Tokyo 2020 Olympic & Paralympic Games
Climate Mitigation
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The individual horse intervention protocol

A new concept
Focused on the individual horse rather than the overall competition formats
Formal protocol for intervention and support during post travel recovery and training
Goals of protocol

Not applicable during competition warm-up
Collaborative process – working with horse’s own team
Consistent approach
Best practice
First class advice
Protection of horse and athlete health and welfare
Description of concept

At Olympic Games horses at exercise always observed

Agreed triggers for intervention:
Examples: excessive sweating, increased respiration, general demeanor
Intervention: to assess the horse and gather objective data

Move horse to shade
Observe horse
Record rectal temperature, heart rate and respiration
Cooling if indicated
Guidance determined by assessment and recovery if cooling required
Further management determined by horse data

Advice dependent on:

- Assessment of thermal stress
- Recovery rate
- Potential for adaptation of thermal exposure
Research studies during 2019

- Analyses of Wet Bulb Globe Temperature (WBGT) to inform advice for Eventing at the Tokyo Olympics, 2020
- Project timeline 01/05/2019 – 31/12/2019
- Both retrospective and prospective work
- Principal aim to confirm impact of change in format of Eventing competition regarding thermal load on the horse and therefore validity of previously implemented mitigation strategies
Horse data gathering at Test Event

- In collaboration with NFs
- Pre transport preparation
- In transport
- Post arrival recovery period
- Preparation for competition
- Competition
- Post competition
Education programme

Beginning at Test Event
Raising awareness
Communicating outcomes from studies done during 2019
Sharing best practice across the four disciplines
Risk factors for heat related illness

- Big, heavily muscled horses
- Older horses
- Pre-existing health conditions
- High body condition score
- Temperate to hotter and more humid climate
- Dark or long hair coat
- Maximal athletic effort
- Dehydration
How to recognise the horse that is too hot

Needs to stop work and be cooled

Horse feels very **hot to touch**

Panting (fast and shallow breathing)

**Excessive sweating** – horse covered in sweat and/or dripping from the body

**Unsteadiness** – especially when stopping after exercise

“Blowing” very hard (deep and laboured breathing)

Horse may show little reaction to people/environment

A high rectal temperature – above 40°C (104°F)

Prominent blood vessels in the skin

Horse may appear distressed
Cover as much of the horse as possible in water starting at the head and working backwards
Work on both sides of the horse – one person each side is ideal
Cool for 30 seconds, Walk for 30 seconds, Repeat
Cooling best practice
Cooling – Best Practice

It may take 10-15 minutes and 30 buckets of water to cool an overheated horse!
When to stop cooling

1) When the horse is no longer hot to touch
2) When the horse has stopped BLOWING or PANTING
KEY POINTS

Muscle gets the hottest

Skin cools the quickest

Rectal temperature continues to increase after exercise even with cooling as it takes time for heat to transfer from muscle to blood to rectum

Even after 6 minutes of aggressive cooling rectal and muscle temperature will still not have returned to resting – important for cooling in warm-up