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# Minimising the risk of fatal and non-fatal injury in jump racing

## Identification of modifiable risk factors for injury in jump racing Thoroughbreds

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Prj: 750

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# Studies to minimise the risk of fatal and non-fatal injury in jump racing

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## Reason for study

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- There have been several previous studies of risk factors for equine fatal and non-fatal injury in racing in GB
  - Previous studies have identified several risk factors for injury such as firmer going, longer races and particular aspects of training history
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## Reason for study

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- This study utilised a large database of equine injuries identified on GB racecourses between 2000 and 2010
  - It was the largest study of its type to be conducted into jumps racing in GB
  - The aim was to indentify modifiable risk factors to minimise the risk of injury in jump racing in GB
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## Reason for study

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- The risk of fatal and non-fatal injury in jump racing in GB is greater than that in flat racing
  - Particular types of injury are more prevalent and identifying the risk factors for these types of injury could provide significant welfare benefit
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# Relevance to Thoroughbred

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- Modifications to racing based on the evidence provided by this work may minimise the risk of fatal and non-fatal equine injury in jump racing in GB
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# Aims and objectives

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- Identify the most significant types of injuries in jump racing in GB
    - The “significance” of the injury type took account of:
      - Severity or impact of the injury for the horse affected
      - Frequency of injury
  - Identify risk factors for these types of injury
  - Describe any seasonal variation in risk
  - Validate previous statistical models
  - Design initiatives to manage common risk factors
  - Produce a science advice document for the racing industry to guide discussion of potential changes to racing that could minimise the risk of equine injury
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## How did we do this?

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- We used a database of approximately 300,000 jumps race starts which included:
    - Approximately 1500 fatalities
    - Approximately 10000 injuries
  - Statistical modelling identified variables associated with increased risk of fatal or non-fatal injury
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# How did we do this?

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- We investigated risk factors for:
    - Fatal injury
    - Tendon injury
    - Epistaxis (bleeding from the nose)
    - Hind limb fracture
    - Pelvic fracture
    - Upper forelimb fracture
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## What did we find?

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- Risk factors that were associated with multiple injury types:
    1. Horses with a greater proportion of their career to date in flat racing
    2. Firmer going
    3. Longer races
    4. Fewer starts in the period more than one year prior to the current race
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## What did we find cont.

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- Risk factors that were associated with multiple injury types:
    5. Jump racing between June and August.
    6. Previous occurrence of same injury
    7. Fewer starts in the period between 10 and 12 months prior to the current race
    8. Older horses
    9. Fewer starts in the previous three months
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# Impact on the Thoroughbred

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- Successful design and implementation of initiatives designed to address any of the risk factors listed could result in a significant positive impact on equine welfare
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## Next steps

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- A working group has been established by the BHA to identify potential areas for change, which the racing industry could adopt and which will be effective based on the evidence provided by this work
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