



The fifth Welfare and Safety of the Racehorse Summit

The fifth Welfare and Safety of the Racehorse Summit was held 8–9 July 2014 in Lexington, Kentucky. Like previous summits, it was underwritten by the Jockey Club and Grayson-Jockey Club Research Foundation and hosted by the Keeneland Association. This summit has evolved from an identification of problems to being a good example of what the combination of data collection and analysis can accomplish with Thoroughbred horse racing. The programme was divided into various themes with several presentations and discussion following the presentations. The Chairman of the Summit was Mr Ed Bowen, President of the Grayson-Jockey Club Research Foundation.

Using data to keep horses safe

Three veterinarians, Dr Lisa Henelt, Dr Mary Scollay and Dr Jennifer Durenberger explained how the information, coupled with transparency and adjunctive examinations, had helped decrease injury. Dr Henelt used 'at risk alerts' identified by Dr Tim Parkin's preliminary analysis of the Equine Injury Database (EID) including horses remaining as nonwinners after 9 months of racing (especially a 3-year-old or older), having relatively few starts, recently changing trainers and also recent intra-articular injection with corticosteroids. After Dr Henelt at Finger Lakes Racetrack in upstate New York, Dr Scollay, the Equine Medical Director of the Kentucky Horse Racing Commission, confirmed that implementation of the data had led to a belief among regulatory veterinarians that fatal injuries can no longer be considered an inherent aspect of the sport and stated 'We must dispel the myth of inevitability'. Her other message was that acceptance without objectivity leads to complacency. Dr Durenberger, the Director of Racing for the Massachusetts Gaming Commission, explained that they had focused on changing the culture of racing by implementing new rules and holding trainers accountable and stated 'It's not just changing the rules, it's changing the culture' and used the example of rules requiring horses with overages for anti-inflammatory medication, such as phenylbutazone, to work off the vets list to continue racing. Steve Koch, Vice President of Thoroughbred Racing at Woodbine Entertainment, also expressed the importance of record keeping enabling management to make better decisions related to horse health and safety, licensing, safety and track maintenance. With regards to track maintenance, the variability of weather at Woodbine directly affects the tracks condition and keeping logs enables historical reference points to discuss track conditions and make management decisions. He felt that the combination of data collected including weather, maintenance logs, irrigation, going stick measurement and EID reports had 'tremendous implications for future understanding of track conditions, injury conditions and value-added opportunities for the wagering customer'. As a comment, these presentations gave examples of positively achieving a culture change but to achieve this overall the racing population in the US remains a challenge.

Today's Thoroughbred – what animals are we dealing with?

This panel addressed the question of why the average start per starter has dropped from 11 in 1960 to 6.3 in recent years. Mr Bowen addressed several generalisations including:

- 1) Fifty-seven per cent of the foal crop of 1958 raced at 2 compared with 30% of the 2008 foal crop racing (refuting the idea that we rush 2-year-olds more).
- 2) Although there are some 'mega' stables, 31 trainers each started at least 150 individual horses in 2013 but those stables accounted for only 7.5% of all starts (refuting the idea that huge stables race less frequently to avoid pitting one owner against another).
- 3) Refuting that American breeders' breed more for speed now, in 1888 the richest race was a 2-year-old sprint but the key targets are still the longer races now.

None of the panellists in this section bought into the connection commonly made between decline and starts being related directly to

increased medication. A leading trainer, Todd Pletcher, had never observed medication to affect recovery time after racing. Dr Scollay cited advances in pre-race veterinary screening as a possible factor as horses being excluded from racing based on better veterinary inspection today and Dr Larry Bramlage noted that he felt it was a pattern of using therapeutic medications indiscriminately that led to problems. Dr Rick Arthur also pointed out that in reviewing old racing form workouts considered 'bullet' work in earlier days would barely be seen as a breeze by today's standards and that 'some horses are working as fast as they are running in a race'.

National Uniform Medication Program update

Dr Dionne Benson, Executive Director and COO of the Racing Medication and Testing Consortium (RMTTC), discussed the adoption of the National Uniform Medication Program. There are currently 26 therapeutic medications that have thresholds largely representing medication residues. There is a positive trend towards adoption of the National Uniform Medication Program in that she predicted by the end of 2014 that uniformity will carry across 78% of the USA. There is increasing adoption of third-party administration of furosemide or supervised furosemide administration which keeps practising veterinarians out of the stall on race day and avoids even the appearance of impropriety.

Grayson-Jockey Club Research Foundation update

Mr Bowen quoted Dr Sue Stover's work reporting 50% of fatalities being due to fetlock breakdowns (the majority being proximal sesamoid fractures) and that improved knowledge of mechanical properties affecting the interaction of the hoof with the race surface (work led by Dr Mick Peterson) was helping to understand the association with catastrophic injury and prevention that also enhanced jockey welfare. Dr Bramlage noted that equine herpesvirus-1 had the potential to derail any racing event, Dr Jim Belknap reported on advances in laminitis treatment and Dr Steve Reed noted that projects that had great impact include the evaluation of intra-articular medications by the Colorado State University group. Dr Bramlage also gave an excellent presentation on the complicated process of how bone responds to stress by strengthening and how bones are best strengthened through short, high-intensity loads followed by brief periods of little or no stress to allow the bone to 'remodel' emphasising that the use of 2 mile, relatively strenuous gallops to build muscle and stamina might be counterproductive because it results in too much stress on bone. The benefits of regular exercise for 2-year-olds based on the physiology of bone growth was emphasised and studies showing that horses running at 2 suffer from fewer catastrophic injuries than other horses was noted.

Making safety a priority in your racing company

This panel was led by Dr Scott Palmer, Equine Medical Director for the New York State Gaming Commission. The overwhelming emphasis from all panel members was the importance of communication and transparency. In addition to monitoring catastrophic injury, there was discussion on the desirability of tracking nonfatal injuries and making medical records of horses more available so that a trainer taking over a horse from another trainer could make better and safer decisions about handling his/her new horse. Dr Foster Northrup noted that despite greatly improved recognition of early change that could predispose to an injury, this was not always heeded by the trainer. In addition, he noted that some veterinarians also exacerbated the problem by treating these horses rather than supporting

recommendations by other veterinarians to give the horse a rest. Mr Gary Contessa, a successful trainer based in New York, described an emotional experience of having a very good prospect suffer a fatal injury and then months later, as a result of enquiry into a series of catastrophic injuries in New York, learning from the jockey's testimony that the filly warmed-up poorly but he was afraid to have her scratched. There was agreement that an improved culture was needed where the rider felt free to tell the trainer or the track veterinarian that they suspected a problem when the horse was warming-up.

Intra-articular joint therapies

There was strong emphasis on what is currently known about intra-articular corticosteroids in this panel. Dr Heather Knych of UC Davis described research work that had led to new corticosteroid regulation under the National Uniform Medication Program and how it was changing the behaviour and attitudes of trainers and veterinarians toward corticosteroid use. Dr Jamie Macleod reported on a recent project showing that all corticosteroids had some detrimental effects on the chondrocytes in cartilage at high concentrations and that doses should be reconsidered to ensure optimisation of safety and efficacy. Dr Knych's work had also demonstrated the potency of what have been previously considered relatively low doses of corticosteroids when gene expression changes are looked at after administration. Dr Wayne McIlwraith highlighted the changes that occur long-term associated with corticosteroid use and lauded the decreased use of corticosteroids generally and methylprednisolone acetate in particular. Alternative options for intra-articular medication were discussed as well as the potential for different medication combinations to enable testing below the new threshold levels and enhance safety were also presented.

Jockey injury database

Dr Carl Mattacola, an Assistant Professor of Athletic Training at the University of Kentucky, is overseeing data collection and analysis of the Jockey Injury Database and gave a report. He believes that the vast majority of injuries suffered by jockeys in races are not being reported

despite potential to improve safety. He suggested more tracks need to be involved for consistent data collection. The goal of the database is to collect uniformly all the relative information when a rider injury occurs in an effort similar to the industry's EID.

Surfaces and technology integrations

Dr Mick Peterson's Racing Surfaces Testing Laboratory was an idea that grew from previous summits and has been made possible by the Jockey Club support. Dr Peterson's laboratory has tested more than 80 surfaces. During the summit, he emphasised that the track is only one of the many factors related to racehorse safety but it is a critical one. He said ongoing research on dirt surfaces still supports the long-held belief that water content is key to maintaining consistency both from the standpoints of trying to have the entire oval offer the same footing at race time as well as being the same from day-to-day. 'Consistency is perfection and that's what we are looking for' Dr Peterson said. Related to the recent trend away from synthetic surfaces, Dr Peterson said that a well-managed dirt surface can almost be as safe as the best synthetic surface and that better record keeping is making tracks safer. Glen Kozak, Vice President of Facilities and Racing Surfaces for the New York Racing Association, gave a presentation on the task of maintaining the total of 9 dirt tracks and training tracks as well as the turf courses at Belmont, Aqueduct and Saratoga. He reported the various tools he uses to record the maintenance procedures his crew undertakes, including combination with real-time weather data and GPS locations of routes of his tractors and water trucks. He works in close relationship with Dr Peterson and the Racing Surfaces Testing Laboratory. 'I never knew how much we were missing' Mr Kozak stated when talking about techniques based on data for bringing a scientific standard to what was formerly a subjective system used to call a track good, wet or muddy, for example. This comment seems to summarise the recurring underlying message from all sessions in the summit that, as a result of all of the initiatives described above, steps are being taken towards providing the evidence base which is needed to incrementally improve racehorse and jockey safety and secure the future of the sport.

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