

An interactive, equine neurology case simulator to improve lesion localization and problem-solving skills.

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Analyzing neurologic symptoms and localizing lesions in the equine patient can be a daunting task for 4th year veterinary students and new graduates. Veterinary students entering the equine field often experience high levels of stress and concerns about limited clinical experience. The development and use of an interactive online virtual clinic in which students and new veterinarians can practice clinical equine neurology cases would provide a low stakes environment for users to revisit their knowledge of neuroanatomy and refine their problem-solving skills. The objectives of this project are to develop a variety of equine neurology cases and, in collaboration with the Veterinary Information Network (VIN)'s Virtual Clinic team, incorporate them into the existing online VIN Virtual Clinic. The simulator will utilize a branching scenario format, allowing the user to make their own choices in regard to gathering history, performing physical exams, ordering tests and diagnostics, determining a final diagnosis, and ultimately formulating a treatment plan. We plan to include interactive 3D models to simulate various components of the neurologic exam (e.g. pupillary light reflex) and neuroanatomy concepts (e.g. pathways of cranial nerves). Once this simulator is developed, we aim to conduct a study to determine the effect of engaging with this simulator on veterinary students' knowledge of neuroanatomy and confidence level as they enter their clinical rotations. We hope that the development of this equine neurology simulator will be effective in improving the competence and confidence of veterinary students and new veterinarians entering the equine field.

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