

Online Eventing Risk Management / National Safety Officers Seminar

The Online FEI Eventing Risk Management Seminar took place on 22 January 2022 led by David O'Connor (USA), Chair of the FEI Eventing Committee, together with Geoff Sinclair (AUS), Chair of the Eventing Risk Management Steering Group.

For the second successive year, due to the world health situation, the Seminar provided a virtual opportunity for interactive presentations and lively discussions.

The main presentations outlined important Rule Changes, Risk Management Data, Studies, Research and information on Frangible Devices as well as Course Design. The Future of Eventing, Horse Welfare, a Medical Update, a look forward to the 2024 Olympic Games and individual presentations by the National Safety Officers of Australia, Germany and Hong Kong brought the Seminar to a close.

This year's attendance of 141 participants from 37 countries, (AUS, AUT, BEL, BLR, BRA, CAN, CHI, COL, CZE, DEN, ECU, ESP, FIN, FRA, GBR, GER, GUA, HKG, HUN, IND, IRL, ITA, JPN, NED, NOR, NZL, POL, POR, RSA, SWE, SUI, SVK, SWZ, URU, USA, VEN, ZIM) was the biggest ever. Amongst those taking part were FEI Eventing Officials, National Safety Officers, National Federation Representatives, Athletes and invited speaker and guests (see participants list [here](#)).

The seminar was made available to watch in replay on the dedicated [FEI Eventing Risk Management webpage](#), where participants and interested members of the public could consult all the presentations, annexes and statistics.

RECOMMENDATIONS AND CONCLUSIONS

• Results and reporting accuracy

The quality of results and reporting was essential to ensure accuracy and reliable data. Officials, NFs, NSOs, OCs were encouraged to double check the results and cross check with the other reports

• Horse Form Index (HFI)

The HFI was now available in the FEI database for NFs, Athletes, Owners and in the FEI entry system for Officials and NFs

• Frangible Devices

Please refer to the FEI website [Deformable & Frangible Devices](#) page, for all information including instruction manuals and videos.

• Cross Country Course Design

Groundlines are compulsory on all fences

Staking/securing portable fences to the ground was essential

Fence types form to be reviewed and updated

• Future of Eventing – Social License

Technical Delegates and Course Designers must ensure people and horses are jumping at their level

More visibility is needed on horse welfare

We need to be transparent, ethical and accountable

• Medical Update – Medical Services (Annex D)

NFs / NSOs were asked to provide feedback to the FEI on the Annex D recommendations before the mandatory implementation in 2023

1. Welcome and Introduction

Annex II

David O'Connor, Eventing Committee Chair

Geoff Sinclair, Risk Management Steering Group Chair

David O'Connor welcomed participants and Geoff Sinclair introduced the remaining members of the Risk Management Steering Group that includes Mike Etherington-Smith (GBR), Staffan Lidbeck (SWE), Laurent Bousquet (FRA), David Vos (USA), Gert Naber (NED), Jonathan Holling (USA) and Rob Stevenson (CAN).

The seminar agenda and ongoing projects were outlined. The major objective is reducing horse falls, and work is underway on improving standards for helmets, body protectors and safety stirrups. It may be necessary for the Eventing Risk Management (ERM) Group to write its own standard on stirrups. Up for review again this year is whether competitors should be permitted to continue after a certain amount of penalties during the jumping test.

David O'Connor pointed out that the upside of the ongoing pandemic is that video conferencing is working really well and communication is excellent, with the Eventing Committee now meeting every 4-6 weeks and reports being regularly reviewed.

2. Important Rule Changes

Annex III

David O'Connor, Eventing Committee Chair

The process is now a four-year cycle, and 15 March 2022 is the deadline for proposing new Rule Changes for the 2023 Rule revision. Participants were asked to consult with their Federations or Groups and provide rule changes and concepts before that date.

The following articles were updated in the 2022 Eventing Rules:

- **523.3 Examination after a Fall**

Previously when athletes had a fall they were allowed to walk off course with their horses. Under the new rule they should not re-mount or leave the course until examined by a medical officer.

- **520.1 Athletes not yet categorized at the level of competition. (MERCCI4*-L)**

Data has shown there's been a risk of people going from 3* to 4* - the proposal is that D or C category athletes do an extra 4* Short before moving up to a 4* Long for 2022 season.

- **538.3 Cross Country Test**

Use of air vests is recommended, not mandatory at this point. Body protectors are mandatory. Back protectors are not considered body protectors.

- **547.6 Number of Jumping Efforts**

For all classes at all levels it should be possible to have a maximum of an additional 2 efforts whereby steps and ditches don't count as efforts under certain conditions. This must be agreed between the Course Designer and Technical Delegate so it is an appropriate test for the level of horse/athlete.

Questions:

Q: Geoff Sinclair – Could you explain the reasoning for the additional jumping efforts?

A: David O'Connor - Some Course Designers have backed off using sunken roads, steps and coffin fences because it adds efforts and as a result some courses have little variation in terrain. The inclusion of these kinds of fences gives horses the chance to do traditional exercises that Course Designers have gotten away from because it eats up the efforts.

A: Mike Etherington-Smith - It is particularly important at lower levels to have this type of fence for educational purposes.

A: Helen West - We need to educate athletes to use "gears" appropriately at the lower levels before progressing and also footwork very important for educating younger horses. I think it is a good call.

The following questions were asked through the Chat but not answered during the Seminar:

Q: Aki Karhapää FIN - For the athletes check after a fall during the Cross Country, does it need to be a doctor or is ambulance staff enough to get athlete off from the course?

A: FEI HQ - the evacuation of athletes will be done by the on-site medical personnel. This topic will be covered during the Medical Update. You can also refer to Annex D of the 2022 Eventing Rules.

3. Risk Management Data

Annex IV

*Geoff Sinclair, Risk Management Steering Group Chair
Catrin Norinder, FEI Director Eventing and Olympic*

2021 Highlights of International Statistics

Competitions

Year	Competitions Total number
2010	478
2011	567
2012	524
2013	563
2014	619
2015	684
2016	671
2017	690
2018	725
2019	758
2020	335
2021	660

Starters

Starters						
Year	Total	1* (former intro)	2*	3*	4*	5*
2018	20,903	180	10,082	6,603	3,638	400
2019	20,921	904	9,185	6,721	3,839	272
2020	10,644	845	4,705	3,347	1,702	45
2021	19,231	2,081	7,972	5,773	3,198	207

478 competitions in 2010 increased to 758 by 2019. In 2020 there were just 335 events but in 2021 it jumped back up to 660. Everyone involved in FEI Eventing has done an incredible job during Covid-19 to keep the sport going and hopefully more normality will be restored this year. The fact that there was big cut-back on starters in 2020 but numbers were nearly back to normal in 2021 is a great reflection on our sport.

The only unusual statistic was the number of falls at 5* Lexington last year.

Rotational falls are the most serious but have been constantly decreasing since 2013. The number of falls has been halved during that period.

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Falls per type of injury and percentage of injuries on starters

Year	No injury		Serious and fatal injuries		
	Falls	%	Falls	Concussion	%
2010	695	4.43%	28		0.18%
2011	848	5.20%	27		0.17%
2012	785	5.08%	20		0.13%
2013	854	4.80%	23		0.13%
2014	982	5.11%	32		0.17%
2015	1,068	5.25%	32		0.16%
2016	1,002	5.03%	26		0.13%
2017	988	4.79%	44		0.21%
2018	989	4.73%	41	26	0.20%
2019	1,045	4.99%	35	15	0.17%
2020	419	3.94%	8	3	0.08%
2021	838	4.36%	24	5	0.12%

Distribution of athletes seriously/fatally injured per type of fall and percentage on falls

Year	Unseated athletes		Non rotational		Rotational	
	Seriously injured		Seriously injured		Seriously injured	
	Athletes	%	Athletes	%	Athletes	%
2010	11	2.04%	10	5.08%	6	12.50%
2011	9	1.43%	13	5.18%	5	15.63%
2012	7	1.21%	8	3.35%	5	12.20%
2013	10	1.53%	5	2.05%	6	15.00%
2014	13	1.72%	13	4.69%	5	13.16%
2015	13	1.52%	12	4.84%	6	15.79%
2016	9	1.15%	9	3.63%	5	16.67%
2017	18	2.21%	17	6.83%	9	25.00%
2018	15	1.88%	21	7.12%	5	17.86%
2019	12	1.36%	18	6.98%	5	19.23%
2020	2	0.56%	3	3.26%	3	25.00%
2021	3	0.40%	14	7.53%	7	18.18%

Falls on flat slightly decreased from 26.83% in 2020 to 22.96% in 2021. There are a higher percentage of falls in Long format.

In 2021, there were 24 serious athlete injuries. From 29 rotational falls, 7 led to serious injury (NB the 18.18% percentage mentioned, was corrected to 24% following a mistake in the report). Serious injuries have been reduced over time and last year was the lowest number ever (taking into account limited sport in 2020).

Out of 16 concussions reported in 2021, five were linked to serious injury. Reporting of concussions is becoming more important and there are now apps you can report on. Concern about concussion injury is the same across all sports, and an insurance risk for our sport.

FEI Olympic and Eventing Director, Catrin Norinder, pointed out that there continues to be an issue with the quality of results received from events.

Data comes from results as well as from the fall reports and fence analysis, but in the past two years there have been many issues with results and information not recorded correctly, specifically in the Cross-Country phase. The consequences are serious because results are essential for establishing MER standards and for data collection. Sometimes the wrong athlete or horse is allocated faults/time and the impact is major.

An appeal was made to National Safety Officers and Technical Delegates to ensure correct results are provided and that any unusual event should be reported to FEI HQ so that it can be checked with the event OC and officials. "It has become a problem, and we don't want it to become a trend", Catrin Norinder said.

David O'Connor pointed out that this problem should not be under-estimated and asked that all participants stress the seriousness of the situation to their National Federations - not just for their international events but national competitions also. It is vital to have an accurate picture of what is going on in the sport.

Questions:

Q: Elena Ceballos - 2021 had a 2-month rhino - stop right in spring. It could explain why the number of competitions were lowered

A: FEI HQ Catrin Norinder: Interestingly enough, the number of athlete starts in 2021 was nearly the same as in 2019 even with less events

Q: Philip Norton - Is concussion considered a serious injury?

A: Geoff Sinclair - Concussion is a category and it can be linked either to a serious or to a slight injury.

4. Risk Management Studies Research project – Horse Form Index, EquiRatings®*Annex V**Sam Watson, EquiRatings®**Gaspard Dufour, FEI Director Information and Sports Technology*

The Horse Form Index (HFI) developed by EquiRatings® is an accurate, accessible, and actionable performance metric using data on performance based on recent results, which calculates positive and negative cross-country outcomes with a weighting system based on the level of competition.



Horses are awarded a number from 0 to 5 according to their cross-country "Clear Rate" and subsequently rated from A to E, with E-rated horses expected to have a 50% chance of jumping clear. See above Guidance Tool slide showing 5 or above is Excellent and below Zero is significantly low.

Guidance Tool

HFI Category	HFI Value	Guidance
A++	5 or above	Excellent
A+	4 - 4.9	Very well prepared
A	3 - 3.9	Well prepared
B	2 - 2.9	Slightly above average preparation
C	1 - 1.9	Slightly below average preparation
D	0 - 0.9	Below average (consider a lower competition level)
E	Below 0	Significantly low (unsuitable for this level of competition)
Pending	N/A (not enough results)	More experience preferable

HFI Objectives are to create awareness of suitable performance, provide decision-making support for athletes, owners, NFs, and to support Officials with information and to develop understanding for future progress.

Information is accessible through the [FEI website](#), and should encourage athletes to improve before moving their horses up to the next level. This has been sent to Officials officiating at 4* and 5* competitions, for some time.

Gaspard Dufour, Director of IT at the FEI, explained how to use it by going through the [FEI Database](#). The information is only available to NFs, Athletes, Event Organisers and Officials and is visible already through the platform but limited to appropriate people.

When an NF does an entry for a show using the [FEI Entry System](#), they will have instant access to HFI information relevant to that horse/athlete.

Geoff Sinclair described the Horse Form Index as "a very useful tool" and David O'Connor said "we've been using different systems and this looks easy for athletes to find and use for their decision-making process. It's a big shift in accessibility".

Questions:

Q: Bruce Haskell ERA - Thank you EquiRatings®. Very good concept. As always, we are relying on FEI and NF events being "standard". How do we as a sport address the known issue that some events are still "soft" or "tough"? What could ER do to help identify events that are not providing sufficient challenge to achieve an MER and therefore athletes and horse going up the grades un-safely?

A: FEI HQ Catrin Norinder – The standard of XC courses will be addressed in the XC Course Design topic.

Q: Christian Landolt - How do athletes get access to their HFI? Is it promoted to the athletes to raise awareness?

A: FEI HQ Catrin Norinder – A communication was sent to all NFs, NSOs. The athletes can view the HFI in the FEI database. NFs are encouraged to promote the HFI not only to their athletes, but also to the owners, coaches, etc.

5. Frangible Devices – MIM Yellow Clips

Annex VI

David Vos, Risk Management Steering Group and Frangible Device Working Group Member

Mats Björnetun, MIMClip and MIM Safe inventor and founder

Geoff Sinclair, Risk Management Steering Group Chair

MIM clips are safety devices fitted to cross-country fences that have been developed by Sweden's Mats Björnetun. The yellow Mim clip, fitted to Open Corner G1 fence types, have been a regular topic of discussion and a new standard was introduced last year.

Yellow Clips

Open Corner "G1" fence types:

Event	N° XC starters	N° activations	N° falls
CCI5*-L Lexington April 2021	61	0	0
CCI4*-L Allentown May 2021	50	1	0
CCI4*-L Allentown May 2021	50	1	0
CCI4*-L Bicton June 2021	78	2	0
CCIU254*-L Bicton June 2021	34	1	1
CCI4*-S Bicton June 2021	89	2	1
CCI5*-L Luhmühlen June 2021	24	1	0
Olympic Games-C Tokyo July 2021	52	7	0
CH-EU-CCI4*-L Avenches September 2021	67	2	0
CCI5*-L Bicton, September 2021	32	0	0
CCI5*-L Elkton (Maryland) October 2021	45	1	0
Total	582	18	2

In 2021, a total of 582 horses jumped open corner fences fitted with yellow clips including at the Tokyo 2020 Olympic Games. There were only 18 activations, a low percentage, with just two falls at these fences. (NB: the total of starters should be 532 rather than 582 as Allentown is mentioned twice as two fences were fitted with yellow clips (fence 23 and 24). Falls are Horse Falls).

Dave Vos pointed out that the reason this is a topic for discussion is because "in 2022 we're pushing that anything employed needs to comply with new standard. An angled fence is a bit of a different animal to a straight fence, technically the sharper the angle the more difficult it is to release the frangible device. Statistics show that despite a lot of effort going into a solution that works on 90 degree open corners, the number of activations was extremely low and the number of falls even lower. Number of serious injuries was also low so that's a good result and that was with the original design". This is now being updated.

"One goal is get more respect for these fences and I think we are on the right track here. We did make some changes to further improve frivolous releases. We are not trying to eliminate falls entirely because that is not possible, but trying to minimise the serious consequences of missing a distance. It also translates into making better riding happen and making the better ride win the day!", Dave Vos explained.

Geoff Sinclair pointed out that some devices were fitted incorrectly but that animations are now available on the [FEI website](#).

Geoff Sinclair explained that 10 nations had never used frangible devices so with an FEI subsidy, kits went out to three NFs so even countries concerned about cost can work with the FEI Risk Management Group with an eye on safety.

Questions:

Q: Derek di Grazia - As yellow clips are now required for MIM tables, which version hinge needs to be retrofitted for the yellow clip?

A: Mats Björnetun – two videos are available on the FEI website, the first showing how to rebuild "old" tables with the yellow clip, the second for the updated table kit.

Q: Derek di Grazia - There are now many MIM jumps that are portable. Being portable there is a lot of flex in these jumps. How will this flex affect how these devices work? Do these portables need to be stabilised for these devices to work correctly? If so, would this mean that a full post in the ground may be needed to accomplish this?

A: Mats Björnetun / Dave Vos – the function must be tested to ensure that it can be folded back and both clips mounted. This will ensure there is no failure. Portable fences need to be correctly staked to the ground.

A: Wayne Copping - I have witnessed MIM fences not working if there is only a few millimetres of movement, timber naturally flexes on impact and if the jump moves ever so slightly the impact force is dissipated enough for the clip not to activate.

A: Geoff Sinclair - Very good point about flexing timber. We know if the fence post moves it will take away some energy before the frangible device does. Therefore, it is important that no fence posts or portables move.

The following questions were asked through the Chat but not answered during the Seminar:

Q: Andrew Temkin - Allentown May 2021 is mentioned twice on the Open Corner slide, as I recall, there were two activations at the open corners with yellow clips. Are the falls horse falls?

A: FEI HQ - The Allentown May competition appeared twice as two separate fences were fitted with yellow clips (fence 23 and 24), each with one activation. Total starters should be 532 starters instead of 582. The falls mentioned are Horse falls.

6. Cross Country Course Design

Annex VII

Mike Etherington-Smith, International FEI Course Designer, Member of the Risk Management Steering Group

Mark Phillips, International FEI Course Designer, Member of the FEI Frangible Device Working Group

Derek de Grazia, International FEI Course Designer

The presentation ended with the “Lessons from 2021”

- *Securing of narrow/all fences including MIMs.*
- *Profiles and shapes of narrow fences.*
- *Consistency on fence description forms, e.g. which category is a house.*
- *Crossing flags.*
- *Roof/archway over fences.*
- *Importance of lower level courses:*
 - *New rule regarding efforts.*
 - *Not every pair of flags is an effort.*
- *Decoration on top of fences between flags.*
- *All fences must conform to the rules e.g. front leading edges or not be used.*
- *What we can do to help horses read fences & decoration to help depth perception.*
- *When does a square spread become an ascending spread?*

The key discussions centered on:

Groundlines are an aid for horses to read the fence and make it easier to jump it. Horses don't want to fall, bigger falls happen when horses get too deep. Ground lines help compensate for athlete error.

Mark Phillips pointed out that height of ground line is more important than depth (spread), a higher ground line helps keep front legs off the leading edge of the fence and goes a long way towards preventing falls. A deep ground line can make a fence flat and horses can put their feet into it. Also, attention to detail is essential because a ground line is part of base of the fence and can make the base spread wider.

Since 2021, all fences must have a ground line, as mentioned in article 547.2.7 of the Eventing Rules.

There was a discussion about portable fences that moved when hit by horses during competition in 2021. This happened at events in Millstreet (IRL), Le Lion d'Angers (FRA), Delhi (IND) and Temecula (USA).

Photographic evidence supported the discussion and it was agreed that it is essential to check and re-check the stabilisation of fences throughout the competition day. Fences should be staked at both the front and back, taking into account the type of stake used and the type of soil the stakes are going into.

Derek di Grazia pointed out that "staking or securing is only as strong as your weakest point when screwing into a fence". Mike Etherington-Smith added that "it is important that brackets are attached to the main frame of the fence and not to the cladding outside of it".

Fence shape was also discussed, and particularly the profiles and shapes of narrow fences. It is best practice to cross flags at fences that shouldn't be jumped. And there was a reminder that while some athletes think that every pair of flags is considered "an effort", that is not the case.

The construction of a roof/archway over fences is covered in the [FEI XC guide for Officials](#), which is available to everyone.

Decoration on top of fences between flags gives horses a better view of the leading edge of fence and what they are jumping. Decorations on front of leading edge helps horses judge their take-off point.

Where a fence is placed is relevant to what the background is like so that the profile of the fence is not lost in background. Flags and decoration help to identify the front and back of fence.

In order to improve depth perception, Mark Phillips emphasised that the use of colour helps the horse identify the leading edge against the back of fence. The back of fence colour is in front and which is at back so the horse reads the prevalent colour in front".

All the Course Designers emphasised the importance of lower-level courses in the education of horses and athletes.

Questions:

Q: Bruce Haskell - Which is better, spirafixes or stake fixes?

A: Jonathan Clissold - Spiral ground anchors are better in most ground but not necessarily in sand. Best quality ones are very expensive and copies are often not so effective. This often presents a big challenge for Event Organisers.

A: Mark Phillips - spirafixes are more expensive than certain copies which are not as effective. This should be followed-up.

A: David O'Connor – adding soil specifications in the XC Guide for Officials would be beneficial.

A: Derek di Grazia – the screwing into the fence was as important, brackets must be attached to the main frame of the fence and not the cladding on the outside.

Q: Wayne Copping - What is the view on soft mulch or dressing if the obstacle is already maximum base spread

A: Mark Phillips / Mike Etherington-Smith - Ground lines including mulch must be included in the base spread measurement of a fence.

Q: Wayne Copping - I think the fence types form could be upgraded as there are many fence types now that don't fit the descriptions.

A: FEI HQ Catrin Norinder - we will add the review of the fence description form for discussion with Eventing Committee.

A: Mark Phillips / Mike Etherington-Smith – for spreads, if the height difference between front and back is more than 20 cm, it should be an ascending spread. Less than 20 cm it should be a square spread. A house also needed to be clearly defined. Clear instructions were needed.

7. Future of Eventing – Social Licence

Annex VIII

Geoff Sinclair, Risk Management Steering Group Chair

Jenny Hall, FEI Veterinary Committee Chair and Head of Welfare for Retraining of Racehorses for the British Horseracing Authority

Geoff Sinclair pointed out that the challenge of the consistency of events around the world is a high priority, and a conversation that just keeps happening. "We need to keep having it, but there is no easy answer. Technical Delegates and Course Designers must ensure people and horses are jumping at their level".

The Social License to operate is relevant to all of equestrian sport, and the effect of controversy is felt regardless of whether a sport is affiliated to the FEI.

Eventing changes in the last 20 years

- 1999 Over 10 fatalities forcing review.
- 2000 Sydney last Olympics with roads & tracks & steeplechase plus two complete competitions for Individual and Team.
- 2010 Short format allowing jumping before XC. Now 60% of completions are short format.
- 2018 1* Unified introduced now 12% of competition.
- 2010 to now number of starters increased 30% and number of FEI competitions 50%+.
- 2022 Social media and live broadcast has exploded.

Jenny Hall said Eventing is doing well from a horse welfare perspective on a technical level with the introduction of frangibles and that course design and safety concerns are having a big impact. However, the biggest gap is in communication about the efforts being made which are not evident to external observers. "We don't have a Head of Health and Welfare and we need to be on the front foot and be more visible about horse welfare".

Britain's Horse Welfare Board is independently charged to lead equine welfare and produced a strategy document last February. Mike Etherington-Smith was appointed Equine Safety Advisor to that board in 2021.

For all the improvements in fence design and safety at fences, there was a horse fatality at both the World Championship and Olympic Games last year - nothing to do with an obstacle, they were both limb injuries not at fences.

In Australia, Racing Victoria had to review everything about horses competing in the Melbourne Cup. There's only been eight fatal limb injuries over last 40 years but four in last eight years and they were all internationally trained horses. So now they look for all kinds of stringent examinations before competition because the race has been under so much pressure. PETA is calling for an equestrian ban from Olympics and there is a lot going on in racing, some relevant to equestrian sport although the risks are different, but it's good to work together.

Geoff Sinclair expressed the need to be more transparent about horse fatalities or serious injury. "The Social License concept Roly Owers (CEO, World Horse Welfare) brought to the General Assembly last year defined an unwritten non-legally binding contract in which society gives us the right to operate...and it highlights transparency, ethics and accountability. Threats to that social license include not prioritising horses' mental and physical welfare, not listening and engaging, not basing practice and rules on evidence. Responsibility applies anytime, anywhere

and lasts a lifetime. We are not proactively communicating about welfare and the importance of the horse/human partnership”.

Jenny Hall said that it is essential to be aware that the true meaning of social license is acceptance by people not involved in equestrian sport. The Modern Pentathlon could have been making changes for a long time yet ended up with a situation in 2020 that has impacted equestrian sport.

Threats to social licence?



- Not prioritising our horses' mental and physical welfare
- Not listening and engaging with all stakeholders, including the public
- Not basing practice and rules on evidence
- Not being accountable, transparent, and ethical
- Not recognising that our responsibility applies anytime, anywhere – and lasts a lifetime
- Not proactively communicating about welfare and the importance of the horse-human partnership.



During the 2021 FEI General Assembly, Roly Owers of World Horse Welfare gave a presentation on Ethics and Horse Sport, from where the following slide is taken.

To protect the social license it is necessary to accept that the world is changing and to be transparent, ethical and accountable.

Ask not can I, but should I be doing this. Consider the ethical basis for everything.

Combine experience with ethics. Be ahead of public expectations on horse welfare.

Questions:

Q: Anton Granhus – there is one challenge with the stables rules since we don't allow media and spectators into the show stables, and this is sometimes perceived as if there's something to hide.

A: Jenny Hall – Obviously, we need to protect equine security and safety too with regard to anti-doping. Grooms need to feel they can leave their horses unattended as they are in a secure area with controlled access hence why we should promote chaperoned media tours rather than unrestricted access.

Comment: Jennifer Hall - As a further point re horse welfare World Horse Welfare has funded a research project at the Royal Veterinary College, University of London, to develop an ethical framework tool for decision making in equestrian sport. This concept has been published in an open access journal that can be found here: <https://www.mdpi.com/2076-2615/11/6/1725/html>.

8. Horse Welfare – Alogo® Equine Sensor “Move Pro” update

Annex IX

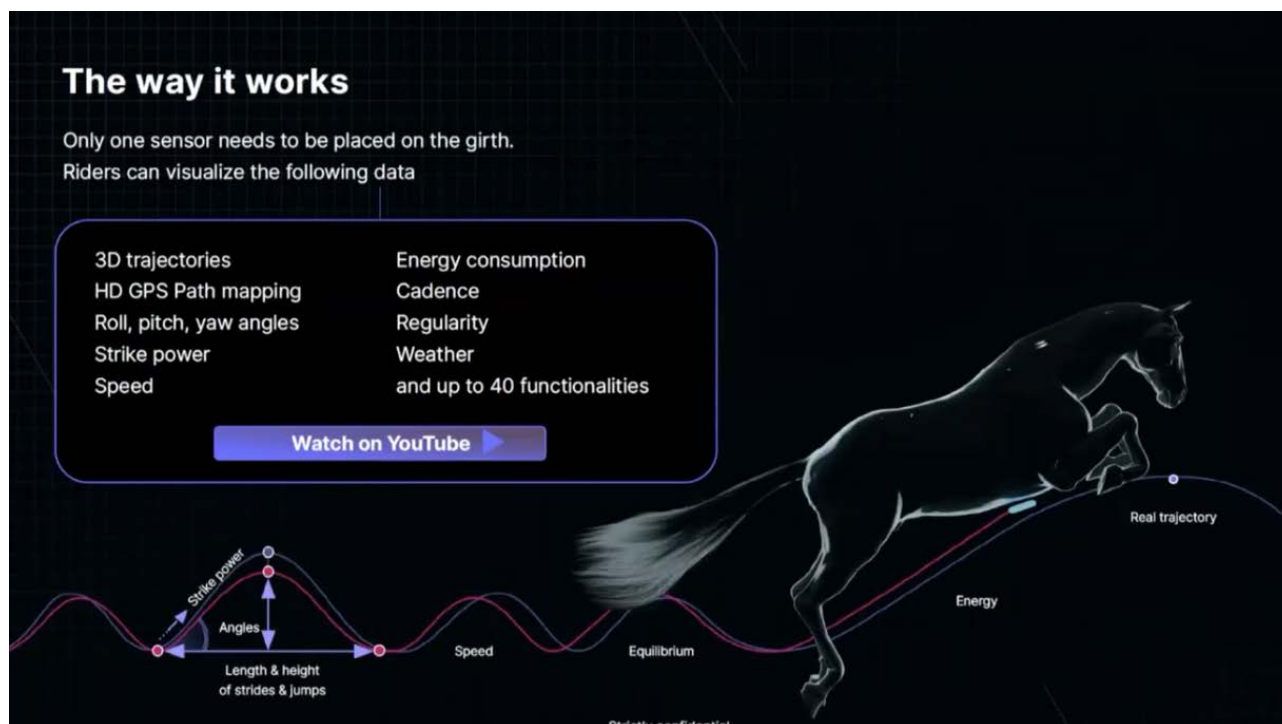
David Deillon, Alogo®

Staffan Lidbeck, Risk Management Steering Group Member

Dave Vos, Risk Management Steering Group and Frangible Device Working Group Member

With the support of the FEI, this device was used at the Test Event in June and the FEI Eventing European Championships 2021 in Avenches, Switzerland last September.

The equipment is a sensor attached to the horse's girth from which data can be analysed. Blood samples were also collected. The sensor measures Speed, Balance, Energy consumption, Strike Power (acceleration of horse off ground) and Path Mapping.



At the June event, information was collected from 21 horses and from 17 horses at the European Championships in September thanks to athletes and NFs from Ireland, Italy, Switzerland, Finland and Denmark. There was a concern about the device catching in a MIM clip but it didn't happen and it was clearly mentioned by Dave Vos that this was not likely to happen.

Dave Vos said first observations of the stride analysis was that stride length after fence is always shorter than other strides.

"Rhythm and height is where energy gets spent, you can see that in Strike Power and Energy levels, so science confirms what expert equestrians already know. Stride length relates to speed".

The length of five strides before and after a jump, the speed over jumps and strike power/acceleration were all measured. It is intended next to gather data on Fatigue, Speed, the effect of Topography and Fence Construction and there will be a new study about trajectory over jumps, to better understand how the horse behaves according to the obstacle.

The Alogo® Equine Sensor will next be trialed at Montelibretti, Italy in February and March 2022.

9. Medical Update

Annex X

Dr Mark Hart, Medical Committee Chair

Dr Rob Stevenson, Risk Management Steering Group Member

Prompted by two deaths in the sport in Australia there is a recommendation for the provision of Medical Services Coverage at FEI events. A Coroner Inquest raised issues about setting minimum medical standards but writing those standards internationally is difficult taking into account huge differences in the capability of countries around the world.

The plan is therefore to set out minimum standard medical coverage at FEI Events allowing for variations. The first meeting took place a year ago so there is only one year before these standards will become mandatory, and therefore good feedback is required. There is a clear

understanding that there will be a huge variation in cost and availability for providing this medical coverage.

Medical response – CROSS COUNTRY test

MINIMUM REQUIREMENT		
Medical personnel type	Response time	Logistical considerations
1 x Advanced Medical Response Team available at all times on site	Strongly recommended: maximum 5 minutes(***) from notification of accident	Capability of rapid deployment to any part of the course (including warm-up area) and all obstacles on the cross country course.
+		
Additional medical personnel required for adequate coverage		
As pre- determined by the CMO depending on the layout of the Cross Country courses and the accessibility of the site.		
+		
If possible: ambulance or equivalent arrangement (see table in II.3 for details) for:		
<ul style="list-style-type: none">- Treatment of minor ailments- Observation and initial treatment of serious injuries or illness- Transportation to appropriate medical facilities.		

Each event should have a Chief Medical Officer, not necessarily a physician but someone who understands the necessity for medical coverage at equestrian events. This officer will participate in the preparation of a Serious Incident Management Plan (SIMP) and have knowledge of available local emergency medical resources and local regulations.

Medical Staffing Requirements will include the attendance of an advanced medical response team during the cross-country phase and at all times an ambulance or equivalent must be available, ideally on site.

Response time is strongly recommended as maximum three minutes from notification of an accident, and on cross-country day, taking access into account the response time benchmark should be five minutes. Course Designers will need to take into account that access to any part of the course must be available.

There will be a mandatory Medical Assessment after any fall and concussions are high on radar. They can't always be diagnosed quickly and we already have measures to immediately assess that but in future anyone who takes a fall must continue to be evaluated.

Air vests are recommended, it is not possible to make them mandatory yet because there is not enough evidence of benefit or downside. We are reaching out to other sports to look at protection of neck, chest, back, abdomen and now need to think about shoulders.

Medical Services Coverage will be mandatory next year so feedback now is very important.

Questions:

Q: What is the status of research of blood tests for concussion?

A: Blood tests can be done immediately or six hours afterwards to assess the degree of damage or injury to the brain. A CT scan is worthless for diagnosing a concussion, it only points to a crack in the skull or internal bleeding. Blood tests are very important but research still needs to be done to correlate what we do when we have results.

COVID Update

It is coming up to the second anniversary in March and the FEI did an incredibly proactive job, recognised by the IOC, to make our sport safe. We had an initial shutdown but came back very early and numbers bounced back beyond expectation. We are lucky we have a mainly outside

sport and little close contact but it has been a credit to stakeholders that they followed recommendations and the sport came back strong in 2021.

The Omicron variant has taken over with transmissibility but not causing as much serious illness to over-run hospital capacity. We are not doing well enough worldwide to develop immunity but Omicron may change that because 50% should have it in the latest surge. Silver lining with Omicron is that it is affecting enough people to change this from pandemic to endemic so it's like the flu. Spanish flu in 1918 killed so many we still have that H1N1 virus. We still see that but we manage it as an endemic.

Mark Hart said he is still involved with the WHO Taskforce and that it looks like we'll have a good spring. "Even if you've had Covid you need to get vaccinated, natural immunity is not enough and boosters are important too, protecting you from a serious infection causing hospitalisation and death".

He advised that unvaccinated people should wait 6-8 weeks and then get it done.

He was involved with Covid policy for Tokyo 2020 Olympic Games where there was only one positive case on the equestrian venue, "a farrier who totally ignoring all the rules, otherwise everyone did a great job!"

Questions:

Q: Vanda Stewart – Regarding Covid, could the FEI advise where our FEI Officials insurance stops/ends? Supposing we are working for FEI at an event out of country, and test positive?

A: FEI HQ Catrin Norinder – Please refer to the [Memo on Insurance Coverage](#) published on the FEI website.

10. 2024 Olympic Games

Annex XI

Catrin Norinder, Eventing & Olympic Director

David O'Connor, Eventing Committee Chair

The teams-of-three situation remains same as Tokyo as there is still a strong message from the IOC that this is what they are demanding.

Paris 2024

1. Total Quota for Eventing:

	Qualification Places	Host Country Places	Total
Men/Women	62	3	65
Total	62	3	65

1. Maximum Number of Athletes per NOC:

	Quota per NOC	Event Specific Quota
Men/Women	3	Maximum 1 Team with 3 athletes per team

Type of Allocation of Quota Places:

The quota place for both Teams and Individuals is allocated to the NOC (not directly to an Athlete).

NB: total quota for Equestrian has not changed: 200 Athletes

Changes took away some individuals and created another team for the 2020 Games, and the seven best-ranked teams from the World Championships in Italy this summer will qualify for the

2024 Games while the winners of the Nations Cup 2023 series also earn a spot (after you take away already qualified). The FEI Eventing Nations Cup™ series gives athletes more of an opportunity to practice as part of a team.

Individuals will qualify as usual from FEI Olympic Groups, three slots will be filled from World Rankings, so the only two changes are that the 2023 Nations Cup will produce a team and there will be an extra qualifying slot from the World Championship.

Catrin Norinder explained that the qualification system was approved at the 2021 FEI General Assembly. Discussions with the IOC, about the MER system and Olympic regulations etc. have been postponed so that a questionnaire could be sent to all NFs and everyone involved in Tokyo Games with a view to coming back in February ahead of a debate at the Sports Forum in April with final decisions to be taken at the 2022 General Assembly in November.

The IOC is putting on huge pressure for reduction in complexity and costs and the increase of universality. The FEI is very conscious of the effect of changes but there is daily pressure from the IOC about this.

David O'Connor requested feedback ahead of the Sports Forum about whether the current MER system is appropriate for all countries at present, including those with few events.

11. National Safety Officer (NSO) Presentations

Meredith Chapman, AUS NSO

Philine Ganders-Meyer, GER NSO

Alice Mak, HKG NSO

Annex XII.1

Annex XII.2

Annex XII.3

Australia

Following two athletes fatalities, the 31 Coronial Recommendations presented to Australian Eventing in 2019 are being acted upon and National Safety Officer, Meredith Chapman, outlined progress so far.

"Sport Australia removed our funding and we did a lot of work to get it back". There was an external audit and there continues to be a few areas for improvement including governance, health safety and welfare but taking an holistic approach and engaging with stakeholders and collaborating on new rules and processes "we are not setting up to fail".

Communication, education, implementation and auditing are key to the process. Of falls reported in 2021, a total of 84.4% were jump related and there were three horse fatalities. There has been an increase in athlete falls since 2017 but the majority were at lower levels.

New protocols under review and/or already in place include Debrief post-incident, Helmet tagging, Serious Incident Management Place, Medical Services Provider Framework, Concussion Protocols, Review Panel Eventing Data and the appointment of Event Safety Officers.

Germany

Germany's Philine Ganders Mayer reported on the delivery of 865 MIM Systems for free to 193 Event Organisers last year and more will be provided over the coming year.

A total of eight short video clips about XC were produced for social media, four already published in Spring 2021 and four more about to launch this year. They feature big names including Olympic Champion Julia Krajewski, Chris Bartle, Hans Melzer, Peter Thomsen, Thies Kaspareit and Frank Ostholt.

Cross-country Education and Licensing of Coaches for squad athletes and others is already underway along with repeated testing of Airvest Protectors.

On the subject of frangible devices, Philine Ganders-Meyer said "we will for new rules recommend less penalties or zero if new systems are in practice so athletes are not punished if they (the frangible devices) don't work as they should".

Hong Kong

Hong Kong NSO, Alice Mak, reported that Frangible devices were implemented in 2019 but the Yellow Clips have not yet been used. Due to the pandemic from early 2020 all competitions were cancelled but they resumed in September 2021 and frangible devices were used at the National Eventing competition.

From September to December a total of 95 combinations started in events, but Omicron arrived in early January and the Government stopped competition again. There is no restart scheduled and the CCI planned for March is now cancelled.