

Management of EIPH Questionnaire Sent to Foreign Racing Authorities

Respondents:

Australia
Austria
Bahrain
Cyprus
France
Germany
Hong Kong
Japan
Macau
Malaysia
Singapore
UAE
Uruguay

As you may be aware, the United States horse racing industry is undertaking a thorough evaluation of the use of medications on race-day. To that end, the Racing Medication and Testing Consortium (RMTC), National Thoroughbred Racing Association (NTRA) and American Association of Equine Practitioners (AAEP) are organizing an international summit on June 13-14, 2011 in New York City to address race-day medication, including the race day use of medications to treat Exercise-Induced Pulmonary Hemorrhage (EIPH) in race horses.

As part of a plan to compile and share as much data as possible with summit attendees and others, we are seeking relevant information about how other countries manage EIPH. Specifically, we are seeking the following information:

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?
2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH.
3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually.
4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Does it impact field size? Incidents of injury? Health of the horse?
5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?
6. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

We are seeking responses to these questions by Thursday, May 12, 2011. Thank you in advance for your time and willingness to contribute material to this important summit.

Australia

Respondent: Alan Brown, Racing Chairman, Racing NSW, Australia

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

Bleeders are horses showing bilateral epistaxis, whether at trackwork, official trials or as a result of racing. Stand down periods are specified in Rule AR.53A below. Horses showing a second episode of epistaxis are barred for life.

“AR.53A.

- (1) An attack of bleeding shall be the appearance of blood at both nostrils, irrespective of quantity, unless in the opinion of the Stewards such bleeding was caused by external trauma.
- (2) If a horse suffers an attack of bleeding at any time the fact of such bleeding shall be reported by the trainer without delay to the Stewards.
- (3) If any Principal Racing Authority advises in writing that any horse has suffered an attack or attacks of bleeding such advise should be prima facie evidence that such a horse has suffered an attack or attacks of bleeding.
- (4) A horse which has in the opinion of the Stewards suffered an attack of bleeding shall not without permission of the Stewards:
 - (a) Be trained, exercised or galloped on any racecourse for a period of two months thereafter;
 - (b) Start in any race for a period of three months, and then only after a satisfactory gallop of at least 1,000 metres in the presence of a Steward.
- (5) If a horse suffers more than one attack of bleeding such a horse shall be ineligible to start in any race.
- (6) If a horse displays blood at one nostril, the trainer shall without delay report such occurrence to the Stewards.
- (7) Unless the Stewards are satisfied that the presence of blood provided for in subrule (6) was attributable to external trauma, the horse shall before racing again be required to undergo a satisfactory gallop of at least 1,000 metres in the presence of a Steward.”

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

Australia's approach to the control of "prohibited substances" and the Rules governing same are closely aligned to the principles of Article 6 of the International Agreement.

Pre-race furosemide on race day is not permitted in Australia. A screening limit of 50ng/ml would apply, with a detection period of approximately 48 hours. Infringement would lead to a fine/suspension/disqualification for the trainer, depending on the circumstances of the administration, and disqualification of the horse from its race. Other therapeutic medications for EIPH (eg, aminocaproic acid) are not permitted, and should not be detected in race day samples.

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction's rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

Approximately 1% of horses racing in Australia will suffer bilateral epistaxis, thereby defining them as bleeders according to our Rules. This represents approximately 123 horses per year in the state of New South Wales (NSW). Approximately 0.2% of horses racing will bleed for a second time, equating to around 23 horses per year in the state of New South Wales that are permanently lost to racing. No estimate is available regarding horses that might be voluntarily retired as a result of bleeding.

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

Our regulations do not have any significant adverse impact on our racing, and does not appear to impact on wagering.

Bleeding episodes are reported to the public via the Stewards' Reports for each race meeting held and are published monthly in the Racing NSW Industry Magazine.

There is no significant impact on field size, and furosemide-free racing is better for the health of the horse, particularly in our hot climate.

There are approximately 10,900 racehorses in NSW.

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

Trainers and vets occasionally administer furosemide to susceptible horses prior to fast work during training. Other therapies are sometimes used during training, eg, vitamin C, bioflavonoids, bronchodilators, none of which can be used on race day or be detectable on race day.

Trainers often modify the intensity of training to reduce repeated lung injury and carefully map the racing program of susceptible horses to reduce the likelihood of epistaxis in training and racing.

There is very little if any objective scientific data to demonstrate efficacy of treatments and training regimes in managing EIPH.

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

Approximately two race meetings of 7 - 8 races each are programmed daily in NSW but spread over a large geographical area. A few extra meetings will be staged on Saturdays. On average a

horse will have 5 to 6 race starts in a campaign with races spaced average 12 to 20 days apart, then spell (rest) for six to twelve weeks before returning to the stable.

There is evidence of a lesser incidence of lower airway disease in Australian stables due to environmental/climatic issues (stables better ventilated than many Nth American barns, eg) thereby reducing the propensity for EIPH.

Unsure of influence of breeding – Australia has an increasingly international approach to breeding, with a large number of shuttle stallions from the Northern Hemisphere covering local mares each year.

7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

Australian thoroughbred racing has never seriously contemplated the pre-race administration of furosemide due to integrity and welfare concerns about its use in that fashion, as well as the enormous costs that would be involved in effectively regulating a pre-race furosemide program. Our owners, breeders and trainers have never lobbied for its introduction. In a survey of stakeholders in response to the Hinchcliffe et al JAVMA paper of 2009, there was no inclination to consider the introduction of pre-race furosemide due to concerns about the possible heritability of predisposition for EIPH, and possible adverse impacts on the long-term durability of the breed, as well as the adverse perception within the broader community about race day medication in general.

Austria

Respondent: Dr. Isabella Copar, Chief Veterinarian/Chief Executive, Austrian Racehorse Owners Club

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

Austria does not have a special law for bleeders, it happens so rarely, that we have decided to follow each single case separately. The second point is, that 58% of starters are from foreign countries and that’s difficult to judge. There was one horse in the last 7 years, who was known as a bleeder and he stopped racing due to poor performance.

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

If a veterinarian decides to order Furosemide or any other medication during training it has to be documented in a special Medication Book, no matter for what reason. We do not publish any detection times. The horse has to be clean, when racing.

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction’s rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

None / no

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

We just have about 250 horses in our jurisdiction and there is nothing reported to the public about bleeders.

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

We just have 12 race days / year at the moment! Bleeding is not a problem in Austria.

7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

After my personal opinion as a veterinarian for race horses and in the medication control system of Austria for 15 years now, the official use of Furosemide created the problem. Especially stallions should have a performance without medication before covering 100 mares or more a year, because for sure there is a genetic part on EIPH, too!

The plan has to be: racing without Furosemide!

Bahrain

Respondent: Dr. Ricardo Penso Rios

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

Bleeder is a horse that bleeds through the nostrils after a hard training or a race.

Bleeding episode can occur during rest or after exercise, it can be originated at the nasal mucosa, ethmoid areas, guttural pouches, pharynx, larynx and lungs.

Epistaxis can be detected by the human eye, endoscopic detected bleeding only using the endoscope.

First Time Bleeding: Thirty Days Suspension.

Second Time Bleeding: Sixty Days suspension.

Third Time Bleeding: The rest of the season suspended.

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

No racing or pre-racing medication allowed.

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction’s rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

We have an average of 10 horses with eiph detected checking the horse after the races by direct observation (eye exam) out of this 10 cases 2 recur and were banned from racing.

No information about horses voluntarily retired because of bleeding.

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

Yes this regulations impact racing because I am pretty sure that the number of bleeders is higher and is my opinion if medication for eiph is allowed this horses can be saved for racing.

Bleeding episodes are not reported to the public.

Wagering or betting is not allowed in Bahrain.

Incidents of injury are fearly low in the race track, despite of the enviromental and climatic situation our horses are in very good health status.

Approximately 270 racing horses in training.

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

The ways in which trainers and veterinarians attempt to manage eiph belongs to the secrecy of each stable, I am the official veterinarian of the race track and have no access to that information.

Some people try with less hard training, combining swimming with track work, others with special diet the day before and the day after racing but there is no scientific support for it.

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

The Racing Season goes from late October to end of April.

Yes we have a very hot and humid climate also a very dusty and sunny environment and I think this must have and influence in the increase of the EIPH cases.

7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

Through the years this has been a very complicated subject, since the times of Dr. Rooney and Dr. Cook till now with all the medical and technical advances and still is not completely clear.

One point that I think is very important is that we have to convince some trainers that excessive training with lack of conditioning are increasing the number of EIPH cases and injuries, also the abuse of the use of indiscriminate and illegal medication are the worst enemies of the horse racing industry.

Cyprus

1. Cyprus Turf Club rules of racing does not define what constitutes a “bleeder” and “bleeding episode”. Also we do not differentiate between epistaxis and endoscopic bleeding. Horses who have a nose bleed after a race are immediately classified as bleeders by the Veterinary surgeon of the race day. In such cases the horse is not allowed to race for a period of 2 months.

There may be horses that bleed after the race is finished and are already in the stables where nobody declares the incident.

2. Furosemide is used as a therapeutic medication. The withdrawal period is 15 days prior to the race, so its use is limited.
3. In Cyprus 90 -100 horses race in every meeting (race day) on average, with one case of bleeder per meeting so statistically we have approximately 1% of bleeders.

Based on this percentage, we estimate that owners voluntarily retire their horses because of bleeding, thus making it difficult for us to give you an exact number.

4. Bleeding episodes are reported to the public by the racing stewards on the day of the meeting. The name of the horse is announced right after the race is finished. In our opinion bleeding doesn't impact wagering, but there is definitely an impact on the horses' health.
5. On race days treatments for nose bleeding are not allowed with or without drugs, so no alternative methods are developed.
6. There are approximately 1,500 racing horses in our jurisdiction.

France

Respondent: France Gallop

It is very difficult to answer your question, as in France the problem is faced in a totally different way.

There is no possibility to use medication at the racing time due to the policy, the rules of racing and the enforced medication control. You probably know that all prohibited substance must be eliminated not only at the time of the race, but 2 days before, at the time of the declaration of the runners.

As the number of controls is very high and the laboratory performances are quite good for years and years, people don't try to maintain in competition the horses which bleed severely.

As far as this kind of horses can't reach a high level of performances, they haven't a prominent place in breeding and the selection plays its role: pushing beside the horses which have no real interest.

Because it is not a major issue, we have no special policy in this matter and we consider this pathology nearly at the same level as many other pathologies like osteoarticular diseases, tendonitis, gastric ulcers, osteochondrosis...

To know how many horses have EIPH, we should have carried out a systematic endoscopic examination 1 hour after racing, and it isn't the case.

Some French vets have scoped horses after a bad performance: the result is we can very often find some blood in the deeper lung, but they think it isn't systematically the cause of the counter performance. When a horse bled a lot, it is of course a major cause of counter performance.

It is highlighted that the incidence of bleeding is higher in jump races, especially at good level, but the Auteuil racecourse vet says that they face only 3 or 4 horses with a visible nasal haemorrhages by year.

When this situation happens, the trainer requests an anti-haemorrhage treatment, and the vet uses Etamsylate, or Clenbuterol IV.

Our vets think that a symptomatic treatment isn't really efficient: the normal way is to find the cause which is seated in a laryngeal pathology or soft palate disease or in a chronic bronchitis and an old rhodococose.... or in a polluted atmosphere or ...

A part of these cases can be ameliorated by surgical or medical treatment or by a better environmental control.

No treatment is accepted at the racing time, the trainer may only treat the horse during the training period and improve the quality of its care. If the horse, correctly kept and trained, is able to perform correctly, it stays in competition, if not the horse retired.

When a horse is found to have bled, there is no special requirement from France Galop. We only require a vet examination to confirm that a horse is fit to race when it has had a circulatory collapse during or after a race.

We have had in 2010:

	Total France	Flat	Jump
Horses in training	10 630		
Starts	77 304	54 575	22 729
Races	6 986	4 776	2 210
Horses which have won in flat and jump	4 625	Only in flat 3 187	Only in jump 1 512
horses were placed but no win		in flat 4 064	in jump 2 385
Horses have had no win and no place		in flat 3651	In jump 1711

Germany

Respondent: Rudiger Schmanns

1. How does your jurisdiction define what constitutes a "bleeder" and "bleeding episode?" Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

None

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

None, no treatment is allowed as it is DOPING

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction's rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

See above

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

See above

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

EIPH is not allowed, the horses should be banned for breeding purposes and nothing is allowed as Medication is Doping

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

None

7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

None, healthy and sound horses (breeding and racing) do not need any medication!!
Ill horses (EIPH) do not belong into racing competition!!

Hong Kong

Respondent: Hong Kong Jockey Club

Q1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

A1. (a) Official Bleeders

The Club defines an **Official ‘Bleeder’** to be a horse that displays the presence of blood of pulmonary origin at the nostrils after racing or training.

Official Bleeders are banned from racing for a period of three months and must pass an official veterinary examination prior to resuming racing.

A horse which suffers a second official bleeding incident will be banned from racing for three months and will be subjected to a regulatory review. If, in the opinion of the Club’s regulatory veterinarian, the horse may be a potential danger to itself or other competitors or if there are particular welfare concerns, a recommendation may be made to retire the horse from racing.

If a horse suffers a third official bleeding incident, it will be compulsorily retired from racing.

(b) “Substantial Quantity of Blood in the Trachea”

The Club also subjects all horses that, in the opinion of the Stipendiary Stewards, return racing performances that are below expectations or which show signs of ‘fading’ in running or other signs of stress to a veterinary examination which includes and endoscopic examination of the upper respiratory tract.

Horses that are scoped within a few minutes of the completion of the race and show Grade 3 or Grade 4 in the trachea, but with no blood present at the nostrils are reported to have a **'substantial quantity of blood in the trachea'**, must undergo an official veterinary examination, including a track gallop and are restricted from entering to race for a period of at least two weeks.

Q2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

A2. Furosemide is not permitted in racing or training and is not a component of EIPH management.

Q3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction's rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

A3. Over a five year period from 2005 to 2010 an average of **42** official 'bleeding' incidents occurred each racing season. This was **0.50%** of all runners and an incidence of **~5 per 1,000 runners**.

Over the same five year period an average of **54** 'substantial quantity of blood in the trachea' incidents occurred each racing season which was **0.60%** of all runners and an incidence of **~ 6 per 1,000 runners**.

Over the same five year period an average of **13** horses were compulsorily retired each racing season because of multiple official 'bleeding' incidents. This represented **3.7%** of all retirements from racing and **0.9%** of the entire racing population.

Over the same five year period an average of **22** horses were voluntarily retired because of a combination of EIPHS related problems and disappointing racing performances, which was **1.5%** of the entire racing population.

- Q4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?
- A4. Both official 'bleeding' incidents and incidents of the detection of 'substantial quantities of blood in the trachea' are reported to the Stipendiary Stewards and the public. These reports are regarded as useful and important in explaining racing performances that are below expectations.

Reports of both 'Bleeding' and 'Substantial quantity of blood in the trachea' are noted in the Stipendiary Stewards reports, in the horse's veterinary highlights record published on the Club website and in newspaper form guides.

"Bleeding" incidents are noted in the daily Race Fields guides.

Regulation appears to have no significant effect on field size.

There is no significant evidence of any impact of EIPHS on injury although catastrophic bleeding incidents which result in the collapse of horse occur in about one in 20,000 runners and often occurs in horses with no history of bleeding of EIPHS.

I doubt that bleeding has a significant effect on wagering except that punters may allocate an "unreliability" factor to known 'Bleeder' / EIPHS horse. Hong Kong ranks number one in the world in average wagering per race.

There is no evidence of any effect of **low grade** EIPHS on the health or longevity of Hong Kong racehorses.

Chronic 'Bleeders' are culled from the racing population and, when subjected to post-mortem examination have shown signs of chronic discolouration, angiogenesis and fibrosis in areas of the dorsal lung.

Chronic EIPHS horses tend to be voluntarily retired from the racing population because of relatively poor racing performances.

The racehorse population in Hong Kong is about 1,200.

The main impact of "Bleeding" regulation is on the compulsory retirement of racehorses which may have significant consequences for individual owners and trainers.

Q5i. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication?

A5i. (a) Careful preparation of horses pre-race

- Close monitoring of horses by regular bronchoscopic examinations during work in training.
- Prompt treatment of horses identified with inflammatory airway disease during training and advice to reduce the level of work while inflammation persists.
- Correction of any physical abnormalities in the upper respiratory tract that are likely to impede free flow of air.

- Reduce the risk of injury to the lungs that may predispose to EIPH:
 - Reduce workload on hard ground.
 - Treat horses that suffer EIPH with corticosteroids (to reduce fibrosis of the lung tissue), clenbuterol and dembrexine (to improve ejection of mucus from the airways and reduce air pressures in the lungs).
- Consider reducing workloads on days when the weather undergoes a dramatic shift (particularly when there is sudden drop in temperature or increase in humidity).
- Focus on stable hygiene to reduce levels of dust and other airborne contaminants likely to inflame the horse's airway.
- Use of herbal supplements that claim to protect and/or hasten repair of lung tissue – unproven.

Q5ii. Specify any permitted treatments developed for that purpose.

A5ii. There are no medications that are permitted to be used on race day and there is a pre-race ban on some herbal substances that make claims relating to enhanced performance.

Q5iii. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

A5iii. We have no data that has been analysed in a scientifically robust manner to comment on the efficacy of herbal supplements or, even, different treatment strategies leading up to a race.

Q6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

A6. The racing calendar is early September through mid-July, with a government-mandated blackout period from July 16 through August 31 while children are on school vacation. We do adhere to a "Racing in Hot Weather" policy with Wet Globe Bulb temperature monitoring and by taking preventive measures through the installation of misting fans and sending horses to the track later

than the normal time. We will abandon racing if the weather is deemed too hot and unsafe for horses and jockeys.

- Q7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.
- A7. The Hong Kong training environment is quite tough on racehorses and especially on the horse's respiratory tracts.

Air pollution is a significant problem. Horse must be stabled in air-conditioned stables. The weather is hot and very humid for a significant proportion of the year but is also subject to sudden changes with cold, dry weather developing very quickly at the start of winter. The sudden change to cold, dry condition is often associated with an increase in the incidence of 'Bleeding', possibly due to cold induced broncho-constriction.

Japan

Respondent: Takahiro Kato, Technical Advisor, International Department, Japan Racing Association

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

Definition of bleeder: Bleeders: presence of blood(pulmonary origin) from the nostrils after racing Do you differentiate between epistaxis and endoscopic bleeding?→Yes.
Unless there is apparent visible trauma, we conduct endoscopic examination to differentiate EIPH and trauma related epistaxis.
Mandatory rest periods:

1st incident: Compulsory ban from racing for 1 month
2nd incident: Compulsory ban from racing for 2 months
3rd incident or more: Compulsory ban from racing for 3 months

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

Specific rules

There is no specific rules regarding medication limited to EIPH management. However, for the horses given furosemide (which is categorized as prohibited substances), it will be banned from race for 10 days according to 'Matters to be instructed by veterinary officers '
Other than that, all horses can not be treated from the day before racing.

'Matters to be instructed by veterinary officers '

<http://japanracing.jp/en/information/jra-rules/veterinary.html#c01>

2. When a prohibited drug other than anabolic steroids has been used for a racehorse managed by themselves, trainers may not make a declaration to start in any race held within 10 days counting from the date on which said substance was last used.

(Treatment From the Day Before a Race)

Art. 10 Stable staffs may not have a horse treated in the period from the day before a race in which the horse is scheduled to run until said race has finished (or, for horses that undergo sampling of specimens as prescribed in Paragraph 2 of Article 134 of the JRA Rules of Racing (2007 President's Notice No. 28), until said sampling is completed).

In such cases, if emergency treatment is required owing to illness or injury, they must immediately notify a veterinary officer or a JRA veterinarian designated by a veterinary officer to that effect, and must follow the instructions thereof.

Detection times: no reference, Screening limits: no reference

Penalties

Trainer: Suspension from Participation in Horse Racing

Horses: Disqualified. Also ban from racing until proven to be free from the prohibited drug

Please refer to the following information for details: Rules of racing -Chapter 10 Article 138, 140

<http://japanracing.jp/en/information/jra-rules/rules-racing.html#c10>

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction's rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

Occurrence and occurrence rate of EIPH:

Year	starters	EIPH(race)	occurrence rate	EIPH(training)
2006	49,057	52	0.11%	114
2007	48,875	61	0.12%	123
2008	50,312	77	0.15%	130
2009	50,402	77	0.15%	103
2010	49,895	117	0.23%	81

*No information for retiring horses due to EIPH.

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

Although we report horses that have onset of EIPH during racing on the website (race number, name of the horse, jockey, Trainer), the public is not yet interested in this information.

Number of horses: 83,129 (racehorses, 45,277)

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

No specific information.

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

Please refer to our website.

7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

NA

Macau

Respondent: Dr. Martin, Senior Veterinary Surgeon, Macau Jockey Club

The following replies concern the situation at the Macau Jockey Club

Question 1

- Presence of blood at both nostrils
- Endoscopic bleeding is reported but no action is taken
- Minimum of 10 days from the training track and 21 days from racing. In addition horses need to perform satisfactorily in a barrier trial without bleeding before racing again

Question 2

- Furosemide not permitted for racing
- Furosemide is permitted during training
- 5 day withdrawal before racing

Question 3

- About 60
- 60/7000 runners
- Nil
- About 20-30

Question 4

- Minimal to no effect as horses can return to racing quickly
- All cases of racing epistaxis are reported to the public through the stewards report and via the Club website
- No impact on field size, wagering, or health of horse
- 550 horses

Question 5

- Trainers can use hesperedin based products with no withdrawal period but there is no evidence to support efficacy either. Some trainers also limit water intake on day of race

Question 6

- Racing season October - August
- Slight increase in EIPH cases November - January

Malaysia

Respondent: Dr. Edward Samuel, Senior Vet Surgeon, Penang Turf Club, Malaysia

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

A bleeder constitutes a horse which has blood coming from one or both nostrils whilst working or racing. The process is termed as a bleeding episode. Yes we do differentiate the both. If a horse bleeds for the 1st time, it is barred from racing for 3 months (cannot be cantered or galloped at the track for 2 months). If it bleeds the 2nd time, it is barred from racing for 6 months (cannot be entered or galloped at the track for 5 months). If it bleeds the 3rd time, it is permanently barred from racing. Prior to racing again, the horse is subjected to a 1000m gallop in the presence of a steward and must pass a veterinary examination.

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

There are Rules under the Malayan Racing Association (MRA) which encompasses the use of prohibited substances by Trainers. Furosemide and other therapeutic medications are permitted during training. Withdrawal times for the use of Furosemide that is practiced here is 4 days.

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction’s rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

About 10% of the total population are impacted by the bleeders Rule in one way or other in the MRA circuit. In my opinion only about 0.5% of the horses are banned permanently yearly as a result of this Rule. We don't have the estimate of horses being voluntarily retired because of bleeding.

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

No comments.

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

The main form of therapy is to rest the horse concerned for a considerable period of time to promote healing of the scar tissues in the affected area of the lungs. Apart from medications, some powders have been used previously to prevent pulmonary hemorrhage. These alternate therapy are not reliable.

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

As Malaysia and Singapore are in the tropical climate zones, the only thing I could think of is the heat as horses sweat profusely.

7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

As mentioned in agenda 5, the most important thing to do is to rest the horse. Some might take longer to recuperate than others.

Singapore

Respondent: Koos VD Berg, Head Veterinary, Singapore Turf Club

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

Bleeder is a horse with epistaxis and it is confirmed (coming from the lungs) on endoscopy.

Our rule on bleeders is given below:

Horses which Bleed

92

Bleeding is defined as the appearance of blood of pulmonary origin at either or both nostrils, irrespective of the quantity, after exercise.

If a horse bleeds during a race or during track work, the Trainer shall immediately report the fact to a Veterinary Surgeon and/or a Stipendiary Stewards who shall inform the Secretary of the Association.

A horse that has been declared to be a Bleeder hereunder shall not, without the written permission of the Stipendiary Stewards:

Be cantered or galloped on the main training tracks of any racecourse for a period of two (2) months after such declaration.

Be entered for a (bleeders test) gallop of at least a 1000 metres in the presence of a Stipendiary Steward and followed by an examination by the Veterinary Surgeon for a period of three (3) months after such declaration. (Amended 15/4/09)

Start in any race for a period of three (3) months after such declaration, and then only after completing a satisfactory gallop of at least 1000 metres in the presence of a Stipendiary Steward and followed by an examination by the Veterinary Surgeon. (Amended 15/4/09)

A horse that races three times without bleeding after serving the initial three-month ban shall be considered to have reverted to non-bleeder status.

A horse that suffers a second bleeding attack during training or racing and has not just prior to such bleeding attack raced

three times without bleeding shall not, without the written permission of the Stipendiary Stewards:

Be cantered or galloped on the main training tracks of any racecourse for a period of five (5) months after such second bleeding attack. (Amended 15/4/09)

Be entered for a (bleeders test) gallop of at least a 1000 metres in the presence of a Stipendiary Steward and followed by an examination by the Veterinary Surgeon for a period of six (6) months after such declaration. (Amended 15/4/09)

Start in any race for a period of six (6) months, and then only after completing a satisfactory gallop of at least 1000 metres in the presence of a Stipendiary Steward and followed by an examination by the Veterinary Surgeon. (Amended 15/4/09)

A horse that races three times without bleeding after having served the six (6) month ban shall revert to non-bleeder status.

A horse that suffers a third bleeding attack during training or racing without having reverted to non-bleeder status as defined in Rule 92(4) or 92(6) shall be permanently banned from racing. Notwithstanding the foregoing provisions, the Stewards on receiving a written report from the Veterinary Surgeon, endorsed by the Stipendiary Stewards, shall have the right to refuse entries permanently or for any recommended length of time for any horse that they may consider to be a serious risk to racing at any stage.

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

Furosemide is permitted for training only and a withdrawal time of 3.5 days is enforced for all official trials and racing

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction's rules because of bleeding? Do you have any

estimate on the number of horse voluntarily retired because of bleeding?

For the past 3 years the average incidence of bleeders were 0.05 horses per 1000 starts.

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

Bleeder episodes are reported to the public in the form of a steward report. The incidence was given above. The number of horses were 1242 in April 2011

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

No medication permitted on race day

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

All horses are imported and housed at the Club, and we will have 95 race meetings (days) during 2011

7. Provide other information you feel would be important for us to take into consideration as we discuss current management of EIPH in North America and alternative practices utilized in other racing jurisdictions.

None

UAE

1. How does your jurisdiction define what constitutes a "bleeder" and "bleeding episode?" Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

Bleeding is defined as the appearance of blood in both nostrils, irrespective of the quantity, unless in the opinion of the Stewards such bleeding was caused by external trauma.

A Horse which has, in the opinion of the Stewards suffered an attack of bleeding shall not without the permission of the Stewards be cantered or galloped on any Racecourse:

(a) for a period as determined by the Stewards but that is not less than 21 days from the first occasion of an attack of bleeding.

(b) for a period as determined by the Stewards of up to 90 days on the occasion of a second or any subsequent attack(s) of bleeding.

(c) No Horse which has, in the opinion of the Stewards suffered an attack of bleeding may be entered to Race again until it has completed a satisfactory gallop, free of Prohibited Substances, in the presence of the Stewards or the Veterinary Officer.

(d) The Stewards reserve the right to refuse entries permanently or for any recommended length of time for any Horse they may consider to be a serious risk to itself or racing.

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

Furosemide is allowed during training as a legitimate therapeutic medication.

No **medications** are allowable within 48 hours of racing in the UAE.

Furosemide has a screening limit of 50ng/ml in urine, a detection time of 3 days and a recommended withdrawal time of greater than 3 days in the UAE.

Penalties for exceeding the recommended threshold are dependent on the steward panel's enquiries into each infringement.

Plant extract additives are commonly used in racing horses as a management tool for EIPH, however withdrawal times for these medications are at least 4 days prerace.

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction's rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

Seasonally between 10 and 20 Horses are recognised with EIPH post racing.

This equates to an average annual rate of 4.25 bleeders per 1000 starters.

Historically 1 to 2 horses per season are forced to retire due to recurrent bleeding attacks. I suspect there is a similar number who retire voluntarily.

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

Episodes of bleeding are reported weekly in the post race stewards report and the ERA weekly racing newsletter which is available to the racing public.

Between 1500 and 2000 horses are the racing pool for the season, there is no legal wagering within the UAE.

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

Race rules prohibit any medications 48 hours before race day; there are no permitted treatments on race days. Some trainers withhold all water for several hours prerace in the belief it helps with EIPH.

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

Racing season commences in Early November and concludes late March.

All racing horses are stabled indoors during this time, often with periods of full air conditioning.

Bedding is shavings, straw or sand.

Frequent periods of dusty or sandstorm activities occur at this time.

Early and late in the season some race days are quite hot i.e. around 40C and humid.

Anecdotally any of these factors may have an effect on the incidence of EIPH.

Uruguay

1. How does your jurisdiction define what constitutes a “bleeder” and “bleeding episode?” Do you differentiate between epistaxis and endoscopic bleeding? What are the mandatory rest periods following a bleeding episode and what are the circumstances, if any, under which a horse is barred from competition?

Bleeder is a horse that has at least one bleeding episode during competition. Bleeding episode is when you found bilateral epistaxis during or after competition. We do not differentiate between epistaxis and endoscopic bleeding. The mandatory rest period following a bleeding episode is 21 days and we do not have any circumstances in which a horse is barred from competition. After the rest period, they may return to the track.

2. Provide specific rules, detection times, screening limits and penalties related to the use of furosemide and any other therapeutic medications used to manage EIPH. Are furosemide or other medications or treatments permitted during training to control EIPH? If so, what are the regulations and detection/withdrawal times for furosemide and non-furosemide treatments?

We don't have specific rules, detection times, screening limits and penalties related to the use of furosemide. Furosemide is the only drug we allow in all the categories for EIPH. During training, we do not control medications.

3. How many racehorses are impacted by these rules each year as a result of the occurrence of EIPH and what is that number as a percentage of the total number of starters annually. How many horses are banned from racing each year or otherwise forced to retire by your jurisdiction's rules because of bleeding? Do you have any estimate on the number of horse voluntarily retired because of bleeding?

During 2010, 14 horses bleed after competition and in 2011 up to May, a total of 9 horses bleed during competition. In 2010, there were 9,965 starts, so the percentage is 0.14 %. We cannot determinate the number of horses voluntarily retired because of bleeding.

4. Summarize how, in your opinion, these regulations impact racing in your jurisdiction. Are bleeding episodes reported to the public? If so, what information is provided and in what format? Does it impact field size? Does bleeding impact wagering in your jurisdiction? Incidents of injury? Health of the horse? How many horses are in your jurisdiction?

The information on which horses run with furosemide is provided to the public before the races from veterinary services and information about bleeding episodes is reported from the

steward after competition. This information is not of a big impact. We have around 1,300 horses.

5. Describe in detail the ways in which trainers and veterinarians attempt to manage EIPH on race-day other than through the use of medication? Specify any permitted treatments developed for that purpose. How effective are these alternative methods of treatment? Are there any studies or scientific research to support the use of these treatments?

The drug used in these horses is furosemide. We don't have any studies or scientific research that attest to the use of other medications (Vitamins C, flavonoides) or alternative methods as starvation or water disponibilities.

6. Please describe the racing calendar in your jurisdiction. Are there environmental, breeding and other horse husbandry issues believed to impact bleeding in your jurisdiction?

We have 100 meetings (race days) in a year, every weekend we have two meetings. Each meeting has 10-12 races. The disease is multi-factorial and we believe some environmental, breeding or horse husbandry issues impact bleeding but we do not have any studies that can conclude this interpretation.