

Large Animal Neonatology and Intensive Care Medicine

Each spring the University of Pennsylvania, School of Veterinary Medicine offers a two week elective in Large Animal Neonatology and Intensive Care Medicine at the New Bolton Center campus. This clinical elective is open to veterinary students who have completed their preclinical training and who have a special interest in equine neonatology/perinatology and/or intensive care medicine. Consecutive two week rotations begin during the first week of March and continue through the first week of June. The course is coordinated by Dr. Jon Palmer, of the Section of Medicine. Course enrollment is limited. A list of rotation dates can be found the bottom of this course description. Students may elect 4 weeks of neonatology, if so desired.

Our case load includes intensive care neonates (primarily equine) and high risk pregnancy cases (equine, caprine, bovine). We also attend all dystocia births (equine, bovine, ovine, caprine, alpaca) and any other birth that occurs in the hospital. The NICU service only admits critical neonates exclusive of enteritis cases. The elective provides students experience managing these critically ill neonates and complicated pregnancies. Daily rounds emphasize normal physiology and pathophysiology of perinatal diseases, the use of monitoring equipment (e.g. capnography, ECG, BP monitor, fetal and neonatal ultrasonography) and various treatment modalities (e.g. oxygen therapy, parenteral nutrition, positive pressure ventilation, fluid therapy, inotrope/pressor therapy) required in the management of critical care neonates and late-term pregnancies. Students will have the opportunity to master some of the following manual and theoretical skills: arterial puncture, blood gas analysis, calculation and application of parenteral and enteral nutrition formulations, establishing and maintaining long term jugular catheters, bladder catheterization and closed urinary collection techniques, principles of fluid therapy as applied to patients with septic shock and patients requiring maintenance fluids, radiographic interpretation of neonatal thoracic disease and musculoskeletal disease, interpretation of fetal and neonatal sonograms, familiarity with various types of respiratory support therapy and resuscitation protocols, and a working knowledge of a wide variety of pharmacological agents including antimicrobials, anticonvulsives, sedatives, analgesics, pressors and inotropes.

Students responsibilities include presentation of NICU cases at rounds, performing patient treatments with the assistance of the NICU nursing staff, morning SOAP's on all assigned cases, frequent clinical assessment of their cases and assistance with diagnosis, treatment, intensive monitoring of neonates admitted during their after-hours emergency shifts and assistance with monitoring and delivery of high risk pregnancies. Students are scheduled on a rotating basis to assist with treatments every week day evening from 6 p.m. to 12 midnight and on weekends and holidays from 6 a.m. to 12 midnight with occasional duty between 12 midnight and 6 am when needed. Emergency duty is also assigned equitably on a rotating basis among the students. Care of the NICU case population is a team effort shared by fourth year students, NICU clinicians, nursing staff, nursing assistants, nursing students and foal sitters (2nd year students and volunteers).

Visiting students are provided with dormitory space at our New Bolton Center campus. Students are responsible for meals and all personal expenses. Limited cooking facilities are available. Dedicated footwear and scrubs are required.

Any students interested in participating in this elective can find online application materials at <http://www.vet.upenn.edu/EducationandTraining/StudentLife/Externships/tabid/315/Default.aspx>. Although I can answer general questions about the rotation and specifics about your life here at New Bolton Center, I cannot arrange scheduling. Only the Dean's Office can do that (contact externships@vet.upenn.edu)

Space is limited and all inquiries should be made as early as possible. Any questions regarding the elective itself or specific scheduling concerns should be directed to Dr. Jon Palmer, Chief, Neonatal Intensive Care Service, Director of Perinatal/Neonatal Intensive Care Programs at New Bolton Center (382 West Street Road, Kennett Square, PA 19348, jepalmer@vet.upenn.edu, 610-925-6412).

Spring '13: Rotation 21 Feb 25 – Mar 10, Rotation 22 Mar 11 - Mar 24, Rotation 23 Mar 25 - Apr 7, Rotation 24 Apr 8 - Apr 21, Rotation 25 Apr 22 - May 5, Rotation 1 May 6 - May 19, Rotation 2 May 20 - June 2