

Module title:	Neonatology of dogs and cats	ECTS	2
Polish translation:	Neonatologia psów i kotów		
Course:	Veterinary medicine		

Module language:	English	Stage JM-FVM	
Form of studies	<input checked="" type="checkbox"/> intramural <input type="checkbox"/> extramural	Type of module: <input type="checkbox"/> basic <input checked="" type="checkbox"/> directional <input type="checkbox"/> mandatory <input checked="" type="checkbox"/> elective	Semester: 11 <input checked="" type="checkbox"/> winter semester <input type="checkbox"/> summer semester
Academic year:		2023-2024	Catalogue number: <b>FVM-V-JMSS-11W-ED24_23</b>

Module coordinator:	Prof. dr hab. Piotr Jurka		
Teachers responsible for the module:	Academic teachers of Institute of Veterinary Medicine, Department of Small Animal Diseases and Clinic. Doctoral students in accordance with the applicable internal legal act. Other specialists depending on the needs and possibilities.		
Unit responsible for the module:	Institute of Veterinary Medicine, Department of Small Animal Diseases		
Faculty in charge:	Faculty of Veterinary Medicine		
Objectives of the module:	<p>Acquaintance with the specifics of newborn physiology and basic problems of the neonatal period. Preparation for proper handling of newborn dogs and cats as well as for independent identification of problems and undertaking appropriate remedial actions in life-threatening situations of newborns. The main goal is to master theoretical knowledge and acquire practical skills related to neonatology of dogs and cats. The content of lectures is a supplement to the content of practical classes.</p> <p><b>Lecture topics: (each for 3 hours)</b></p> <ol style="list-style-type: none"> <li>Embryo and fetal development. Stages of maturation of the immune system. Impact of maternal immunity on the newborn's immune response.</li> <li>Development and maturation of the newborn's digestive system. Anatomical and functional characteristics</li> <li>Maturation of the respiratory system of a newborn. Anatomical and functional characteristics.</li> <li>Physiology of the newborn's excretory system. Diuresis regulation. Neonatal Proteinuria.</li> <li>Regulation of water and electrolyte metabolism of a newborn. Differences compared to adult animals.</li> <li>Adaptation of a newborn to the external environment. Physiological processes in the perinatal period.</li> <li>Differences in the values of physiological parameters between newborns and adults.</li> <li>Relationships between pathology of pregnant mothers and problems in newborns. The problem of a weak newborn and perinatal mortality.</li> </ol> <p><b>Topics of exercises: (each for 3 hours)</b></p> <ol style="list-style-type: none"> <li>Effect of perinatal disorders on the litter. Clinical examination of a puppy / kitten. APGAR score. Comparison of puppies within the litter. Birth weight assessment. Comparison of puppy / kitten parameters with mother's parameters.</li> <li>Treatments for puppies / kittens and intensive care. Intraperitoneal injections and intraosseous catheterization. Nutrition of puppies / kittens using a probe, syringe and by inserting an intragastric probe.</li> <li>Principles of antibiotic therapy, basic treatment and prevention in puppies / kittens.</li> <li>Diagnosis and treatment of the most common infectious and non-infectious diseases in puppies and kittens.</li> <li>Diagnosis and treatment of the most common pediatric diseases in dogs and cats.</li> </ol>		
Teaching forms, number of hours:	a) Lectures; number of hours - 15 b) Clinical exercises; number of hours - 15		
Teaching methods:	<p>The course is conducted in the form of lectures and practicals. Lectures in the form of original multimedia presentations, including practical and clinical aspects, practicals using biological material and patients of the Small Animal Clinic. During the classes students participate in care and treatment procedures. Multimedia teaching programs using the SEKTRA educational table are also used.</p> <p>According to an internally agreed schedule 1h / week, consultations outside the regular schedule. The manner of organizing consultations will be determined by the subject coordinator at the beginning of the semester.</p>		
Formal prerequisites and initial requirements:	Animal physiology, Clinical and laboratory diagnostics, Pathophysiology, Dog and cat diseases		
Learning outcomes:	<p><b>Knowledge:</b></p> <p>The student knows and understands;</p> <p>01 - fundamental differences in physiology and pathology between a newborn and an adult</p> <p>02- has knowledge about the care of a healthy and problematic newborn, correctly interprets the result of a clinical trial</p> <p>03- acquired knowledge about infectious and non-infectious agents, epidemiology, pathogenesis and diagnosis of puppy and kitten diseases</p> <p>04- knows the principles of antibiotic therapy in puppies and kittens and selects treatment accordingly</p>	<p><b>Skills:</b></p> <p>The student can;</p> <p>06 - assess the viability of the newborn, collect an interview and conduct a full clinical examination</p> <p>07 - give first aid to the weakened newborn and implements appropriate treatment</p> <p>08 - diagnose the most common diseases and malformations of newborn dogs and cats</p>	<p><b>Competences:</b></p> <p>The student is ready to;</p> <p>09 - assess the correctness of care for newborns in the farming facility</p> <p>10 - assess the patient's condition and choose the right treatment, being aware of own decisions</p> <p>11 - constantly deepen his/her knowledge and cooperate with other veterinarians</p>

	05-uses the correct medical nomenclature in relation to neonatology of puppies and kittens																
Assessment methods:	<p>Practical effects are verified during clinical classes on the basis of correctly performed veterinary activities under the supervision of the teacher. The correct performance of the activity is recorded as completed. The condition of joining the theoretical final credit is obtaining confirmation of the correct performance of the required practical activities (minimum two).</p> <p>Final exam is in the form of a single-choice test. The test consists of 60 questions with 4 proposed answers, covering the content of lectures and practicals.</p> <p>The student must obtain a minimum of 42 points from the test to pass the test.</p> <p><b>Scale of points from the test:</b></p> <table border="1"> <thead> <tr> <th>Number of points</th> <th>Grade</th> </tr> </thead> <tbody> <tr> <td>Below 42</td> <td>2 (failed)</td> </tr> <tr> <td>42-45</td> <td>3</td> </tr> <tr> <td>46-49</td> <td>3+</td> </tr> <tr> <td>50-53</td> <td>4</td> </tr> <tr> <td>54-57</td> <td>4+</td> </tr> <tr> <td>58- 60</td> <td>5</td> </tr> </tbody> </table> <p>Apart from the indicated methods of verification of learning outcomes (form, number) no additional are foreseen. In a situation of suspending classes at the University and the need for distance learning, other methods of verifying the learning outcomes will be implemented according to the situation.</p>			Number of points	Grade	Below 42	2 (failed)	42-45	3	46-49	3+	50-53	4	54-57	4+	58- 60	5
Number of points	Grade																
Below 42	2 (failed)																
42-45	3																
46-49	3+																
50-53	4																
54-57	4+																
58- 60	5																
Formal documentation of learning outcomes:	Entry into the eHMS system and documentation included in the 'Course Portfolio' (individual student assessment cards, attendance lists, question sets, student essays.																
Elements impelling final grade	Admission to final credit: Number of absences from classes in accordance with the study regulations as admission to the test + obtaining credit for practical activities (minimum two) Final grade: 100% final score																
Teaching base:	Teaching rooms, laboratory, clinic, including doctor's offices and operating theater																
Mandatory and supportive materials:	<p>1. England G. Heimendahl A.; BSAVA Manual of canine and feline reproduction and neonatology. England Gary, 2014 rok</p> <p>2. Skrzypczak W., Stefaniak T., Zabielski R. Newborns physiology with elements of pathophysiology. PWRiL, Warszawa 2011, 326 str.</p> <p>3. Mosenthin R., Zentek J., Żebrowska T.(ed.): Biology of Nutrition in Growing Animals. Elsevier, Edinburgh, London, New York, Oxford, Philadelphia, St. Louis, Sydney, Toronto 2006,</p>																
ANNOTATIONS	For reasons of health and safety at the operating theater in the Small Animal Clinic, the participants should wear medical long pants and sweatshirts or aprons with short (non-elbow-long sleeves) and have with them: a surgical mask and cap, changed footwear or shoe covers with flat heels.																

Quantitative summary of the module:

Estimated number of work hours per student (contact and self-study) essential to achieve presumed learning outcomes of the module - base for quantifying ECTS	<b>45 h</b>
Total ECTS points, accumulated by students during contact learning:	<b>2 ECTS</b>

Learning outcomes of the module relative to the learning outcomes of the subject:

Outcome category	Learning outcomes:	Learning outcomes relative to the course outcomes:	Impact on the course outcomes*
Knowledge – K1	knows and understands the fundamental differences in physiology and pathology between a newborn and an adult	B.W.1, B.W.2	3
Knowledge – K2	has knowledge about the care of a healthy and problematic newborn, correctly interprets the result of a clinical trial	B.W.2, B.W.3, B.W.5, B.W.6, B.W.9, B.W.11, B.W.13	3
Knowledge – K3	acquired knowledge about infectious and non-infectious agents, epidemiology, pathogenesis and diagnosis of puppy and kitten diseases	B.W.3, B.W.4, B.W.6	3
Knowledge – K4	knows the principles of antibiotic therapy and puppies and kittens and selects the appropriate treatment	B.W.3	3
Knowledge – K5	uses the correct medical nomenclature in relation to neonatology of puppies and kittens	B.W.4, B.W.6	3

Skills - S1	is able to assess the viability of the newborn, collect an interview and conduct a full clinical examination	B.U.1, B.U.2, B.U.3, B.U.5	3
Skills – S2	is able to give first aid to a weakened newborn and implement appropriate treatment	B.U.1,B.U.4,B.U.9,B.U.10, B.U.11,B.U.13,B.U.15	3
Skills – S3	is able to diagnose the most common health disorders and malformations of newborn pets	B.U.1,B.U.2,B.U.3,B.U.6, B.U.7,B.U.15	3
Competences – C1	Is ready to assess the proper care of newborns in the rearing facility	KS.1, K.S.2, K.S.3, K.S.4, K.S.5, K.S.7	2
Competences – C2	Is ready to assess the patient's condition and choose appropriate treatment, being aware of his decisions	K.S.1, KS.2, K.S.4, K.S.5	2
Competences – C3	Is aware of the need to constantly deepen his/her knowledge and to cooperate with other veterinarians	K.S.4, K.S.7 K.S.8, K.S.9	2