

# **FEI™ SPORTS FORUM**

Session 7 – Improvement and innovation to  
reshape Endurance

# Session 7 – Improvement and innovation to reshape Endurance

Panel comprising

Sarah Coombs

Endurance Temporary Committee - Chair

Göran Akerström

FEI Veterinary Director

Tim Parkin

Endurance Temporary Committee – Member

# **FEI™ SPORTS FORUM**

Veterinary Matters

Göran Akerström

# EADCMP comparison 2017

Unit	# tested	# positives	%
Global EADCMP	5120	109	2.1
Global Endurance	898	43	4.8
Global Jumping	2517	38	1.5
Global Eventing	771	16	2.1

*EADCMP: Equine Anti-Doping and Controlled Medication Programme*

# EADCMP comparison 2017 – FEI Groups - Endurance

Unit	Tested	Positives	%
FEI Group I	331	8	2.4
FEI Group II	66	1	1.5
FEI Group III	2	1	(50.0)
FEI Group IV	33	1	3.0
FEI Group V	11	1	(9.1)
FEI Group VI	154	3	1.9
FEI Group VII	215	28	13.0
FEI Group VIII	34	0	0
FEI Group IX	52	0	0

# Common analytical findings in Endurance

- Multiple substances in the same sample
- Mix of classic painkillers and nerve blocking agents
- Performance affecting substances
  - Anabolic agents
  - Heart rate modulating substances

# Post mortem programme (PM)

- Mandatory for all fatalities - No exceptions!
- No PM > Sanctions for involved parties
- New PM protocol including forensic investigation introduced in 2018
  - Pre-existing bone injury
  - Injection marks - establishing time of injection
  - Nerve blocks - type of substance
- 3 ongoing Horse Abuse cases in endurance based on PM findings

# Information and intelligence

Some Horses are:

1. Treated with anabolic agents during the build up period,
2. Presenting with too low HR in relation to their speed,
3. Nerve blocked before or during the event,
4. Given microdoses of heart rate lowering substances before vet gate,
5. Being trained on painkillers.

Our results from the EADCMP, post mortem examinations and competition confirms item 1-4.



# EADCMP strategy Endurance

- Gathering and analysing information > intelligence
- Analysing risks – customised testing programme
- Developing new control systems
- Continued high percentage of tested events in FEI Group VII
- Additional “Foreign” Testing Veterinarians
- Education

# Possible future veterinary actions EADCMP

Action	Result	Comment
Education	Fewer cases due to ignorance	Ongoing
Hair Testing	Larger time window to find anabolic steroids	Possible for monitoring
Out of Competition Testing (OOCT) - Banned Substances	Control of build up period	Benchmarks: WADA, Horseracing
Saliva Testing after Vet Gate	Control micro-dosed short acting HR modulators	Initiated R&D
Thermography	Detects recent injections	Ongoing R&D
Detection of snake venoms	Control of nerve blocking agent	Methodology developed

# Limb sensitivity

*“Horses are not eligible to compete when a limb, or part of a limb, is hyposensitive or hypersensitive”*, Art 1048, FEI Vet Regs



Evidence of “blocks” and neurectomies in Endurance competitions

# FEI Hyposensitivity Control System

## Scope

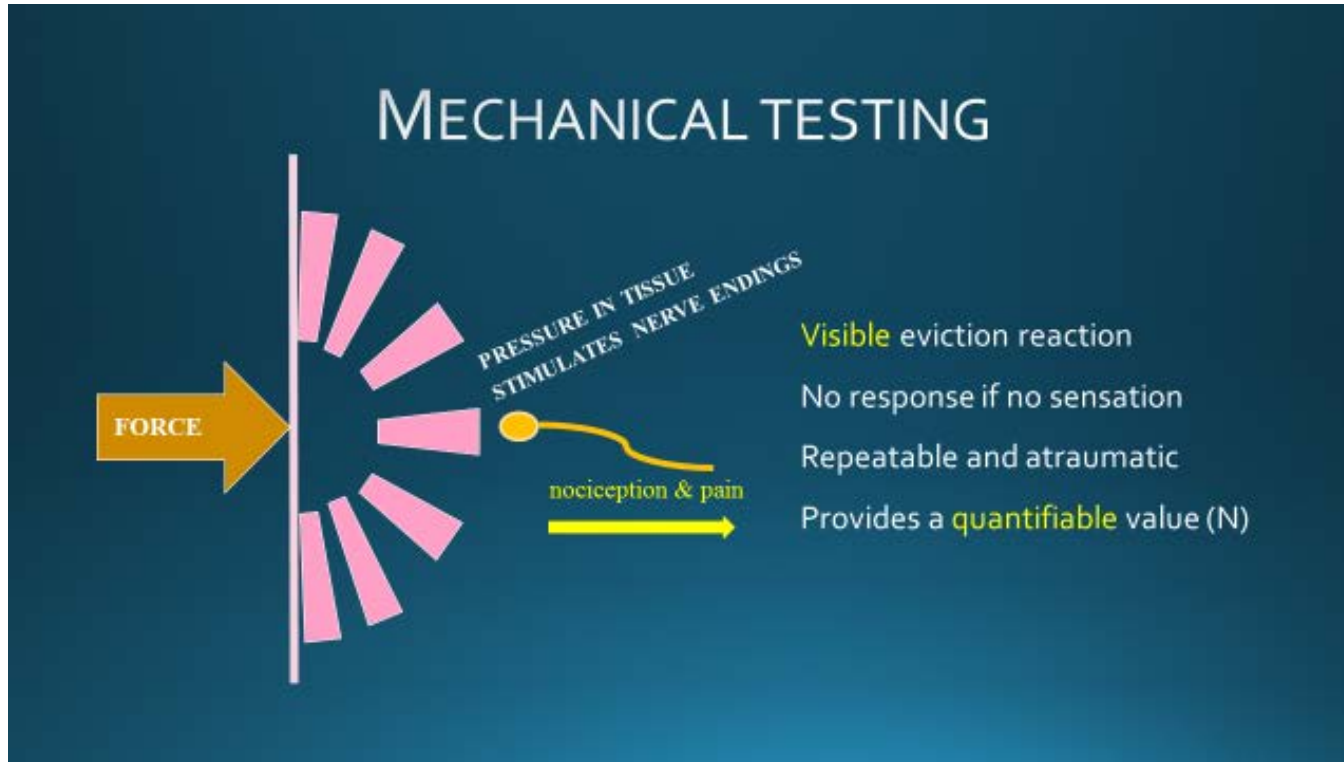
Endurance rides

## Objectives

- To protect Horses from injury by identifying Horses with lower limb hyposensitivity and stop them from competing in a ride
- Ensure a level playing field
- Deterrent effect on cheaters

Based on study by Dr M. Schambourg and Dr P. Taylor

# The principle



# The tool

## PROD AND LIMB ACTUATOR



"Soft" transducer :

- ✓ Air from syringe increases pressure in pneumatic actuator
- ✓ Pressure drives blunt-ended pin on skin
- ✓ Rate controlled by lights
- ✓ Stimulus stopped when horse reacts (picks up leg, stamps, noses leg)
- ✓ Force reading held on display

# Multiple tests

- Rest
- Icing
- Race
- Blocked



Consistent and  
clear results

## MNT TESTING IN THE FIELD

- 2mm pointed tip
- Custom made pastern strap
- Remotely controlled
- Bilateral positioning



# Update – FEI Hyposensitivity Control System

- Regulations approved at the GA 2018
- Devices delivered in April-May 2019 according to supplier
- Testing of protocol in Field of Play will start shortly
- Introduction at events during 2019



# Future Injury reporting

- **Who reports?**

Foreign Veterinary Delegate or Official Foreign Treatment Veterinarian – Always FEI assigned

- **How to report?**

Electronic reporting. Only FEI format approved

- **Where does the report go?**

To Veterinary Department + Endurance Department > GEIS

- **Who follows up**

Short term regulatory – Endurance Department

Injury follow up – Veterinary Department

Research – University of Glasgow

# **FEI™ SPORTS FORUM**

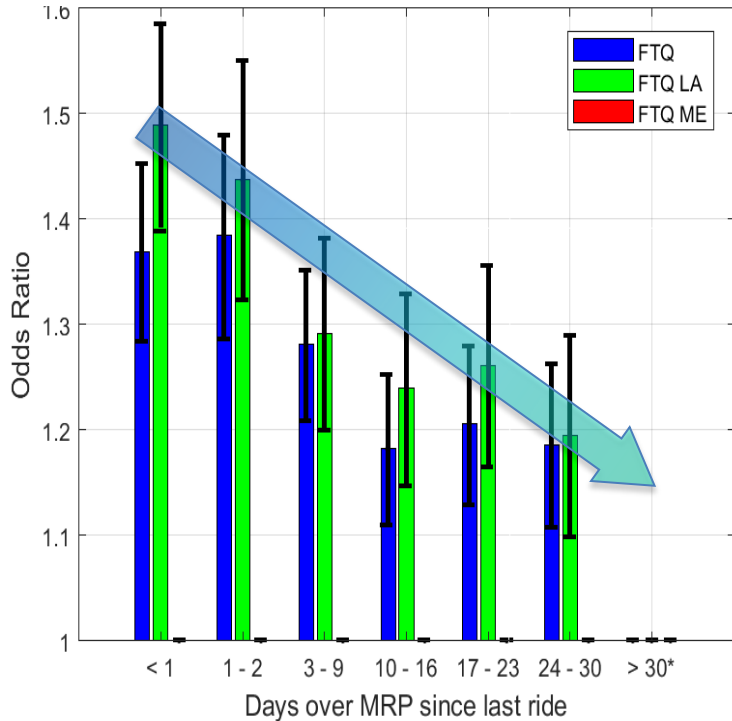
GEIS evidence supporting the proposed rule changes

Tim Parkin

# GEIS evidence supporting the proposed rule changes

- Mandatory rest periods
  - MOOCP: Mandatory out of competition period
- Course design – relative loop length
- Vet card data – in particular Heart rate at 1<sup>st</sup> presentation

# Days over Mandatory Rest Period (MOOCP)



- The longer you wait between rides\* the lower the risk of FTQ in the next ride

\*up to 30 days in this analysis

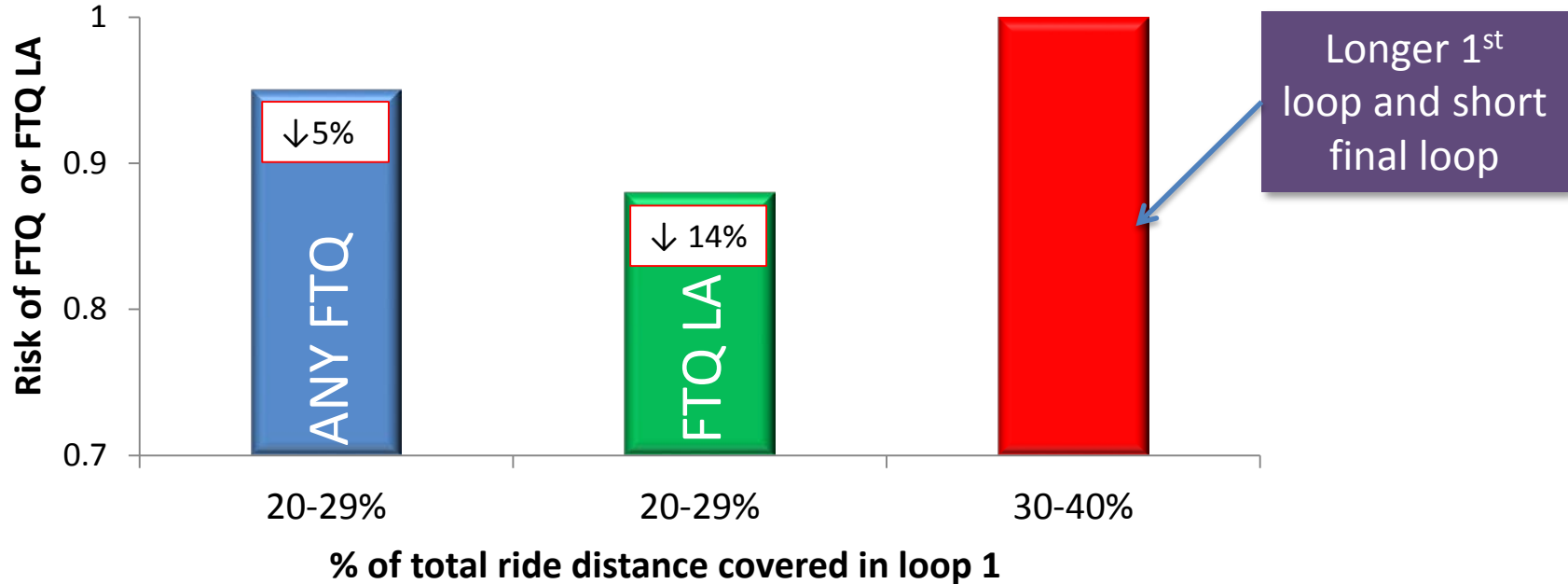
# Different potential changes to MRP (MOOCP)

Cost = horse having to wait an extra 7 or 14 days before returning to competition

Benefit = prevention of an FTQ

# Course design

- First loop length as % of total ride
- 120km rides: 20-29% represents more 'even' loop distances

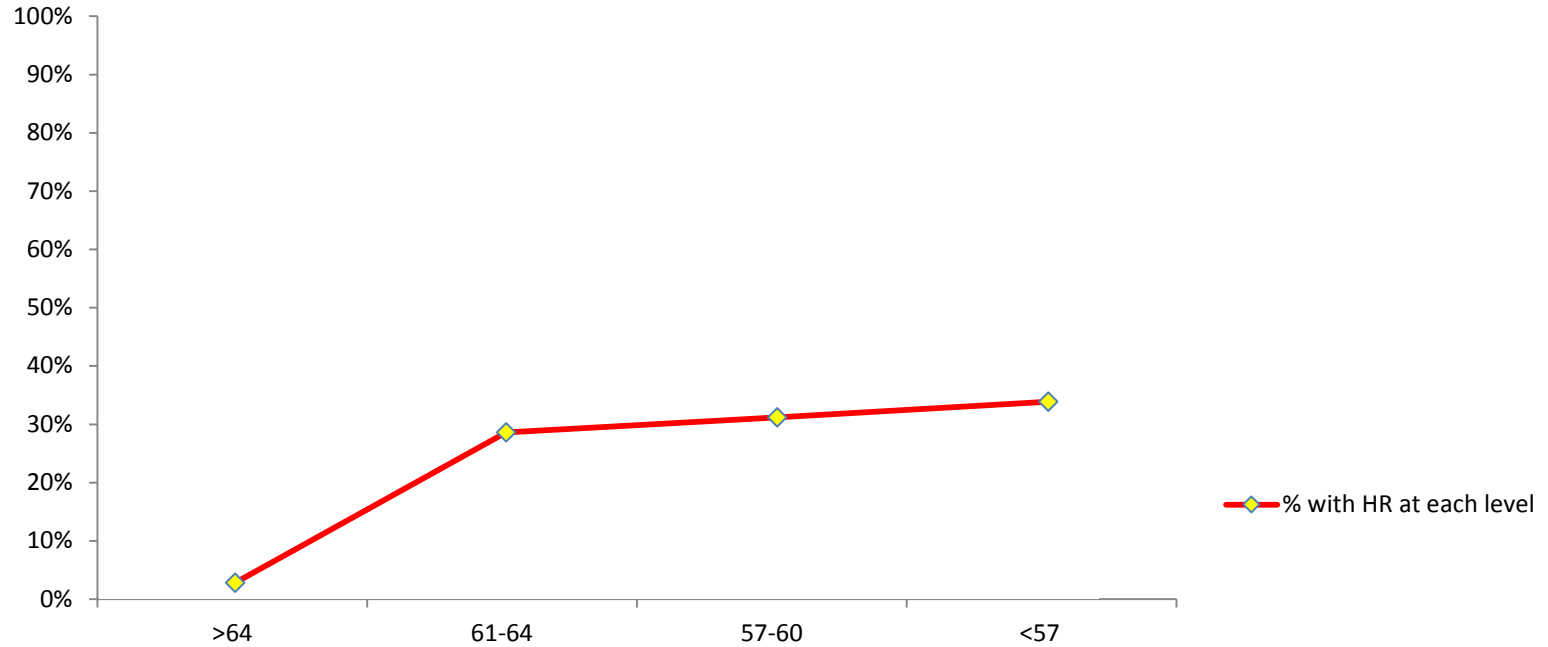


# Vet Card data

Heart rate at 1<sup>st</sup> presentation

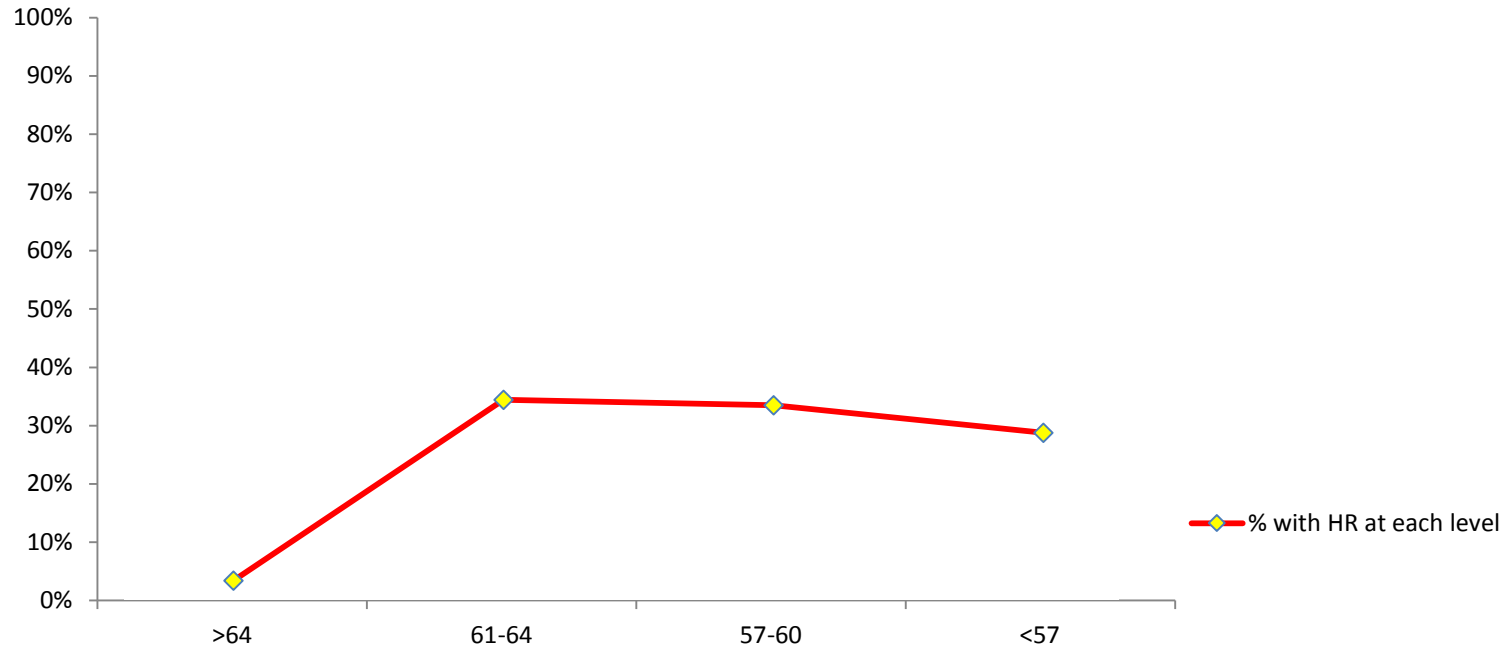
- Clear 'rate' relationship:
- Lower the HR:
  - lower the risk of FTQ at next loop

# Heart rate at 1<sup>st</sup> Presentation – 1<sup>st</sup> Loop

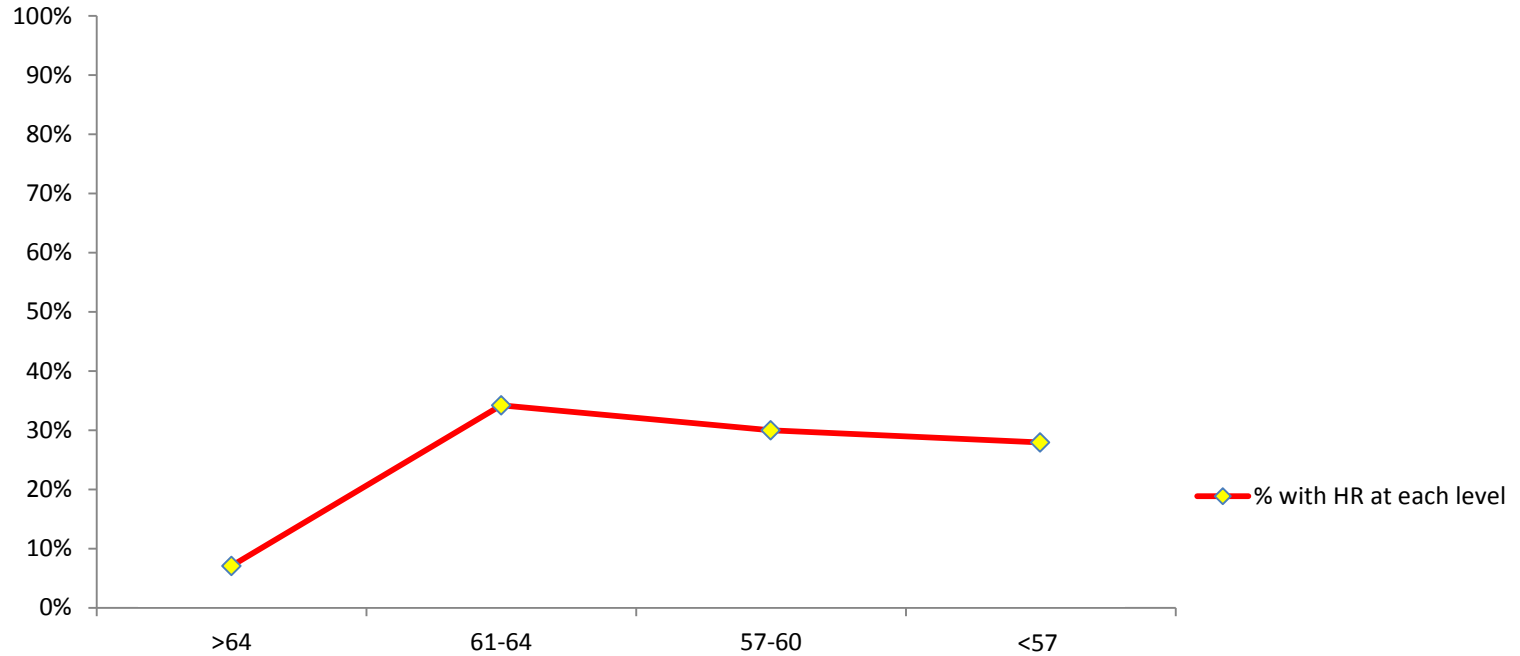




# Heart rate at 1<sup>st</sup> Presentation – 2<sup>nd</sup> Loop



# Heart rate at 1<sup>st</sup> Presentation – 3<sup>rd</sup> Loop



# Summary

- Reduced risk of FTQ associated with:
  - Longer out of competition (up to 30 days);
  - Fewer rides in last 120 days;
  - More 'even' loop lengths in a ride.
- Increased risk of FTQ associated with:
  - HR at first presentation >64bpm (especially during the second half of the ride).

# **FEI™ SPORTS FORUM**

## Recommendations from the Endurance Temporary Committee

Sarah Coombs

# Rule proposals to strengthen existing procedures

- Already covered:
  - Officials; appointment by the FEI, rotation, education, enhanced sanctions;
  - Drug testing; targeted testing along WADA guidelines;
  - Drug sanctions; significant increases.

We propose more effective drug sanctions to include extending suspension on Horses and to include Owners.

Rule proposals to ensure best practice.

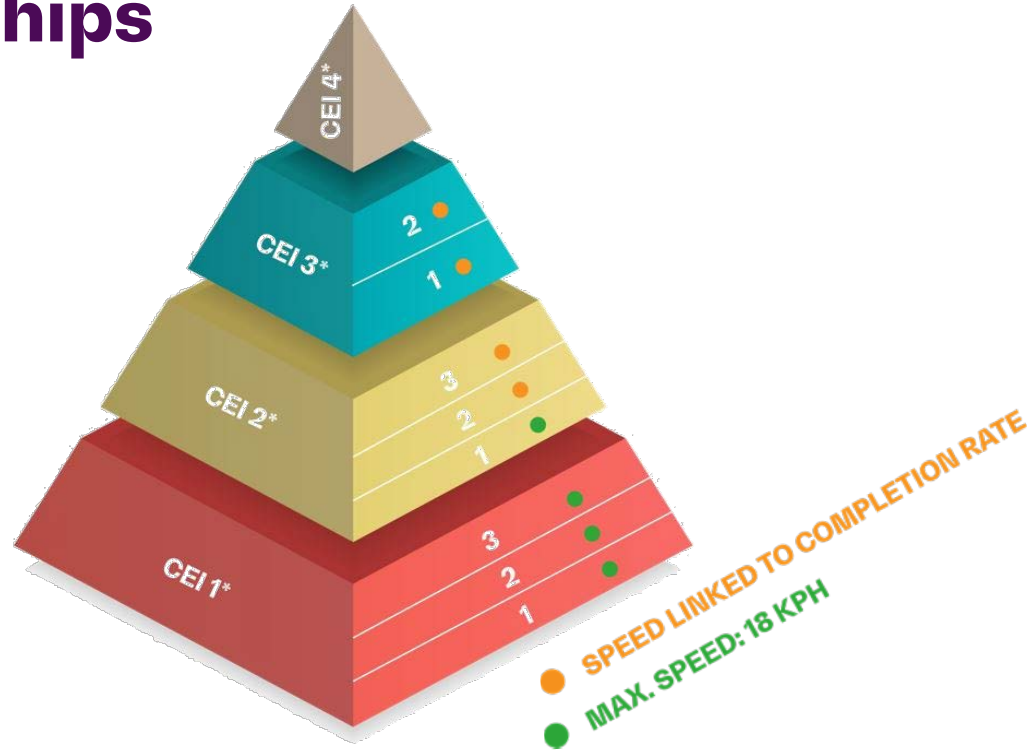
# New proposals to safeguard Horse Welfare

1. Qualification from 1\* to Championships
2. Course Design: loop length, loop number and distance between water points
3. Number of crew
4. Changing trainer
5. Minimum rider weight
6. Maximum number of starters
7. Criteria for test events
8. Heart rate parameters and presentation times

# New proposals to safeguard Horse Welfare

9. Implementation of rules on the basis of Horse Welfare
10. Targeted Mandatory Out of Competition Periods (referred to currently as Mandatory Rest Periods)
11. Tack/Equipment and Horse Abuse
12. Extension of period for reporting rule violations
13. Increase sanctions for Horse Abuse
14. Increase sanctions for removing a Horse from the field of play
15. Visible blood
16. Designation of Serious and Catastrophic Injury

# Recommendation 1: Qualification from 1\* to Championships





# Recommendation 2: Course design

- Loop length:
  - Minimum loop length of 20 km
- Minimum number of loops:
  - 6 for 160
  - 4 for 120
  - 3 for 80
- Distance between crew/water points:
  - Minimum 5 km between **crew** points (no crewing between crew points)
  - Maximum 10 km between **water** points
- It is the responsibility of the Athlete to ride according to climate and course conditions.



# Recommendation 3: Number of crew

- Excessive crew used to crowd a Horse and prevent scrutiny by Officials;
- Leads to overcrowding and risk of injury in the crew area;
- Reinforce responsibility of Athlete to ride strategically;



We propose a limit number of crew to 3 in crew areas.

# Recommendation 4: The role of the Trainer

- The registered Trainer must be at least 18 years old;
- No change to or substitution of the registered Trainer of a Horse taking part in an Event may be made after the date of Definite Entries;
- When a Horse has a change of registered Trainer, the Horse is not permitted to compete for 30 days.

# Recommendation 5: Minimum Rider Weight

- Proposal to reduce minimum weight to 70 kg for 2\* and above senior rides.
  - (Regardless of Athlete age)

# Recommendation 6: Maximum number of starters

- How many starters can be effectively managed by a team of officials over the course of the competition?
- What is the impact of an excessive number of starters on Horse Welfare?
- Is it time now to focus on quality and not quantity?

Propose maximum of 200 starters per event subject to venue and appropriate ratio of competitors to Officials.

Propose maximum of 400 starters per day subject to above conditions.



# Recommendation 7: Criteria for test events

- Ensure the smooth running of Championships;
- Address problems well ahead of time;
- Proposal to run a test event for all championships with the requirement to match:
  - Distance
  - Course
  - Panel of officials
  - Provider for timing, data handling, heart rate monitoring.

# Recommendation 8: Heart rate parameters and presentation times

- GEIS evidence supports 60 bpm in presentation time of 15 minutes;
- For venues where for the last 3 years, the top 10 finishers have an average speed of 20 kph or greater over the same distance
  - 60 bpm and 15 minutes for all vet gates with presentation time of 20 minutes at the finish;
- For venues where for the last 3 years, the top 10 finishers have an average speed of less than 20 kph, the existing rules regarding heart rate and presentation times will apply;
- This will allow the top competitors to continue to succeed at the highest level.

# Recommendation 8: Heart rate parameters and presentation times

- At the first vet gate after the halfway point in a ride, Horses that present with heart rate greater than 64 bpm at the 1<sup>st</sup> presentation will not have the opportunity to re-present.
- This Horse will be designated FTQ-ME.





# Recommendation 9: Implementation of rules on the basis of Horse Welfare

- We propose that where a rule change is judged to have a clear potential benefit to Horse Welfare, the Board should require changes to be made, if there is a chance that this could make a positive difference.

# Recommendation 10: Targeted Mandatory Out of Competition Periods (MOOCP)

- Change of terminology from Mandatory Rest Period to Mandatory Out of Competition Period (MOOCP);
- Evidence of GEIS shows that additional time between competitions makes Horses more likely to qualify at next competition;
- GEIS evidence supported adding additional time on basis of speed;
- Target use of MOOCP so as not to penalise those Horses that have a minor incident;

# Recommendation 10: Targeted Mandatory Out of Competition Periods (MOOCP)

- Apply longer MOOCP to those Horses that actually need them:
  - Additional 7 days for Horses exceeding average of 22 kph over completed phases;
  - Additional 14 days for 2 consecutive FTQ-ME;
  - 6 months following 3rd consecutive FTQ-GA with a specific examination protocol before being permitted to start;
  - MOOCPs specifically targeted to Musculoskeletal or Metabolic Serious Injury and no longer related directly to Immediate Invasive Treatment.

# Recommendation 11: Tack/Equipment and Horse Abuse

- Serious cause of poor equine welfare;
- Poor public image of Endurance;
- Indicative of poor horsemanship;
- Existing Horse Abuse sanctions must be applied consistently;
- Specific proposals to bring Endurance in line with other Disciplines;
- Specific recommendations regarding permitted tack equipment.



FEI Code of conduct for the welfare of the horse:  
Tack must be designed and fitted to avoid the risk of pain and injury





## Abuse of Horse

An action or omission likely to cause pain or unnecessary discomfort to a Horse. Including to jab the horse in the mouth with the bit or any other device.




# Recommendation 12: Extension of period for reporting rule violations

- Extend from 30 minutes after results are published;
- There is no time limit on reporting of Horse abuse;
- Take into account large field of play and distance from Ground Jury;
- Enable rule violations to be punished.
- Propose this be extended to 12 hours for making an objection and then 24 hours to provide evidence.

# Recommendation 13: Increase sanctions for Horse Abuse

- Review current rules which have a minimum of one month suspension;
- Suspensions to be served within the competitive season of those involved.

We propose to increase sanctions for Horse Abuse in line with the current review underway by the Legal Department.

ENDURANCE YELLOW WARNING CARD	ENDURANCE YELLOW WARNING CARD 
Event _____ Date _____ Person Responsible (art. 118.3, GRs): _____ Name _____ FEI ID _____	<b>Extract of Art. 169.7, FEI General Regulations (GRs)</b> 23rd edition, 1 January 2009, updates effective 1 January 2010 "1. In cases of offences mentioned in paragraphs 6.2 and 6.3 above and which are of a less serious nature and/or in cases specified in the Sport Rules (article as mentioned in Article 140) 21. The President of the Ground Jury, the President of the Appeal Committee, the Chief Steward or the Technical Delegate must notify the Person Responsible during the Period of the Event that he will receive a Yellow Warning Card, which will be delivered either by hand or by any other suitable means. If after reasonable efforts the Athlete cannot be notified during the Period of the Event that he has received a Yellow Warning Card, the Athlete must be notified in writing within fourteen (14) days of the Event. A Yellow Warning Card may be issued in addition to any other sanctions that may be issued in accordance with these GRs (article the relevant Sport Rules. 22. Should the same Person Responsible receive one (1) more Yellow Warning Card at the same or any other international Event within one year of the delivery of the first Yellow Warning Card, the Person Responsible shall be automatically suspended for a period of two (2) months after official notification from the FEI Secretary General."
<b>OFFENCE</b> (please tick one) FEI General Regulations (GRs), 23rd edition, 1 January 2009, updates effective 1 January 2010 <input type="checkbox"/> Abuse of Horse GRs Art. 162 & 169.9.2 and/or Endurance Rules Art. 81 <input type="checkbox"/> Non-Compliance with Protective Headgear Rules GRs Art. 140 <input type="checkbox"/> Non-Compliance with applicable Endurance Rules (specify Art. _____) <b>For any case of "Reckless Behaviour", please fill the Reckless Behaviour card.</b>	<b>Extract of Art. 118, FEI General Regulations (GRs)</b> 23rd edition, 1 January 2009, updates effective 1 January 2010 "1. The Person Responsible shall be the Athlete who rides, vaults or drives the Horse during an Event, but the Owner and other Support Personnel (including but not limited to grooms and veterinarians) may be regarded as additional Person Responsible."
Signature of Official _____ Signature of Person Responsible _____	<b>Extract of Art. 81, FEI Endurance Rules</b> Current 8th edition effective 1 January 2010 Article 81 - Cruelty 81.1 Any act or series of actions which, in the opinion of the Ground Jury can clearly be defined as cruelty or abuse shall be penalized by disqualification and its alternative allowed under the GRs, and the individual concerned shall be reported to the FEI. 81.2 Reports of such actions must be accompanied whenever possible by the signatures and addresses of witnesses of the actions. The reports must be given to the Ground Jury or the Secretary of the OC as soon as possible."



# Recommendation 14: Increase sanctions for removing a Horse from the field of play

- Sanctions for unauthorised removal to be increased significantly;
- Horses which are removed from the field of play without veterinary inspection are at significant risk;
- May be done to prevent sanctions associated with SI or CI;
- May be inspected by the vets and required to attend the referral facility named in the schedule with subsequent follow up.

We propose 6 months suspension plus 80 penalty points for first infraction.

# Recommendation 15: Visible blood



- Previously proposed for 2017 and 2018 to bring endurance into line with other disciplines
- Horses in competition that have free-flowing blood from an injury or from an orifice will be examined by a panel of 3 veterinarians who will report their findings to the President of the Ground Jury.

**We propose that these Horses will Fail to Qualify.**

# Recommendation 16: Designation of Serious and Catastrophic Injury

- CI designation and accompanying sanctions for PR refers to Horses that lose their lives at an event;
- SI designation introduced to allow identification of Horses that are severely or seriously injured. They do not lose their lives at the event, but may do so later as a result of the injury;
- The SI designation does not require ultimate loss of life but will replace MOOC periods when Immediate Invasive Treatment Required.

# Recommendation 16: Designation of Serious and Catastrophic Injury

## Immediate Invasive Treatment:

- This designation has led to confusion and has been applied differently in various parts of the world
- The MOOC period that was previously triggered by Immediate Invasive Treatment will now be linked to the SI designation.
- Treating Vet, FVD, PVC will jointly decide.

# **FEI™ SPORTS FORUM**

Wrap up on the rules modifications

Sarah Coombs

# New proposals to safeguard Horse Welfare

1. Qualification from 1\* to Championships
2. Course Design: loop length, loop number and distance between water points
3. Number of crew
4. The role of the Trainer
5. Minimum rider weight
6. Maximum number of starters
7. Criteria for test events
8. Heart rate parameters and presentation times
9. Implementation of rules on the basis of Horse Welfare
10. Targeted Mandatory Out of Competition Periods (referred to currently as Mandatory Rest Periods)
11. Harness / Tack and Horse Abuse
12. Extension of period for reporting rule violations
13. Increase sanctions for Horse Abuse
14. Increase sanctions for removing a Horse from the field of play
15. Visible blood
16. Designation of Serious and Catastrophic Injury

**FEI SPORTS FORUM**

**THANK YOU**