

Equine infectious anemia (EIA)

Extended Version

Classic case: Horse with recurrent fever, petechiae, anemia and edema

Presentation(s): **Acute**, **chronic** (recurrent febrile episodes), and **inapparent** carriers.

- Horses may exhibit mild or severe illness when first infected.
- If they do not die, they may suffer recurrent episodes of fever, malaise, petechiae, and edema,
-or-
- They may become inapparent carriers.

Three presentations of EIA

1. Acute

- Signs w/in 1-4 wks of
- Infection; Lasts ~1 wk
- Fever, anorexia
- Petechiae, edema
- mild ↓ platelets,
- mild ds → death

2. Chronic

- recurrent fever
- weight loss, cachexia
- petechiae, edema
- hemolytic anemia
- marked ↓ platelets
- death

3. Inapparent carrier

NO Signs

Other signs

- ataxia
- encephalomyelitis
- abortion
- immune-mediated
- lesions

Progression:

- First infected
 - Acute illness, can be mild or severe
 - Fever, transient anorexia
 - **Petechial hemorrhages**
 - Mild thrombocytopenia
 - Death
- If horse survives acute illness
 - Chronic episodes
 - Fever, malaise, edema
 - Hemolytic anemia
 - Marked thrombocytopenia
 - Petechial hemorrhages
 - Weight loss and cachexia
 - Gradual wasting disease
 - **Edema** and anemia
 - Subclinical or inapparent carriers
- Other syndromes/symptoms possible
 - Encephalomyelitis
 - Ataxia
 - Abortion
 - Immune-mediated lesions



*Petechial hemorrhages in a horse.
Photo courtesy of Dr. Erwin Pearson*



*Ventral edema in a horse.
Photo courtesy of Dr. Jennifer Adams*

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DDX:

- EIA can look like many other dzs, Coggins test is definitive
- EVA, , PH, AIHA, Immune-mediated thrombocytopenia
- Internal abscess, heart failure, Chronic liver disease,
- Neoplasia, Eq Ehrlichiosis (now-*Anaplasma phagocytophila*)

Test of choice: COGGINS (AGID) or ELISA

Rx of choice:

- None, carriers for life
- Often euthanized
- If not euthanized, quarantine in fly proof area > 200 meters from other horses

Prognosis:

Grave-infected for life. Most owners elect to euthanize

Prevention:

- EIA testing
- Eliminate or quarantine carriers
- Fly control

Pearls:

- **Spreads via biting insects (esp. horseflies & deerflies)**
- Lentivirus – Retroviridae family, related to HIV
- **Life-long disease** = life-long risk to other horses
- **REPORTABLE**



Healthy horses tested positive for EIA.
Photo courtesy of Kattivik



Biting insects, especially biting flies spread EIA
Photo courtesy of Sharadpunita

Refs: Blackwell's EQ 5 Minute Consult, 2nd Ed, pp. 408-9; Manual of Equine Emergencies, Orsini and Divers p.332; Merck Veterinary Manual 10th ed (online): Equine Infectious Anemia; The Center for Food Security & Public Health and Iowa State University.

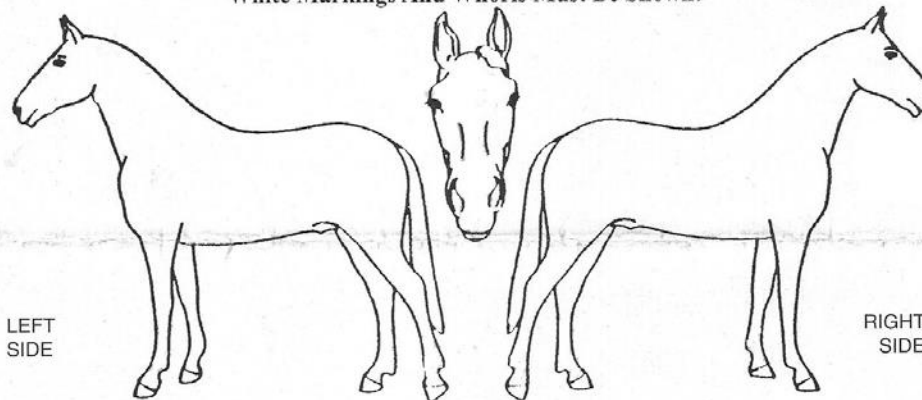
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EQUINE INFECTIOUS ANEMIA TEST RECORD

Print name and address legibly for window envelope use				I hereby certify that the blood specimen submitted with this form was drawn by me from the animal described below on the date indicated.			
Dr. _____				DATE BLED		SIGNATURE	
Address _____							
City _____		State _____		Zip _____			
Owner _____		Reason for Test:		Animal Stabled At _____			
Address _____		1. Clinical _____		Address _____			
Zip _____		2. Infected _____		County _____			
		3. Exposed _____		TOWN _____			
		4. Show _____		Farm No. (QBSP) _____			
		5. Sale _____					
		6. Routine _____					
		7. Other _____					
Phone _____							
TUBE NUMBER	NAME	COLOR	BREED	SEX* Check One	AGE	TEST RESULTS	
				S M G			

White Markings And Whorls Must Be Shown!



Date and condition of samples received _____

The result of the test for Equine Infectious Anemia on the above specimen is as indicated

Signature _____

Accession No. _____

WHITE COPY — VETERINARIAN
YELLOW COPY — OWNER
PINK COPY — FILE
GOLDENROD COPY — STATE VETERINARIAN

*Please Use Legend: S — Stallion/Male
M — Mare/Female
G — Gelding

Coggins test form