

Additional guidance notes relating to the rules proposals on additional days of Mandatory Out Of Competition Period (MOOCP)

Summary

This guidance note summarises the evidence supporting the rules proposals regarding additional MOOCPs.

1. The evidence establishes that speed is associated with the risk of an FTQ.
2. The evidence demonstrates that the risk of FTQ is not associated with speed in a linear manner. In other words, there appears to be a cut-off in speed (around 20-22kph) above which the risk of FTQ starts to increase substantially: In 120km rides, there is no real difference in risk (attributed to speed) between two horses being ridden at 13kph and 19kph, but there is a significant difference in risk between two horses being ridden at 20kph and 24kph (the risk is almost double for horses riding at 24kph compared with those being ridden at 20kph).
3. The evidence establishes a clear benefit of having a longer out of competition period between rides. The longer out of competition period a horse is given (up to 30-days in this analysis) the lower the risk of FTQ in the next ride.
4. Finally, the analysis used to assess which of a range of potential rule changes are likely to be of benefit while taking account of the fact that some horses will have to wait a little longer before they can compete again, is provided.

1. Evidence that speed is associated with the risk of FTQ

These analyses were conducted in 2016 using the data relating to all FEI rides conducted between 2010 and 2015, inclusive and published in The Veterinary Journal, following peer review, in 2018 (reference 1 below) – Note, for the avoidance of doubt, in that publication FTQ-GA is referred to as FTQ-LA.

In summary the risk of FTQ-GA increased as follows:

Compared with riding at less than 15kph in loop 2, **riding at more than 20kph in Loop 2** increased the risk of **FTQ-GA** in that ride by **24%**.

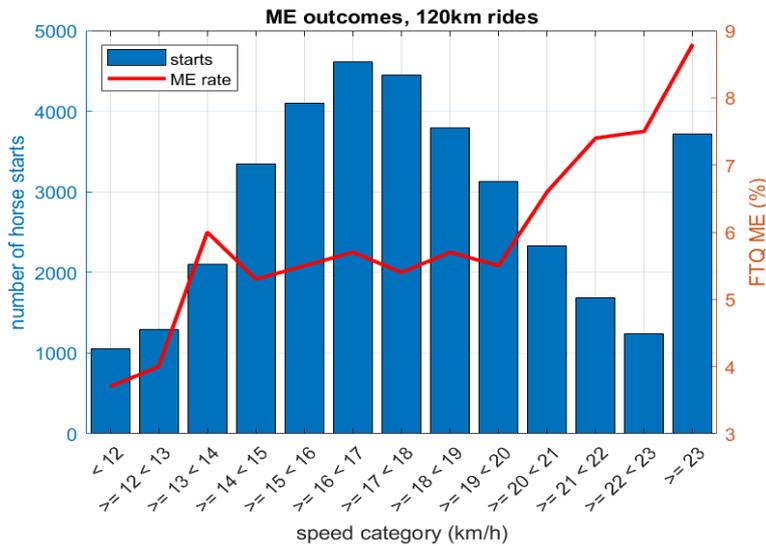
The risk of FTQ-ME increased as follows:

Compared with riding at less than 16kph in loop 1, **riding at more than 20kph in Loop 1** increased the risk of **FTQ-ME** in that ride by **120%**.

It is important to note that these associations account for the effect of many other variables including: region group; ride distance; field size; horse age; distance of previous ride for that horse; outcome for the horse at the previous ride; days over MOOCP since last ride; number of previous FTQ-MEs or -GAs for the rider and number of rides for the horse in the last 120/240/365 days. Even when all of these additional risk factors are accounted for, ride speed is still an important risk factor for FTQ-GA and FTQ-ME.

In addition, the graph below illustrates how in 120km rides the risk of FTQ-ME increases as the speed over completed loops increases (**solid red line and read on the right-hand axis as 'FTQ ME %'**). The risk of FTQ-ME for horses being ridden at between 13kph and 20kph is constant at

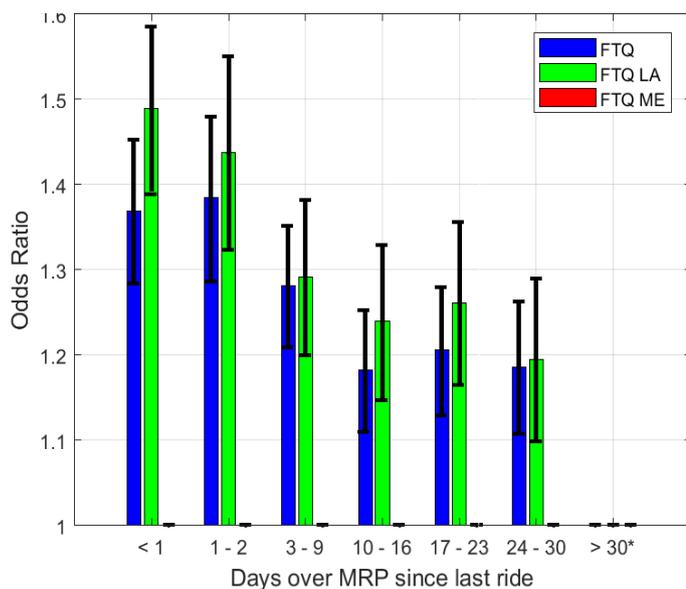
about 5.5%. However, after this point the risk rises sharply to about 9% when being ridden at over 23kph.



2. Examining which potential rule change would reduce the rate of FTQ, while at the same time minimising the impact on the sport

These analyses were conducted in 2016 using the data relating to all FEI rides conducted between 2010 and 2017, inclusive and very recently published in The Equine Veterinary Journal, following peer review (reference 2 below) – Note, for the avoidance of doubt, in that publication FTQ-GA is referred to as FTQ-LA.

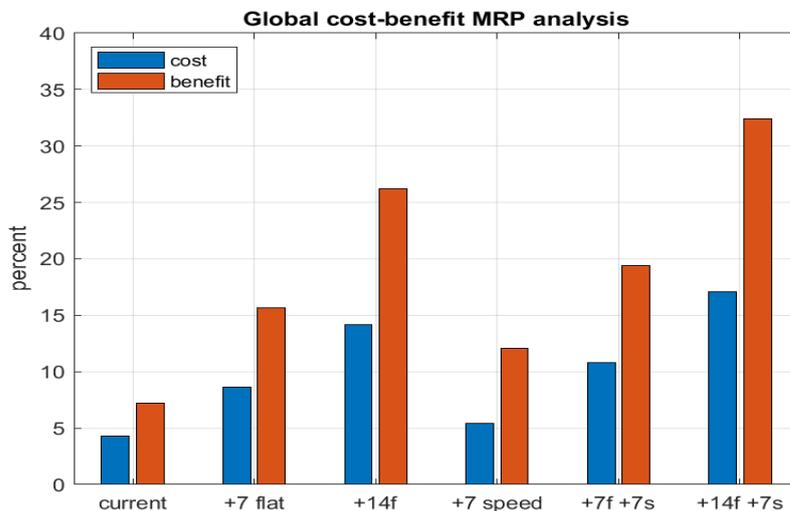
The first graph below shows the risk of FTQ (BLUE BARS) or FTQ-GA (GREEN BARS) for horses that have waited 'x' days more than their MOOCP (MRP at the time of the study). This clearly shows a very simple trend that the longer the horse waits between rides the lower the risk of FTQ. **This provides the evidence that longer MOOCPs are of clear benefit in terms of horse welfare.**



The final plot below shows the 'cost' and 'benefit' of each of the different potential rule changes that were considered. The following definitions were used to quantify cost and benefit:

Cost = percentage of horses that would have had to wait a further 7- or 14-days more before returning to competition.

Benefit = percentage of horses that would have avoided an FTQ.



The likely impact of 5 different potential new rule changes were compared with the impact of the current rules, which were introduced in 2014. In other words, for each of the 5 potential new scenarios the cost and benefit of each were calculated as if they had been introduced in 2014. This enables us to see how much more cost and benefit would be incurred and achieved, respectively by the introduction of each different scenario.

The 5 new potential scenarios modelled were:

Adding an additional 7-days to all MOOCs ('+7 flat' in the graph).

Adding an additional 14-days to all MOOCs ('+14 f' in the graph).

Adding an additional 7-days to the MOOC for all horses that exceeded 20kph over the completed loops ('+7 speed' in the graph).

Adding an additional 7-days to all MOOCs **AND** an additional 7-days for all horses that exceeded 20kph over the completed loops ('+7f +7s' in the graph).

Adding an additional 14-days to all MOOCs **AND** an additional 7-days for all horses that exceeded 20kph over the completed loops ('+14f +7s' in the graph).

As expected, given the previous evidence about longer out of competition periods being beneficial, the greatest benefit, in terms of percentage of FTQs prevented, would come from the '+14f' and '+14f +7s' changes. But these would also see the greatest cost, in terms of the number of horses that would have been out of competition for a little longer than was the case under the current rules.

Of the two rule changes that have been most discussed ('+7 flat' and '+7 speed') additional benefit is derived from both: The '+7 flat' rule change would have resulted in 15.5% of FTQs being prevented and the '+7 speed' change would have results in 12% of FTQs being prevented.

But the additional benefit provided by the '+7 flat' change comes with greater cost: For '+7 flat' 8% of horses would have been prevented from competing when they did, compared with 5.5% of horses for the '+7 speed' rule change.

There are clear benefits to both interventions, but the committee decided that to keep the 'cost' to a minimum, but still provide some benefit, it would recommend the addition of 7-days to the MOOCP for horses ridden 'at speed' (NOTE see below).

NOTE re definition of at speed: Given the evolution of the sport and the fact that these results are based on data prior to 2018, the committee took the decision to raise the speed at which the new additional MOOCP would be introduced from 20kph to 22kph: Horses that complete at a speed equal to or less than 22kph will not receive additional speed-related MOOCP, but those being ridden at more than 22kph will automatically receive an additional 7-days on their MOOCP.

3. References

1. Bennet, E.D. & Parkin, T.D.H. Fédération Equestre Internationale endurance events: Riding speeds as a risk factor for failure to qualify outcomes (2012-2015). *The Veterinary Journal* 236 (2018) 37–43.
2. Bennet, E.D. & Parkin, T.D.H. The impact of the mandatory rest period in Fédération Equestre Internationale endurance events. *Equine Veterinary Journal*. *In press*.