

DIAGNOSIS of Pituitary Pars Intermedia Dysfunction (PPID)

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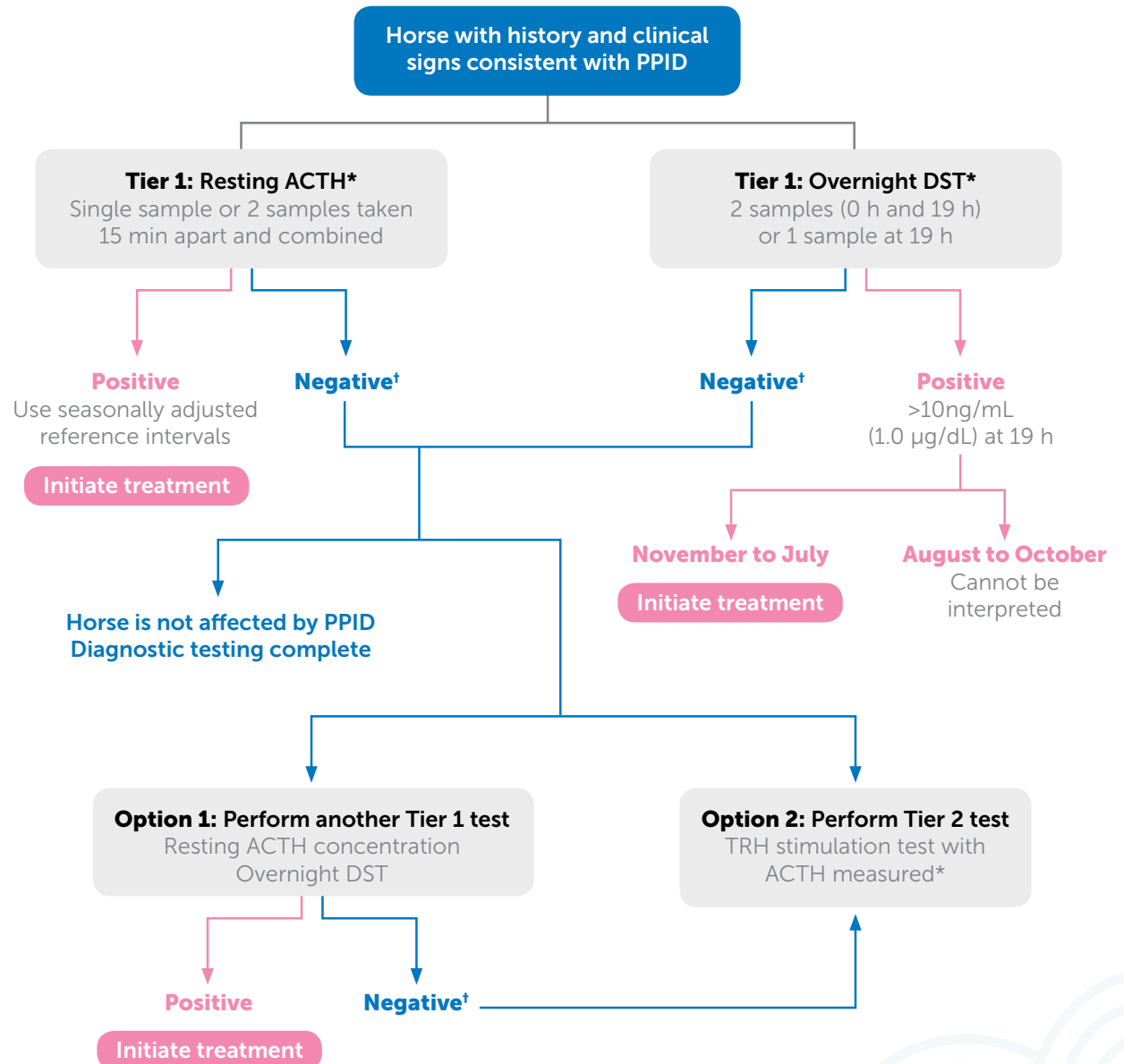
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ACTH= adrenocorticotropin hormone; DST= dexamethasone suppression test; TRH= thyrotropin-releasing hormone.
* See Tables 1 and 2 on reverse side.

† If clinical signs persist or progress, retest 6 to 12 months later or perform a Tier 2 test.

Table 1

Resting adrenocorticotropin hormone (ACTH) concentration test

Procedure

- Plastic tubes containing EDTA (purple top) recommended
- Collect at any time of the day
- Some clinicians collect 2 samples 15 min apart and submit both or pool equal amounts of plasma
- Keep samples cool (ice packs or refrigerator) at all times
- Centrifuge within 8 h
- Ship via overnight mail with ice packs
- Preservatives (eg, aprotinin) or freezing are not required
- Samples can be frozen

Assays used

Chemiluminescent assay

- Reference intervals provided below are for this assay

Radioimmunoassay

- Lower values are often obtained with these assays
- Use reference intervals provided by the testing laboratory

Interpretation of results*

Use reference intervals provided by the laboratory

November to July

≤ 29 pg/mL [†] ≤ 35 pg/mL [‡]	Negative
Above reference interval	Positive

August to October

≤ 47 pg/mL [†]	Negative
Above reference interval	Positive

EDTA=ethylenediaminetetraacetic acid.

* Note that resting ACTH concentrations are variable, so another sample should be submitted or an evocative test performed if the result falls close to the upper limit of reference interval (ie, equivocal).

[†] Liphook Equine Hospital (www.liphookequinehosp.co.uk/).

[‡] Cornell University Animal Health Diagnostic Laboratory (<http://ahdc.vet.cornell.edu/>).

Table 2

Overnight dexamethasone suppression test (DST)

Procedure

- A single cortisol measurement is adequate
- Veterinarian administers 0.04 mg/kg dexamethasone (20 mg for 500-kg horse) via intramuscular injection at approximately 5 PM
- Blood is collected into a tube without anticoagulant at noon (19 h) the next day
- Some clinicians prefer to measure cortisol concentrations at 0 h (pre-injection) and 19 h, although a single cortisol measurement at 19 h is adequate in most cases
- Allow blood to clot and then keep samples cool (ice packs or refrigerator)
- Centrifuge any time during work day
- Ship via overnight mail with ice packs
- Samples can be frozen

Assays used

Multiple assays available

- Most diagnostic laboratories currently use the cortisol radioimmunoassay

Interpretation of results

November to July

<10 ng/mL (1.0 µg/dL; 27 nmol/L)	Negative
>10 ng/mL	Positive

August to October

<10 ng/mL	Negative
>10 ng/mL	Positive or false positive (cannot be interpreted)