

Preparing Horses for the Nationals:

A vet's perspective

You already know that the Nationals aren't like a normal club competition. The pace of play is faster and more intense, and it goes for days instead of a normal weekend. The impact of this applies not just to you, but also to your horse as well. So, in prepping your horse for the Nationals it is important to consider a range of factors that don't always come into consideration for weekend competition. NSW has one of the highest rates of completion for horses entering the competition and this focus on horse management and welfare is something that the state is rightly proud of. Below I discuss 5 key factors that I have observed to impact upon horse welfare at previous Nationals and discuss how you can reduce the impact of each factor to continue this attitude of excellence. Thinking about these well in advance of the tournament will greatly improve the likelihood that both you and your horse have a successful, and safe, Nationals campaign.

Exercise

The only thing that prepares your horse's body for high intensity work is high intensity work.

All the trotting and cantering in the world, while useful for core fitness, won't make your horse's bones ready for sprinting, cutting and turning, its heart ready for peak exertion with maximal heart rates approaching 250 beats per minute, or the muscles able to provide the explosive power that you are looking for chukka after chukka, day after day. In fact, excessive trotting may increase the risk of fracture due to increased cycle loading of the bone (the same way that bending a paper clip back and forward ultimate breaks it).

At the last Warwick Nationals some of you may remember a study that we did looking at muscle enzymes and tying up. The findings of that study were clear; nearly a quarter of horses that were randomly sampled had evidence of muscle disease during any given game. But only a small percentage had overt clinical signs of tying up and, equally important, on average there was no correlation between the rider reporting concerns over muscle soreness and elevations in muscle enzymes. So, while horses that obviously tie up are easy to detect, riders are not able to detect horses with subtle muscle disease. This is important as this low-grade muscle disease is an important limiting factor in the affected horse's ability to back up for competition day after day like we require at the Nationals.

The most likely cause of the mild elevation in muscle enzymes seen? The horses were not fit enough. "Really?" I hear you say. "These are the best horses in Australia, ridden by the best riders in Australia and they play polocrosse week in/week out!" I hear you protest. This may be true but the riders and horses do not play Nationals polocrosse week in/week out and while the horses may have been perfectly fit for normal competition, they were not fit enough for Nationals level competition.

This takes us back to the opening statement that "*The only thing that prepares your horse's body for high intensity work is high intensity work*" and if you want your horse fit for high intensity competition then it is critical that its training regimen in the lead up to an event such as the Nationals focusses on high intensity work that simulates the speed of game play at a Nationals level. Muscles take time to condition to high intensity work and high intensity/short duration work should be a key part of your horse's training regimen for at least 4-6 week before leaving home. If your

horse has a history of tying up or nonspecific muscle problems then managing the diet with the help of your veterinarian or a nutritionist is critical. In general recommendations for horses with muscle problems focus on low carbohydrate/high fat diets. Dietary changes take weeks to months to have an effect so the sooner that the recognise and address the issue, the better. There are numerous supplements, both oral and injectable, marketed for muscle health but none are a substitute for an appropriate diet and training.

Lameness

Lameness is the enemy of any competition horse and one of the main reasons why, in reality, we all need more than one horse for the “King of one-horse sports”. It’s why you’ll be, or at least should be, planning to prep more than one horse in the lead up to Nationals.

The Sunday before the Nationals kick off is not the time to get that niggling issue or leg swelling that has been there for 3 weeks checked out. You can’t do much about the foot abscess that pops up 2 days before competition but you can get the proppy horse looked at and worked on if you leave yourself enough lead time. As a veterinarian I aim to examine a horse heading to elite competition four weeks prior to the tournament starting. This gives me enough time to intervene and recheck the horse before it heads off as well as ensuring that it is medicated far enough away from the competition to comply with the doping rules. We are all busy but it costs a lot less time and money to get a good vet check a month out than it does to drive a horse halfway across the country only to have it vet out.

Some events are unavoidable during competition such as stone bruises and stiff joints (especially fetlock and coffin joints in older horses). Fortunately, icing is an extremely effective way of managing these little niggles during the competition week. Horses do not get frost bite so icing can be used more aggressively than the standard 20 minutes on/20 minutes off used in humans. Instead horses can safely stand in an ice bucket indefinitely (think of horses standing in the snow). We can use this to our advantage to manage sore feet and old joints during the recovery period from day to day. Fancy ice boots have some effect but for my money nothing beats the horse standing in an ice slurry up to its mid-cannons in a \$5 feed bucket to reduce the pain associated with foot bruising or sore fetlock and coffin joints.

Gastric Ulcers

Gastric ulcers are common in high level competition horses. They have direct effects on decreasing performance but more importantly they can have significant indirect effects on horse’s performance through reducing appetite. This is particularly important in horses participating in high intensity exercise such as polocrosse as the main stimulus for thirst in the horse is food intake. So, horses that don’t eat well, often don’t drink well. This can have huge impacts on their ability to still perform at the end of a week-long competition. Your horse may never have had ulcers, or at least clinical signs associated with ulcers, but as an elite competition horse travelling to an event such as the Nationals it would be considered at high risk, regardless of its history.

Omeprazole is the most effective treatment for gastric ulcers and there are a range of products available. Importantly all oral formulations are negatively affected by food intake so they should be given at least 1 hour before feeding following by a large volume of highly palatable feed, then grain feed. In practice this means waking up, giving the horse its omeprazole, waiting an hour, feeding 1-2

flakes of lucerne hay then grain feeding. This approach maximises the efficacy of the omeprazole and provides acid suppression during the daytime period when it is needed most. Omeprazole can take up to 1 week to have maximal effect so you should start treatment 7 days before you plan to leave. Discuss with your vet what is the best option for your horse and circumstances.

Hydrations during competition periods

Maintaining hydration during competition periods is likely the single biggest factor that impacts on a horse's ability to perform for the full week and complete the competition. This is critical come finals time because every player wants to be on their best horse with plenty of fuel in the tank.

Importantly, when horses sweat they lose an equal amount of salt and water, this means that the concentration of sodium in their blood, which is the primary driver for thirst, does not increase (this is different from people who lose more water than salt which causes the salt concentration to increase stimulating thirst). As a result, horses can lose large volumes of fluid (>40L) without experiencing the need to drink. This has significant impacts on their performance levels as well as predisposing them to other illness, such as travel sickness on the way home.

Horses that are eating and drinking normally (>20 L per day) don't necessarily get any additional benefit from electrolyte supplementation but as a benchmark I would generally include 100 grams (5 tablespoons) of an electrolyte mix in their feed daily during at risk times. There are a wide range of products available but my personal preference is Salkavite® as it contains a range of electrolytes and water-soluble vitamins (<https://www.ranvet.com.au/products/salkavite/>). Some horses don't like the taste of the electrolytes initially, so adapting your horse to the taste in the home environment before leaving home can be very helpful in the long run.

For horses that are eating but not drinking adequately the goal is to increase salt intake. If the above approach of supplementing the feed with electrolytes does not improve their water intake then my next step is to administer an electrolyte paste. Again, there are a wide range of products on the market; my personal preference is to avoid the water-based ones and to use the true pastes as they have more salt in them. The pastes are more expensive but in the big picture of that Nationals it is a small cost to look after your horse. Again there is a wide range of products on the market but Bectyl (<https://au.virbac.com/products/horse-electrolytes/bectyl-electrolyte-paste>) is my personal preference. I administer the whole syringe daily, immediately after exercise ensuring that the horse has access to unlimited good, clean water. Horses should drink >10—20 L of water within hours of administration. Veterinary attention should be sought for horses that do not drink adequately despite oral electrolyte administration as they will likely benefit from saline drenching via nasogastric tube.

For horses that are not eating or drinking the first priorities are to rule out other disease and to get them eating. Seeking veterinary attention is important in these cases as subtle issues such as low grade, but undetectable, muscle soreness or gastric ulcers may be contributory factors. Importantly, diseases such as travel sickness (discussed below) should also be ruled out. From there the above approach can be applied.

Travelling

Travelling is a high-risk period for horses, especially because the risk of developing pneumonia (travel sickness) during long-distance transport is relatively high. This is particularly true when durations of transport exceed 6 hours, although travel sickness can be seen after shorter durations of travel. A number of factors contribute to travel sickness with the biggest factor being holding the horse's head in an elevated position for an extended period of time which prevents drainage of the airway secretions. Importantly, once these secretions have accumulated it takes 18-24 hours of head down grazing for them to clear so while short breaks of grazing during a long trip are good for your horse in general (and for keeping the back of your rig clean), they do little for improving airway health. There are pros and cons to feeding horses during travel but my preference is to avoid it during long distance transport as it increased the amounts of bacteria and fungi aerosolised into the horse's lungs. Good ventilation of your rig and feeding your horse from the ground upon arrival, ideally with the feed wet down to reduce dust, are important additional factors to continue.

Early detection of travel sickness is critical for improving treatment success and monitoring body temperature is the single most effective way to do this. Each horse has a different baseline body temperature and it is the variation from this baseline that is much more important than the specific temperature *per se*. Considering this it is important to know what your horse's normal temperature is; this can readily be done by taking a morning temperature daily in the 2 weeks leading up to your departure and then daily during the competition period and for a week after you arrive home. Morning temperature is more reliable than afternoon temperature as it is less affected by environmental temperature and other factors such as exercise. Veterinary attention should be sought immediately if your horse's morning temperature increases by 0.5°C from its normal baseline, or if it shows other signs of respiratory disease such as coughing or depression.

Conclusion

While the above 5 factors are far from the full list of things that you need to consider when preparing for the Nationals, they have been the big 5 that I see as the most important from a veterinarian's perspective in making sure that your horses can compete safely. NSW has led the way in horse welfare at the Nationals by having a veterinarian as part of the team for the past 5 Nationals, but you can play your role to with a bit of forward planning and preparation to ensure that your horses is prepared as it can be. Remember the 5 P's – Prior Preparation Prevents Piss Poor Performance.

Safe travels and good luck.

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