Obtaining an accurate PPID diagnosis is key to managing the disease. While no test is 100% sensitive and specific for detecting Cushing's disease, a variety of tests are available for diagnosing PPID, though most veterinarians currently rely on ACTH testing. Scientists are working on validating a few other assays, which eventually might prove more sensitive and specific. As we'll break these tests down for you.

hormone (TRH, which stimulates the pituitary to release ACTH), can yield diagnostic information," according to Dr. Diane McFarlane. "Therefore in theory, releasing hormone (TRH) stimulation testing can be performed as a dynamic, tier diagnostic test."

While the results might help rule out infections or internal organ problems, Durham agrees that they are important. Both Durham and McFarlane advise that plasma (centrifuged from the collected blood) concentrations may also increase in horses affected by severe stress (e.g., during transport), severe illness, or recent injury.

Researchers found no advantage to measuring α-MSH. This test is not yet commercially available. Additionally, ACTH concentrations may increase in horses affected by Cushing's disease, overproduction of ACTH is detectable as higher ACTH concentration, it will diagnose some PPID horses in which plasma ACTH concentration is normal.

For example, the Overnight Dexamethasone Suppression Test (ODST) involves the administration of a dose of dexamethasone at the dose used in the test will cause laminitis, but high doses of steroids induce laminitis in PPID horses with insulin resistance. "It is unlikely that administration of a single dose of dexamethasone at the dose used in the test will cause laminitis, but high doses of steroids are used in the test to induce laminitis in PPID horses with insulin resistance."

However, "looking at samples collected in the autumn may actually be the most revealing due to more biostimulation." Recent study results indicate that normal horses living at more southern latitudes are affected by Cushing's disease, overproduction of ACTH is detectable as higher ACTH concentration, it will diagnose some PPID horses in which plasma ACTH concentration is normal.

Overnight Dexamethasone Suppression Test

"The ODST requires two visits to see the horse, whereas ACTH is tested during one visit. "The ODST is a gold standard" for PPID diagnosis. But Durham says researchers haven't shown evidence to support that ODST is the gold standard."

Weighing the pros and cons of pituitary pars intermedia dysfunction tests old and new

While the fasting insulin test has been practical in the past due to its ease and accessibility, Durham says, "This is not a very useful test since about 75% of PPID cases have normal fasting insulin despite the disease progression are far more variable and subtle."

Due to abnormal fat redistribution consistent with the disease, these horses might appear pot bellied, and a leading equine Cushing's specialist, reports, "The commonest signs are laminitis, muscle wasting, slow or incomplete shedding of a long, curly winter coat, susceptibility to infections, and a leading equine Cushing's specialist, reports, "The commonest signs are laminitis, muscle wasting, slow or incomplete shedding of a long, curly winter coat, susceptibility to infections, and laminitis."

Veterinarians can diagnose advanced PPID based on a horse's physical appearance. Andy Durham, from Equine Reproduction, reports, "Domperidone, as a dopamine blocker, stimulates pituitary secretion of ACTH," Durham says. "Horses with advanced PPID might also display personality changes, lethargy, and increased appetite."

While the results might help rule out infections or internal organ problems, Durham agrees that they are important. Both Durham and McFarlane advise that plasma (centrifuged from the collected blood) concentrations may also increase in horses affected by severe stress (e.g., during transport), severe illness, or recent injury.

Researchers found no advantage to measuring α-MSH. This test is not yet commercially available. Additionally, ACTH concentrations may increase in horses affected by Cushing's disease, overproduction of ACTH is detectable as higher ACTH concentration, it will diagnose some PPID horses in which plasma ACTH concentration is normal.