



SAG 1, 5, 6™, C-reactive Protein, S. Fayeri, MPP/MP2 Test Results Interpretation

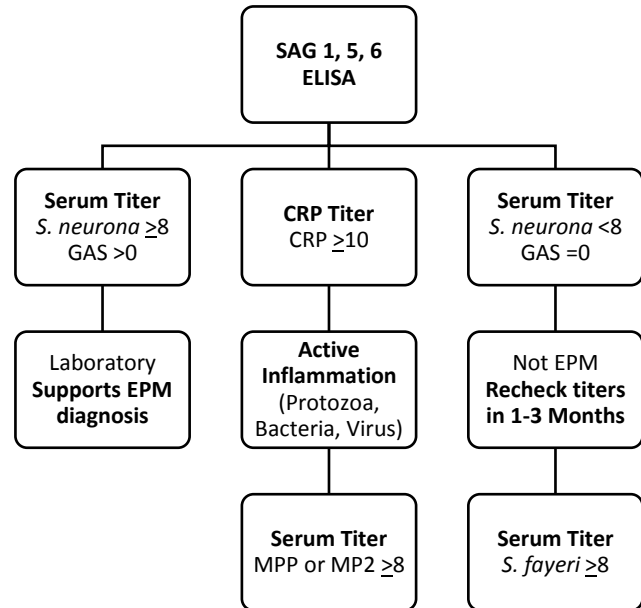
Instructions

- Please evaluate the horse at a walk and your normal manipulative procedures when examining a horse with neurological deficits. Place your score on the submission form. The GAS is used to evaluate your case and is required for test interpretation.

Gait Assessment Score (GAS)

GAS	Gait Evaluation
0	Normal, neurologic deficits not detected.
1	Neurologic deficits may be detectable at normal gaits; exacerbated with manipulative procedures (e.g., backing, turning in tight circles, walking with head elevation, etc.).
2	Neurological deficit obvious at normal gaits or posture; signs exacerbated with manipulative procedures.
3	Neurological deficit obvious at normal gaits; horses give the impression that they may fall (but do not) and buckle or fall with manipulative procedures.
4	Neurologic deficit is profound at normal gaits; horse frequently stumbles or trips and may fall and normal gaits when manipulative procedures are utilized.
5	Recumbent, unable to rise.

EPM Decision Tree



*Both SAG 1, 5, 6 and CRP is recommended to be tested to rule out EPM

SAG 1, 5, 6™ Interpretation (Sarcocystis neurona ELISA)

Serum titer	Due to <i>S. neurona</i>
Negative	2, 4: No current <i>S. neurona</i> infection.
Positive	8, 16, 32, 64: <i>S. neurona</i> antibody present. The time to seroconvert (turn negative) depends on the immune background of the animal. Recurrent infections result in titers that persist for up to 8 months.

Sarcocystis fayeri Interpretation (Sarcocystis fayeri ELISA)

Serum titer	Probability of <i>S. fayeri</i> infection
Negative	0, 4: No current <i>S. fayeri</i> infection.
Positive	8, 16, 32, 64: <i>S. fayeri</i> cysts are present in muscles. The toxins affect the neuromuscular system. Treatment includes long term protocoal drugs (for cysts).

C-reactive Protein Interpretation (CRP ELISA)

CRP titer	Inflammation due to active infection
<10	Normal.
≥10	Inflammation due to active infection.

MPP/MP2 Interpretation (Equine Myelin Protein ELISA)

Serum titer	Probability of MPP/MP2
Negative	0, 4: No anti myelin antibody.
Positive	8, 16, 32, 64: Antibody to myelin protein present. These antibodies inflame nerves and cause autoimmune polyneuritis.

Pathogenes Testing Options



The various tests we offer help you manage your suspect EPM case. Remember, there are no “EPM tests” because the disease *syndrome* is due to parasites and inflammation. The tests below are useful to define the cause of the signs, parasites or inflammation. If you are unsure what to submit after reviewing the following chart, select SAG 1, 5, 6. The sample is held for 6 months and additional tests can be ordered. You may call us for our suggestions.

TYPE OF TEST	WHAT WE MEASURE	WHEN TO USE THE TEST	HOW TO USE THE RESULT
SAG 1, 5, 6	Antibody to 3 <i>S. neurona</i> serotypes	1) Suspect EPM 2) 8-10 weeks after treatment	Antibody against <i>S. neurona</i> can suggest the signs are due to <i>S. neurona</i> infection. After treatment the antibodies should drop. The time to seroconvert (turn negative) depends on the immune background of the animal.
CRP	C-reactive protein concentration	Detect inflammation due to infection	1) Monitor inflammation that is sensitive to levamisole HCl treatment. The inciting cause must be remedied for the value to fall. 2) An elevated value with chronic, relapsing horse should trigger running MPP.
LYME SCREEN	Antibody to <i>Borrelia</i>	To rule in or out Lyme in the cause of disease	A negative value rules out Lyme. A positive value at 20 does not rule Lyme out, but the cause less likely due to <i>Borrelia</i> . A positive value at 40 indicates Lyme should be on the differential. Call for advice on confirmatory testing.
MPP	Antibody to myelin protein	Chronic, relapsing and unresponsive cases that show polyneuritis or encephalomyelitis. Sidewinding older horses.	A positive MPP test indicates there is an autoimmune component to the disease. In a levamisole responsive case it may be prudent to treat the autoimmune reaction and monitor the MPP semiannually. The MPP may indicate longer duration autoimmune disease.
MP2	Antibody to myelin protein	Chronic, relapsing and unresponsive cases that show polyneuritis or encephalomyelitis. Sidewinding older horses.	A positive MPP test indicates there is an autoimmune component to the disease. The MP2 can indicate earlier disease than the MPP test.
S. FAYERI TOXIN	Antibody to <i>Sarcocystis</i> toxin	Rule in or out toxin associated with sarcocyst stages that can cause ataxia and gut inflammation	A positive test indicates the horse has <i>S. fayeri</i> sarcocysts. Use this test when CRP remains high, with or without clinical signs, after treatment. The toxin affects the gut and treatment includes protocoical drugs (for cysts) and ulcer therapy.
NEOSPORAN. hughesi	Antibody to neospora	Antibody to <i>neospora hughesi</i> .	This is a study specific test and is used to enroll all horses into our FDA studies. We suggest for clinical use the serotype specific test is more useful.