RESULTS OF THE GLOBAL ENDURANCE INJURIES STUDY

IDENTIFYING AND REDUCING RISK FACTORS AFFECTING HORSES DURING ENDURANCE RIDING

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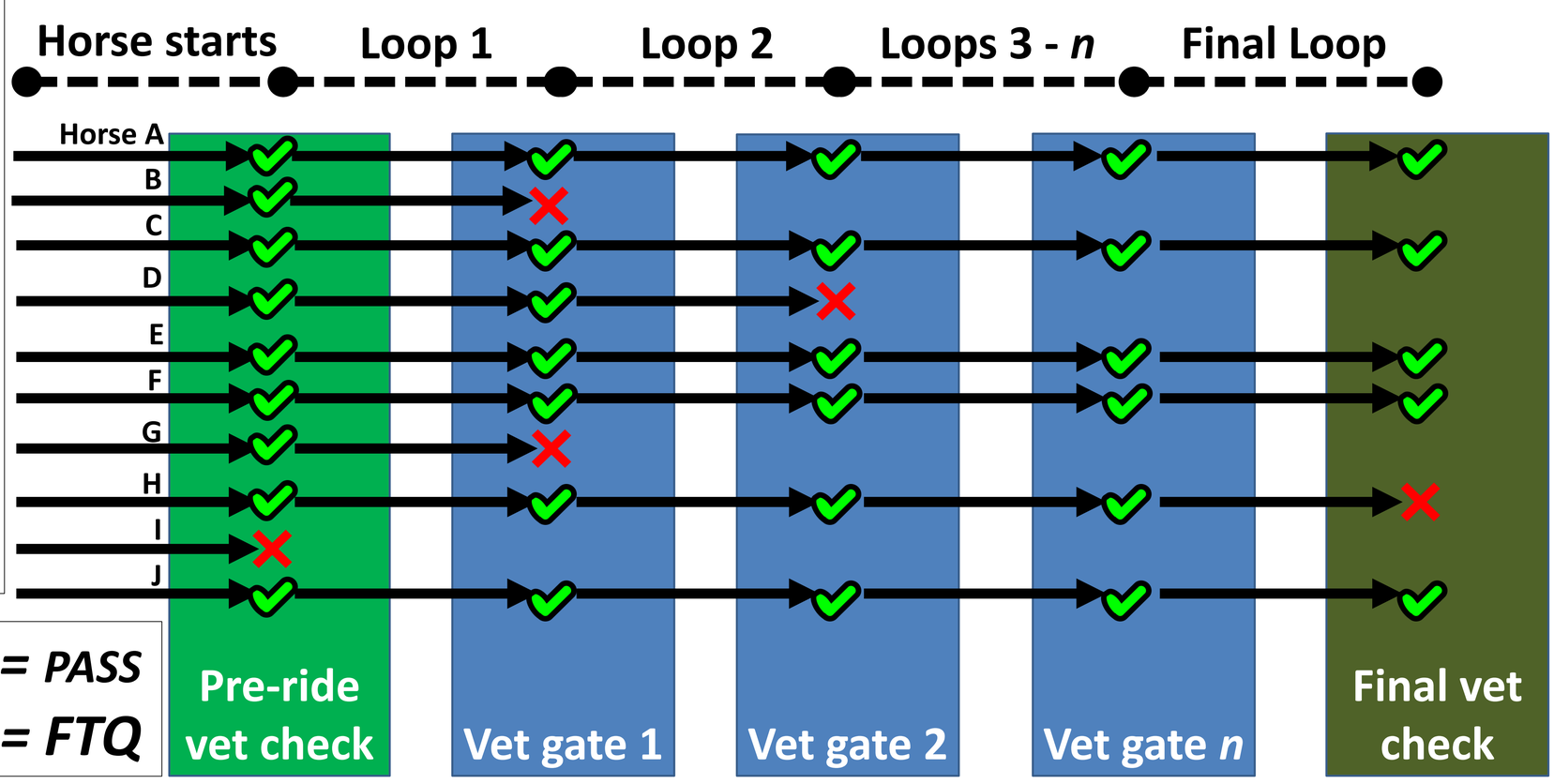
ABSTRACT

- The Global Endurance Injuries Study (GEIS) is a database of every FEI Endurance event worldwide
- Currently 97,462 horse starts between 2010 – 2016 are included
- 32% of starts ended in a Failure to Qualify (FTQ) at some point during the ride
- 25 potential risk factors were analysed in a multivariable logistic regression model
- Highlighted results: increased likelihood of FTQ associated with *1) Insufficient rest periods*, and *2) high riding speeds*

ENDURANCE

- Long-distance horse rides (80km - 160km)
- Ethos is finishing *safely*, not *fastest*
- Horses must pass 4 - 7 vet checks over the course of the competition
- Horses may *"Fail to Qualify"* at any vet check (32% of all horse starts)
- Most FTQs are for lameness (FTQ LA - 24%)
- Or for metabolic problems (FTQ ME - 6%)
- Three outcomes assessed by logistic regression: all FTQ, FTQ LA, and FTQ ME

SCHEMATIC OF AN ENDURANCE RIDE



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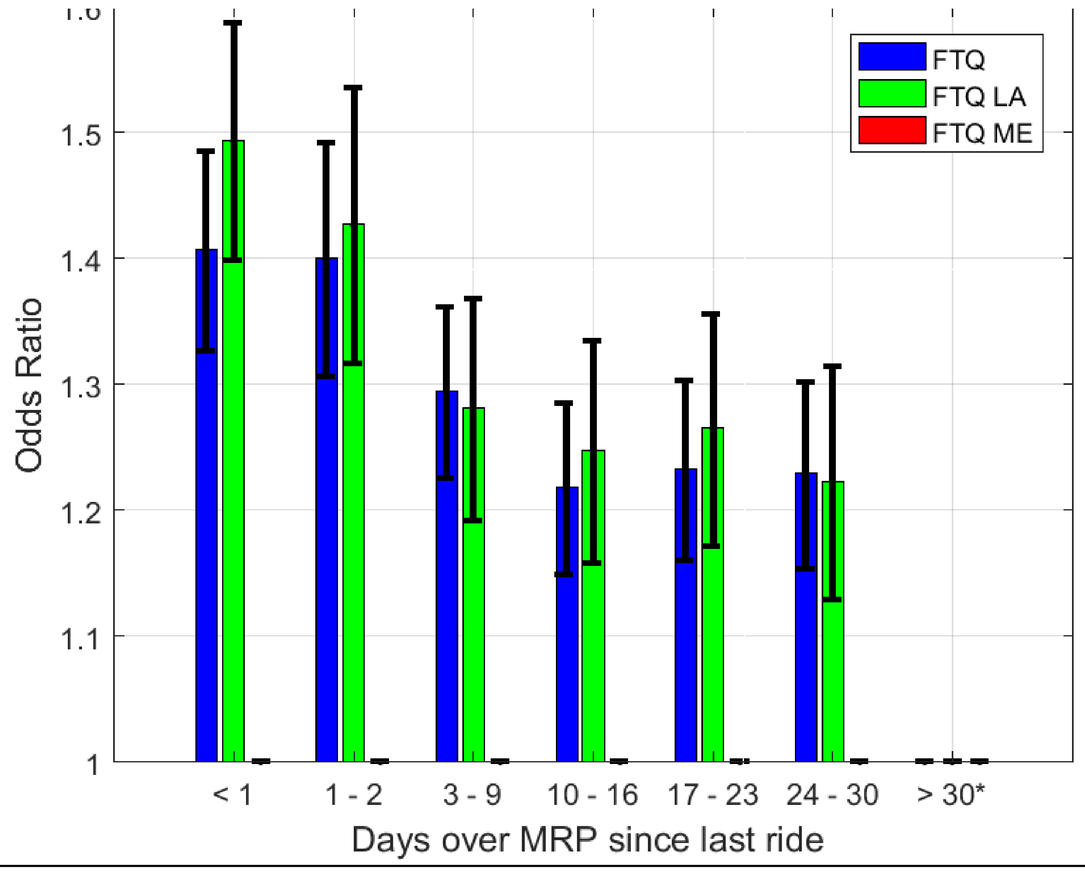
MANDATORY REST PERIODS

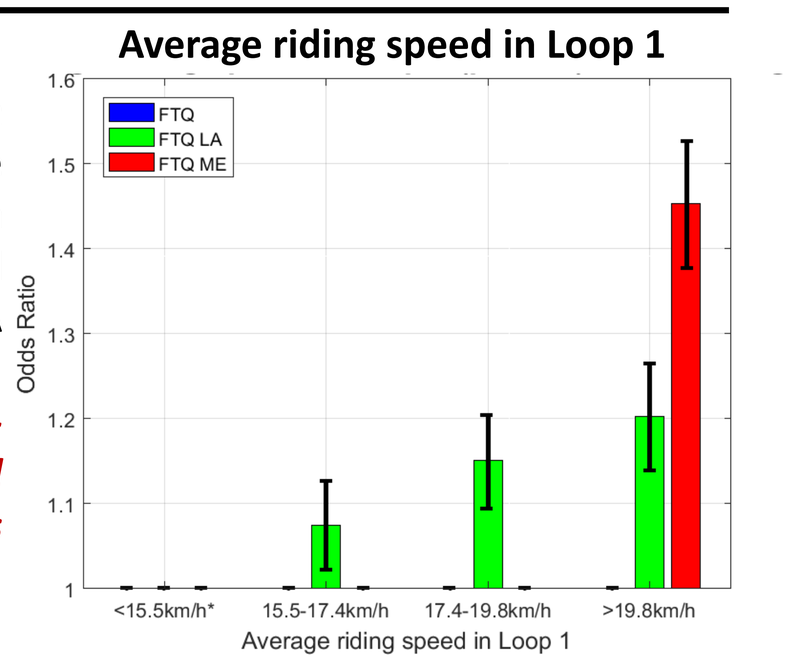
Distance Completed in last ride	MRP (days)
Start – 40km	5
Start – 80km	12
Over 80 – 120km	19
Over 120 – 140km	26
Over 140km	33

- Since 2014, MRPs (left) have been the minimum time horses must wait after a ride before competing again
- *Clear association between short rest periods (over and above MRP) and increased likelihood of FTQ and FTQ LA.*
- *Evidence supports* increasing *MRPs*

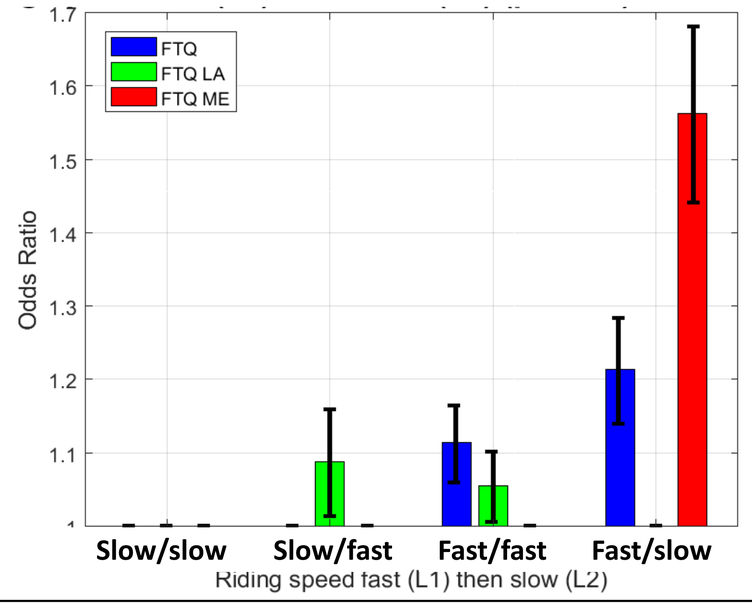


AVERAGE RIDING SPEEDS

- High riding speeds in Loops 1, 2, and 3 are associated with overall increased likelihood of FTQ LA and FTQ ME
- *Potential for real-time monitoring and intervention by vets during rides*



Riding speed fast in Loop 1 then slow in Loop 2



- "Fast" = above average speed
- "Slow" = below average speed
- *Horses recorded as fast in Loop 1 and then slow in Loop 2 have significantly increased likelihood of FTQ and FTQ ME during Loop 3*