Update on the AAEP
Prescription for Racing Reform

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Prescription for Racing Reform

10-point plan was developed in 2015 to protect the health and welfare of the racehorse and help ensure the long-term viability of U.S. racing.
#1: Continue support of National Uniform Medication Program in all U.S. racing jurisdictions.
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#2: Ban the use of anabolic steroids in training.
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#3: Restrict the administration of NSAIDs to 48 hours before racing.
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#4: Pursue uniform regulations for compounded medications.
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#5:
Support implementation of effective security measures to enforce medication rules.
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#6: Support tougher sanctions for rules violators.
#7: Support the implementation of a national uniform program for out-of-competition testing.
#8: Create national uniform procedures for veterinarian’s list reciprocity.
#9: Investigate alternative management strategies for EIPH with the intent to eliminate race-day medication.
#10:
When successful in finding a non-race day alternative as efficacious as furosemide, AAEP will support the elimination of race-day medication.
The EIPH Dilemma

Use of furosemide (Salix) to help prevent pulmonary hemorrhage VS. Goal of no medication on race day.
Nine research panelists examined the following topics:

- Epidemiology
- Vascular physiology
- Venous remodeling
- Cardiology
- Regional blood flow
- Efficacy of furosemide
- Regenerative medicine
EIPH Research Panel Goals

1. Propose and prioritize research that advances the understanding of EIPH in horses.

2. Propose and prioritize research that advances prevention and management of EIPH.

Our Current Knowledge of EIPH

• All horses undergoing acute intensive exercise experience EIPH.

• 50-60% of racehorses have EIPH (based on endoscopy).

• Horses with >grade 2 EIPH have decreased performance.
Our Current Knowledge of EIPH

- Salix decreases the severity of EIPH.
- 95% of thoroughbreds race on Salix.
Our Current Knowledge of EIPH

- EIPH is the result of physiologic response involving the heart and lungs.
- The heart pumps 500 liters per minute (132 gallons).
- Air flow is 60-70 liters per second.
Our Current Knowledge of EIPH

- Heart overload during strenuous exercise increases back pressure into the lung’s blood vessels.

- The increased pressure in the lung’s vessels and the decreased pressure in the lung airways causes capillary rupture.
EIPH’s Impact on the Lungs

- Lung inflammation
- Lung fibrosis
- Pulmonary vessel scarring
- Permanent damage
Current Grayson-Jockey Club Research Foundation
EIPH Projects

• Research conducted in two studies one by Dr. Warwick Bayly (WSU) and one by Dr. Heather Knych (UCD).

• Both projects are evaluating Salix administration 24-hours prior to exercise.

• Horses in these studies have a history of EIPH.

• Evaluation on a treadmill and at racetracks.

• Based on preliminary data which suggests Salix administration 24 hours prior to racing decreases EIPH.
Research Supporters

- AAEP Foundation
- Churchill Downs
- Del Mar Thoroughbred Club
- Keeneland Association
- Kentucky Downs
- NYRA
- Oaklawn Park
- Oak Tree Racing Association
- The Stronach Group
- Thoroughbred Horsemen's Association
Preliminary Results from GJCRF Projects

• WSU study includes 5 treatments: a control (no treatment), 2 different doses of Salix 24 hours before exercise and restricted water with and without Salix.
• Restricted water did not affect EIPH severity compared to controls.
• A statistical analysis has yet to be completed on the remaining trials.
Preliminary Results from GJCRF Projects

• Phase 1: Selected two treatments which appeared to be the most beneficial
• Phase 2: These two treatments will be tested during match races at Washington State University racetrack.
• Phase 3: The treatment with most potential will be tested in simulated races at Emerald Downs.
Preliminary Results from GJCRF Projects

• UCD study is a direct comparison between control horses and horses administered Salix at 4 and 24 hours prior to exercise at race speeds.
• Phase 1: 8 of 15 horses have completed this phase on the treadmill.
• Phase 2: 15 horses will be tested in simulated races.
AAEP EIPH Panel Recommendations for Future Research Projects

• Evaluate the release of cytokines during exercise and the effect with and without Salix.

• Decrease blood volume during exercise to determine if cardiac overload increases pulmonary vein pressure.
AAEP EIPH Panel Recommendations for Future Research Projects

- Test the effectiveness of nasal strips in mitigating EIPH.
- Examine the difference in blood vessel response to exercise in raced and unraced horses.
- Determine amount of EIPH during training.
AAEP EIPH Panel Recommendations for Future Research Projects

- Develop biomarkers for lung inflammation from EIPH.
- Assess stem cell potential to decrease inflammation and repair damage from EIPH.

Source: Harvard Gazette July 2013
Next Steps

• AAEP to continue collaboration with GJCRF on EIPH research.
• Speak to the industry about the need for EIPH research.
• Develop an EIPH research consortium to increase research collaboration.
• Seek additional financial resources for research.
• Continue scientific rigor in evaluating research proposals.
Collaboration Leads to Success