



# GAMMA CHECK®E

## RAPID FOAL-SIDE SCREENING FOR NEONATAL IgG

Foals are only capable of absorbing the large IgG antibody molecules through their gut wall for the first 12 hours of life. This ability gradually declines to zero over the next 6 hours, so it is important for them to suckle good quality colostrum before they are 12 hours old. After 16–24 hours of age, immunoglobulin supplementation must occur parenterally.

### WHEN TO TEST FOR IgG LEVELS

Newborn foals ingesting good quality colostrum usually have >800 mg IgG/dL by 4-8 hrs old. Early testing allows oral supplementation with colostrum or plasma. After 16-24 hrs of age, immunoglobulin supplementation must occur parenterally.

However, foals may be tested up to 48 hours of age to monitor their freedom from Failure of Passive Transfer (FPT) or Partial FPT. Consult flow chart overleaf.

### DIRECTIONS - WHOLE BLOOD (80% ACCURACY)

1. Add 1ml fresh whole blood to tube.
2. Invert tube to ensure mixing and note time.
3. Tilt tube every minute for 5 min. When blood no longer flows, invert tube and gently tap. The clot should remain firmly in place.
4. End point is formation of a firm clot. If this occurs in less than 5 min, the IgG is above 800mg/dL.

If a firm clot has formed in less than five minutes, the foal has IgG levels of 800mg/dL or greater. If not, consult the flow chart. A jelly-like clot that slips down the side of the tube is usually positive (OK), but should be retested using serum or a different test type such as the Equine RID.

**False Positive results** may occur with sick foals (due to elevated Fibrinogen), dehydrated foals or with hemolyzed samples. In these cases, repeat the GAMMA CHECK®E test using serum.

### DIRECTIONS - SERUM (FOR INCREASED ACCURACY OF 94%)

1. For samples clotting in >4 min with whole blood, collect blood into a red top tube. Allow to clot (30 min), then centrifuge and remove serum.
2. Add 1ml serum to a GAMMA CHECK®E tube.
3. Invert tube and note time.
4. Allow the tube to sit for 35 min.
5. Invert tube and gently tap. The clot should remain firmly in place.
6. End point is formation of a firm clot. If this occurs in 35 min or less, the IgG is above 800mg/dL.

(Despite previous whole blood result)

Retesting samples with serum reduces both false positive and false negative results.

### CAUTION

The glutaraldehyde reagent is caustic. If skin or eye contact occurs, wash with copious amount of water & consult physician. Do not leave tubes in hot sun or vehicle.

### STORAGE

Refrigerate between 2-8°C  
Do not freeze.

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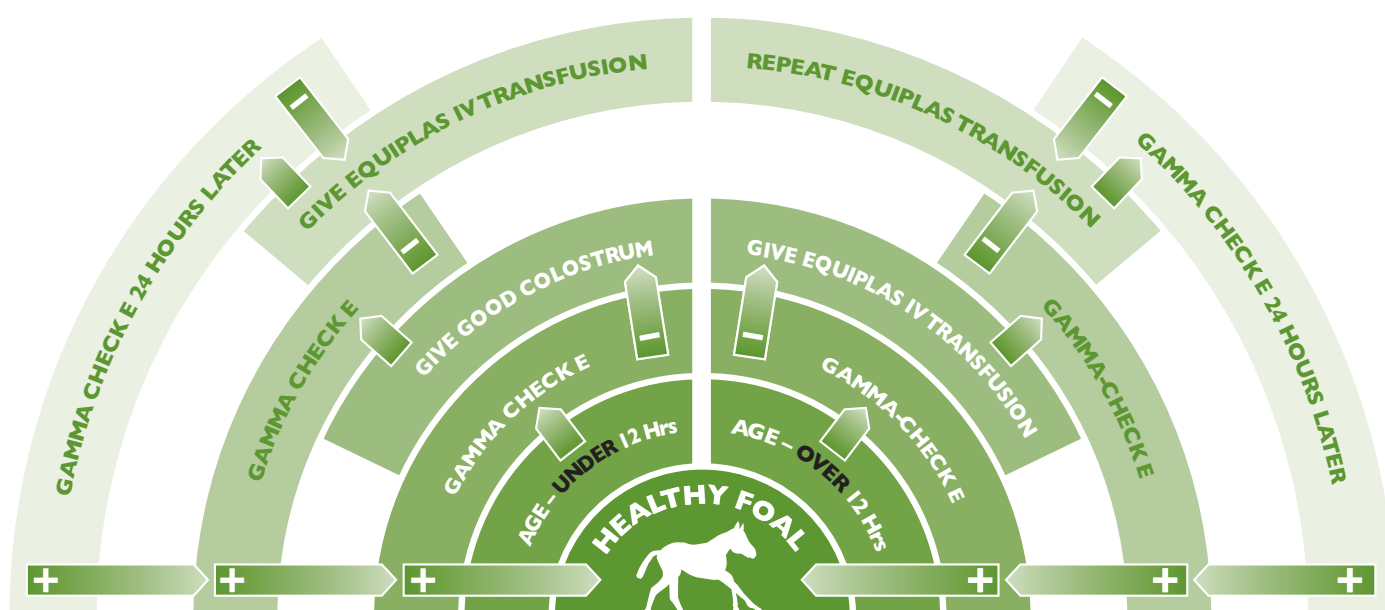
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# GUIDE TO DIAGNOSIS AND TREATMENT OF FAILURE OF PASSIVE TRANSFER

1. Because foals that nurse good quality colostrum in their first 12 hours should have an IgG level of over 800mg/dL the level should ideally be checked at about this age. This can be accomplished in 5 minutes at the foal's side using the GAMMA CHECK®E utilizing whole blood.
2. Foals with a negative or low (no clot formation in allotted time) GAMMA CHECK®E reading at less than 12 hours old, should be given good quality colostrum as soon as possible.



3. Foals older than 12 hours, with a low or negative GAMMA CHECK®E reading, should be transfused with one unit of EQUIPLAS® initially, over a period of approximately 15 minutes. Transfusion reactions are rare with properly prepared commercial plasma given to normal foals. However, compromised foals should receive plasma at a much slower rate (1–2 hours) to avoid volume overload. Signs of this would be increased heart rate and trembling — slow or stop transfusion and restart when signs disappear.
4. EQUIPLAS® should always be transfused from its original bag and should not be mixed with any other drug/substance. Thawing instructions should be followed exactly.
5. Always transfuse with a filtered blood giving set with a 200 micron filter in the drip chamber.
6. Thawed product must be used within 21 days. Do not refreeze thawed product. Store thawed product under refrigeration at 2-4°C.
7. When kept frozen, EQUIPLAS® has a 3 year shelf life from the date of manufacture.