criteria Forms of current assessment (CA) of practical training in "Neonatology".

Grade Appropriate		Appropriati on (%) and in points	The student's level of knowledge		
	Excellent "5"	90 - 100	- the student makes independent conclusions and decisions, can think creatively, make independent observations, apply the acquired knowledge in practice, understand, know, express, tell the essence of the subject of "Neonatology" and imagine the subject of the subject have		
	good "4"	70 — 89.9	- the student conducts independent observation, can apply the acquired knowledge in practice, understands the essence of the subject of "Neonatology", knows, can express, tell and has an idea about the subject of the subject.		
	Satisfactory "3"	- the student can apply the acquired knowledge in practice, understands the essence of the subject of "Neonatology", knows, can express, tell and has an idea about the subject of the subject			

		- the student has not mastered the science
Are you satisfied « 2 »	0 — 59.9	program, does not understand the essence of the subject of "Neonatology" and has no idea about the subject of the science.

Changing the rating from a 5-point scale to a 100-point scale SCHEDULE						
5-point scale 100- scale		5-point scale	100- point scale		5-point scale	100-point scale
5.00 - 4.96	100	4.30 - 4.26	86		3.60 - 3.56	72
4.95 - 4.91	99	4.25 - 4.21	85		3.55 - 3.51	71
4.90 - 4.86	98	4.20 - 4.16	84		3.50 - 3.46	70
4.85 - 4.81	97	4.15 - 4.11	83		3.45 - 3.41	69
4.80 - 4.76	96	4,10-4,06	82		3,40 — 3,36	68
4,75 - 4,71	95	4,05 — 4,01	81		3,35 — 3,31	67
4,70 - 4,66	94	4,00 — 3,96	80		3,30 — 3,26	66
4,65 — 4,61	93	3,95 — 3,91	79		3,25 — 3,21	65
4,60 - 4,56	92	3,90 — 3,86	78		3,20 — 3,16	64
4,55 - 4,51	91	3.85 - 3.81	77		3,15 — 3,11	63
4.50 - 4.46	90	3.80 - 3.76	76		3.10 - 3.06	62
4.45 - 4.41	89	3.75 - 3.71	75		3.05 - 3.01	61
4.40 - 4.36	88	3.70 - 3.66	74		3.00	60
4.35 — 4.31	87	3.65 — 3.61	73		3,0 and less	60 and less

Type of control and assessment criteria

1. Control of students' knowledge is carried out by conducting current and final types of control . 5th-year treatment and medical pedagogy faculty students in "Neonatology" final control (OSKE) submits.

Conducting the final types of control, as well as evaluating students' knowledge, is carried out by a commission organized by the head of the relevant department.

The composition of the commission is formed from professors and teachers of relevant subjects and experts in the field.

2. The student's performance of practical, seminar, laboratory classes and independent educational assignments, as well as his activity in these classes, is evaluated by the science teacher.

3. The final control is conducted at the end of the subject in order to determine the level of mastering of theoretical knowledge and practical skills of the student in the relevant subject.

4. The type of final control is conducted according to the schedule of conducting types of final control developed by the educational and methodical

department and approved by the vice-rector for educational affairs.

5. The type of final control can be conducted in the form of an objective systematic clinical trial or an objective systematic examination.

7. Basic and additional educational literature and information sources

Main literature:

1. T. Gomella. Neonatology (English). M., 2005.

Additional literature:

 Basic newborn resuscitation, a practical guide. World health organization. 2000.
 The 5 minute pediatric consult. M. William Scwartz. Lippingcott Williams and Wilkins, 2004.

3. Handbook of Pediatric and neonatal Transport Medicine. Jaimovich and Videsagar. Hanley and Belfus INC/ Philadelphia, 2002.

Internet website:

1.www: pediatria.nm.ru;
 2. www: medline. ru;
 3. www: medlinks.ru
 4.www.minzdrav.uz;
 5.www.tma. uz
 6.www. Ziyonet;