



**National Thoroughbred Racing Association
Safety and Integrity Alliance**

Code of Standards 2019

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Preamble

The health and safety of our human and equine athletes and the integrity of our sport are horseracing's top priorities. To accomplish these important priorities, the National Thoroughbred Racing Association ("NTRA") has organized the NTRA Safety and Integrity Alliance ("Alliance").

Alliance membership includes racetracks, owners, breeders, horsemen, jockeys, sales companies, veterinarians, racing fans, breed registries and the associations that represent these stakeholders who agree to uphold and support the goals and objectives of the Alliance ("Members"). The Alliance's purpose is to establish and secure implementation of standards and practices to promote safety and integrity in horseracing. Alliance Members individually and collectively are committed to ensure that the sport of horseracing is pursued in a manner consistent with high ethical standards and compliance with applicable laws and regulations.

This Code of Standards ("Code") is intended to set forth for Alliance Members a common minimum set of standards to be followed by Members in their respective roles in the horseracing industry. Members acknowledge and support the Code and will implement measures and/or abide by measures implemented by other Members, as appropriate, to adhere to the Code. Also, since the Code represents minimum standards, Members are encouraged to not only meet but exceed the standards of the Code.

This Code sets forth standards in the areas of: (1) injury reporting and prevention; (2) safer racing and training environment; (3) uniform medication and testing; (4) jockey safety and health; (5) aftercare for retired horses; and (6) wagering security. The Code further sets standards with respect to compliance and enforcement. The measures included in this Code represent the collective consideration and work product of key stakeholder organizations and individuals within the horseracing industry. By assembling a diverse array of industry stakeholders to serve on the Alliance Advisory Board, the Alliance uses industry knowledge and experience to create realistic and effective standards that can be universally applied and implemented across all racing jurisdictions.

This Code represents the seventh version of the standards adopted by the Alliance and, over time, as new research and recommendations which merit inclusion become available, the Code may be further amended.

Implementation

The Alliance implements and enforces the standards embodied in the Code through a comprehensive accreditation, compliance and enforcement program. Members will use reasonable efforts available to effect reforms consistent with the Code including House Rules, uniform model rule development through the Association of Racing Commissioners International ("ARCI"), uniform model rule adoption at the state level and legislative advocacy. The Alliance will lead these advocacy efforts with the support and cooperation of its Members. Certain components of the reforms will be implemented once definitive conclusions are reached by the Alliance. Except as expressly provided for in this Code, all references to a specific ARCI model rule shall be deemed to include the specific ARCI model rule that existed as of January 1, 2019 and any subsequent modifications to that model rule that are consistent with this Code.

Notwithstanding anything in this Code to the contrary, the inability of a Member to comply with any provision of this Code due to contrary legislative or regulatory enactment shall not be the basis for denial or revocation of Accreditation so long as the Member petitions the legislative or regulatory authority and

diligently seeks to amend the contrary provision to bring it into conformity with this Code. If, however, after a reasonable period of time, a Member's advocacy fails to achieve passage of the amendment necessary to bring the contrary legislative or regulatory enactment into conformity with the Code, such failure shall result in revocation of Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

Costs

Members agree that the costs of implementing the reforms should be the collective responsibility of the industry. Each segment of the industry must contribute to the cost of the reforms and such costs should be borne by the elements of the industry that benefit from the reform and/or cause the reform to be incurred. Specific allocation of costs is not addressed in this Code. Costs required for implementation of the Code will differ by location and thus costs must be addressed at the local level through the normal contractual and/or regulatory process.

Utilizing and Adhering to the Code

The horseracing industry and the Alliance Membership are composed of many different constituencies. However, since much of the organized activity in horseracing takes place at the racetrack, some provisions of the Code are addressed specifically to "Racetrack Members." Nonetheless, each Member shall strive to adhere to each of the standards in the Code specifically applicable to that Member and to ensure that its employees, contractors and/or agents adhere to those standards.

Abbreviations and Definitions

AAEP: American Association of Equine Practitioners

Accreditation: The process by which individual Members shall be certified to be in compliance with the Code. The stages of accreditation are as follows:

Full Accreditation: Accreditation without condition or limitation.

Provisional Accreditation: Accreditation conditioned upon the future implementation of specifically identified standards according to a specified timetable in order to attain Full Accreditation.

Provisional Accreditation Pending Regulatory Conformity with Alliance Code of Standards: Accreditation awarded to Members meeting substantially all the standards as required by the Code with any exceptions due to non-compliance by local regulatory authority.

Denial of Accreditation: Non-compliance with the Code.

ARCI: Association of Racing Commissioners International.

Association Veterinarian: A veterinarian employed by the racetrack association.

Horse Handlers: Trainers, jockeys, exercise riders, veterinarians, grooms, outriders, pony people and anyone else who comes into direct contact with a horse within Racetrack Member's racetrack enclosure.

House Rules: Rules promulgated by racetracks concerning activities on racetrack grounds, including, without limitation, any interim measure consistent with the Code adopted by a Racetrack Member in advance of the promulgation of regulations and or legislation in racing jurisdictions.

InCompass Solutions: Technology solutions company that provides centralized software applications and systems that serve North American racetracks and simulcast outlets. Its central database also serves as a platform for several industry safety initiatives, including the Jockey Health Information Systems.

Multiple Medication Violation Penalty Program: ARCI program geared toward multiple medication rule violators who will accumulate points for every violation and, upon accumulation of a specific number of points, will be subject to automatic, consistent penalties in addition to the ones assessed by their local regulatory authority.

Non-Race Day: Any day or period of time not part of a Race Day

Non-Race Period: Any day or period of time not part of a Race Period

Official Veterinarian: A licensed veterinarian employed by the state regulatory body who is qualified to objectively and competently perform the regulatory duties as detailed by the Model Rule **ARCI-006-070**. Some duties of the Official Veterinarian, as indicated by an asterisk (*) in the Model Rule **ARCI-006-070** may be performed by an Association Veterinarian as long as the Association Veterinarian has no employment history or business relationship that could constitute a conflict of interest or impede in the performance of official duties.

Official Testing Laboratory: A facility meeting minimum standards of Model Rule **ARCI-011-023(F)**, designated by the state regulatory body to perform medication and drug testing duties.

Post-Mortem Veterinary Examinations: Examinations conducted following the fatality of a horse substantially in conformity with the recommended protocols of the AAEP including, but not limited to the identification of drugs, shoes and any pre-existing conditions; however, such examinations shall not require full veterinary necropsies.

Race Day: The period of time twenty-four hours prior to post time of a race in which a horse is entered to run through the release of a horse from post-race testing

Race Period: The period of time from the entry of a horse in a race through release of the horse from post-race testing

Racing Participants: People who engage in and derive income directly from horseracing activities at Racetrack Member facilities. This includes, but is not limited to racehorse owners, trainers, jockeys and breeders.

Racing Regulatory Data Management System: Database managed by ARCI to support the Multiple Medication Violation Penalty Program.

RMTC: Racing Medication and Testing Consortium, www.RMTCnet.com

TRPB: Thoroughbred Racing Protective Bureau, www.trpb.com

TRPB Racetrack Manager: A robust integrity toolset for distributed betting networks enabling timely examination of wagering detail. Authorized associations have access through the secure website portal of RacetrackManager.org.

Wagering Incident: Any incident that might reasonably affect the public's confidence in Member's wagering pools including, but not limited to suspicious wagering patterns, totalisator and data communications malfunctions, substantial late ticket cancelations, and failures to stop betting after the official start of a race.

Code of Standards

1. Injury and Fatality Reporting and Prevention. Timely and accurate reporting of injuries and fatalities is critical to the creation and maintenance of a national database concerning horse injuries and fatalities. This national database will be invaluable to the epidemiological study of the causes of horse injuries and fatalities as well as the determination of precautions necessary to lessen the incidence and severity of horse injuries. The individual participation in the database will be kept confidential but nationwide statistics will be made available publicly from time to time for the purpose of promoting public confidence in the injury reporting process. Injury prevention must also be accomplished by thorough pre- and post-race exams conducted by qualified Official or Association Veterinarians with the authority to keep horses from running in any race until that horse is determined to be medically fit to run. In furtherance of these important objectives, each Alliance Member shall be required to do the following:

A. Reporting of Injuries and Fatalities

Member shall participate in The Jockey Club's Equine Injury Database ("EID"). Upon adoption of this Code, Member shall immediately commence reporting injuries sustained and fatalities suffered during any Race Period and any fatalities suffered during any Non-Race Period at a Racetrack Member's racetrack(s).

B. Pre-Race Veterinary Examinations

Pre-race veterinary examinations shall be performed by Official Veterinarians on all horses entered at Racetrack Members' racetrack(s). Regulators shall be petitioned to adopt a mandatory protocol for pre-race veterinary examinations of horses substantially similar, in form and substance, to the RCI model rule identified as **ARCI-011-030(A)**. In addition, so long as such model rule has not been adopted in any racing jurisdiction, Racetrack Members in such jurisdictions shall adopt a House Rule substantially similar, in form and substance, to **ARCI-011-030(A)** and make provision for an Official Veterinarian to perform such pre-race examinations, record the examination information in the electronic database that is available from InCompass Solutions, and promptly submit the information to the racing commission and/or the stewards. If, however, after a reasonable period of time, a Member's advocacy fails to achieve passage of the amendment necessary to bring the contrary legislative or regulatory enactment into conformity with the Code, such failure shall result in revocation of current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

C. Post-Race Veterinary Inspections

Post-race inspections shall be performed by Official Veterinarians on all horses at the conclusion of every race run at Racetrack Members' racetrack(s) to determine if horses are injured or return lame or unsound. To the extent the regulatory authorities do not so regulate post-race veterinary inspections, Members shall advocate the adoption of a mandatory protocol for post-race veterinary inspections. In addition, where such a rule has not been adopted in a racing jurisdiction, Racetrack Members shall adopt a House Rule and make provision for an Official Veterinarian to perform such post-race inspections, record the examination information, and promptly submit the information to the racing commission and/or the stewards.

D. Post-Mortem Veterinary Examinations

To facilitate accurate and complete reporting as part of EID, Post-Mortem Veterinary Examinations shall be performed on all horses that die or are euthanized during a Race Period or a Non-Race Period at Racetrack Members' racetrack(s), based on the protocols detailed in the *AAEP Guidelines for Necropsy of Racehorses*.

So long as such protocols have not been adopted in any racing jurisdiction, Racetrack Members in such jurisdictions shall adopt a House Rule and provide appropriate veterinary personnel to perform such Post-Mortem Veterinary Examinations, record the examination information, and promptly submit the information to the EID. Racetrack Members are to establish relationships with, and mechanism for transportation to, a veterinary diagnostic laboratory to perform these examinations.

E. Veterinarians' List

Racetrack Members shall maintain a Veterinarians' List under guidelines established by the RCI Model Rule **ARCI-011-030(B)** which states that the Official Veterinarian shall maintain the Veterinarians' List of all horses that are determined to be unfit to compete in a race due to illness, physical distress, unsoundness, injury, infirmity, heat exhaustion, positive test or overage, administration of a medication invoking a mandatory stand down time, administration of shock-wave therapy, positive out of competition test or any other assessment or determination by the regulatory veterinarian that this horse is unfit to race.

Members must adhere to ARCI model rules, which state that a horse may be removed from the Veterinarians' List when a minimum of seven days has passed from time the horse was placed on the Veterinarian's List, it is established or demonstrated to the official veterinarian that the horse is serviceably sound and in fit physical condition to exert its best effort in a race or pass the Assessment of Racing Condition by the official veterinarian, and provide a published work observed by the official veterinarian and submit to a post-work biologic sample collection for laboratory confirmation.

Members shall require Official Veterinarian participation in InCompass Solutions' Veterinarians' List Module. Members participating in the Veterinarians' List module shall share their Veterinarians Lists with other jurisdictions participating in the module. Participating Members will honor each other's list through a system of reciprocity. All lists of horses ineligible to race for medical reasons shall be shared among participating jurisdictions.

F. Injury Review

Racetrack Members shall establish protocols to monitor all injuries and fatalities suffered by horses while racing or training at each Racetrack Members' racetrack. The process shall include, but not be limited to, discussions with representatives of the following stakeholder groups: The Official Veterinarian, Track Management and Horsemen. The process shall include a review of findings from Pre-Race Examinations, Post-Parade Observations, Post Mortem Examinations (in fatal cases), and any other horse-related information and shall conduct interviews with personnel associated with the horse. There shall be case follow up with the trainer and practicing veterinarian(s) involved.

In the event of an increased occurrence of musculoskeletal injuries during a Racetrack Member's race meeting, the Injury Review Committee shall meet to review existing practices, develop strategies to reduce or mitigate injury occurrence and to enhance identification of horses for which intervention is warranted.

2. Safety Equipment and Safer Racing Environment. The horseracing industry as a whole must collectively invest in an infrastructure that is needed to make a safer racing environment. Alliance Members shall adopt the following safety measures:

A. Safety of Horses

Regulators shall be petitioned to adopt the ARCI Model Rule **ARCI-008-010(G)**, pertaining to safety of racehorses:

(1) Each person licensed by the Commission shall do all that is reasonable and within his/her power and scope of duty to guard against and prevent the administration of any drug, medication or other substance, including permissible medication in excess of the maximum allowable level, to any horse entered or to be entered in an official workout or race, as prohibited by these rules.

(2) No licensee or other person under the jurisdiction of the Commission shall subject or permit any animal under his/her control, custody or supervision to be subjected to or to incur any form of cruelty, mistreatment, neglect or abuse or abandon, injure, maim or kill or administer any noxious substance to or deprive any animal of necessary care or sustenance, shelter or veterinary care.

Racetrack Members shall establish a reporting mechanism, such as a toll free hotline, by which licensees or employees can report instances of mistreatment.

B. Shoes and Hoof Care

Racetrack Members shall require the elimination of toe grabs greater than 4mm and other traction devices on front horse shoes in Thoroughbred racing. Where rules have not been adopted in a Member's racing jurisdiction, Members in such jurisdictions shall adopt and/or adhere to a House Rule pertaining to the elimination of toe grabs greater than 4mm and other traction devices on front horse shoes in Thoroughbred racing.

C. Riding Crop

Regulators shall be petitioned to adopt the ARCI Model Rule **ARCI-010-035(E)(7)**, pertaining to the use of crops and the ARCI Model Rule **ARCI-010-035(A)(1)(a-b)**, pertaining to the specifications of crops to be utilized. So long as such rules have not been adopted in a racing jurisdiction, Members in such jurisdictions shall adopt and/or adhere to House Rules consistent with the ARCI Model Rule **ARCI-010-035(E)(7)**, relating to the use of crops and the ARCI Model Rule **ARCI-010-035(A)(1)(a-b)**, pertaining to the specifications of crops to be utilized.

D. Safety Helmet and Safety Vest

Regulators shall be petitioned to adopt the ARCI Model Rules **ARCI-008-010(Z)(1-2)**, pertaining to the wearing of Safety Helmets and Safety Vests. Where such rules have not been adopted in a racing jurisdiction, Members in such jurisdictions shall adopt and/or adhere to House Rules consistent with the ARCI Model Rules **ARCI-008-010(Z)(1-2)**, pertaining to the wearing of Safety Helmets and Safety Vests.

ARCI-008-010(Z)(1) : Any person mounted on a horse or stable pony on association grounds must wear a properly secured safety helmet at all times. Additionally, all members of the starting gate crew must adhere to this regulation at all times while performing their duties or handling a horse. For the purpose of this regulation, a member of the starting gate crew means any person licensed as an assistant starter or any person who handles a horse in the starting gate. The helmet must comply with one of the following minimum safety standards or later revisions: American Society for Testing and Materials (ASTM 1163); European Standards (EN-1384 or PAS-015 or VG1); or, Australian/New Zealand Standards (AS/NZ 3838 or ARB HS 2012); or Snell Equestrian Standard 2001.

ARCI-008-010(Z)(2): Any person mounted on a horse or stable pony on the association grounds must wear a properly-secured safety vest at all times. Additionally, all members of the starting gate crew must also adhere to this regulation at all times while performing their duties or handling a horse. For the purpose of this regulation, a member of the starting gate crew means any person licensed as an assistant starter or any person who handles a horse at the starting gate. The safety vest must comply with one of the following minimum standards or later revisions:

- (a) British Equestrian Trade Association (BETA):2000 Level 1
- (b) Euro Norm (EN) 13158:2000 Level 1
- (c) American Society for Testing and Materials (ASTM) F2681-08
- (d) Shoe & Allied Trade Research Association (SATRA) Jockey Vest Document M6 Issue 3
- (e) Australian Racing Board (ARB) Standard 1.1998

E. Starting Gate

Regulators shall be petitioned to adopt the ARCI Model Rule **ARCI-007-020(F)(1)**, pertaining to padded starting gates. So long as such rule has not been adopted in any racing jurisdiction, Racetrack Members in such jurisdictions shall adopt a House Rule consistent with the ARCI Model Rule **ARCI-007-020(F)(1)**, relating to padded starting gates.

Racetrack Members shall have standard operating procedures in place for the removal of the starting gate from the racing surface in a safe and timely manner. Such protocols shall include planning for situations when the primary removal mechanism fails.

F. Emergency Track Warning System

Racetrack Members shall adhere to ARCI Model Rule **ARCI-007-020(N)** pertaining to racetrack and training track emergency warning systems or shall adopt a House Rule consistent with ARCI Model

Rule **ARCI-007-020(N)**. Such protocols shall include planning for warning riders on horses in cases when there is a failure to remove the starting gate.

G. Equine Ambulance

Racetrack Members shall adhere to the ARCI Model Rule **ARCI-007-020(I)(1-6)**, pertaining to the provision of a horse ambulance or shall adopt a House Rule consistent with the ARCI Model Rule **ARCI-007-020(I)(1-6)**, pertaining to the provision of a horse ambulance.

H. Substance Abuse and Addiction

Regulators shall be petitioned to adopt the ARCI Model Rule **ARCI-008-010(H)** pertaining to substance abuse and addiction and testing of licensees.

I. Safety Research

Racetrack Members shall participate in and/or fund industry safety research in areas including but not limited to racetrack surface studies, epidemiological studies, and other studies which are designed to promote a safer racing environment for humans and horses.

J. Racing Surface Maintenance

Racetrack members shall have data collection protocols in place to assist in the consistent maintenance of all racing surfaces. All racing surface maintenance and test data shall be stored in an electronic format that will facilitate retrospective research studies related to surface consistency, surface performance and other possible safety related objectives.

Testing and maintenance should be done based on written procedures which are updated on a regular basis to facilitate the communication of maintenance protocols and actions with stakeholders. These data collection protocols shall include, but not be limited to, the following:

- Weather: log data at 15-minute increments during racing including precipitation, wind speed, wind direction, wind gusts, temperature, relative humidity, track temperature and solar radiation.
- Watering and Moisture Content control: Electronically document all watering and irrigation on main and turf tracks. Include details on the time of application, method of application, amount of water added and area of the racing surface to which the water was applied. For water trucks, also include speed and direction of equipment (see next item on maintenance equipment).
- Maintenance equipment: Document use, repair, and maintenance of all equipment used on all of the racing surfaces. For the track composed of either synthetic or dirt surfaces include time of use, direction around the track, and speed of the equipment including water trucks (related to item above), harrows, conditioners, floats, cultivators, and graders. For the turf surfaces include maintenance equipment used such as rollers, aerators, turf cutters and mowers. Settings of all equipment should be documented as well as methods used to insure that the settings are accurate. For example, how harrow tooth depth is checked and the methods used to adjust the harrow teeth to accommodate for wear should be documented and periodic inspections should be performed.

- Material addition: Document the source, timing, quantity and method of all additions to the surfaces including sand, silt, clay, organic material, or chemicals (i.e. acids) for dirt tracks; wax, other binders, fiber or rubber for synthetic tracks; and top dressing, fertilizer, pesticides, fungicides, seeding and sod replacement for turf tracks.
- Surveying: For dirt and synthetic tracks the method used and measurements obtained should be documented to ensure that the cross-fall in the straights and transitions from the straights to the turns are consistent and within specification. A track survey should be performed at least once per year with the track referenced to survey markers, lasers checks or GPS mapping. Grades should be documented for internal reference as well as to facilitate retrospective studies.
- Turf tracks: Electronically document the turf grass species, areas of re-sodding, and cut lengths.
- Quality control measures: Electronically document any regular measurements of spatial variation of moisture, composition, cushion depth, and other performance measures such as Going Stick measurements that are relevant to the mechanics of the racing surface. Tracking these variables over time will help to assess the effectiveness of these tools for predicting performance and safety of surfaces. Current practices do not need to be expanded until retrospective studies have been performed that relate these measurements to performance, safety or track fairness. Currently no measure of surface performance has been shown to relate to the track characteristic required for a safe surface and therefore should be considered to serve only as guidance for maintenance decisions not as design standards. Data should be stored in an electronic format to facilitate these studies. However, a number of quality control measurements of known critical parameters should be made to properly control the racing surface conditions. Measurements which have an established impact on racing surface consistency should be measured including:
 - Moisture: Quality control measurements of the moisture content should be routinely checked to ensure consistency in the moisture content around a dirt or turf track. This should be measured, typically at least weekly, using a device such as the time domain reflectometry or other similar measurement methods.
 - Cushion depth: Perform periodic, typically at least weekly during racing, cushion depth measurements by using a hand probe over the surface of the track. Depth of cushion should also be verified before and after any large movement of material from either grading or washouts. Data should be stored electronically to allow tracking of results over time to ensure that track grades do not get too far out of tolerance prior to grading.
 - Material composition: Perform testing of track material composition at least once per race meet. For race meets that span seasons with significant weather differences, the composition should be tested before the start of new seasonal weather patterns. For dirt tracks with significant variation of water flow across the track both inside and outside samples should be taken following a regular

pattern. For synthetic tracks and dirt tracks in areas of low rainfall typically only four samples are required from four locations on the track. Each sample should be analyzed separately and not mixed with other samples. Composition should include at least the following tests:

- Dirt tracks: sieve and hydrometer data for all samples; and organic, soil chemistry, X-ray diffraction, bulk density and salinity measurements for a single representative sample.
- Synthetic tracks: sand sieve and wax and fiber content for all samples; and oil content, gas chromatography and differential scanning calorimetry data for a single representative sample.
- Turf tracks: soil chemistry panel including soil pH, organic carbon, major nutrients (i.e. phosphorus, potassium, calcium, magnesium, and sulfur) and soluble salts

To ensure that reviews of maintenance processes can be performed, all protocols for surface preparation, maintenance and quality control measures will be documented electronically outlining procedures and schedules for all of the items above. These electronic records shall be made available for review during accreditation.

K. Safety Training and Continuing Education

Racetrack Members shall provide periodic training to all racetrack employees having direct contact with the horse, including assistant starters concerning safe practices to be followed in the conduct of their jobs. All Members shall provide periodic training to their employees having direct contact with the horse concerning safe practices to be followed in the conduct of their jobs, e.g. Groom Elite Program, Groom Development Program, Racing Officials Accreditation Program, Organization of Racing Investigators, Regulatory Veterinary Continuing Education and Track Superintendent CE's.

Regulators shall be petitioned to adopt the RCI Model Rule **ARCI 008-020(A)(4)** requiring at least four (4) hours annual Continuing Education for trainers, beginning no later than January 1, 2015.

Further, Racetrack Members shall adhere to the RCI Model Rule **ARCI 006-015(A)** requiring accreditation of all stewards employed by the racetrack and, where necessary, shall petition regulators to adhere to RCI Model Rule **ARCI 006-015(A)** requiring accreditation of all stewards employed by regulatory bodies.

Racetrack Members shall encourage participation by Racing Officials in the Racing Officials Accreditation Program (ROAP) Certification Program.

Upon application for Accreditation, Racetrack Member shall submit its Training and Continuing Education Plan. Such plan shall include provisions for regular review of rules of racing pertinent to each individual and their particular duties.

L. Uniform National Trainers Test

Racetrack members shall petition their regulatory authority to adopt the use of the Uniform National Trainers Test.

M. Catastrophic Injury Planning and Procedures

Racetrack Members shall plan for and have protocols in place for instances of catastrophic injury to horses during racing and training at Racetrack Members' racetrack(s) and training facilities. Official Veterinarians must be trained, and their proficiency verified, in identifying and stabilizing common musculoskeletal injuries. Protocols should include, but not be limited requiring collection of blood (and urine samples whenever possible), in sufficient volume, to permit comprehensive drug testing. Official veterinarians shall consult with the official testing laboratory to establish sample collection protocols. Planning shall include appropriate means of communication to the public, such as through the AAEP On-Call Program or AAEP trained spokespersons. Further, Racetrack Members shall have an operable on-track warning system and operating protocols in place for incidents occurring during training hours designed to sufficiently alert and provide notice to personnel on the racetrack.

N. Infectious Disease Management

Racetrack members shall plan for and have protocols in place for instances of infectious disease outbreak within their enclosures. Such protocols shall be based on guidelines recommended by the **AAEP General Biosecurity Guidelines (2017)**, attached as Exhibit 3, or developed in consultation with the State Department of Agriculture Veterinarian.

O. Fire Safety Planning and Procedures

Racetrack members shall plan for and have protocols in place for instances of fire within their enclosures. Such protocols shall be based on the RCI Model Rule ***ARCI-007-025(B), Fire Prevention***. Fire and life safety inspections are required to be done in accordance with appropriate National Fire Protection Association (NFPA) standards and shall be conducted at the required frequency.

P. Paddock Safety

Racetrack Members shall plan for and have protocols in place to manage the safety of their Saddling Paddocks and Walking Rings. Such protocols should include crowd management policies as well as emergency response procedures for human and equine injuries.

Q. Safety Committee

Racetrack Members shall establish a standing racetrack committee known as the Safety Committee. Safety Committees shall include, but not be limited to, representatives of the following stakeholder groups: Track Management, Track Medical Personnel, Jockeys, Horsemen, Veterinarians, Stewards, and Security. Safety Committees shall meet regularly upon commencement of a Member's race meet and as necessary thereafter with the priority of the Safety Committee to establish and maintain a culture of health and safety in all areas of operations at the Racetrack.

R. Veterinary Care

Racetrack Members shall make certain that a practicing veterinarian is available for treatment at all times during Racing Periods and training hours. An organized rotation among practicing

veterinarians to ensure coverage throughout Racing and training hours shall be considered a best practice.

S. Regulatory Veterinary Practices and Procedures

Oversight of the Official Veterinarian as detailed by the Model Rule **ARCI-006-070** shall be the responsibility of the regulatory authority. To the extent the regulatory authority does not provide oversight of the Official Veterinarian, Members shall advocate the adoption of rules requiring regulatory oversight of the Official Veterinarian's duties. In addition, if such rules have not been adopted in a racing jurisdiction, Racetrack Members shall adopt a House Rule requiring the Official Veterinarian to report to the Board of stewards.

Racetrack Members shall require veterinary staff to develop specific written protocols for all aspects of standard regulatory veterinarian operations including, but not limited to:

- Pre-race examination protocols including requirements for presentation of horses by trainers at time of inspection; procedures for record keeping; and, procedures for scratching of horses
- Protocols for initiation of scratches during post parade and at the starting gate
- Protocols and procedures in case of catastrophic injury during a race
- Protocols for post-race observation of horses and follow-up
- Protocols to initiate post-mortem examinations
- Protocols for adding horses to and removing horses from the Veterinarians' List

T. House Rules

House Rules shall be published in Racetrack Member's Condition Book.

U. Void Claim

Racetrack members shall petition their regulatory authority to adopt rules consistent with the intents of ARCI Model Rule **ARCI-009-010(5-6)** pertaining to the voidance of claims in events of on-track lameness or catastrophic incidents.

3. Medication and Testing: Without proper pre- and post-race testing and security procedures, horse health and safety can be compromised. The Alliance believes that the regulation of drugs and therapeutic medications should be consistent on a nationwide basis to better facilitate the training and racing of horses in multiple states. Members shall therefore insist on the implementation of consistent rules and penalties regarding medication and testing as follows:

A. Uniform Medication Rules and Penalties

Members shall insist that local regulatory authorities regulate drugs and therapeutic medications consistent with ARCI Model Rules, **ARCI-011-010, ARCI-011-015, and ARCI 011-020** based on RMTC recommendations. Further, Members shall insist that local regulatory authorities adopt uniform minimum penalties consistent with ARCI Model Rules, **ARCI-011-020(B)**, based on RMTC recommendation.

To the extent the regulatory authorities do not so regulate drugs and therapeutic medications in accordance with ARCI Model Rules, **ARCI-011-010, ARCI-011-015, and ARCI 011-020** and adopt minimum penalties consistent with ARCI Model Rules, **ARCI-011-020(B)** the Members shall advocate the adoption of such rules and penalties by the regulatory authority. If, however, after a reasonable period of time, a Member's advocacy fails to achieve passage of the amendment necessary to bring the contrary legislative or regulatory enactment into conformity with the Code, such failure shall result in revocation of current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

Further, the regulatory authority's failure to adopt drug and therapeutic medication regulations in accordance with RMTC's National Uniform Medication Program – including the Schedule of Controlled Therapeutic Substances (**ARCI Controlled Therapeutic Medication Schedule for Horses**), and third-party administration of furosemide **ARCI-011-020(F)(2,3),** – by January 1, 2019 shall result in revocation of Member's current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

For local regulatory authorities to proficiently participate in the Multiple Medication Violation Penalty Program, Members shall advocate for their local regulatory authorities to participate in the Racing Regulatory Data Management System.

B. Alkalinizing Substances

Racetrack Member shall prohibit and test for the use of alkalinizing substances in the racing of Thoroughbreds, consistent with RMTC recommendations that establish uniform threshold levels, pre-race sampling protocols, and effective testing procedures to detect prohibited levels of carbon dioxide in Thoroughbred race horses.

To the extent the local regulatory authorities do not so regulate alkalinizing substances, the Members shall advocate the adoption of such rules by the regulatory authority. If, however, after a reasonable period of time, a Member's advocacy fails to achieve passage of the amendment necessary to bring the contrary legislative or regulatory enactment into conformity with the Code, such failure shall result in revocation of current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

Upon application for Accreditation, a Racetrack Member shall submit its plan for prohibiting and testing for alkalinizing substances.

C. Exogenous Anabolic Steroids

Racetrack Member shall prohibit the use of exogenous anabolic steroids in training and in competition in a manner consistent with the ARCI model rule **ARCI-011-020(I)**, based on RMTC recommendations.

To the extent the regulatory authorities do not so regulate exogenous steroids, Members shall advocate the adoption of such rules by the regulatory authority. If, however, after a reasonable period of time, a Member's advocacy fails to achieve passage of the amendment necessary to bring the contrary legislative or regulatory enactment into conformity with the Code, such failure

shall result in revocation of current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

D. Shock Wave Therapy

Member shall ensure that Extracorporeal Shock Wave Therapy be utilized in a manner consistent with the RCI Model Rule **ARCI-011-015(4)**.

To the extent the regulatory authorities do not so regulate Extracorporeal Shock Wave Therapy, Member shall advocate the adoption of such rules by the regulatory authority. If, however, after a reasonable period of time, a Member's advocacy fails to achieve passage of the amendment necessary to bring the contrary legislative or regulatory enactment into conformity with the Code, such failure shall result in revocation of current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

E. Out of Competition Testing

Members shall insist that local regulatory authorities institute out of competition testing for blood and/or gene doping agents in a manner consistent with the ARCI model rule **ARCI-011-022**, based on RMTC recommendations.

To the extent the regulatory authorities do not so regulate out of competition testing, Members shall advocate the adoption of such rules by the regulatory authority. If, however, after a reasonable period of time, a Member's advocacy fails to achieve passage of the amendment necessary to bring the contrary legislative or regulatory enactment into conformity with the Code, such failure shall result in revocation of current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

F. Frozen Sample Testing

Members shall support and promote the participation by state racing commissions in a program for the frozen storage and retrospective super testing of suspect horse racing plasma and/or urine samples.

G. Laboratory Accreditation

Members shall support and promote the participation by its official testing laboratory in the RMTC's horse testing lab accreditation program. Failure of a Member's official testing laboratory to begin the RMTC horse testing lab accreditation process by January 1, 2015, and/or to finalize the RMTC horse testing lab accreditation process by January 1, 2018 shall result in revocation of current Accreditation, awarding of Provisional Accreditation or denial of future Accreditation.

H. Laboratory Selection and Performance Standards

Members shall insist that local regulatory authorities implement industry performance standards and quality control mechanisms consistent with RMTC's "Model Request for Proposals for Equine Drug Testing Laboratory" in their Official Testing Laboratory selection and performance criteria. Members shall require documentation from the local regulatory body specifying the adopted selection and performance criteria, and ongoing quality control protocols.

To the extent that the local regulatory body has not so adopted RMTC's recommended performance standards and quality control protocols, Member shall advocate the adoption of such standards consistent with RMTC's "Model Request for Proposals for Equine Drug Testing Laboratory".

I. Security Assessment and Training

1. Racetrack Members shall participate in a security assessment performed by an Alliance approved qualified security assessment organization. A security assessment should include, but not be limited to:

- a. A physical review of the facility's perimeter
- b. Backstretch accessibility review
- c. Licensee authentication review
- d. Review of security personnel procedures (including but not limited to: hiring, training and supervision of backstretch security personnel; and review of general security practices
- e. Security Department integration/liaison with outside law enforcement or industry security regulatory resources

2. Racetrack Members may be subject to random on-site inspection and assessment of medication and drug testing standards and protocols as established by RMTC, to include, at a minimum, examination of test barn and chain of custody procedures based on **Test Barn Chain of Custody and Procedures: Considerations and Recommendations** of the Racing Medication & Testing Consortium and NTRA Safety & Integrity Alliance (2016), which may be found attached as Exhibit 6.

Racetrack Members shall be required to submit a plan to the Alliance for implementing recommendations made as a result of the security assessment or assessment of medication and drug testing standards and protocols.

3. Racetrack Members shall plan for and have protocols in place for racing security. Such planning and protocols may be based on **Security Recommendations of the RMTC and the NTRA Safety & Integrity Alliance**, which may be found attached as Exhibit 4.

4. Racetrack Members shall require all security staff to periodically participate in a security training program conducted in conformity with training protocols to be provided by the Alliance.

J. Medication and Testing Education

Racetrack Members, in cooperation with their Stewards and/or regulatory authority, shall coordinate periodic communication with their horsemen and practicing veterinarians regarding medication and testing regulations and protocols. Communications shall be in writing and where practical, include information sessions, and shall include current medication and testing regulations and protocols and – when appropriate – highlight proposed or new, regulatory authority-approved changes to medication and testing regulations and protocols.

K. Trainer Records and Reporting

Racetrack Members shall petition their regulatory authority to adopt ARCI Model Rule **ARCI-008-020(C)(17-18)** requiring the maintenance and availability of “Trainer Treatment Records” and a “14-Day Record” for horses shipping to the track.

Members shall further petition their regulatory authority to adopt **ARCI-008-020(C)(19)** requiring “Corticosteroid and Intra-Articular Injection Reporting Requirements” that include “30-Day Record” requirements for claimed horses.

4. Safety and Health of Jockeys: The health and safety of human athletes is one of the top priorities of the Alliance. Members must take affirmative steps to assure the public and participants that all human athletes are competing at top form with the benefit of the best medical care readily available. Consequently, Members are required as follows:

A. Declaration of Horses

Racetrack Members shall establish protocols for the initiation of scratches in the post parade or at the starting gate. Such declarations require a cooperative effort between the jockey, trainer and veterinarians.

Protocols should include, but not be limited to, conversations between the jockey colony, the trainers, the Board of Stewards, and the veterinarians at the beginning of each race meet to build relationships and emphasize the goal of advocacy for the horse and safety of the rider.

B. Jockey Weights

Members shall adhere to the RCI Model Rule **ARCI-010-035(C)(7)(a-b)** and **ARCI-010-020(D)(4)** regarding the equipment included when weighing jockeys.

Members shall ensure annual, at beginning of racemeet, calibration and certification of the official jockey weigh scales by an expert third party service.

Members shall install and implement automated and/or electronic jockey weight data-logging of the official jockey weigh scales and weigh scale read-outs. Jockey weight data shall be retained for audit purposes.

C. Jockey Health Information System

Members, through cooperative efforts with Jockeys’ Guild, Inc., shall advocate for participation by members of their jockey colony in the InCompass Solutions’ Jockey Health Information System, to the extent it is consistent with HIPAA guidelines, which allows confidential access to a rider’s detailed medical records by authorized medical personnel.

D. Jockey Qualifications

Regulators shall be petitioned to adopt the ARCI Model Rule, **ARCI-008-030(A)(2) and (3)**, pertaining to the qualifications for licensing jockeys.

E. Ambulance Support

Racetrack Member shall adhere to the RCI Model Rule **ARCI-007-020(A)(6), (8) and (9)** regarding a properly equipped and staffed ambulance on the racetrack during training and racing hours.

F. Medical Care

Racetrack Members shall plan for and have protocols in place for instances of injury to jockeys and other racetrack personnel. Such planning and protocols shall be based on **Medical Care Recommendations of Jockeys' Guild, Inc. and the NTRA Safety and Integrity Alliance Medical Care Committee**, which can be found attached as Exhibit 5.

G. Insurance

In racing states where workers compensation benefits are not afforded jockeys by statute or regulation, Racetrack Members shall maintain a minimum standard of \$1,000,000, per incident, worth of accident medical expense coverage for all jockey participants.

H. Insurance

A Racetrack Member shall petition its regulatory body to adopt the RCI Model Rule, **ARCI-007-025(I)**, pertaining to the posting of Jockey Insurance coverage in the jockeys' quarters.

I. Jockey Disability Support

As advocates for jockey health and safety, the Alliance and the horseracing industry as a whole share in the responsibility for providing care for disabled jockeys. Racetrack Members shall encourage participation by all Racing Participants in funding jockey disability support programs such as the Permanently Disabled Jockeys Fund.

J. Jockey Injury Database

In an effort to learn more about injuries sustained by riders on a nation-wide basis, Members, through cooperation with Jockeys' Guild, Inc. and/or the local jockeys' representatives, shall participate in a program coordinated by the Jockeys' Guild, to the extent it is consistent with HIPAA guidelines, geared toward the collection of data associated with rider injuries sustained at their racetrack.

K. Race Cancellation Policy

Racetrack Members, in conjunction with its Stewards, Jockeys, and Horsemen, shall develop protocols that are consistent with **ARCI-007-025 (G)** for the delay/cancellation of races due to inclement weather, lightning or other hazardous racing conditions. Such protocols shall take into consideration specific weather conditions and shall include a pre-determined method for establishing consensus among stakeholders.

Members shall implement commercial lightning detection equipment or services and work with the regulatory authority, horsemen and jockeys to establish lightning cancelation/delay protocols, for both training and racing, that are consistent with **ARCI-007-020(M)**.

L. Concussion Management

Members, through cooperative efforts with Jockeys' Guild, Inc., or the local jockeys' representative body, and the regulatory authority shall advocate the establishment of concussion baseline assessment standards, raceday concussion assessment protocols, and return-to-ride management standards to achieve **ARCI-007-020(A)(10)** and **ARCI-008-030(A)(2)**. Such protocols may be based on guidelines recommended by the **MedStar Sports Medicine Concussion Protocol for Jockeys and Horsemen (2018)**, attached as Exhibit 7.

5. Aftercare and Transition of Retired Racehorses:

As advocates for the thoroughbred racehorse, the Alliance and the horseracing industry as a whole share in the responsibility for providing care and/or retraining of racehorses after they can no longer compete on the racetrack.

Racetrack Members shall affiliate with recognized placement/adoption program(s) that meet the accreditation criteria of the Thoroughbred Aftercare Alliance (TAA). Member Tracks shall help facilitate the transfer of horses to its affiliated recognized placement/adoption program(s) by doing such things as: Providing owners and trainers with contact information for recognized placement/adoption program(s); promoting placement/adoption program(s); cooperating with state funded programs; providing stalls and/or staff to help facilitate the transfer of horses to affiliated recognized placement/adoption facilities; or other means intended to assist with the placement of horses in transition. Racetrack Members shall participate in and facilitate a funding strategy that shares the costs of funding among Racing Participants through mutually agreed upon methods. Racetrack member shall readily promote its aftercare program and its recognized placement/adoption program through its track condition book, racing program, and website.

6. Wagering Security

A high degree of wagering security is vital to ensure public confidence in pari-mutuel wagering. Accordingly, Racetrack Members shall adopt uniform protocols relating to Wagering Incidents.

A. Wagering Incident Prevention Protocols:

1. Member shall adhere to the **Association of Racing Commissioners International Totalisator Technical Standards** regarding stop wagering devices and the chain of command for responsibility for stop wagering.
2. Member shall include an exhibit in their simulcast sale contract that stipulates:
Host (Member) has retained the Thoroughbred Racing Protective Bureau (TRPB) to receive and store wagering transaction detail information originating from Guest on all of Host's races and pools, as per the TRA Transaction Audit File (TAF) specification version 2.0B. Guest will provide a copy of this paragraph/exhibit to Guest's tote vendor as instructions to include all of Guest's TRA Customer Codes

in the tote vendor's TAF submission on Host immediately following the closure of the pools on each race subject to this Agreement.

3. Member shall access TRPB Racetrack Manager and implement wagering security transaction reporting for all hosted wagering.
4. Timing systems associated with the video broadcast and recording, and with totalisator record keeping shall be synchronized with atomic time in hours, minutes, and seconds format (HH:MM:SS). The video graphic production computers shall have activated available settings that auto-refresh atomic time synchronization at a minimum of once every 30 minutes.
5. The local time of day as synchronized in Subsection 6.A.7, above, shall appear clearly in a hours, minutes, and seconds (HH:MM:SS) format on the video production feed for each race during the starting gate loading process and should remain visible at least five seconds after the start of the race.
6. Member shall conduct regular compliance checks with its totalisator and audio-visual provider to confirm compliance with time stamp protocols required in subsections 6.A.4 through 6.A.5, above.
7. During the time that wagering is available on the current race, the Member shall generate and disseminate a cycle of win odds at a minimum rate of once each 60 seconds from 10 minutes to post until three minutes to post time of the race. At three minutes to post and until the race start, the win odds cycle shall be generated and disseminated a minimum of once every 10 seconds. The Member shall generate and disseminate the Exacta and if applicable, the Daily Double probables at a minimum rate of once every 60 seconds from 10 minutes to post to post time of the race.
8. The Member shall generate and post a cycle of win odds at not greater than 10 seconds after close of betting, called "almost final," to disseminate on-track and via the production video feed of the live race.
9. The Member shall generate and post Final Win Odds as soon as available both on-track and through the ITSP network.

B. Wagering Incident Investigation Protocols

Member shall adopt the following protocols relating to any Wagering Incident:

1. Member shall promptly conduct a thorough investigation of any and all suspected Wagering Incidents. If, after conducting its investigation, a Member reasonably suspects that a Wagering Incident may have occurred, Member shall immediately inform its jurisdictional regulatory authority of the occurrence of a suspected Wagering Incident;
2. After notifying the appropriate regulatory authority of the occurrence of a suspected Wagering Incident and assisting in any investigation, Member shall promptly notify the TRPB to follow-up with an analysis/examination of the wagering incident. The

Member shall authorize TRPB to collect all transaction data that may not have been initially captured by TAF due to technical failure or any other reason. Member shall promptly provide transactional data and video of the race to the regulatory authority and/or to other investigatory entities where reasonably requested;

3. Public communication regarding Wagering Incidents which the Member has determined may potentially impact wagering security shall be coordinated with the regulatory authority investigating the potential Wagering Incident. Prompt and detailed public notification is encouraged in all circumstances except those when an ongoing investigation may be compromised;
4. Member shall implement a Wagering Incident reporting mechanism that is easily accessible to the wagering public and employees who might have knowledge of the occurrence of a Wagering Incident.

C. Wagering Pool Due Diligence

Members shall adopt minimum requirements for wagering entities to be permitted access into their simulcast wagering pools or engage the TRPB to conduct at a minimum, the Limited Scope Background Examination, prior to allowing access. These requirements include, but are not limited to, disclosure of licensing and regulatory supervision of the entity, identification and review of all officers, directors, partners and shareholders with a five percent or greater share of ownership or beneficial interest and all top level management personnel, where business is conducted (country, state/province of wagering hubs, and jurisdictions from which wagers are accepted), technology and vendors utilized, and registered website addresses. Member or its agent shall verify the aforementioned information.

7. Adherence and Enforcement

A. Compliance Program

Members shall implement an effective compliance program to ensure adherence to this Code. The Alliance shall develop a guidance document for use by Members to assist them in their program development. Implementation of an effective compliance program consistent with Alliance guidance shall be required for Accreditation.

B. Condition for Accreditation

Members shall adhere to this Code including any house rule promulgated and implemented pursuant to this Code as a condition for maintaining Alliance Accreditation.

Members shall be subject to periodic audit and/or review at Member's expense (but such expense to be agreed to by the Alliance and Member in advance) by the Alliance (or its designee) for purposes of certifying the Member's Accreditation status under the Alliance.

C. Enforcement

Members satisfying substantially all conditions for certification shall receive Full Accreditation for a period of twenty-four (24) months, provided Member continues to adhere to Alliance standards during that time period. Members satisfying substantially all conditions for certification except for specifically identified standards may receive Provisional Accreditation for a period of twenty-four (24) months provided Member satisfies unmet conditions in a specified timeframe and further adheres to all other Alliance standards during that time period. Should a full or provisionally accredited Member be found to be in breach of Alliance standards, such Member may be entitled to a probationary Accreditation subject to curing the deficiency or deficiencies in a specified timeframe. Any Member who has been found to have materially breached this Code may have its Accreditation revoked by the Alliance after notice of and reasonable opportunity to cure such breach. Further, the Alliance may publish the names and Accreditation status of all Members.

Exhibit 1

Model Rules Referenced

ARCI Totalisator Technical Standards

(B) Stop Wagering Devices. The totalisator vendor shall install two separate devices that activate the stop wagering function of the totalisator system. The stop wagering devices shall be the judge's console and a tote system backup located at the racing association.

ARCI-006-015 Stewards

A. Accreditation

To qualify for appointment as a Steward, the appointee shall meet the experience, education and examination requirements necessary to be accredited by the Racing Officials Accreditation Program in association with the Universities of Arizona and Louisville and be in good standing with all racing jurisdictions.

ARCI-006-070 Official Veterinarian

A. General

The official veterinarian shall:

- (1) be employed by the Commission or similar agency having jurisdictional authority;
- (2) be a graduate veterinarian and be licensed to practice in this jurisdiction;
- (3) be qualified to objectively and competently provide the regulatory duties described herein;
- (4) refuse employment or payment, directly or indirectly, from any horse owner or trainer of a horse racing or intending to race in this jurisdiction while employed as the official veterinarian for the commission;
- (5) refrain from directly treating or prescribing for any horse under his/her jurisdiction except in cases of emergency, accident or injury;
- (6) have no employment history or business relationship prior to employment as the official veterinarian that could constitute a conflict of interest or impede in the performance of official duties.

B. Responsibilities

Should the Commission be unable to provide adequate veterinary staffing to fulfill the duties described below, some of the official veterinarian responsibilities, as indicated by an asterisk (*), may be shared with or deferred to, an association-employed veterinarian. The association-employed veterinarian is responsible for adhering to and upholding the rules and regulations of the commission and shall be accountable to the commission.

The official veterinarian shall:

- (1) * recommend to the stewards any horse deemed unsafe to be raced, or a horse that it would be inhumane to allow to race;

- (2) * conduct pre-race inspections on all potential starters on race day;
- (3) * inspect any horse when there is a question as to the physical condition of such horse independent of the horse's entry status;
- (4) * be present in the paddock during saddling, on the racetrack during the post parade and at the starting gate until the horses are dispatched from the starting gate for the race;
- (5) * recommend to the stewards the scratching of any horse that is, in the opinion of the official veterinarian, injured, ill, or otherwise unable to compete due to a medical or health-related condition;
- (6) * inspect any horse which appears in physical distress during the race or at the finish of the race; and shall report such horse together with his/her opinion as to the cause of the distress to the stewards and to the official veterinarian, if the inspection was done by either the racing veterinarian or an association-employed veterinarian;
- (7) * provide emergency medical care to horses injured racing and effect case transfer to the practicing veterinarian;
- (8) * be authorized to humanely destroy any horse deemed to be so seriously injured that it is in the best interests of the horse to so act; and
- (9) * report to the Commission the names of all horses humanely destroyed or which otherwise expire at the meeting and the reasons therefore;
- (10) * maintain all required records of postmortem examinations performed on horses which have died within the jurisdiction of the Commission;
- (11) * maintain the Veterinarian's List of horses ineligible to race;
- (12) supervise and control the Test Barn;
- (13) supervise the taking of all specimens for testing according to procedures approved by the Commission;
- (14) provide proper safeguards in the handling of all laboratory specimens to prevent tampering, confusion, or contamination and assure sample integrity;
- (15) provide the stewards with a written statement regarding the nature and seriousness of all laboratory reports of prohibited substances in equine samples.
- (16) have jurisdiction over the practicing licensed veterinarians within the enclosure for the purpose of these rules;
- (17) review and consult with the applicants and the stewards/Commission regarding Commission license applications of practicing veterinarians, veterinary technicians or assistants, vendors of medical supplies and equipment, non-veterinarian health care providers (massage therapists, nutritionists, physical therapists, etc.);
- (18) * cooperate with practicing veterinarians and other regulatory agencies to take measures to control communicable and/or reportable equine diseases.

ARCI-007-020 Facilities And Equipment

A. Facilities for Patrons and Licensees

(6) An association shall provide a properly equipped to transport ambulance, staffed with at least one certified paramedic during training and two certified paramedics during racing hours. If the ambulance is being used to transport an individual, the association may not conduct a race, or allow horses with riders on the racetrack, until the ambulance is replaced.

(8) Unless otherwise approved by the Commission or the stewards, an ambulance shall follow the field at a safe distance during the running of races.

(9) The ambulance must be parked at an entrance to the racing strip except when the ambulance is being used to transport an individual or when it is following the field during the running of a race.

(10) An association shall adopt, have posted, and implement a protocol for education, evaluation, diagnosis, and management of concussion of jockeys which shall be approved by the regulatory authority.

- (a) Each jockey shall acknowledge in writing that they have been made aware of the concussion protocols in place for the facility at which they are riding;

- (b) A minimum assessment shall include the most current Sport Concussion Assessment Tool examination, when necessary, and be performed by a medical professional authorized in that jurisdiction to perform such evaluation;

- (c) A *return-to-ride* guideline shall be established in order to clear a jockey who has been concussed, or is believed to have been concussed, once the jockey is declared fit-to-ride by a medical professional authorized to do so; and,

- (d) The Stewards shall be notified when a jockey is not permitted to ride and when the jockey has been authorized to return to riding.

F. Starting Gates

(1) During racing hours, an association shall provide at least two operable padded starting gates, which have been approved by the Commission.

I. Equine Ambulance

(1) An association shall provide an equine ambulance staffed by trained personnel on association grounds on each day that the racetrack is open for racing or training.

(2) The ambulance must be properly ventilated and kept at an entrance to the racing strip when not in use.

(3) The ambulance must be a covered vehicle that is low to the ground and large enough to accommodate a horse in distress. The ambulance must be able to:

- (a) navigate on the racetrack during all weather conditions; and

- (b) transport a horse off the association grounds.

(4) The ambulance must be equipped with:

- (a) large, portable screens to shield a horse from public view;
- (b) ramps to facilitate loading a horse;
- (c) adequate means of loading a horse that is down;
- (d) a rear door and a door on each side;
- (e) a padded interior;
- (f) a movable partition to initially provide more room to load a horse and to later restrict a horse's movement;
- (g) a shielded area for the person who is attending to the horse; and
- (h) an adequate area for the storage of water and veterinary drugs and equipment.

(5) An association may not conduct a race unless an equine ambulance or an official veterinarian-approved substitute is readily available.

(6) The equine ambulance, its supplies and attendants and the operating procedures for the equine ambulance must be approved by the official veterinarian.

M. Lightning

(1) The association shall implement or subscribe to a commercial, real-time lightning detection service that has been independently and objectively verified. The lightning detection service must include strike distance/radius notifications enabling lightning delay decision-making. The detection service must be available to the stewards at all times and to designated officials during training hours.

(2) The association shall designate a responsible official for monitoring lightning conditions during training hours. When lightning is detected within 8 miles radius of the racetrack, the designated official shall order suspension of all outdoor training activities and alert participants to seek shelter. Outdoor training activities may resume 30 minutes after the last lightning strike within an 8 mile radius as indicated by the lightning detection service.

(3) The association shall designate a responsible official for enforcing any training delay.

N. Emergency Track Warning System

(1) All tracks shall install an emergency track warning system on all racing and training tracks.

(2) The emergency warning system shall consist of lights and sirens on every black and white sixteenth pole inside the main track, and where applicable, on main horse paths and entrances (gaps) that are used during morning exercising by horsemen to enter the training surface.

(3) During workouts, both lights and sirens shall be used simultaneously. When a warning system is activated, those working, galloping, or ponying horses shall slow down and no one on horseback shall enter the affected track.

(4) During a race, lights and sirens shall be used independently. Only the lights shall be used to warn jockeys of a loose or injured horse, or other situation(s) where the race shall continue, but caution must be exercised. If the race is aborted, sirens shall also be used and the jockeys shall immediately slow their horses.

(5) During training, lights and sirens shall both be used to signal a lightning delay and that all participants should exit to shelter. Once the course is cleared, lights should remain on until the track is reopened after 30 minutes from last lightning strike within an 8 mile radius of the facility.

ARCI-007-025 Operations

B. Fire Prevention

(1) An association shall develop and implement a program for fire prevention on association grounds. An association shall instruct employees working on association grounds of the procedures for fire prevention.

(2) Not later than ____ days before the first day of a race meeting, an association shall deliver to the Commission a copy of the state or local fire marshal's certification regarding the association's compliance with fire safety regulations or the fire marshal's plan of corrections. The certification or plan must be based on an inspection of the association grounds conducted by the fire marshal not more than 30 days before the first day of a race meeting.

(3) No person shall:

- (a) smoke in stalls, feed rooms or under shed rows;
- (b) burn open fires or oil and gas lamps in the stable area;
- (c) leave unattended any electrical appliance that is plugged-in to an electrical outlet.
- (d) permit horses to come within reach of electrical outlets or cords;
- (e) store flammable materials such as cleaning fluids or solvents in the stable area; or
- (f) lock a stall which is occupied by a horse.

(4) An association shall post a notice in the stable area which lists the prohibitions outlined in 3a-f above.

G. Dangerous Weather Conditions

(1) The association shall develop a hazardous weather and lightning protocols to be approved by the Regulatory Authority.

(2) The Regulatory Authority shall designate the personnel responsible for immediately investigating any known impending threat of dangerous weather conditions to determine if conditions exist which warrant delay and/or cancellation of a performance and/or the notification to the public of such threatening weather conditions. The first priority of all decisions made shall be the well-being and safety of all persons and animals.

- (a) The stewards shall commence a race delay when lightning is detected within 8 miles radius of the racetrack and remain in effect until a minimum of 30 minutes has passed since the last strike is observed within an 8 mile radius.

I. Posting of Jockey Insurance Coverage

- (1) An association shall have on file with the commission a copy of the actual policy and post in the jockeys' quarters a summary of the association's insurance coverage for jockeys who are injured while on the grounds of the association and shall, upon the request of any licensed jockey who is participating in the race meeting, provide a copy of the policy of such insurance. Such request shall be made in writing to a racing official designated by the association in the notice to respond to such requests.
- (2) In the event that the insurance policy is changed during the race meeting the association shall promptly notify the commission and post a notice of any such changes.

ARCI-008-010 General Provisions

G. Protection of Horses

- (1) Each person licensed by the Commission shall do all that is reasonable and within his/her power and scope of duty to guard against and prevent the administration of any drug, medication or other substance, including permissible medication in excess of the maximum allowable level, to any horse entered or to be entered in an official workout or race, as prohibited by these rules.
- (2) No licensee or other person under the jurisdiction of the Commission shall subject or permit any animal under his/her control, custody or supervision to be subjected to or to incur any form of cruelty, mistreatment, neglect or abuse or abandon, injure, maim or kill or administer any noxious substance to or deprive any animal of necessary care or sustenance, shelter or veterinary care.

H. Substance Abuse/Addiction

- (1) All licensees shall be deemed to be exercising the privileges of their license, and to be subject to the requirements of these rules, when engaged in activities that could affect the outcome of a race or diminish the conditions of safety or decorum required in restricted areas.
- (2) It shall be a violation to exercise the privileges granted by a license from this Commission if the licensee:
 - (a) Is engaged in the illegal sale or distribution of alcohol or a controlled substance;
 - (b) Possesses, without a valid prescription, a controlled substance;
 - (c) Is intoxicated or under the influence of alcohol or a controlled substance;
 - (d) Is addicted, having been determined to be so by a professional evaluation, to alcohol or other drugs and not engaged in an abstinence-based program of recovery acceptable to the Commission;
 - (e) Has in his/her possession within the enclosure any equipment, products or materials of any kind which are used or intended for use in planting,

propagating, cultivating, growing, harvesting, manufacturing, compounding, converting, producing, processing, preparing, testing, analyzing, packaging, repackaging, storing, containing, concealing, injecting, ingesting, inhaling or otherwise introducing into the human body a controlled dangerous substance;

(f) Refuses to submit to urine or drug testing, when notified that such testing is based on a random drug testing procedure, is based on reasonable suspicion that the person is using drugs or alcohol or is based on the licensee's acting as if in an impaired condition; or

(g) Presently has drugs (controlled substances) or alcohol in his or her body. With regard to alcohol, the results of a breathalyzer test showing a reading of more than .05 percent of alcohol in the blood shall be the criterion for a finding of alcohol present in the body. With regard to other controlled substances, presence of the drug in any quantity measured by the testing instrument establishes the presence of the drug for purposes of this paragraph.

(3) At its discretion, the Commission may conduct random or episodic random drug testing, as well as testing based on reasonable suspicion, in order to ensure safety on the racetrack.

(4) When conducted, random drug testing shall apply, equally, to all licensees who are, at the time of the random testing, exercising the privileges of their license in such ways as may affect the outcome of a race or diminish the conditions of safety or decorum required in restricted areas.

(5) No notice need be given as to onset or cessation of random testing.

(6) For licensees who are tested under the provisions in this chapter, and whose testing shows the presence of drugs (controlled substances) or alcohol, any field screening test results shall be confirmed by a laboratory acceptable to the Commission which shall include Gas Chromatography/ Mass Spectrometry (GC/MS) procedures.

(7) When the sample quantity permits, each test sample shall be divided into portions so that one portion may be used for the confirmation procedure and another portion may be utilized by the licensee to obtain an independent analysis of the urine sample.

(8) The Commission shall provide for a secure chain of custody for the sample to be made available to the licensee.

(9) All costs for the transportation and testing for the sample portion made available for the licensee shall be the financial responsibility of the requesting person.

(10) Payment shall be due from the requesting person within 30 days of receipt of notice of the costs.

(11) A licensee penalized or restricted pursuant to this chapter shall retain rights of due process with respect to any determination of alleged violations which may adversely affect the right to hold a license.

(12) If there has been a violation, under number 2 above, the following procedures will be followed:

(13) The Commission may, at its discretion, order the licensee to obtain a professional assessment to determine whether there is a substantial probability that the licensee is dependent on, or abuses, alcohol or other drugs or the Commission may act on the information at hand.

(14) Actions in the case of first violators may include revocation of the license, suspension of the license for up to six months, placing the violator on probation for up to 90 days or ordering formal assessment and treatment.

(15) Treatment or assessment, if ordered, must meet the conditions given in numbers 16-18 below.

(16) The license of the person may be revoked or suspended for a period of up to one year or a professional assessment of the person may be ordered by the Commission.

(17) If a professional assessment indicates presence of a problem of alcohol or other drug abuse that is not treatable within the reasonably foreseeable future (360 days) the license may be suspended for a period of up to one year.

(18) If a professional assessment indicates presence of a treatable problem of alcohol or other drug abuse or dependence, the Commission may order the licensee to undergo treatment as a condition of continuing licensure. Such treatment will be through a program or by a practitioner, acceptable to the licensee and the Commission. Required features of any program or practitioner acceptable to the Commission will be:

(a) Accreditation or licensure by an appropriate government agency, if required by state statute;

(b) A minimum of one year follow-up of formal treatment; and

(c) A formal contract indicating the elements of the treatment and follow up program that will be completed by the licensee and, upon completion, certified to the Commission as completed. To effect the contract, the licensee will authorize release of information by the treating agency, hospital or individual.

(19) For third-time violators, the violator's license may be revoked and the violator may be deemed ineligible for licensure for up to five years.

(20) Although relapse (failure to maintain abstinence) is not inevitable, it is common for relapse to occur in recovery from alcoholism or other substance dependence. Therefore, a licensee who is engaged in a formal program of recovery, and is compliant with all provisions other than abstinence, will not be regarded automatically as having committed a new violation.

(21) When a licensee is determined to have failed in maintaining abstinence, the licensee shall furnish to the Commission an assessment by the treating agency, hospital or individual practitioner indicating whether the licensee was compliant with the agreed upon program of recovery, and an opinion as to whether a "new violation" occurred.

(22) The Commission will determine whether a new violation has occurred in each instance. If a new violation has occurred, the Commission will proceed under numbers 13-15 above or numbers 16-18 above. Otherwise, the licensee shall continue in the agreed upon program of recovery.

Z. Safety Equipment

(1) Helmets

Any person mounted on a horse or stable pony on association grounds must wear a properly secured safety helmet at all times. Additionally, all members of the starting gate crew must adhere to this

regulation at all times while performing their duties or handling a horse. For the purpose of this regulation, a member of the starting gate crew means any person licensed as an assistant starter or any person who handles a horse in the starting gate. The helmet must comply with one of the following minimum safety standards or later revisions: American Society for Testing and Materials (ASTM 1163); European Standards (EN-1384 or PAS-015 or VG1); or, Australian/New Zealand Standards (AS/NZ 3838 or ARB HS 2012); or Snell Equestrian Standard 2001.

(2) Vests

Any person mounted on a horse or stable pony on the association grounds must wear a properly-secured safety vest at all times. Additionally, all members of the starting gate crew must also adhere to this regulation at all times while performing their duties or handling a horse. For the purpose of this regulation, a member of the starting gate crew means any person licensed as an assistant starter or any person who handles a horse at the starting gate. The safety vest must comply with one of the following minimum standards or later revisions:

- (a) British Equestrian Trade Association (BETA):2000 Level 1
- (b) Euro Norm (EN) 13158:2000 Level 1
- (c) American Society for Testing and Materials (ASTM) F2681-08 or F1937.
- (d) Shoe and Allied Trade Research Association (SATRA) Jockey Vest Document M6 Issue 3
- (e) Australian Racing Board (ARB) Standard 1.1998

(3) A safety helmet or a safety vest shall not be altered in any manner nor shall the product marking be removed or defaced.

ARCI-008-020 Trainers

A. Eligibility

(4) Beginning no later than January 31, 2014, in order to maintain a current license, trainers must complete at least four (4) hours per calendar year of continuing education courses approved by the ARCI or the commission in that jurisdiction.

C. Other Responsibilities

A trainer is responsible for:

(17) Keeping a record of all treatments for every horse in his or her control. The treatment shall be recorded within 48 hours of administration

- (a) Treatment, for the purposes of this section, means any medication or procedure containing a medication administered to a horse by a Licensed Trainer or his or her designee.

Treatment, for the purposes of this section, specifically excluded medications or procedures administered by a veterinarian licensed by the Regulatory Authority or that veterinarian's employee.

This section does not exclude the administration of medications that are prescribed by a veterinarian but administered by the trainer or his or her designee.

This section also does not exclude those treatments that are administered by a veterinarian not licensed by the Regulatory Authority.

- (b) Trainer Treatment Records must include the following information:
 - i. The name of the horse (or, if unnamed, the registered name of the dam and year of foaling);
 - ii. The generic name of the drug (e.g. phenylbutazone, methocarbamol);
 - iii. The name and address of the prescribing veterinarian;
 - iv. The brand name of the drug if a non-generic is used;
 - v. The date of the treatment;
 - vi. The route of administration;
 - vii. The dosage administered;
 - viii. The approximate time (to the nearest hour) of each treatment;
 - ix. The first and last name of the individual that administered the treatment; and
 - x. The treating veterinarian shall sign or initial the treatment log on the first day a horse receives a prescription medication.
- (c) Trainer Treatment Records shall be maintained electronically or on paper.
- (d) The Trainer Treatment Records are to be made available for inspection upon request of the Regulatory Authority.
- (e) Copies of the Trainer Treatment Records may be requested by the Regulatory Authority in the course of an investigation of a possible violation of these rules or in a proceeding before the Stewards or the Regulatory Authority.
- (f) Copies of Trainer Treatment Records must be maintained for 6 months.
- (g) Failure to provide accurate and complete Trainer Treatment Records shall result in disciplinary action.

(18) Records for Horses Shipping to the Track:

If a horse is not stabled at a facility under the jurisdiction of the Relevant Racing Authority for the full 14 days prior to a race or working off the Veterinarian's List, the trainer must make available to the official veterinarian or other Regulatory Authority designee, upon request, the *14-Day Record*.

Failure to provide accurate and complete records as requested shall result in disciplinary action.

ARCI-001-010 Terms: 14-day Record

The 14-day Record shall include the following information regarding veterinary treatments:

- i. the name of the horse treated;*
- ii. any medication, drug, substance, or procedure administered or prescribed by a veterinarian within 14 days prior to working off the vets list or racing*

*iii. the date and time of treatment; and
The 14-day Record is confidential to the extent allowed by law.*

(19) Corticosteroid and Intra-Articular Injection Reporting Requirements

Trainers or their designee shall maintain complete records of all corticosteroid and intra-articular injections for all horses in his or her control. Complete corticosteroid and intra-articular injection records include:

- (a) The date of the injection;
- (b) The name of the veterinarian performing the injection;
- (c) The articular space(s) or structure(s) injected;
- (d) The medication or biologicals used to inject each articular space; and
- (e) The dose in milligrams of each corticosteroid used.

This information shall be maintained for a minimum of 30 days to facilitate compliance with this regulation.

If a horse is successfully claimed by a new owner, the trainer of record at the time of that claiming race must provide that horse's complete corticosteroid and intra-articular injection record(s) for the last 30 days (30-day Record):

- (f) 30-day Records may be provided in paper or electronic form but must be provided in a format approved by the Regulatory Authority
- (g) 30-day Records must be provided to the new trainer within 48 hours of the transfer of the horse. The trainer or his/her designee shall notify the regulatory veterinarian when the records have been provided.
- (h) Submission of 30-day Records may be delegated to the treating veterinarian, who shall provide the report to the new trainer within 48 hours of the transfer of the horse.
- (i) Failure of the trainer to provide the 30-day Record shall result in disciplinary action.

ARCI-008-030 Jockeys

A. Eligibility

(2) A jockey shall pass a physical examination given within the previous twelve months by a licensed physician affirming fitness to participate as a jockey, as well as a baseline concussion test using the most current SCAT testing protocol. The results of the physical examination and the baseline test shall be provided by the jockey to the Regulatory Authority. The stewards may require that any jockey be reexamined and may refuse to allow any jockey to ride pending completion of such examination.

(3) An applicant shall show competence by prior licensing and the demonstration of riding ability, which may include participation in up to five races with the prior approval of the stewards with the consideration of the recommendations from the starter, the head outrider, and the designated

representatives of the jockeys and the horsemen at the track. The demonstration of riding ability is defined at a minimum of:

- (a) Breaking with a horse in company from the starting gate;
- (b) Working a horse in company around the turn and down the stretch;
- (c) Switching the riding crop from one hand to the other while maintaining control of the horse in a stretch drive;
- (d) Causing a horse to switch leads coming out of the turn.

ARCI-009-010 General Provisions

- (5) A claim shall be voided if a horse is a starter as determined by the regulatory authority, and the horse:
 - (a) Dies on the racetrack; or
 - (b) Suffers an injury which requires the euthanasia of the horse as determined by the Official Veterinarian while the horse is on the racetrack.
- (6) A claim is voidable at the discretion of the new owner for a period of one hour after the race is made official, for any horse:
 - (a) That is vanned off the track at the direction of the Official Veterinarian; or
 - (b) That is observed by the Official Veterinarian to be lame or unsound while on the racetrack for that race.

ARCI-010-020 Weights

D. Scale of Weights

- (4) A notice shall be included in the daily program that all jockeys will carry approximately three (3) pounds more than the published weight to account for safety equipment (vest and helmet) that is not included in required weighing out procedures. Additionally, upon stewards' approval, jockeys may weigh in with an additional three (3) pounds for inclement weather gear.

ARCI-010-035 Running of the Race

A. Equipment

- (1) All riding crops are subject to inspection and approval by the stewards and the clerk of scales.
 - (a) Riding crops shall have a shaft and a flap and will be allowed in flat racing including training, only as follows.
 - (A) Maximum weight of eight ounces;
 - (B) Maximum length, including flap of 30 inches
 - (C) Minimum diameter of the shaft of three-eighths inch; and
 - (D) Shaft contact area must be smooth, with no protrusions or raised surface, and covered by shock absorbing material that gives a compression factor of at least one-millimeter throughout its circumference.
 - (b) The flap is the only allowable attachment to the shaft and must meet these specifications:
 - (A) Length beyond the end of the shaft a maximum of one inch;

- (B) Width a minimum of 0.8 inch and a maximum of 1.6 inches;
- (C) No reinforcements or additions beyond the end of the shaft;
- (D) No binding within seven inches of the end of the shaft; and
- (E) Shock absorbing characteristics similar to those of the contact area of the shaft.

C. Jockey Requirements

(7) Weighing Out

- (a) A jockey's weight shall include his/her clothing, boots, saddle and its attachments and any other equipment except the bridle, bit, blinkers, goggles, number cloth and safety equipment including helmet, vest, over-girth, reins and breast collar.
- (b) Upon Stewards approval, jockeys may be allowed up to three (3) pounds more than published weights to account for inclement weather clothing and equipment.

E. Post to Finish

(7) Use of Riding Crop

- (a) Although the use of a riding crop is not required, any jockey who uses a riding crop during a race shall do so only in a manner consistent with exerting his/her best efforts to win.
- (b) In all races where a jockey will ride without a riding crop, an announcement of such fact shall be made over the public address system.
- (c) No electrical or mechanical device or other expedient designed to increase or retard the speed of a horse, other than the riding crop approved by the stewards, shall be possessed by anyone, or applied by anyone to the horse at any time on the grounds of the association during the meeting, whether in a race or otherwise.
- (d) Riding crops shall not be used on two-year-old horses before April 1 of each year.
- (e) The riding crop shall only be used for safety, correction and encouragement, and be appropriate, proportionate, professional, taking into account the rules of racing herein. However, stimulus provided by the use of the riding crop shall be monitored so as not to compromise the welfare of the horse.
- (f) Use of the riding crop varies with each particular horse and the circumstances of the race.
- (g) Except for extreme safety reasons all riders should comply with the following when using a riding crop:
 - (A) Initially showing the horse the riding crop, and/or tapping the horse with the riding crop down, giving it time to respond before using it;
 - (B) Having used the riding crop, giving the horse a chance to respond before using it again;
 - i. "Chance to respond" is defined as one of the following actions by a jockey:

1. Pausing the use of the riding crop on their horse before resuming again; or
2. Pushing on their horse with a rein in each hand, keeping the riding crop in the up or down position; or
3. Showing the horse the riding crop without making contact; or
4. Moving the riding crop from one hand to the other.

(C) Using the riding crop in rhythm with the horse's stride.

(h) When deciding whether or not to review the jockey's use of the riding crop, Stewards will consider how the jockey has used the riding crop during the course of the entire race, with particular attention to its use in the closing stages, and relevant factors such as:

- (A) The manner in which the riding crop was used
- (B) The purpose for which the riding crop was used
- (C) The distance over which the riding crop was used and whether the number of times it was used was reasonable and necessary
- (D) Whether the horse was continuing to respond.

(i) In the event there is a review by the Stewards, use of the riding crop may be deemed appropriate in the following circumstances:

- (A) To keep a horse in contention or to maintain a challenging position prior to what would be considered the closing stages of a race,
- (B) To maintain a horse's focus and concentration,
- (C) To correct a horse that is noticeably hanging,
- (D) To assure the horse maintains a straight course, or
- (E) Where there is only light contact with the horse.

(j) Prohibited use of the riding crop includes but are not limited to striking a horse:

- (A) on the head, flanks or on any other part of its body other than the shoulders or hind quarters except when necessary to control a horse;
- (B) during the post parade or after the finish of the race except when necessary to control the horse;
- (C) excessively or brutally causing welts or breaks in the skin;
- (D) when the horse is clearly out of the race or has obtained its maximum placing;
- (E) persistently even though the horse is showing no response under the riding crop; or
- (F) striking another rider or horse.

(k) After the race, horses will be subject to inspection by a racing or official veterinarian looking for cuts, welts or bruises in the skin. Any adverse findings shall be reported to the stewards.

(l) The giving of instructions by any licensee that if obeyed would lead to a violation of this rule may result in disciplinary action also being taken against the licensee who gave such instructions

ARCI-011-010 Veterinary Practices

A. Veterinarians under Authority of Official Veterinarian

Veterinarians licensed by the Commission and practicing at any location under the jurisdiction of the Commission are under the authority of the official veterinarian and the stewards. The official veterinarian shall recommend to the stewards or the Commission the discipline that may be imposed upon a veterinarian who violates the rules.

B. Appropriate Role of Veterinarians

The following limitations apply to drug treatments of horses that are engaged in activities, including training, related to competing in pari-mutuel racing in the jurisdiction:

(1) No drug may be administered except in the context of a valid veterinarian-client-patient relationship between an attending veterinarian, the horse owner (who may be represented by the trainer or other agent) and the horse. The owner is not required by this subdivision to follow the veterinarian's instructions, but no drug may be administered without a veterinarian having examined the horse and provided the treatment recommendation. Such relationship requires the following:

(a) The veterinarian, with the consent of the owner, has accepted responsibility for making medical judgments about the health of the horse;

(b) The veterinarian has sufficient knowledge of the horse to make a preliminary diagnosis of the medical condition of the horse;

(c) The veterinarian has performed an examination of the horse and is acquainted with the keeping and care of the horse;

(d) The veterinarian is available to evaluate and oversee treatment outcomes, or has made appropriate arrangements for continuing care and treatment;

(e) The relationship is maintained by veterinary visits as needed, and;

(f) The veterinary judgments of the veterinarian are independent and are not dictated by the trainer or owner of the horse.

(2) No prescription drug may be administered except as prescribed by an attending veterinarian.

(3) The trainer and veterinarian are both responsible to ensure compliance with these limitations on drug treatments of horses, except the medical judgment to recommend a drug treatment or to prescribe a drug is the responsibility of the veterinarian and the decision to proceed with a drug treatment that has been so recommended is the responsibility of the horse owner (who may be represented by the trainer or other agent).

C. Treatment Restrictions

(1) Only Licensed Trainers, Licensed Owners, or their designees shall be permitted to authorize veterinary medical treatment of horses under their care, custody, and control at locations under the jurisdiction of the relevant commission.

(2) Except as otherwise provided by this subsection, no person other than a veterinarian licensed to practice veterinary medicine in this jurisdiction and licensed by the Commission may administer a prescription or controlled medication, drug, chemical or other substance (including any medication, drug, chemical or other substance by injection) to a horse at any location under the jurisdiction of the Commission.

(3) This subsection does not apply to the administration of the following substances except in approved quantitative levels, if any, present in post-race samples or as they may interfere with post-race testing:

(a) A recognized non-injectable nutritional supplement or other substance approved by the official veterinarian;

(b) A non-injectable substance on the direction or by prescription of a licensed veterinarian; or

(c) A non-injectable non-prescription medication or substance.

(4) No person shall possess a hypodermic needle, syringe capable of accepting a needle or injectable of any kind on association grounds, unless otherwise approved by the Commission. At any location under the jurisdiction of the Commission, veterinarians may use only one-time disposable syringe and needle, and shall dispose of both in a manner approved by the Commission. If a person has a medical condition which makes it necessary to have a syringe at any location under the jurisdiction of the Commission, that person may request permission of the stewards and/or the Commission in writing, furnish a letter from a licensed physician explaining why it is necessary for the person to possess a syringe, and must comply with any conditions and restrictions set by the stewards and/or the Commission.

(5) Practicing Veterinarians shall not have contact with an entered horse within 24 hours before the scheduled post time of the race in which the horse is scheduled to compete except for the administration of furosemide under the guidelines set forth in ARCI-011-020 F.) unless approved by the official veterinarian. Any unauthorized contact may result in the horse being scratched from the race in which it was scheduled to compete and may result in further disciplinary action by the stewards.

(6) Any horse entered for racing must be present on the grounds 5 hours prior to the post time of the race they are entered in.

D. Veterinarians' Reports

(1) Every veterinarian who treats a racehorse at a facility under the jurisdiction of the Racing Authority shall submit a Veterinarian's Medication Report Form to the official veterinarian or other Regulatory Authority designee in a manner specified by the Regulatory Authority and in an approved format which includes:

(a) the name of the horse treated;

(b) any medication, drug, substance, or procedure administered or prescribed;

- (c) the name of the trainer of the horse;
- (d) the date and time of treatment; and
- (e) any other information requested by the official veterinarian.

(2) The Veterinarian's Medication Report Form shall be signed by the practicing veterinarian or, where reported electronically, shall be submitted by the practicing veterinarian.

(3) The Veterinarian's Medication Report Form must be filed by the treating veterinarian not later than the time designated by the Regulatory Authority on the next race date following administration or prescription of any medication, drug, substance, or procedure.

(4) Any such report is confidential to the extent allowed by state law. Access to a report is limited to the regulatory veterinarians and its content shall not be disclosed except in the course of an investigation of a possible violation of these rules or in a proceeding before the Stewards or the Regulatory Authority, or to the trainer or owner of record at the time of treatment.

(5) A timely and accurate filing of a Veterinarian's Medication Report Form that is consistent with the analytical results of a positive test may be used as a mitigating factor in determining the nature and extent, if any, of a rules violation.

ARCI-011-015 Prohibited Practices

(1) No person may possess or use a drug, substance or medication on the premises of a facility under the jurisdiction of the Commission for which

- (a) a recognized analytical method has not been developed to detect and confirm the administration of such substance; or
- (b) the use of which may endanger the health and welfare of the horse or endanger the safety of the rider or driver; or
- (c) the use of which may adversely affect the integrity of racing; or,
- (d) no generally-accepted use in equine care exists.

(2) Prohibited Substances and Methods:

(a) The substances and methods listed in the annexed Prohibited List may not be used at any place or time, and may not be possessed on the premises of a racing or training facility under the jurisdiction of the Commission, except as a restricted therapeutic use.

(b) Restricted Therapeutic Use. A limited number of medication on the Prohibited List shall be exempted when the administration occurs in compliance with the annexed Required Conditions for Restricted Therapeutic Use:

- (i) Report When Sampled means the administration of the substance must be reported to the commission when the horse is next sampled, if the horse is sampled within 24 hours after the administration;

- (ii) Pre-File Treatment Plan means that if the commission where the horse is located requires the filing of treatment plans, then a treatment plan for the substance must be filed by the time of administration in a manner approved by such commission;
- (iii) Written Approval from Commission means the commission has granted written approval of a written treatment plan before the administration of the substance;
- (iv) Emergency Use (report) means the substance had to be administered due to an acute emergency involving the life or health of the horse, provided the emergency use is reported to the commission as soon as practicable after the treatment occurs;
- (v) Prescribed by Veterinarian means the substance has been prescribed by an attending veterinarian, in compliance with ARCI 011-010 Veterinary Practices, and recorded in the veterinary records in the manner required by the commission;
- (vi) Report Treatment means the treatment must be reported to the commission by the trainer at the time of administration to provide the commission with information for the Veterinarian's List. The trainer may delegate this responsibility to the treating veterinarian, who shall make the report when so designated; and
- (vii) Other Limitations means additional requirements that apply, such as a substance may be used in only fillies or mares or a horse that is administered a substance shall be reported immediately to the commission and placed on the Veterinarian's List for a specific minimum period of time.

The use of the substance must comply with other applicable rules of the Commission.

(c) No person shall at any time administer any other doping agent to a horse except pursuant to a valid therapeutic, evidence-based treatment plan.

(i) Other doping agent means a substance that is not listed in the annexed Prohibited List, has a pharmacologic potential to alter materially the performance of a horse, has no generally accepted medical use in the horse when treated, and is:

(A) capable at any time of causing an action or effect, or both, within one or more of the blood, cardiovascular, digestive, endocrine, immune, musculoskeletal, nervous, reproductive, respiratory, or urinary mammalian body systems; including but not limited to endocrine secretions and their synthetic counterparts, masking agents, oxygen carriers, and agents that directly or indirectly affect or manipulate gene expression; but

(B) not a substance that is considered to have no effect on the physiology of a horse except to improve nutrition or treat or prevent infections or parasite infestations.

(ii) The commission may publish advisory warnings that certain substances or administrations may constitute a violation of this rule.

(iii) Therapeutic, evidence-based treatment plan means a planned course of treatment written and prescribed by an attending veterinarian before the horse is treated that:

(A) describes the medical need of the horse for the treatment, the evidence-based scientific or clinical justification for using the doping agent, and a determination that recognized therapeutic alternates do not exist; and

(B) complies with ARCI 011-010 Veterinary Practices, meets the standards of veterinary practice of the jurisdiction, and is developed in good faith to treat a medical need of the horse.

(iv) Such plans shall not authorize the possession of a doping agent on the premises of a racing or training facility under the jurisdiction of the commission.

(3) The possession and/or use of the following substances or of blood doping agents, including but not limited to those listed below, on the premises of a facility under the jurisdiction of the Commission is forbidden:

(a) Aminoimidazole carboxamide ribonucleotide (AICAR)

(b) Darbepoetin

(c) Equine Growth Hormone

(d) Erythropoietin

(e) Hemopure[®]

(f) Myo-Inositol Trispyrophosphate (ITPP)

(g) Oxyglobin[®]

(h) Thymosin beta

(i) Venoms or derivatives thereof

(j) Thymosin beta

(4) The use of Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy shall not be permitted unless the following conditions are met:

(a) Any Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy machine, whether in operating condition or not, must be registered with and approved by the Commission or its designee before such machine is brought to or possessed on any racetrack or training center within the jurisdiction of the commission;

(b) The use of Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy within the jurisdiction:

1. shall be limited to veterinarians licensed to practice by the commission;

2. may only be performed with machines that are:

(i) registered and approved for use by the commission; and

(ii) used at a previously-disclosed location that is approved by the commission

3. must be reported within 24-hours prior to treatment on the prescribed form to the official veterinarian.

(c) Any treated horse shall not be permitted to race or breeze for a minimum of 10 days following treatment;

(d) Any horse treated with Extracorporeal Shock Wave Therapy or Radial Pulse Wave Therapy shall be added to a list of ineligible horses. This list shall be kept in the race office and accessible to the jockeys and/or their agents during normal business hours and be made available to other regulatory jurisdictions.

(e) A horse that receives any such treatment without full compliance with this section and similar rules in any other jurisdiction in which the horse was treated shall be placed on the Steward's List.

(f) Any person participating in the use of ESWT and/or the possession of ESWT machines in violation of this rule shall be considered to have committed a Prohibited Practice and is subject to a Class A Penalty.

(5) The use of a nasogastric tube (a tube longer than six inches) for the administration of any substance within 24 hours prior to the post time of the race in which the horse is entered is prohibited without the prior permission of the official veterinarian or his/her designee.

Annexed Material For ARCI-011-015

Annex I: Prohibited Substances

All substances in the categories below shall be strictly prohibited unless otherwise provided in accordance with ARCI-011-015 or ARCI-025-015. Any reference to substances in this section does not alter the requirements for testing concentrations in race day samples.

Nothing in this list shall alter the requirements of post-race testing.

S0. NON-APPROVED SUBSTANCES

Any pharmacologic substance that is not approved by any governmental regulatory health authority for human or veterinary use within the jurisdiction is prohibited. This prohibition includes drugs under pre-clinical or clinical development, discontinued drugs, and designer drugs (a synthetic analog of a drug that has been altered in a manner that may reduce its detection); but does not include vitamins, herbs and supplements for nutritional purposes that do not contain any other prohibited substance, or the administration of a substance with the prior approval of the commission in a clinical trial for which an FDA or similar exemption has been obtained.

S1. ANABOLIC AGENTS

Anabolic agents are prohibited.

1. Anabolic Androgenic Steroids (AAS)

1.1. Exogenous AAS, including:

1-androstenediol (5 α -androst-1-ene-3 β ,17 β -diol); 1-androstenedione (5 α - androst-1-ene-3,17-dione); bolandiol (estr-4-ene-3 β ,17 β -diol); bolasterone; boldenone; boldione

(androsta-1,4-diene-3,17-dione); calusterone; clostebol; danazol ([1,2]oxazolo[4',5':2,3]pregna-4-en-20-yn-17 α -ol); dehydrochlormethyltestosterone (4-chloro-17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one); desoxymethyltestosterone (17 α -methyl-5 α -androst-2-en-17 β -ol); drostanolone; ethylestrenol (19-norpregna-4-en-17 α -ol); fluoxymesterone; formebolone; furazabol (17 α -methyl[1,2,5]oxadiazolo[3',4':2,3]-5 α -androst-17 β -ol); gestrinone; 4-hydroxytestosterone (4,17 β -dihydroxyandrost-4-en-3-one); mestanolone; mesterolone; metandienone (17 β -hydroxy-17 α -methylandrosta-1,4-dien-3-one); metenolone; methandriol; methasterone (17 β -hydroxy-2 α ,17 α -dimethyl-5 α -androst-3-one); methyldienolone (17 β -hydroxy-17 α -methylestra-4,9-dien-3-one); methyl-1-testosterone (17 β -hydroxy-17 α -methyl-5 α -androst-1-en-3-one); methylnortestosterone (17 β -hydroxy-17 α -methylestr-4-en-3-one); methyltestosterone; metribolone (methyltrienolone, 17 β -hydroxy-17 α -methylestra-4,9,11-trien-3-one); mibolerone; nandrolone; 19-norandrostenedione (estr-4-ene-3,17-dione); norboletone; norclostebol; norethandrolone; oxabolone; oxandrolone; oxymesterone; oxymetholone; prostanazol (17 β -[(tetrahydropyran-2-yl)oxy]-1'H-pyrazolo[3,4:2,3]-5 α -androstane); quinbolone; stanozolol; stenbolone; 1-testosterone (17 β -hydroxy-5 α -androst-1-en-3-one); tetrahydrogestrinone (17-hydroxy-18 α -homo-19-nor-17 α -pregna-4,9,11-trien-3-one); trenbolone (17 β -hydroxyestr-4,9,11-trien-3-one); and other substances with a similar chemical structure or similar biological effect(s).

- 1.2. Endogenous AAS or their synthetic esters when administered exogenously: androstenediol (androst-5-ene-3 β ,17 β -diol); androstenedione (androst-4-ene-3,17-dione); dihydrotestosterone (17 β -hydroxy-5 α -androst-3-one); prasterone (dehydroepiandrosterone, DHEA, 3 β -hydroxyandrost-5-en-17-one); testosterone;

and their metabolites and isomers, including but not limited to:

5 α -androstane-3 α ,17 α -diol; 5 α -androstane-3 α ,17 β -diol; 5 α -androstane-3 β ,17 α -diol; 5 α -androstane-3 β ,17 β -diol; 5 β -androstane-3 α ,17 β -diol; androst-4-ene-3 α ,17 α -diol; androst-4-ene-3 α ,17 β -diol; androst-4-ene-3 β ,17 α -diol; androst-5-ene-3 α ,17 α -diol; androst-5-ene-3 α ,17 β -diol; androst-5-ene-3 β ,17 α -diol; 4-androstenediol (androst-4-ene-3 β ,17 β -diol); 5-androstenedione (androst-5-ene-3,17-dione); androsterone (3 β -hydroxy-5 α -androst-17-one); epi-dihydrotestosterone; epitestosterone; etiocholanolone; 7 α -hydroxy-DHEA; 7 β -hydroxy-DHEA; 7-keto-DHEA; 19-norandrosterone; 19-noretiocholanolone.

2. Other Anabolic Agents, including but not limited to:

Clenbuterol, selective androgen receptor modulators (SARMs e.g., andarine and ostarine), ractopamine, tibolone, zeranol, zilpaterol.

S2. PEPTIDE HORMONES, GROWTH FACTORS AND RELATED SUBSTANCES

The following substances, and other substances with similar chemical structure or similar biological effect(s), are prohibited:

1. Erythropoietin-Receptor agonists:

- 1.1 Erythropoiesis-Stimulating Agents (ESAs) including, e.g., darbepoetin (dEPO);

erythropoietins (EPO); EPO-Fc; EPO-mimetic peptides (EMP), e.g., CNTO 530 and peginesatide; and methoxypolyethylene glycol-epoetin beta (CERA); and

1.2 Non-erythropoietic EPO-Receptor agonists, e.g., ARA-290, asialo EPO and carbamylated EPO;

2. Hypoxia-inducible factor (HIF) stabilizers, e.g., cobalt (when found in excess of regulatory authority limits) and roxadustat (FG-4592); and HIF activators, (e.g., argon, xenon);
3. Chorionic Gonadotropin (CG) and Luteinizing Hormone (LH) and their releasing factors, in males;
4. Corticotrophins and their releasing factors;
5. Growth Hormone (GH) and its releasing factors including Growth Hormone Releasing Hormone (GHRH) and its analogues, e.g., CJC-1295, sermorelin and tesamorelin; Growth Hormone Secretagogues (GHS), e.g., ghrelin and ghrelin mimetics, e.g., anamorelin and ipamorelin; and GH-Releasing Peptides (GHRPs), e.g., alexamorelin, GHRP-6, hexarelin and pralmorelin (GHRP-2);
6. Venoms and toxins including but not limited to venoms and toxins from sources such as snails, snakes, frogs, and bees as well as their synthetic analogues such as ziconotide.
7. In addition, the following growth factors are prohibited:

Fibroblast Growth Factors (FGFs), Hepatocyte Growth Factor (HGF), Insulin-like Growth Factor-1 (IGF-1) and its analogues, Mechano Growth Factors (MGFs), Platelet-Derived Growth Factor (PDGF), Vascular-Endothelial Growth Factor (VEGF) and any other growth factor affecting muscle, tendon or ligament protein synthesis/degradation, vascularization, energy utilization, regenerative capacity or fiber type switching.

S3. BETA-2 AGONISTS

All beta-2 agonists, including all optical isomers (i.e. *d*- and *l*-) where relevant, are prohibited.

S4. HORMONE AND METABOLIC MODULATORS

The following are prohibited:

1. Aromatase inhibitors, including but not limited to: aminoglutethimide, anastrozole, androsta-1,4,6-triene-3,17-dione (androstatrienedione), 4-androstene-3,6,17 trione (6-oxo), exemestane, formestane, letrozole, testolactone;
2. Selective estrogen receptor modulators (SERMs), including but not limited to: raloxifene, tamoxifen, toremifene;
3. Other anti-estrogenic substances, including but not limited to: clomiphene, cyclofenil, fulvestrant;
4. Agents modifying myostatin function(s), including but not limited to: myostatin inhibitors;
5. Metabolic modulators:

- 5.1. Activators of the AMP-activated protein kinase (AMPK), e.g., AICAR, and Peroxisome Proliferator Activated Receptor δ (PPAR δ) agonists (e.g., GW 1516);
- 5.2. Insulins;
- 5.3. Trimetazidine; and
- 5.4. Thyroxine and thyroid modulators/hormones, including but not limited to those containing T4 (tetraiodothyronine/thyroxine), T3 (triiodothyronine), or combinations thereof.

S5. DIURETICS AND OTHER MASKING AGENTS

The following diuretics and masking agents are prohibited, as are other substances with similar chemical structure or similar biological effect(s): acetazolamide, amiloride, bumetanide, canrenone, chlorthalidone, desmopressin, etacrynic acid, indapamide, metolazone, plasma expanders (e.g. glycerol; intravenous administration of albumin, dextran, hydroxyethyl starch and mannitol), probenecid, spironolactone, thiazides (e.g. bendroflumethiazide, chlorothiazide, hydrochlorothiazide), torsemide, triamterene, and vasopressin receptor antagonists or vaptans (e.g., tolvaptan).

Furosemide and trichlormethiazide may be administered only in a manner permitted by other rules of the commission.

Annex I: Prohibited Methods

M1. MANIPULATION OF BLOOD AND BLOOD COMPONENTS

The following are prohibited:

1. The administration or reintroduction of any quantity of autologous, allogenic (homologous) or heterologous blood or red blood cell products of any origin into the circulatory system.
2. Artificially enhancing the uptake, transport or delivery of oxygen, including, but not limited to, perfluorochemicals, efaproxiral (RSR13) and modified hemoglobin products (e.g. hemoglobin-based blood substitutes, microencapsulated hemoglobin products), excluding supplemental oxygen.
3. Any form of intravascular manipulation of the blood or blood components by physical or chemical means.

M2. CHEMICAL AND PHYSICAL MANIPULATION

Tampering, or attempting to tamper, in order to alter the integrity and validity of samples collected by the commission, is prohibited. These methods include but are not limited to urine substitution or adulteration (e.g., proteases).

M3. GENE DOPING

The following, with the potential to enhance sport performance, are prohibited:

1. The transfer of polymers of nucleic acids or nucleic acid analogues.

2. The use of normal or genetically modified hematopoietic cells.

Annex II: Restricted Therapeutic Use Requirements

Prohibited Substance	Required Conditions for Therapeutic Use Exemption						
	Report When Sampled	Pre-file Treatment Plan	Written Approval from Commission	Emergency Use (Report)	Prescribed by Veterinarian	Veterinary Record	Other Limitations
Adrenocorticotrophic Hormone (ACTH)		X			X	X	
Albuterol					X	X	
Altrenogest					X	X	Fillies/Mares only
Autologous Conditioned Plasma (IRAP)							
Blood Replacements	X			X	X	X	
Boldenone		X			X	X	6-month Vet List
Clenbuterol		X			X	X	6-month Vet List ⁴
Chorionic Gonadotropin		X	X ¹		X	X	60-day Vet List
Furosemide	X				X	X	
Lutenizing Hormone		X	X ¹		X	X	60-day Vet List
Nandrolone		X			X	X	6-month Vet List
Nudeic Polymer Transfers		X	X				
Platelet Rich Plasma (PRP)	X				X	X	
Stanozolol		X			X	X	6-month Vet List
S0 (not FDA approved)			X ²		X	X	
Testosterone		X			X	X	6-month Vet List
Thyroxine (T4)		X	X ³		X	X	
Trichlormethiazide	X				X	X	
Other Diuretics	X			X	X	X	

1: The approved treatment plan must show a specific treatment of a specific individual horse for an undescended testicle condition.

2: The approved treatment plan must show: (A) the substance has a generally accepted veterinary use; (B) the treatment provides a significant health benefit for the horse; (C) there is no reasonable therapeutic alternative; and (D) the use of the substance is highly unlikely to produce any additional enhancement of performance beyond what might be anticipated by a return to the horse's normal state of health, not exceeding the level of performance of the horse prior to the onset of the horse's medical condition.

3: The approved treatment plan must show: (A) the thyroxine is prescribed to a specific individual horse for a specific period of time; (B) the diagnosis and basis for prescribing such drug, the dosage, and the estimated last administration date; and (C) that any container of such drug on licensed premises shall be labeled with the foregoing information and contain no more thyroxine than for the treatment of the specific individual horse, as prescribed.

4: Vet list requirement applies to Quarter Horses only

ARCI-011-020 Medications and Prohibited Substances

Upon a finding of a violation of these medication and prohibited substances rules, the stewards shall consider the classification level of the violation as listed in at the time of the violation in the Uniform Classification Guidelines of Foreign Substances as promulgated by the Association of Racing Commissioners International and impose penalties and disciplinary measures consistent with the recommendations contained therein. The stewards shall also consult with the official veterinarian to determine if the violation was a result of the administration of a therapeutic medication as documented in a veterinarian's Medication Report Form received per ARCI-011-010 (C). The stewards may also consult with the laboratory director or other individuals to determine the seriousness of the laboratory finding or the medication violation. Penalties for all medication and drug violations shall be investigated and reviewed on a case by case basis. Extenuating factors include, but are not limited to:

- (1) The past record of the trainer, veterinarian and owner in drug cases;
- (2) The potential of the drug(s) to influence a horse's racing performance;
- (3) The legal availability of the drug;
- (4) Whether there is reason to believe the responsible party knew of the administration of the drug or intentionally administered the drug;
- (5) The steps taken by the trainer to safeguard the horse;
- (6) The probability of environmental contamination or inadvertent exposure due to human drug use;
- (7) The purse of the race;
- (8) Whether the drug found was one for which the horse was receiving a treatment as determined by the Medication Report Form;
- (9) Whether there was any suspicious betting pattern in the race, and;
- (10) Whether the licensed trainer was acting on the advice of a licensed veterinarian.

As a result of the investigation, there may be mitigating circumstances for which a lesser or no penalty is appropriate for the licensee and aggravating factors, which may increase the penalty beyond the minimum.

A. Uniform Classification Guidelines

The following outline describes the types of substances placed in each category. This list shall be publicly posted in the offices of the official veterinarian and the racing secretary.

(1) Class 1

Opiates, opium derivatives, synthetic opioids, psychoactive drugs, amphetamines and U.S. Drug Enforcement Agency (DEA) scheduled I and II drugs. Also found in this class are drugs which are potent stimulants of the nervous system. Drugs in this class have no generally accepted medical use in the racehorse and their pharmacological potential for altering the performance of a race is very high.

(2) Class 2

Drugs in this category have a high potential for affecting the outcome of a race. Most are not generally accepted as therapeutic agents in the racehorse. Many are products intended to alter consciousness or the psychic state of humans, and have no approved or indicated use in the horse. Some, such as injectable local anesthetics, have legitimate use in equine medicine, but should not be found in a racehorse. The following groups of drugs are in this class:

- (a) Opiate partial agonists, or agonist-antagonists;
- (b) Non-opiate psychotropic drugs, which may have stimulant, depressant, analgesic or neuroleptic effects;
- (c) Miscellaneous drugs which might have a stimulant effect on the central nervous system (CNS);

- (d) Drugs with prominent CNS depressant action;
- (e) Antidepressant and antipsychotic drugs, with or without prominent CNS stimulatory or depressant effects;
- (f) Muscle blocking drugs which have a direct neuromuscular blocking action;
- (g) Local anesthetics which have a reasonable potential for use as nerve blocking agents (except procaine); and
- (h) Snake venoms and other biologic substances, which may be used as nerve blocking agents.

(3) Class 3

Drugs in this class may or may not have an accepted therapeutic use in the horse. Many are drugs that affect the cardiovascular, pulmonary and autonomic nervous systems. They all have the potential of affecting the performance of a racehorse. The following groups of drugs are in this class:

- (a) Drugs affecting the autonomic nervous system which do not have prominent CNS effects, but which do have prominent cardiovascular or respiratory system effects (bronchodilators are included in this class);
- (b) A local anesthetic which has nerve blocking potential but also has a high potential for producing urine residue levels from a method of use not related to the anesthetic effect of the drug (procaine);
- (c) Miscellaneous drugs with mild sedative action, such as the sleep inducing antihistamines;
- (d) Primary vasodilating/hypotensive agents; and
- (e) Potent diuretics affecting renal function and body fluid composition.

(4) Class 4

This category is comprised primarily of therapeutic medications routinely used in racehorses. These may influence performance, but generally have a more limited ability to do so. Groups of drugs assigned to this category include the following:

- (a) Non-opiate drugs which have a mild central analgesic effect;
- (b) Drugs affecting the autonomic nervous system which do not have prominent CNS, cardiovascular or respiratory effects
 - (A) Drugs used solely as topical vasoconstrictors or decongestants
 - (B) Drugs used as gastrointestinal antispasmodics
 - (C) Drugs used to void the urinary bladder
 - (D) Drugs with a major effect on CNS vasculature or smooth muscle of visceral organs.
 - (E) Antihistamines which do not have a significant CNS depressant effect (This does not include H1 blocking agents, which are listed in Class 5);
- (c) Mineralocorticoid drugs;
- (d) Skeletal muscle relaxants;

(e) Anti-inflammatory drugs--those that may reduce pain as a consequence of their anti-inflammatory actions, which include:

- (A) Non-Steroidal Anti-Inflammatory Drugs (NSAIDs);
- (B) Corticosteroids (glucocorticoids); and
- (C) Miscellaneous anti-inflammatory agents.

(f) Anabolic and/or androgenic steroids and other drugs;

(g) Less potent diuretics;

(h) Cardiac glycosides and antiarrhythmics including:

- (A) Cardiac glycosides;
- (B) Antirhythmic agents (exclusive of lidocaine, bretylium and propanolol); and
- (C) Miscellaneous cardiotoxic drugs.

(i) Topical Anesthetics--agents not available in injectable formulations;

(j) Antidiarrheal agents; and

(k) Miscellaneous drugs including:

- (A) Expectorants with little or no other pharmacologic action;
- (B) Stomachics; and
- (C) Mucolytic agents.

(5) Class 5

Drugs in this category are therapeutic medications for which concentration limits have been established as well as certain miscellaneous agents. Included specifically are agents, which have very localized action only, such as anti-ulcer drugs and certain anti-allergenic drugs. The anticoagulant drugs are also included.

B. Penalties

(1) In issuing penalties against individuals found guilty of medication and drug violations a regulatory distinction shall be made between the detection of therapeutic medications used routinely to treat racehorses and those drugs that have no reason to be found at any concentration in the test sample on race day.

(2) The stewards or the commission will use the Racing Medication and Testing Consortium's penalty category and schedule as a starting place in the penalty stage of the deliberations for a rule violation for any drug listed in the *Association of Racing Commissioners International Uniform Classification Guidelines for Foreign Substances*.

(3) If a licensed veterinarian is administering or prescribing a drug not listed in the *RCI Uniform Classification Guide lines for Foreign Substances* or shown in the *RMTC Penalty Guideline Listing*, the identity of the drug shall be forwarded to the official veterinarian to be forwarded to the Racing Medication and Testing Consortium for classification.

(4) Any drug or metabolite thereof found to be presenting a pre- or post-race sample which is not classified in the most current *RCI Uniform Classification Guidelines for Foreign Substances* shall be assumed to be a RCI Class 1 Drug and the trainer and owner shall be subject to those penalties as set

forth in schedule “A” unless satisfactorily demonstrated otherwise by the Racing Medication and Testing Consortium, with a penalty category assigned.

(5) The penalty categories and their related schedules, if applicable, shall be on the following criteria:

- (a) Whether the drug is approved by the U.S. Food and Drug Administration for use in the horse;
- (b) Whether the drug is approved by the U.S. Food and Drug Administration for use in any species;
- (c) Whether the drug has any legitimate therapeutic application in the equine athlete;
- (d) Whether the drug was identified as “necessary” by the RMTC Veterinary Advisory Committee;
- (e) Whether legitimate, recognized therapeutic alternatives exist, and;
- (f) The current RCI Classification of the drug.

(6) The penalty categories “A”, “B” and “C” and their related schedules for Trainers and Owners are shown in the following tables.

The following are recommended penalties for violations due to the presence of a drug carrying a **Category “A” penalty** and for violations of ARCI-011-015: Prohibited Practices:

LICENSED TRAINER:		
1st offense	2nd LIFETIME offense in any jurisdiction	3rd LIFETIME offense in any jurisdiction
<ul style="list-style-type: none"> Minimum one-year suspension absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of a three-year suspension. <p>AND</p> <ul style="list-style-type: none"> Minimum fine of \$10,000 or 10% of total purse (greater of the two) absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of \$25,000 or 25% of purse (greater of the two). <p>AND</p> <ul style="list-style-type: none"> May be referred to the Commission for any further action deemed necessary by the Commission. 	<ul style="list-style-type: none"> Minimum three-year suspension absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of license revocation with no reapplication for a three-year period. <p>AND</p> <ul style="list-style-type: none"> Minimum fine of \$25,000 or 25% of total purse (greater of the two) absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of \$50,000 or 50% of purse (greater of the two). <p>AND</p> <ul style="list-style-type: none"> May be referred to the Commission for any further action deemed necessary by the Commission. 	<ul style="list-style-type: none"> Minimum five-year suspension absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of license revocation with no reapplication for a five-year period. <p>AND</p> <ul style="list-style-type: none"> Minimum fine of \$50,000 or 50% of total purse (greater of the two) absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of \$100,000 or 100% of purse (greater of the two). <p>AND</p> <ul style="list-style-type: none"> May be referred to the Commission for any further action deemed necessary by the Commission.
LICENSED OWNER:		
1st offense	2nd LIFETIME offense in owner's stable in any jurisdiction	3rd LIFETIME offense in owner's stable in any jurisdiction
<ul style="list-style-type: none"> Disqualification and loss of purse. <p>AND</p> <ul style="list-style-type: none"> Horse shall be placed on the veterinarian's list for 90 days and must pass a commission-approved examination before becoming eligible to be entered. 	<ul style="list-style-type: none"> Disqualification and loss of purse. <p>AND</p> <ul style="list-style-type: none"> Horse shall be placed on the veterinarian's list for 120 days and must pass a commission-approved examination before becoming eligible to be entered. 	<ul style="list-style-type: none"> Disqualification, loss of purse and \$50,000 fine. <p>AND</p> <ul style="list-style-type: none"> Horse shall be placed on the veterinarian's list for 180 days and must pass a commission-approved examination before becoming eligible to be entered. <p>AND</p> <ul style="list-style-type: none"> Referral to the Commission with a recommendation of a suspension for a minimum of 90 days.

The following are recommended penalties for violations due to the presence of a drug carrying **Category “B” penalty**, for the presence of more than one NSAID in a plasma/serum sample, subject to the provisions set forth in ARCI-011-020(E) and for violations of the established levels for total carbon dioxide:

LICENSED TRAINER:		
1st offense	2nd offense (365-day period) in any jurisdiction	3rd offense (365-day period) in any jurisdiction
<ul style="list-style-type: none"> Minimum 15-day suspension absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of a 60-day suspension. <p>AND</p> <ul style="list-style-type: none"> Minimum fine of \$500 absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of \$1,000. 	<ul style="list-style-type: none"> Minimum 30-day suspension absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of a 180-day suspension. <p>AND</p> <ul style="list-style-type: none"> Minimum fine of \$1,000 absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of \$2,500. 	<ul style="list-style-type: none"> Minimum 60-day suspension absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of a one-year suspension. <p>AND</p> <ul style="list-style-type: none"> Minimum fine of \$2,500 absent mitigating circumstances. The presence of aggravating factors could be used to impose a maximum of \$5,000 or 5% of purse (greater of the two). <p>AND</p> <ul style="list-style-type: none"> May be referred to the Commission for any further action deemed necessary by the Commission.
LICENSED OWNER:		
1st offense	2nd offense in stable (365-day period) in any jurisdiction	3rd offense in stable (365-day period) in any jurisdiction
<ul style="list-style-type: none"> Disqualification and loss of purse. <p>AND</p> <ul style="list-style-type: none"> Horse must pass a commission-approved examination before becoming eligible to be entered. 	<ul style="list-style-type: none"> Disqualification and loss of purse. <p>AND</p> <ul style="list-style-type: none"> Horse must pass a commission-approved examination before becoming eligible to be entered. 	<ul style="list-style-type: none"> Disqualification and loss of purse, and a \$5,000 fine. <p>AND</p> <ul style="list-style-type: none"> Horse shall be placed on the veterinarian's list for 45 days and must pass a commission-approved examination before becoming eligible to be entered.

The following are recommended penalties for violations due to the presence of a drug carrying a **Category “C” penalty and overages for permitted NSAIDs and furosemide**: (All concentrations are for measurements in serum or plasma.)

LICENSED TRAINER	Phenylbutazone (>2.0-5.0 mcg/ml) Flunixin (>20-100 ng/ml) Ketoprofen (>2-50 ng/ml) Furosemide (>100 ng/ml) and no furosemide when identified as administered**	Phenylbutazone (>5.0 mcg/ml) Flunixin (>100 ng/ml) Ketoprofen (>50 ng/ml) and CLASS C Violations
1 st Offense (365-day period) in any jurisdiction	Minimum fine of a written warning to a maximum fine of \$500	Minimum fine of \$1,000 absent mitigating circumstances
2 nd Offense (365-day period) in any jurisdiction	Minimum fine of a written warning to a maximum fine of \$750	Minimum fine of \$1,500 and 15-day suspension absent mitigating circumstances
3 rd Offense (365-day period) in any jurisdiction	Minimum fine of \$500 and to a maximum fine of \$1,000	Minimum fine of \$2,500 and 30-day suspension absent mitigating circumstances
LICENSED OWNER	Phenylbutazone (>2.0-5.0 mcg/ml) Flunixin (>20-100 ng/ml) Ketoprofen (>2-50 ng/ml) Furosemide (>100 ng/ml) and no furosemide when identified as administered**	Phenylbutazone (>5.0 mcg/ml) Flunixin (>100 ng/ml) Ketoprofen (>50 ng/ml) AND CLASS C VIOLATIONS
1 st Offense (365-day period) in any jurisdiction	Horse may be required to pass commission-approved examination before being eligible to run.	Loss of purse. Horse must pass commission-approved examination before being eligible to run
2 nd Offense (365-day period) in any jurisdiction	Horse may be required to pass commission-approved examination before being eligible to run	Loss of purse. If same horse, placed on veterinarian's list for 45 days, must pass commission-approved examination before being eligible to run
3 rd Offense (365-day period) in any jurisdiction	Disqualification and loss of purse. Horse must pass commission-approved examination before being eligible to run	Loss of purse. Minimum \$5,000 fine. If same horse, placed on veterinarian's list for 60 days, must pass commission-approved examination before being eligible to run

*If the trainer has not had more than one violation within the previous two years, the Stewards/Judges are encouraged to issue a warning in lieu of a fine provided the reported level is below 3.0 mcg/ml, absent of aggravating factors.

After a two year period, if the licensee has had no further violations, any penalty due to an overage in the 2.0 – 5.0 category will be expunged from the licensee's record for penalty purposes.

(7) The recommended penalty for a violation involving a drug that carries a Category “D” penalty is a written warning to the trainer and owner. Multiple violations may result in fines and/or suspensions

(8) Any licensee of the commission, including veterinarians, found to be responsible for the improper or intentional administration of any drug resulting in a positive test may, after proper notice and hearing, be subject to the same penalties set forth for the licensed trainer.

(9) The licensed owner, veterinarian or any other licensed party involved in a positive laboratory finding shall be notified in writing of the hearing and any resulting action. In addition their presence may be required at any and all hearings relative to the case.

(10) Any veterinarian found to be involved in the administration of any drug carrying the penalty category of “A” shall be referred to the State Licensing Board of Veterinary Medicine for consideration of further disciplinary action and/or license revocation. This is in addition to any penalties issued by the stewards or the commission.

(11) Any person who the stewards or the commission believe may have committed acts in violation of criminal statutes may be referred to the appropriate law enforcement agency. Administrative action taken by the stewards or the commission in no way prohibits a prosecution for criminal acts committed, nor does a potential criminal prosecution stall administrative action by the stewards or the commission.

(12) Procedures shall be established to ensure that a licensed trainer is not able to benefit financially during the period for which the individual has been suspended. This includes, but is not appeal a violation for which all remedies have been exhausted or for which the appeal time has expired as provided by applicable law.

(13) Multiple Medication Violations (MMV)

- (a) A trainer who receives a penalty for a medication violation based upon a horse testing positive for a Class 1-5 medication with Penalty Class A-C, as provided in the most recent version of the ARCI Uniform Classification Guidelines for Foreign Substances, or similar state regulatory guidelines, shall be assigned points as follows:

Penalty Class	Points If Controlled Therapeutic Substance	Points If Non-Controlled Substance
Class A	N/A	6
Class B	2	4
Class C	½ for first violation with an additional ½ point for each additional violation within 365 days ¹	1 for first violation with an additional ½ point for each additional violation within 365 days
Class D	0	0

¹ Points for NSAID violations only apply when the primary threshold of the NSAID is exceeded. Points are not to be separately assigned for a stacking violation.

If the Stewards or Commission determine that the violation is due to environmental contamination, they may assign lesser or no points against the trainer based upon the specific facts of the case.

- (b) The points assigned to a medication violation by the Stewards or Commission ruling shall be included in the ARCI official database. The ARCI shall record points consistent with Section 13(a) including when appropriate, a designation that points have been suspended for the medication violation. Points assigned by such regulatory ruling shall reflect, in the case of multiple positive tests as described in paragraph (d), whether they constitute a single violation. The Stewards' or Commission Ruling shall be posted on the official website of the Commission and within the official database of the Association of Racing Commissioners International. If an appeal is pending, that fact shall be noted in such Ruling. No points shall be applied until a final adjudication of the enforcement of any such violation.
- (c) A trainer's cumulative points for violations in all racing jurisdictions shall be maintained by the ARCI. Once all appeals are waived or exhausted, the points shall immediately become part of the trainer's official ARCI record and shall be considered by the Commission in its determination to subject the trainer to the mandatory enhanced penalties by the Stewards or Commission as provided in this regulation.
- (d) Multiple positive tests for the same medication incurred by a trainer prior to delivery of official notice by the commission may be treated as a single violation. In the case of a positive test indicating multiple substances found in a single post-race sample, the Stewards may treat each substance found as an individual violation for which points will be assigned, depending upon the facts and circumstances of the case.
- (e) The official ARCI record shall be used to advise the Stewards or Commission of a trainer's past record of violations and cumulative points. Nothing in this administrative regulation shall be construed to confer upon a licensed trainer the right to appeal a violation for which all remedies have been exhausted or for which the appeal time has expired as provided by applicable law.
- (f) The Stewards or Commission shall consider all points for violations in all racing jurisdictions as contained in the trainer's official ARCI record when determining whether the mandatory enhancements provided in this regulation shall be imposed.
- (g) In addition to the penalty for the underlying offense, the following enhancements shall be imposed upon a licensed trainer based upon the cumulative points contained in his/her official ARCI record:

Points	Suspension in days
5-5.5	15 to 30
6-8.5	30 to 60
9-10.5	90 to 180

11 or more	180 to 360
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MMV penalties are not a substitute for the current penalty system and are intended to be an additional uniform penalty when the licensee:

- (i) Has had more than one medication violation for the relevant time period, and
- (ii) Exceeds the permissible number of points.

The Stewards and Commission shall consider aggravating and mitigating circumstances, including the trainer's prior record for medication violations, when determining the appropriate penalty for the underlying offense. The MMP is intended to be a separate and additional penalty for a pattern of violations.

- (h) The suspension periods as provided in Section 13(g) shall run consecutive to any suspension imposed for the underlying offense.
- (i) The Stewards' or Commission Ruling shall distinguish between the penalty for the underlying offense and any enhancement based upon a Stewards or Commission review of the trainer's cumulative points and regulatory record, which may be considered an aggravating factor in a case.
- (j) Points shall expire as follows:

Penalty Classification	Time to Expire
A	3 years
B	2 years
C	1 year

In the case of a medication violation that results in a suspension, any points assessed expire on the anniversary date of the date the suspension is completed.

C. Medication Restrictions

(1) A finding by the commission approved laboratory of a prohibited drug, chemical or other substance in a test specimen of a horse is prima facie evidence that the prohibited drug, chemical or other substance was administered to the horse and, in the case of a post-race test, was present in the horse's body while it was participating in a race. Prohibited substances include:

- (a) Drugs or medications for which no acceptable threshold concentration has been established;
- (b) Controlled therapeutic medications in excess of established threshold concentrations or administration within the restricted time period as set forth in the ARCI Controlled Therapeutic Medication Schedule;
- (c) Substances present in the horse in excess of concentrations at which such substances could occur naturally; and

(d) Substances foreign to a horse at concentrations that cause interference with testing procedures.

(2) Except as otherwise provided by this chapter, a person may not administer or cause to be administered by any means to a horse a prohibited drug, medication, chemical or other substance, including any restricted medication pursuant to this chapter during the 24-hour period before post time for the race in which the horse is entered.

D. Medical Labeling

(1) No person on association grounds where horses are lodged or kept, excluding licensed veterinarians, shall have in or upon association grounds which that person occupies or has the right to occupy, or in that person's personal property or effects or vehicle in that person's care, custody or control, a drug, medication, chemical, foreign substance or other substance that is prohibited in a horse on a race day unless the product is labeled in accordance with this subsection.

(2) All allowable medications must have a prescription label which is securely attached to the medication container and clearly ascribed to show the following:

(a) name, address, and telephone number of the pharmacy or veterinarian dispensing the medication;

(b) prescription number when dispensed by a pharmacy if required by law;

(c) date prescription filled;

(d) name of the prescribing veterinarian;

(e) name of the horse for whom the medication is prescribed or dispensed;

(f) name of the trainer or owner of the horse for whom the product was dispensed;

(g) dose, dosage, route of administration, and duration of treatment of the prescribed product (instructions for use);

(h) name, active ingredient, quantity prescribed, expiration date (if applicable), beyond use date (if applicable), and lot number (if applicable); and

(i) cautionary statements (if any), and if applicable, withdrawal time.

(3) The use of an expired medication is considered a violation of this rule.

(4) Any medication that has a label that is missing, illegible, tampered with or altered, or in any other way does not comply with this section shall be considered a violation of these rules.

(5) Any licensee that voluntarily surrenders any non-compliant medication shall not be considered to be in violation of the medication rules described in this section and/or ARCI-011-020(D). A surrender shall not be deemed voluntary after a licensee has been advised or it is apparent that an investigatory search has commenced.

E. Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)

(1) The use of NSAIDs shall be governed by the following conditions:

(a)

(b) NSAIDs included in the ARCI Controlled Therapeutic Medication Schedule, Version 2.2, are not to be used in a manner inconsistent with the restrictions contained therein. NSAIDs not included on the ARCI Controlled Therapeutic Medication Schedule, Version 2.2, are not to be present in a racing horse biological sample at the laboratory concentration of detection.

(c) The presence of more than one NSAID may constitute a NSAID stacking violation consistent with the following restrictions:

A. A Class 1 NSAID Stacking Violation (Penalty Class B) occurs when:

i. Two non-steroidal anti-inflammatory drugs are found at individual levels determined to exceed the following restrictions:

- a. Diclofenac – 5 nanograms per milliliter of plasma or serum;
- b. Firocoxib - 20 nanograms per milliliter of plasma or serum;
- c. Flunixin – 20 nanograms per milliliter of plasma or serum;
- d. Ketoprofen – 2 nanograms per milliliter of plasma or serum;
- e. Phenylbutazone – 2 micrograms per milliliter of plasma or serum; or
- f. all other non-steroidal anti-inflammatory drugs – laboratory concentration of detection

ii. Three or more non-steroidal anti-inflammatory drugs are found at individual levels determined to exceed the following restrictions:

- a. Diclofenac – 5 nanograms per milliliter of plasma or serum;
- b. Firocoxib - 20 nanograms per milliliter of plasma or serum;
- c. Flunixin – 3 nanograms per milliliter of plasma or serum;
- d. Ketoprofen – 1 nanograms per milliliter of plasma or serum;
- e. Phenylbutazone – 0.3 micrograms per milliliter of plasma or serum; or
- f. all other non-steroidal anti-inflammatory drugs – laboratory concentration of detection.

B. A Class 2 NSAID Stacking Violation (Penalty Class C) occurs when:

i. Any one substance noted in Subsection (A)(i) above is found in excess of the restrictions contained therein in combination with any one of the following substances at levels below the restrictions so noted but in excess of the following levels:

- a. Flunixin – 3 nanograms per milliliter of plasma or serum;

- b. Ketoprofen – 1 nanogram per milliliter of plasma or serum; or
- c. Phenylbutazone – 0.3 micrograms per milliliter of plasma or serum;

C. A Class 3 NSAID Stacking Violation (Penalty Class C, fines only) occurs when:

- i. Any combination of two of the following non-steroidal anti-inflammatory drugs are found at or below the restrictions in Subsection (A)(i)(a through e) above but in excess of the noted restrictions:
 - a. Flunixin – 3 nanograms per milliliter of plasma or serum;
 - b. Ketoprofen – 1 nanogram per milliliter of plasma or serum; or
 - c. Phenylbutazone – 0.3 micrograms per milliliter of plasma or serum;

- (2) Any horse to which a NSAID has been administered shall be subject to having a blood and/or urine sample(s) taken at the direction of the official veterinarian to determine the quantitative NSAID level(s) and/or the presence of other drugs which may be present in the blood or urine sample(s).

F. Furosemide

(1) Furosemide may be administered intravenously to a horse, which is entered to compete in a race. Except under the instructions of the official veterinarian or the racing veterinarian for the purpose of removing a horse from the Veterinarian's List or to facilitate the collection of a post-race urine sample, furosemide shall be permitted only after the official veterinarian has placed the horse on the Furosemide List. In order for a horse to be placed on the Furosemide List the following process must be followed.

- (a) After the horse's licensed trainer and licensed veterinarian determine that it would be in the horse's best interests to race with furosemide the official veterinarian or his/her designee shall be notified, using the prescribed form, that the horse is to be put on the Furosemide List.
- (b) The form must be received by the official veterinarian or his/her designee by the proper time deadlines so as to ensure public notification.
- (c) A horse placed on the official Furosemide List must remain on that list unless the licensed trainer and licensed veterinarian submit a written request to remove the horse from the list. The request must be made to the official veterinarian or his/her designee, on the proper form, no later than the time of entry.
- (d) After a horse has been removed from the Furosemide List, the horse may not be placed back on the list for a period of 60 calendar days unless it is determined to be detrimental to the welfare of the horse, in consultation with the official veterinarian. If a horse is removed from the official Furosemide List a second time in a 365-day period, the horse may not be placed back on the list for a period of 90 calendar days.
- (e) Furosemide shall only be administered on association grounds.
- (f) Furosemide shall be the only authorized bleeder medication

(2) The use of furosemide shall be permitted under the following circumstances on association grounds where a detention barn is utilized:

- (a) Furosemide shall be administered by the official veterinarian, the racing veterinarian or his/her designee no less than four hours prior to post time for the race for which the horse is entered.
- (b) Any veterinarian or vet techs participating in the administration process must be prohibited from working as private veterinarians or technicians on the race track or with participating licensees;
- (c) A horse qualified for furosemide administration must be brought to the detention barn within time to comply with the four-hour administration requirement specified above.
- (d) The dose administered shall not exceed 500 mg. nor be less than 150 mg.
- (e) Furosemide shall be administered by a single, intravenous injection.
- (f) After treatment, the horse shall be required by the Commission to remain in the detention barn in the care, custody and control of its trainer or the trainer's designated representative under association and/or Commission security supervision until called to the saddling paddock.

(3) The use of furosemide shall be permitted under the following circumstances on association grounds where a detention barn is not utilized:

- (a) Furosemide shall be administered by the official veterinarian, the racing veterinarian or his/her designee no less than four hours prior to post time for the race for which the horse is entered.
- (b) Any veterinarian or vet techs participating in the administration process must be prohibited from working as private veterinarians or technicians on the race track on or with participating licensees;
- (c) The furosemide dosage administered shall not exceed 500 mg. nor be less than 150 mg.
- (d) Furosemide shall be administered by a single, intravenous injection.
- (e) After treatment, the horse shall be required by the Commission to remain in the proximity of its stall in the care, custody and control of its trainer or the trainer's designated representative under general association and/or Commission security surveillance until called to the saddling paddock.

(4) Test results must show a detectable concentration of the drug in the post-race serum, plasma or urine sample.

- (a) The specific gravity of post-race urine samples may be measured to ensure that samples are sufficiently concentrated for proper chemical analysis. The specific gravity shall not be below 1.010. If the specific gravity of the urine is found to be below 1.010 or if a urine sample is unavailable for testing, quantitation of furosemide in serum or plasma shall be performed;

(b) Quantitation of furosemide in serum or plasma shall be performed when the specific gravity of the corresponding urine sample is not measured or if measured below 1.010. Concentrations may not exceed 100 nanograms of furosemide per milliliter of serum or plasma.

(5) The administering authority or association may assess a fee approved by the commission on licensed owners of treated horses to recoup the reasonable costs associated with the administration of furosemide in the manner prescribed in these rules.

G. Bleeder List

(1) The official veterinarian shall maintain a Bleeder List of all horses, which have demonstrated external evidence of exercise induced pulmonary hemorrhage from one or both nostrils during or after a race or workout as observed by the official veterinarian.

(2) Every confirmed bleeder, regardless of age, shall be placed on the Bleeder List and be ineligible to race for the following time periods:

(a) First incident – 14 days;

(b) Second incident within 365 day period – 30 days;

(c) Third incident within 365 day period – 180 days;

(d) Fourth incident within 365-day period – barred for racing lifetime.

(3) For the purposes of counting the number of days a horse is ineligible to run, the day the horse bled externally is the first day of the recovery period.

(4) The voluntary administration of furosemide without an external bleeding incident shall not subject the horse to the initial period of ineligibility as defined by this policy.

(5) A horse may be removed from the Bleeder List only upon the direction of the official veterinarian, who shall certify in writing to the stewards the recommendation for removal.

(6) A horse which has been placed on a Bleeder List in another jurisdiction pursuant to these rules shall be placed on a Bleeder List in this jurisdiction.

H. Environmental Contaminants and Substances of Human Use

(1) The following substances can be environmental contaminants in that they are endogenous to the horse or that they can arise from plants traditionally grazed or harvested as equine feed or are present in equine feed because of contamination during the cultivation, processing, treatment, storage or transportation phases:

(2) The following drugs are recognized as substances of human use and addiction and which could be found in the horse due to its close association with humans:

(3) If the preponderance of evidence presented in the hearing shows that a positive test is the result of environmental contamination, including inadvertent exposure due to human drug use, or dietary intake, or is endogenous to the horse, those factors should be considered in mitigation of any disciplinary action taken against the affected trainer. Disciplinary action shall only be taken if test sample results exceed

the regulatory thresholds in the most recent version of the ARCI Endogenous, Dietary, or Environmental Substances Schedule.

(4) The identification and adoption of these uniform thresholds for certain substances shall not preclude an individual jurisdiction from maintaining thresholds for substances not on this list [which predate the adoption of this regulation in such jurisdiction].

I. Androgenic-Anabolic Steroids (AAS)

(1) No AAS shall be permitted in test samples collected from racing horses except for endogenous concentrations of the naturally occurring substances boldenone, nandrolone, and testosterone at concentrations less than the indicated thresholds.

(2) Concentrations of these AAS shall not exceed the following free (*i.e.*, not conjugated) steroid concentrations in plasma or serum:

(a) Boldenone – A confirmatory threshold not greater than 25 picograms/milliliter for all horses, regardless of sex;

(b) Nandrolone – A confirmatory threshold not greater than 25 picograms/milliliter for fillies, mares, and geldings; males horses other than geldings shall be tested for Nandrolone in urine (see (2)(b)(B) below);

(c) Testosterone – A confirmatory threshold not greater than 25 picograms/milliliter for fillies, mares, and gelding.

(3) Total concentrations of these AAS shall not exceed the following total concentrations in urine after hydrolysis of conjugates:

(a) Boldenone - A confirmatory threshold not greater than 1 nanogram/milliliter for fillies, mares, and geldings; a confirmatory threshold not greater than 15 nanograms/milliliter in male horses other than geldings;

(b) Nandrolone - A confirmatory threshold not greater than 1 nanogram/milliliter for fillies, mares, and geldings; a confirmatory threshold not greater than 45 nanograms/milliliter (as 5 α -estrane-3 β ,17 α -diol) of urine in male horses other than geldings;

(c) Testosterone – A confirmatory threshold of not greater than 55 nanograms/milliliter of urine in fillies and mares (unless in foal); a confirmatory threshold of not less than 20 nanograms/milliliter in geldings

(4) Any other AAS are prohibited in racing horses.

(5) The sex of the horse must be identified to the laboratory on all pre-race and post-race samples designated for AAS testing.

(6) If an anabolic steroid has been administered to a horse in order to assist in its recovery from illness or injury, that horse may be placed on the Veterinarian's List in order to monitor the concentration of the drug or metabolite in urine or blood. After the concentration has fallen below the designated threshold for the administered AAS, the horse is eligible to be removed from the list.

J. Alkalinizing Substances

The use of agents that elevate the horse's TCO₂ or Base excess level above those existing naturally in the untreated horse at normal physiological concentrations is prohibited. The following levels also apply to blood gas analysis:

- (1) The regulatory threshold for TCO₂ is 37.0 millimoles per liter of plasma/serum or a base excess level of 10.0 millimoles, and;
- (2) The decision level to be used for the regulation of TCO₂ is 37.0 millimoles per liter of plasma/serum plus the measurement uncertainty of the laboratory analyzing the sample, or a base excess level of 10.4 millimoles per liter of plasma/serum.

ARCI-011-022 Out of Competition Testing

(1) *Out-of-competition testing authorized.* The commission may at a reasonable time on any date take blood, urine or other biologic samples as authorized by commission rules from a horse to enhance the ability of the commission to enforce its medication and anti-doping rules, *e.g.*, the Prohibited List pursuant to ARCI-011-015. The commission shall own such samples. This rule authorizes only the collection and testing of samples and does not independently make impermissible the administration to or presence in any horse of any drug or other substance. A race day prohibition or restriction of a substance by a commission rule is not applicable to an out-of-competition test unless there is an attempt to race the horse in a manner that violates such rule.

(2) *Horses eligible to be tested.* Any horse that has been engaging in activities related to competing in horse racing in the jurisdiction may be tested. This includes without limitation any horses that are training outside the jurisdiction to participate in racing in the jurisdiction and all horses that are training in the jurisdiction, but excludes weanlings, yearlings and horses no longer engaged in horse racing (*e.g.*, retired broodmares).

(a) A horse is presumed eligible for out-of-competition testing if:

- (i) It is on the grounds at a racetrack or training center under the jurisdiction of the commission;
- (ii) It is under the care or control of a trainer licensed by the commission;
- (iii) It is owned by an owner licensed by the commission;
- (iv) It is entered or nominated to race at a premises licensed by the commission;
- (v) It has raced within the previous 12 months at a premises licensed by the commission; or
- (vi) It is nominated to a program based on racing in the jurisdiction, including without limitation a state thoroughbred development, breeder's award fund, or standardbred state sires stakes.

(b) Such presumptions are conclusive in the absence of evidence that a horse is not engaged in activities related to competing in horse racing in the jurisdiction.

(3) *Selection of horses to be tested.*

- (a) Horses shall be selected for sampling by a commission Veterinarian, Executive Director, Equine Medical Director, Steward or Presiding Judge or a designee of any of the foregoing.
- (b) Horses may be selected to be tested at random, for cause, or as otherwise determined in the discretion of the commission.
- (c) Collectors shall for suspicion-less collections of samples abide by a plan that has been approved by a supervisor not in the field and identifies specific horses or provides neutral and objective criteria to follow in the field to determine which horses to sample. Such a supervisor may consider input from persons in the field during the operation of the plan and select additional horses to be sampled.

(4) Cooperation with the commission

- (a) Licensees of the commission are required to cooperate and comply fully with the provisions of this rule.
- (b) Persons who apply for and are granted a trainer or owner license shall be deemed to have given their consent for access at such premises as their horse may be found for the purpose of commission representatives collecting out-of-competition samples. Licensees shall take any steps necessary to authorize access by commission representatives at such premises.
- (c) No other person shall knowingly interfere with or obstruct a sampling.

(5) General procedure for collecting samples

- (a) Samples shall be taken under the supervision and direction of a person who is employed or designated by the commission. All blood samples shall be collected by a veterinarian licensed in the state where the sample is collected, or by a veterinary technician who is acting under appropriate supervision of the veterinarian.
- (b) Upon request of a representative of the commission, the trainer, owner, or their specified designee shall provide the location of their horses eligible for out-of-competition testing.
- (c) The commission need not provide advance notice before arriving at any location, whether or not licensed by the commission, to collect samples.
- (d) The trainer, owner, or their specified designee shall cooperate with the person who takes samples for the commission, which cooperation shall include without limitation:
 - (i) Assist in the immediate location and identification of the horse;
 - (ii) Make the horse available as soon as practical upon arrival of the person who is responsible for collecting the samples;
 - (iii) Provide a stall or other safe location to collect the samples;
 - (iv) Assist the person who is collecting samples in properly procuring the samples; and
 - (v) Witness the taking of samples including sealing of sample collection containers.

(e) The management and employees of a licensed racetrack or training facility at which a horse may be located shall cooperate fully with a person who is authorized to take samples. The person who collects samples for the commission may require that the collection be done at a specified location on such premises.

(f) The commission, if requested and in its sole discretion, may permit the trainer, owner, or their specified designee to present a horse that is located in the jurisdiction, but not at a racetrack or training center licensed by the commission, to be sampled at a time and location designated by the commission.

(6) Procedure for collecting samples from horses located outside the jurisdiction

(a) The commission may arrange for the sampling of an out-of-state horse by the racing commission or other designated person in the jurisdiction where the horse is located. Such racing commission or other designated person shall follow the relevant provisions of this rule, including paragraph (a) of subdivision five of this rule.

(b) The test results shall be made available, for its regulatory use, to each jurisdiction that has participated in the process of collecting any out-of-competition sample, subject to any restrictions on public disclosure of test results that apply to the commission that selected the horse for sampling.

(c) The commission, if requested and in its sole discretion, may permit the trainer or owner instead to transport the horse into its jurisdiction for sampling at a time and place designated by the commission.

(7) Additional procedures

(a) The person who takes samples for the commission shall provide identification and disclose the purpose of the sampling to the trainer or designated attendant of the horse.

(b) A written protocol for the collection of samples shall be made generally available.

(c) An owner or trainer does not consent to a search of the premises by making a horse that is not located at a racetrack or training center available for sampling.

(d) If the trainer or other custodian of a selected horse refuses or declines to make the horse available for sampling and the managing owner has previously provided the commission with a means for the commission to give immediate notification to the managing owner in such situation, then the commission shall attempt to notify the managing owner and the eligibility of the horse shall be preserved if the managing owner is able to make the horse available for immediate sampling. The commission is not required to make repeated attempts to notify the managing owner.

(e) The chain of custody record for the sample (including a split sample where appropriate) shall be maintained and made available to the trainer, owner, or their designee when a complaint results from an out-of-competition test.

(8) Analysis of collected samples

- (a) The commission may have out-of-competition samples tested to produce information that may enhance the ability of the commission to enforce its medication and anti-doping rules.
- (b) Split sample rules and procedures for post-race testing shall apply to out-of-competition testing.
- (c) The commission may use any remaining sample for research and investigation.

(9) Penalties for non-cooperation

- (a) Willful failure to make a horse available for sampling or other willfully deceptive acts or interference in the sampling process shall carry a minimum penalty of a one year license suspension and referral to the commission in addition to any other authorized penalties.
- (b) A selected horse that is not made available for out-of-competition sampling shall be placed on the Steward's List. The horse shall remain on the Steward's List for a minimum of 180 days unless the owner can establish extraordinary mitigating circumstances.
- (c) A selected horse that is presumed eligible for out-of-competition testing shall be placed on the Steward's list and be ineligible to race in the jurisdiction for 180 days if the horse is not sampled because the trainer, owner or their designee asserts that the horse is not engaged in activities related to competing in horse racing in the jurisdiction. This restriction shall not apply if the trainer, owner or their designee instead permits voluntarily an immediate collection of such samples from the horse.

(10) Responsible Persons

- (a) The trainer of the horse is responsible for the condition of a horse sampled for an out-of-competition test while on the grounds of a licensed training facility or racetrack.
- (b) If the horse is sampled while not on the grounds of a licensed training facility or racetrack, then the owner shall be presumed to be the responsible person unless the owner can establish, by substantial evidence, that another licensed person had accepted the responsibility for the care, custody, and control of the horse, making such person the responsible person.
- (c) If a horse sampled for an out-of-competition test was claimed, sold, or otherwise transferred during the time the substance giving rise to the positive test may have been administered, then the Commission shall investigate to determine, by a preponderance of the evidence, the identity of the responsible person at the time such substance may have been administered.
- (d) If the Commission cannot determine a responsible person, then the Commission may deem the owner responsible and may place the horse on the veterinarian's list for such time as is necessary to protect the integrity of racing.
- (e) A claimed horse is ineligible to be subjected to out-of-competition testing in the 48 hours post claim unless the horse was subjected to post race testing.

ARCI-011-030 Physical Inspection of Horses

A. Assessment of Racing Condition

- (1) Every horse entered to participate in an official race shall be subjected to a veterinary inspection prior to starting in the race for which it is entered.
- (2) The inspection shall be conducted by the official veterinarian or the racing veterinarian.
- (3) The agency or the association employing the examining veterinarian(s) should provide a staffing level of not less than 2 veterinarians.
- (4) The trainer of each horse or a representative of the trainer must present the horse for inspection as required by the examining veterinarian. Horses presented for examination must have bandages removed; the legs must be clean. Prior to examination horses may not be placed in ice nor shall any device or substance be applied that impedes veterinary clinical assessment.
- (5) The assessment of a horse's racing condition shall include:
 - (a) Proper identification of each horse inspected;
 - (b) Observation of each horse in motion;
 - (c) Manual palpation and passive flexion of both forelimbs;
 - (d) Visual inspection of the entire horse and assessment of overall condition;
 - (e) Clinical observation in the paddock and saddling area, during the parade to post and at the starting gate, during the running of the race, and following the race until the horse has exited the race track; and,
 - (f) Any other inspection deemed necessary by the official veterinarian and/or the racing veterinarian.
- (6) The official veterinarian and/or the racing veterinarian shall maintain a permanent continuing health and racing soundness record of each horse inspected.
- (7) The official veterinarian and/or the racing veterinarian are authorized access to any and all horses housed on association grounds regardless of entry status.
- (8) If, prior to starting, a horse is determined to be unfit for competition, or if the veterinarian is unable to make a determination of racing soundness, the veterinarian will recommend to the Stewards the horse be scratched.
- (9) Horses scratched upon the recommendation of the official veterinarian and/or the racing veterinarian are to be placed on the Veterinarian's List.

B. Veterinarian's List

- (1) The official veterinarian shall maintain the Veterinarian's List of all horses which are determined to be unfit to compete in a race due to illness, unsoundness, injury, infirmity, heat exhaustion, positive test or overage, administration of a medication invoking a mandatory stand down time, administration of shock-wave therapy, positive out-of-competition test, or any other assessment or determination by the regulatory veterinarian that the horse is unfit to race.

(2) Horses so listed are ineligible to start in a race in any jurisdiction until released by an official veterinarian or racing veterinarian except when there is an unforeseen administrative issue in releasing the horse from the Veterinarian's List of another racing jurisdiction.

(3) A horse may be released from the Veterinarian's List when a minimum of seven days has passed from the time the horse was placed on the Veterinarian's List.

(4) A horse placed on the Veterinarian's List for being unfit to compete in a race due to illness, physical distress, unsoundness, injury, infirmity, heat exhaustion, or any other assessment of determination by the regulatory veterinarian that warrants withdrawal from the race shall be released from the list only after the following has been met:

- (a) establish or demonstrate to the satisfaction of the official veterinarian or the racing veterinarian that the horse is serviceably sound and in fit physical condition to exert its best effort in a race or pass the Assessment of Racing Condition by the official veterinarian and/or the racing veterinarian,

- (b) provide a published work of a minimum of four furlongs at 0:52 for Thoroughbreds (220 yards at 13.3 seconds for Quarter Horses) observed by the official veterinarian and/or the racing veterinarian for horses that are listed as unsound or lame; other listed reasons above may be required to work at the discretion of the official veterinarian. Prior to such work, a declaration in writing must be provided by the attending veterinarian as to the fitness of the subject horse, and,

- (c) submit to a post-work biologic sample collection for laboratory confirmation for compliance with ARCI-011-020 at the expense of the current owner unless otherwise provided in the local jurisdiction. Violations of ARCI-011-020 may result in penalties consistent with ARCI-011 Equine Veterinary Practices, Health, and Medication.

(5) A horse placed on the Veterinarian's List for Positive Test or Overage, administration of a medication invoking a mandatory stand down time, administration of shock-wave therapy, positive out-of-competition test, or any other veterinary administrative withdrawal shall be released from the list only after the following have been met:

- (a) establish or demonstrate to the satisfaction of the official veterinarian or the racing veterinarian that the horse is serviceably sound and in fit physical condition to exert its best effort in a race or it has passed the Assessment of Racing Condition by the official veterinarian and/or the racing veterinarian, and

- (b) at the discretion of the official veterinarian, it has provided a published work at a minimum of four furlongs in 0:52 (220 yards in 13.3 seconds for Quarter Horses) observed by the official veterinarian and/or the racing veterinarian and submit to a post-work biologic sample collection for laboratory confirmation for compliance with ARCI-011-020 at the expense of the current owner. Violations of ARCI-011-020 may result in penalties consistent with ARCI-011 Equine Veterinary Practices, Health, and Medication.

(6) Horses having generated a positive finding on a biological sample collected pursuant to this section shall not be released from the vet's list until generating a negative test.

Exhibit 2

AAEP Guidelines for Necropsy of Racehorses

General Guidelines

The AAEP recommends that all horses that die or are euthanized at a licensed racetrack or training facility undergo a complete necropsy by a board certified veterinary pathologist at an accredited veterinary diagnostic laboratory. Necropsy findings should be entered into the Jockey Club Equine Injury Database.

It is recommended that regular communication and interaction between the on-site regulatory veterinarian(s), practicing racetrack veterinarians, and the pathology staff at the diagnostic laboratory be established. This will enhance the necropsy process and the resultant information. It will also facilitate collaborative efforts when specific research interests are identified.

Transportation options for necropsy cases should be identified prior to need. Storage, pending transport, and transportation of the body should be managed in such a way that tissue degradation and the development of post-mortem artifacts are minimized. Care should also be taken to employ good infection control practices with respect to equine infectious and/or zoonotic disease.

If time or distance constraints preclude the transport of a deceased horse to the veterinary diagnostic laboratory, a field necropsy is recommended.

Field Necropsy

It is recommended for racetracks where field necropsy will be performed that a dedicated facility be available for performing necropsies. This facility should be located in a secluded area and be enclosed and covered for both privacy and protection from the elements. *(A temperature controlled environment is recommended in areas where extreme weather conditions may exist.)* Facility design should allow an equine ambulance to drive through. The enclosure should contain a large, well-drained concrete or asphalt slab with a rough finish providing adequate traction. Ample hot and cold water supply and hose are required to clean the area. Disinfection and/or sanitization protocols should be employed following each necropsy.

Field necropsy requires advance communication with carcass removal companies to determine requirements to insure that necropsied remains can be removed. Carcass removal and disposal should be performed by a licensed animal disposal company and in compliance with local, state, and federal regulations.

Regulatory veterinarians are encouraged to seek guidance from veterinary pathologists to establish field necropsy protocols. Minimum standards for field necropsy are as follows:

For appendicular injuries the affected limb at the site of the injury should undergo gross dissection (+/- diagnostic imaging, toxicology, histopathology) and appropriate documentation of findings (written description and photography). The necropsy report should include identification of the affected anatomical structure(s) including a description of gross lesions found in bones, joints, ligaments, tendons, skin and blood vessels.

For non-appendicular conditions, reasonable effort should be made to determine and document the cause of death. For sudden death occurring during or immediately after a race, the cardiovascular and respiratory systems warrant as comprehensive an examination as is possible.

Race related

For race-related fatalities, a 'best practice' inquest protocol is recommended that incorporates ante-mortem information (examples include: interviews with personnel relevant to the horse and/or the incident, exercise history, race replay video, medical history) and post-mortem findings.

Ante- or immediately post-mortem blood samples (and urine, when available) should be collected, maintained under chain of custody protocols, and submitted to the official racing laboratory.

Exhibit 3

AAEP General Biosecurity Guidelines (2017)



For the purposes of these guidelines, biosecurity includes all practices intended to prevent the introduction and minimize the spread of infectious disease agents in equine populations. Veterinarians oversee the health of equids in many contexts where infectious disease is likely to be introduced and spread, including veterinary clinics, equine event facilities, and stables where there is frequent movement of equids on and off the premises. Appropriate biosecurity measures are important to protect equids, protect people (from zoonotic disease), and maintain business continuity of the facility. This document will concentrate on biosecurity recommendations for equine events and stables. Several private and university veterinary hospitals have written biosecurity standard operating procedures for their equine veterinary clinics, and practitioners are encouraged to contact one of these institutions if guidelines for these purposes are desired.

While there are overarching infection control principles that apply to most circumstances, every scenario has unique attributes. Therefore, it is important for veterinarians to work with other involved stakeholders in advance of an urgent issue (i.e. BEFORE an outbreak) to develop plans that are practical and effective for the particular facility in question. Many people focus on the “outbreak management” aspect of biosecurity, but arguably more important are the day-to-day biosecurity practices that minimize the likelihood of a disease outbreak in the first place or make it easier to quickly contain an outbreak with minimal disruption and expense. Therefore, a comprehensive biosecurity plan includes the development and implementation of routine protocols to control infection, as well as a response plan if infectious disease is recognized.

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I. Identification of Key Personnel, Important Contacts, and Reference Materials

1. Facility personnel responsible for organization of biosecurity (both routine and outbreak related) should be identified. Responsibilities and numbers of these personnel will vary dependent upon the type of facility but there should be a “person-in-charge” and a “chain of command” established. In the event of an outbreak, additional personnel will be required to facilitate isolation and should be designated ahead of time.
2. Other contacts to identify and record:
 - a. [State Veterinarian](#)
 - b. State Office of Public Health
 - c. Event or Stable Veterinarian
 - d. Veterinary diagnostic laboratory of choice
 - e. Competition/Event Manager
 - f. Governing body of event
 - g. Carcass removal company
 - h. Referral hospital for treatment of ill equids
 - i. Potential locations for off-site isolation



- j. Local feed store
- k. Manure and bedding disposal company
- l. Farrier
- 3. [The Equine Disease Communication Center](#) is an excellent resource for outbreak alerts, disease information, and additional advice on biosecurity.

II. Routine Biosecurity Protocols

1. Equine entry onto the premises
 - a. Routine requirements
 - i. For events or stables, restrict entry to healthy equids only and set policy for refusing entry of equids displaying clinical signs of disease. Ideally, staff should observe equids upon arrival to confirm animal identification, check health documents and observe equids for general signs of good health. Consideration can be given to the requirement for a recent certificate of veterinary inspection (CVI).
 - ii. New entries to stables where there are long-term resident equids should be isolated from the resident equids for 2-3 weeks and monitored for signs of contagious disease. During this time, equipment should not be shared among new and resident equids, and caretakers should ideally follow protocols described in [section III](#).
 - iii. Resident equids returning to their home stable from an event should be fully isolated or at least have their temperatures checked twice daily for at least 1 week to allow early detection of disease.
 - iv. It is good practice to segregate equids on a facility by use and age. For example, show equids should be segregated from resident broodmares and their foals.
 - v. Premises may require that equids have documentation of specific vaccinations (See [AAEP Vaccination Guidelines](#) for recommendations).
 1. For premises with increased public exposure risks, a rabies vaccination requirement is prudent in order to protect animal and public health.
 - vi. Apply animal health standards for other species of animals (e.g. cattle) entering the premises.
 - vii. Equids belonging to the same owner or trainer should be housed together with empty stalls between groups of equids if possible.
 - b. Requirements for entry during local disease outbreak
 - i. When an infectious disease outbreak occurs locally, additional restrictions should be applied for animal entry to events or stables,
 - ii. Restrict entry to equids for which the owner/agent provides a CVI issued within 7 days of arrival at the event venue. A CVI issued 72 hours before arrival is optimal. If a CVI is not required, then an owner/agent [declaration statement](#) attesting that the listed equid(s) arriving at the premises has/have been healthy with no clinical signs of a contagious disease or body temperature(s) above 102°F (38.9°C) for the preceding 7 days may be warranted.



- iii. Additional health requirements may be required such as a written statement on the CVI which attests to the equid's health and exposure status. For example, an additional requirement may include a statement that "The listed equid(s) has/have not been on a premise with a confirmed case of neurologic form of EHV-1 in the preceding twenty-one (21) days" if there is a local outbreak of neurologic EHV-1.
- c. Facility records should be maintained on equid movements (entering, remaining on, and exiting the premises), location of individual animals, and equid health status procedures (monitoring and treatment records).
- 2. Equine Health Monitoring
 - a. **Continuous health monitoring of all equids on the premises should be required.** This is the key to early identification and containment of infectious disease with minimal disruption.
 - i. Options include having designated staff performing period walk-throughs of stables to directly observe equids for any clinical signs of disease or relying on self-reporting of disease by exhibitors or owners (the requirement for which should be stipulated in entry forms or boarding agreements).
 - ii. Any sign of disease should be reported to the designated individual with the authority to initiate immediate disease control measures, such as isolation.
 - iii. Requirements at events should include taking equid temperatures twice daily and documenting temperature readings in a log. Consider requiring the posting of a temperature monitoring log on the stall door which allows designated staff to easily perform checks on temperature recordings. To ensure compliance with the equid temperature monitoring requirement, staff should perform random audits of logs.
 - iv. Owners of equids at boarding stables should be instructed to report clinical signs of disease in their equid to the facility owner or manager.
- 3. General Protocols
 - a. Water sources
 - i. Communal water sources should not be offered at events and exhibitors should be instructed to use their own buckets and to not share equipment with other exhibitors.
 - ii. Hoses should not be submerged in the bucket when filling.
 - b. Housing
 - i. Stalls should be cleaned regularly, and waste stored in an area remote from equids. Equipment used for cleaning stalls should not be used for feed and vice versa.
 - ii. Stall construction impacts infectious disease agent transmission. Stabling which prevents equid to equid contact over the walls, through the walls, or into the aisle way limits disease transmission.
 - iii. Stalls should be cleared of bedding and disinfected after each use.
 - 1. Remove all buckets, hay nets, feed tubs, stall webbings, metal grates, etc. and scrub with detergent solution, rinse,



disinfect and then rinse thoroughly with potable water and allow to dry.

2. For stalls with non-porous walls and floors (ideal situation):
 - a. Wet down all surfaces -- walls, ceilings, ledges (top of walls) -- with detergent and water. Powdered laundry detergent can be used; some veterinary disinfectants also have a detergent incorporated in the mix.
 - b. Allow 5-10 minutes for the liquid to soften caked-on organic material then scrub surfaces with a stiff-bristled broom to loosen all material.
 - c. Rinse, beginning at the top of walls and from walls towards the drain. Repeat until surfaces are clean, including corners, ledges and drains. NOTE: Do not use power washers set at >120 psi which can aerosolize pathogens. A garden hose with a regular nozzle can be used.
 - d. Squeegee excess water off surfaces, or allow them to dry.
 - e. Apply disinfectant prepared according to label directions on all surfaces, starting at the top of stall walls and working from the far end of the stall to the exit. Allow to dry.
 - f. Repeat disinfection step if suspect or confirmed difficult organisms are found or suspected. Bacteria such as *Salmonella* and certain viruses such as rotavirus are generally difficult to inactivate. Herpes and influenza viruses are more susceptible to detergents and disinfectant and one application of detergent and disinfectant should be sufficient.
3. If stalls are constructed of porous materials (wood construction, dirt or clay flooring, etc), it must be recognized that these are extremely difficult to clean and disinfect.
 - a. Remove all bedding and organic matter and thoroughly dry scrub all surfaces with water to remove as much organic matter as possible.
 - b. Follow up with scrubbing stall walls with a detergent solution. Cleaning with large quantities of water can turn dirt or sand floors into a slurry and should be avoided.
 - c. Disinfectants can be sprayed on surfaces but may have inadequate results, and persistence will depend upon the involved organism. Sunlight exposure may be helpful for inactivation of potential pathogens (Weese *et al*, Survival of *Streptococcus equi* on surfaces in an outdoor environment. *Can Vet J.* 2009;50(9):968-70).



4. Adequate air circulation with ventilation aids in reducing potential exposure to respiratory disease pathogens or ammonia. For exposure to a pathogen such as influenza, 100 equids stabled under one roof would all be considered exposed, however, with an exposure to *Streptococcus equi* more direct contact would be required to be considered exposed. Determine if alterations are necessary to improve air circulation and ventilation.
- c. General recommendations for disinfectant use
 - i. Follow label instructions for use. Note precautionary warnings and requirements for proper use and disposal of the disinfectant.
 - ii. DO NOT mix disinfectants with other chemicals.
 - iii. Select a disinfectant that has documented effectiveness in the presence of 10% organic matter, works in the water hardness of the locale, and is safe to use around equids and humans.
 - iv. Bleach is readily inactivated by organic matter; use only after thorough cleaning. Note: Bleach is the only practical, commercially available disinfectant that kills clostridial spores.
 - v. Viruses with envelopes (e.g. influenza, herpesviruses 1 & 4, equine arteritis virus, etc.) are readily inactivated by detergents and disinfectants.
 - vi. Phenolic and peroxygen based products are effective for viruses lacking an envelope (e.g. rotavirus).
 - vii. Determine where drains discharge prior to using detergents and disinfectants. Certain detergents and disinfectants cannot be discharged directly into bodies of water.
 - viii. Please see this practical table about common equine pathogens and the efficacy of disinfectants on various surfaces and materials [AAEP disinfectant table](#)
 - ix. The Center for Food Security and Public Health at Iowa State University has published [this helpful resource](#) about disinfectants, as well as [this table of characteristics of selected disinfectants](#).
 - d. Hand Hygiene
 - i. If equids are being inspected by facility staff for any reason, hands should be washed between equids or at least between groups of equids owned by different exhibitor groups.
 - ii. Whenever possible, touching the equid should be avoided. For example, in bit inspections, the handler can remove the bit from the equid's mouth without the inspector contacting the bit or equid.
 - iii. If contact between the public and equids cannot be avoided or is encouraged (e.g. petting zoo situation), handwashing or sanitizing facilities should be provided.
 - iv. Instructions for handwashing
 1. Hands should be washed under running water with pump-dispensed liquid soap (not bar soap) for a minimum of 20 seconds.
 2. If facilities are not available for handwashing, hand sanitizer containing at least 61% alcohol should be used and allowed



to dry for 10-15 seconds. Hand wipes should be available to remove all organic debris prior to using hand sanitizer.

Caution: avoid exposure to open flame due to flammability.

3. Extensive information about hand hygiene is available through the [Centers for Disease Control and Prevention](#).
4. Also, please see [this article](#) from the AAEP proceedings on hand hygiene protocols in the equine veterinary setting

e. Equipment and Supplies

- i. Equid-specific equipment (feed tubs, water buckets, halters, pitchfork, wheelbarrow, etc) should be clearly identified as belonging to an individual equid and should be used only for that equid or the group of equids. Ideally, color coded buckets and cleaning equipment should be used for groups of equids.
- ii. Shared equipment (lead shanks, lip chains, bits/bridles, twitches, dose syringes, thermometers, grooming supplies) should be cleaned of organic debris and disinfected between equids.
 1. All equipment should be thoroughly scrubbed and cleaned with a detergent and water, rinsed, disinfected and followed by a final rinse. This should be done in an area with minimal foot and vehicular traffic flow that can be cleaned and disinfected after this procedure (i.e. not in a grazing area, but on a solid surface close to a drain).
 2. Cloth items (saddle cloths, towels, bandages, halter fleeces, rub or wipe rags) should be laundered and thoroughly dried between each use. (Disinfectant may be added to rinse water, but an additional rinse cycle must be included to remove disinfectant residue.)
 3. Tack and other equipment which can't be completely disinfected should be cleaned as well as possible and then placed in the sun as sunlight can inactivate many potentially infectious agents.
- iii. Equipment that cannot be effectively disinfected (sponges, brushes) should not be shared between equids. Multiple dose medications (oral pastes/ophthalmic ointments, etc.) should be labeled for use by a specific equid and not shared.
- iv. Ointments/topical medications should be removed from larger tubs and aliquoted into smaller containers for use on individual equids.
- v. Horse trailers and vans should be cleaned and disinfected between uses even if there is no known risk of disease. In general, protocols for cleaning stalls can be adapted to the cleaning of trailers and vans. Mats should be removed to allow wood plank floors to dry. Surfaces around the feeders and cross ties should be given special consideration due to contact with potentially infectious nasal secretions.

f. Traffic

- i. The movement of trucks, trailers, tractors, golf carts, wheelbarrows and bicycles around an equine premise have the potential to spread infectious disease agents. Restrict vehicles to designated parking



- areas and designated routes without animal access to limit risk of disease introduction and spread.
 - ii. Outside supply trucks and non-essential vehicles should not be permitted in the equid stabling area.
 - g. Non-equine species
 - i. Dogs should be prohibited from event grounds or leashes required.
 - h. Vermin and vector control
 - i. Vermin control is critical, especially for disease agents that can be transmitted on fomites. Simple control measures, such as securing feed storage areas from unwanted wildlife, removing brush and wildlife habitats, instituting rodent control measures and eliminating areas of standing water, will contribute significantly to the reduction of disease transmission risks on the event premises
 - ii. Rodent, bird, and insect control should be evaluated and upgraded as necessary.
 - iii. For large premises with significant equid traffic and accumulation of manure, consult an insect control specialist for the most appropriate recommendations.
 - iv. Recommend application of topical insect repellent for equids during high vector prevalence periods.

III. Outbreak Response

1. Prompt isolation of sick equines is critical to the successful control of an infectious disease outbreak.
 - a. Preparation of Isolation Area
 - i. Location and Attributes
 1. As far away as possible from general human, equine, and vehicle traffic areas. A pre-designated offsite facility may be preferable.
 2. External perimeter secure and clearly marked with adequate [signage in both English and Spanish](#) designating it as a restricted area.
 3. Set up a temporary pen structure if no suitable permanent stabling is available
 4. Optimal isolation stabling has non-porous flooring, running water, and electricity, and is in an area where run-off will not occur
 5. Openings in stall walls (windows, gaps between boards) should be covered with solid barrier material to prevent equid to equid contact.
 6. Should be accessible to large equipment if necessary to handle a down or deceased equid
 7. A local veterinary hospital should be pre-designated that can treat equids requiring isolation with medical needs that cannot be addressed at the show facility's isolation area
 - ii. Supplies
 1. An adequate inventory of disposable personal protective equipment in a variety of sizes and other necessary equipment and supplies (including disinfectants as described in section II)



should be acquired in advance and stored in a location accessible to the isolation area. In the case of an outbreak, there should be enough supplies to operate immediately until additional supplies can be delivered.

2. Ensure that adequate trash receptacles with lids and receptacles for sharps and biohazardous materials are conveniently located around isolation.
3. Examples of Biosecurity Supplies and Potential Sources for Products (updated from Lunn and Traub-Dargatz, Managing Infectious Disease Outbreaks at Events and Farms; Challenges and the Resources for Success, AAEP Proceedings, 2007).
References to specific brands or suppliers of products are for example only and should not be considered an endorsement.

<u>Product Name/Type</u>	<u>Potential Source</u>	<u>Contact Info</u>	<u>Approximate Cost</u>
Plastic aprons	Grainger	(800) 472-4643 www.grainger.com	\$199.20 per package of 100
Tyvek coverall with attached hood, elastic wrists and ankles	Enviro Safety Products, Valencia, CA 91355	(800) 637-6606 Fax: (559) 746-0317 www.envirosafetyproducts.com	\$114.99 per package of 25
White disposable gowns	eSafety Supplies City of Industry, CA 91746	(877) 693-3754 (626) 369-1280 www.esafetyproducts.com	\$28.60 per package of 50
Disposable plastic boots ("Knot-a-Boot")	QC Supply Schuyler, NE 68661	(800) 433-6340 (402) 352-3167 www.qcsupply.com	\$14.99 per box of 50
Virkon-S - use spray bottle for disinfection of soles of boots/shoes	Valley Vet Marysville, KS 66508	(800) 419-9524 Fax: (800) 446-5597 www.valleyvet.com	\$70.95 per 10 lb container
Alcohol hand sanitizer- use product with at least 61% alcohol	Multiple sources Examples include Purell and 3M Avagard	www.purell.com www.3m.com	Purell: ~\$1 per 2 oz bottle; 3M Avagard: \$13.50 per 16 oz bottle
Single-use thermometer probe covers	Valley Vet Marysville, KS 66508	(800) 419-9524 Fax: (800) 446-5597 www.valleyvet.com	\$2.49 per package of 30



Water and feed buckets	Valley Vet Marysville, KS 66508	(800) 419-9524 Fax: (800) 446-5597 www.valleyvet.com	~\$4.49 per bucket
Disinfectable Halter and Lead	Valley Vet Marysville, KS 66508	(800) 419-9524 Fax: (800) 446-5597 www.valleyvet.com	\$19.95 for halter and \$7.49 for lead
Disinfectable Grooming Brush Set	Valley Vet Marysville, KS 66508	(800) 419-9524 Fax: (800) 446-5597 www.valleyvet.com	\$6.95 per brush set

b. Sick Equid Trigger Point:

- i. The definition of a sick equid and specific trigger points warranting the response of isolation of an equid should be outlined for the premises.
- ii. Consult local, state, or federal animal health officials to determine specific trigger points and response action for reportable diseases. Note, the response to a reportable disease may vary by state; therefore, it is necessary to contact the official in the state where the event is held to determine reportable diseases.
- iii. General recommendations to consider for designation as a response trigger for isolation include detection of:
 1. Body temperature greater than 102°F (38.9°C)
 2. Ataxia or recumbency
 3. Aggressive behavior or stupor
 4. Profuse diarrhea
 5. Oral or coronary band vesicular or ulcerative lesions

c. Entry and Exit Protocols

- i. All movement in and out of the isolation area should be regulated and recorded, e.g. with check in sheets.
- ii. Additionally, maintain a log, recording events as they occur, including case identification (which horses got sick), control measures implemented, diagnostic testing results, and communications.
- iii. Disinfectant footbaths or mats should be placed at all entry and exit points to and from the isolation area and each stall.
 1. Disinfectants suitable for footbaths and mats include 10% bleach or peroxygen compounds such as Virkon® S. Read label indication, instructions for use and safety information prior to using any disinfectant. Please see the disinfectant table linked in Section II.C.3 for more information.
 2. The footbaths and mats should be kept as free of organic matter as possible and routinely filled with new disinfectant solution (at least every 2-3 days and preferably daily).
 3. Rubber boots or other footwear suitable for disinfection should be worn. If other types of footwear are used, plastic overboots should be employed and disposed of after each use. The tread of rubber boots should be kept free of organic debris with a brush.
- iv. Handwashing or hand sanitizer stations should be placed at all entry and exit points to and from the isolation area and each stall (See section



- II.C.4 for information on hand hygiene). Hands should be washed before entering and when leaving each stall, and when entering and leaving the isolation area.
- v. Personnel should don a protective gown and latex or nitrile gloves before entering a stall to examine or care for an equid. Gowns and gloves should be disposed of after each use and between equids in a covered refuse container. If a cloth gown is used, it should only be used once and then laundered.
 - vi. Caretakers should be provided with a changing area. Clothes should be changed and laundered, and footwear changed or disinfected after leaving isolation and before handling other equids.
 - vii. All necessary supplies should be in the isolation area before the movement of a sick equid into the area. If necessary, additional supplies may be brought to an area adjacent to the isolation area for easy transfer. Designated equipment should remain in the isolation area.
- d. Care, monitoring, and testing of sick equid(s) in isolation
- i. ANYTHING that touches an infected equid and its secretions or excretions has the potential to transmit pathogens to other equids. Pathogens can be indirectly transmitted to other equids on equipment, tack, hands, or clothes.
 - ii. Ideally, designated trained staff provided by the facility should work exclusively in the isolation area to care for equids and designated equipment should remain in the isolation area. If multiple individuals are moving in and out of isolation to care for equids, extreme care must be exercised in following biosecurity protocols, especially if these individuals are also caring for well equids not in isolation. This situation is not ideal.
 - iii. If it is unavoidable that an individual has to provide care to both affected and unaffected animals, then the following precautions should be observed:
 1. Care of healthy, unexposed animals (feed/groom/exercise/muck stall) should be completed first
 2. Exposed but healthy animals next
 3. Affected/sick animals last
 - iv. The health of all equids in isolation should be closely monitored and necessary supportive care and medical treatments provided. If required medical care exceeds the capabilities of the isolation unit, the equid should be transferred to isolation at a referral veterinary hospital.
 - v. Depending on clinical presentation, determine the samples for diagnostic testing and send to pre-determined diagnostic laboratory in order to confirm or rule out specific infectious diseases of interest.
 - vi. Manure and soiled bedding from stalls of sick equids should not be put in open air piles or pits or spread on pastures. It should be placed in heavy plastic bags for disposal in a landfill. If the disease is zoonotic, any potentially infectious waste should be disposed of by the method recommended by public health officials.
 - vii. If a professional laundering service is used, they should be informed if any of the materials are potentially infectious. If barn laundering



facilities are used, the washing machine should be cleaned by running empty with a suitable disinfectant following use on potentially infectious materials.

- viii. All equids demonstrating neurologic clinical signs with no confirmed diagnosis should be clearly marked with a “rabies suspect” sign on the stall and reported to public health authorities. Restrict personnel access to the equid and ensure that anyone contacting the equid wears double gloves, protective clothing, and splash protective equipment (face shield or goggles) as necessary. Record the names of all who make contact with the equid in a log so that they can be contacted in the event of a positive rabies diagnosis. See this [link in the AAEP guidelines](#) for information about rabies.
- ix. If euthanasia is required, the ideal location is on a remote area of the grounds accessible to large equipment or trucks, with no public access.
 - 1. Someone capable of removing carcasses should be identified in advance of necessity
 - 2. The route of a rendering truck or dead hauler on and off the premises should not cross any live equid routes or exercise areas.
 - 3. Necropsy of any equid that dies or is euthanized should be strongly recommended and optimally performed off-site at a veterinary diagnostic laboratory. The State Animal Health Official should be consulted in case they would like to request specific and expedited tests. In the case of a potential zoonosis, necropsy is essential to protect public health.
- e. Release of equids from isolation
 - i. The state veterinarian will be in charge of determining release protocols in the event of a reportable disease.
 - ii. The event veterinarian and management should work together to determine isolation release protocols in cases of non-reportable potentially contagious diseases.
 - iii. In general, equids should be maintained in isolation at the event until one of the following occurs:
 - 1. The equid no longer has clinical signs and tests negative for all suspected infectious disease agents
 - 2. A non-contagious disease is confirmed
 - 3. The equid is moved to another facility and quarantined if necessary
- 2. Management of premises not in primary isolation perimeter
 - a. Exposure assessment and risk assignment of equids without clinical disease
 - i. An equid that had direct contact (nose to nose, shared fenceline) with a sick equid is at high risk for infection.
 - ii. An equid that may have had indirect contact (communal water trough, shared wash rack, shared equipment, common personnel) with a sick equid is moderate risk
 - iii. An equid that had no direct or indirect contact with a sick equid is low risk



- iv. Exposure assessments may vary dependent upon disease agent. In the case of a disease such as influenza that is transmitted over longer distances than a bacterium such as *Streptococcus equi* subsp. *equi*, high risk equids may include all equids sharing air space (ie in same barn or transported in the same trailer/van) as affected equid(s).
- b. Restrictions on equid movement during an outbreak
 - i. Restrictions on equids will vary dependent upon risk assignment and the disease agent
 - ii. The state veterinarian will be in charge of determining restrictions on at-risk equids in the event of a reportable disease.
 - iii. The event veterinarian and management should work together to determine restrictions in cases of non-reportable potentially contagious diseases.
 - iv. In general, equids that are at high risk would have more stringent restrictions and monitoring than low risk equids. Following biosecurity procedures similar to those used in isolation for higher risk equids is recommended to prevent further disease spread. Higher risk equids should be exercised separately, preferably in a different arena, from equids in lower risk groups.
 - v. Temporary movement restrictions may be necessary until assessment of the situation is complete, especially in higher risk or higher consequence disease situations, after which permission for allowing certain movements on the premises may occur. Policies should be communicated, preferably face to face, to those impacted, and enforcement of policies should be consistent and fair.
 - vi. A plan for promptly closing the premises should be developed in the event it is needed, with procedures outlined to redirect personnel resources to close and lock gates, block roadways to and from the premises with barriers, and monitor entry and exit of vehicles
 - vii. It is essential that facility management be aware of what equids are on the premises and where they are stabled. This ideally is a routine practice but is especially important in an outbreak. This may require barn to barn inspection and documentation.
 - viii. A check-out protocol is necessary for equids whose owners are given permission to move them from the premises. A basic check-out process includes follow-up owner/agent contact information (cell phone number and email address), documentation of equid identification, and the intended destination for the equid. This simplifies follow-up if necessary.
- c. Monitoring of equids during an outbreak
 - i. Continuous health monitoring of all equids on the premises is a priority during an infectious disease outbreak.
 - ii. Designated, knowledgeable, experienced individuals should perform periodic walk-throughs of stables directly observing equids for any sign of clinical disease.
 - iii. Owners/trainers/grooms of equids should be required to monitor their equids for signs of disease and report any clinical signs to show management or attending veterinarian



- iv. Temperatures should be taken on equids twice daily and documented in a log displayed on the stall door for easy assessment. Temperatures should not be taken immediately after exercise; ie they should be obtained after equids are cooled out to avoid spurious elevations.
 - v. An equid body temperature over 102°F (38.9°C) should be immediately reported to show management. Equids with temperatures between 101°F (38.3°C) and 102°F (38.9°C) should be monitored for other signs of disease and have the temperature retaken in 1 hour.
 - vi. Equids demonstrating “sick equid triggers” outlined in III.A.2 should be moved to the isolation facility and managed there.
 - vii. Consideration should be given to updating or initiating vaccination in at risk equids when appropriate. Please see [this section of the Infectious Disease Control guidelines for recommendations for specific diseases.](#)
- d. Additional restrictions and recommendations for disinfection
- i. Since dogs may carry infectious disease agents from one location to another on the premises, no dogs should be on the grounds during an infectious disease outbreak. Require owners with dogs onsite to immediately remove dogs from the grounds. Dogs should not be placed in trailers or vehicles due to the possibility of escape, barking and temperature stress.
 - ii. Immediately clean equipment of organic matter, thoroughly scrub with detergent and water, rinse, dry and disinfect all previously shared equipment (lead ropes, chains, bits, twitches, thermometers, grooming supplies, etc.). Items, such as tack, to which disinfectants cannot be applied, should be cleaned and allowed to dry in the sun, since sunlight inactivates/kills many pathogens. Sharing of equipment should be discouraged, but any equipment which must be shared should be cleaned and disinfected between uses.
 - iii. During a disease outbreak, it is essential to communicate disease biosecurity measures to visitors. Keep visitors out of the equid areas and inform them of proper biosecurity measures if they are returning to equid premises.
 - iv. Steps to limit direct and indirect equid contact are necessary. All areas which are touched by human hands or by equids, such as fences, wash racks, bathroom sinks, faucets and door handles, should be cleaned and disinfected at least daily. Common use items, such as wash stall cross ties and washing equipment, should be removed and personnel should be required to use their own equipment. Monitor exercise and exhibition areas to ensure that minimal direct or indirect equid-to-equid contact occurs. Restrict individuals from tying equids to fencing outside the arenas or stabling areas, since fencing can be contaminated by secretions of an infected equid. Indoor arenas and indoor stabling can potentially increase the risk of aerosol spread. Indoor arenas may be closed, and individuals required to utilize outdoor arenas if aerosol pathogen spread is suspected.
 - v. During an infectious disease outbreak, only the owner or designated personnel should handle equids on the premises. Limit the sharing of personnel between barns or trainers. Supply additional hand washing



- stations and signage during the outbreak to enable equid handlers to perform proper hand sanitation after handling each equid.
- vi. Thorough cleaning and disinfection of the premises at the beginning of an infectious disease outbreak can significantly reduce the potential for disease agent spread. Start with the removal of all manure, soiled bedding and uneaten feed, then remove residual organic matter by washing all surfaces with soap and water before the application of a disinfectant. To limit vehicle traffic on and off the premises, consider ordering bulk disinfectant supplies for delivery to a designated bio-secure area on the grounds.
- vii. Sunlight inactivates/kills many pathogens. After cleaning and disinfecting buckets, tack, and equipment allow them to dry in the sunlight if possible. After cleaning and disinfection for some pathogens, like *Salmonella*, it may be necessary to obtain test swabs of the environment to determine elimination of the organism.
- viii. Request that individuals clean and disinfect their equipment, trailer and vehicle before leaving the grounds.
- ix. The plan should include feed store contact information to re-arrange for feed and bedding delivery. Delivery protocols to clean and disinfect trucks upon entry and exit may be warranted. Vendor personnel may also request to use disposable coveralls and disposable footwear covers when delivering supplies (i.e., grain, hay, supplements, bedding). Management should assess the potential feed and bedding needs on the premises and consider necessary arrangements for a single delivery to a designated area. To minimize disease spread on the grounds, designate personnel to be responsible for the delivery of the feed to the barns. Deliveries should be first to low risk/healthy equids, then exposed equids and lastly to clinical equids.
- x. All shared facilities/equipment (e.g. detention barn stalls, receiving barn stalls, starting gate, equine ambulance) should be cleaned and disinfected after each use.
- xi. Horse trailers and vans should be routinely cleaned and disinfected after each use, but especially after being used to transport ill or potentially ill animals.
- e. Communication
 - i. Clear and concise signage and messaging to all on the grounds is essential. During an infectious disease outbreak, there is limited time to develop adequate signage, so developing critical messaging before an outbreak and having clear attention-getting signs available for use in an outbreak will aid in prompt effective communication and successful implementation of enhanced biosecurity and infectious disease control plan measures. Decide in advance where signage will be posted. See link to suggested signs in English and Spanish in section III.A.1.
 - ii. Notification of all affected parties is a critical component for an effective infectious disease control plan. Development of clear, concise and accurate messages about a situation, the measures being taken and the procedures for owner/trainers/grooms to follow is critical to prevent the



- spread of disease and panic among the group. This may be best accomplished by issuing a press release in high profile situations.
- iii. Before a disease outbreak, outline a communication plan to notify staff, trainers, owners, public and vendors of an incident. Consider incorporating several communication modalities to ensure rapid, unified messaging to a large audience. Contact information for other individuals who may be able to assist during an infectious disease outbreak should be organized and readily available. Create a complete emergency contact list and provide it to all staff at the beginning of the disease event. Consider having a public relations specialist develop a communication plan and have their contact information readily available for provision of messaging at the appropriate level and preparation of timely updates.
 - iv. [Biosecurity instructions](https://aaep.org/sites/default/files/Documents/Instructions%20to%20grooms.pdf) for caretakers should be provided in English and Spanish. <https://aaep.org/sites/default/files/Documents/Instructions%20to%20grooms.pdf>
 - v. [Please see this article](#) from the AAEP Proceedings on management of infectious disease outbreaks for more information.

Exhibit 4

Security Recommendations of the Racing Medication and Testing Consortium and the NTRA Safety and Integrity Alliance

The NTRA Safety and Integrity Alliance is committed to ensuring that its accredited facilities observe high standards of racing security. The following recommendations and guidelines are provided as examples of best practices for Alliance members to address appropriate aspects of barn area security on race day. However, the Alliance does not advocate or endorse a “one-size-fits-all” approach. Our goal is simply to ensure that accredited facilities demonstrate a clear, comprehensive security plan.

1. The administration of any Controlled Therapeutic Medication to a horse within 24 hours of the scheduled post time for which a horse is entered to compete shall result in a scratch *except for the Administration of not less than 150 mg and not more than 500 mg of furosemide intravenously only by the Official Veterinarian or designee only not less than four (4) hours prior to the scheduled post time of the race for which a horse is entered to compete.*
2. Except in circumstances involving the health and safety of the horse, contact with a horse by a veterinarian other than an Official Veterinarian or designee any time 24 hours prior to the post time of the race for which a horse is entered to compete may result in a scratch.
3. Contact with a horse within 24 hours prior to the post time of the race for which a horse is entered to compete (unless the horse has been previously scratched) shall only be by licensed personnel or an individual issued a visitor's pass or other identifying credential, notwithstanding veterinarians approved under Section 2 above and shall only be permitted for general husbandry purposes, including, but not limited to, feeding, watering, bandaging, applying tack, applying topical dressings such as antiseptics, ointments, salves, leg rubs, leg paints, hoof care products, and liniments, provided that such activities do not result in the Administration of Controlled Therapeutic Medication(s) or Prohibited Substance(s).
4. Horse(s) arriving on racing association property less than four (4) hours prior to the scheduled post time of the first race on the day for which the horse is entered to compete are subject to scratch with discretion given to stewards to consider extenuating circumstances.
5. All horses entered to compete that do not reside on racing association property are required to go directly to the receiving barn and be placed in an IN TODAY stall upon arriving on association grounds and are subject to heightened surveillance in order to prevent unauthorized access to horses that would provide an opportunity for inappropriate medication administration.
6. All horses entered to compete shall be clearly identified by signs plainly stating “IN TODAY” displayed clearly next to or on the stall doors not less than twenty-four (24) hours prior to the scheduled post time of the race in which the horse is entered to compete, or be subject to scratch. “IN TODAY” signs should contain the tattoo number, color and sex of the entered horse, along with a local 800 number for track security in order to facilitate reporting violations. Copies of a

horse identifier's list of entered horses with their tattoo numbers shall be made available to security personnel who patrol the general barn area to be used for checks of "IN TODAY" horses.

7. All horses on the association grounds may be required to report to a receiving barn forty-five (45) minutes prior to the scheduled post time for the race in which the horse is entered to compete. Access to the receiving barn should be controlled by security to prevent unauthorized access to horses.
8. All barns, associated storage rooms, tack rooms, dormitory rooms and vehicles authorized to be present on racing association property shall be subject to search by security personnel employed or contracted by the racing association and/or the relevant racing regulatory authority. Inspections shall comply with association policies and procedures regarding predication, execution and scope of said inspections, as well as the inclusion of racing regulatory personnel and/or other individuals (such as a horsemen's group representative and the trainer or trainer's representative/employee) authorized to participate or witness the inspection. Failure of a licensee to cooperate with searches may result in fines or suspensions.
9. Earned Surveillance:
 - a. All horses racing from a stable that is the subject of medication violations involving Prohibited Substances shall report to the receiving barn eight (8) hours prior to the scheduled post time for the race in which the horse is entered to compete for a period of not less than 30 days.
 - b. Such stables meeting these criteria shall also be subject to increased scrutiny by security personnel, including, but not limited to, "ride-along" programs involving the use of security personnel assigned to directly monitor the Licensee for a period of not less than 30 days, use of video surveillance, increased random visits to the barn.
 - c. Veterinarians and other licensees who are the subject of medication violations involving Prohibited Substances shall also be subject to earned surveillance by security personnel, including, but not limited to the use of security personnel assigned to directly monitor the Licensee for a period of time determined by the (entity with security oversight?), but not less than 30 days.
10. Training of Security Personnel: Racing associations shall develop comprehensive training programs that enable backstretch security personnel to expand their knowledge and abilities in policing and securing the stable area. Associations should support and participate in available security training opportunities, such as those provided by the Thoroughbred Racing Protective Bureau (TRPB) and the Organization of Racing Investigators. These programs should promote use of "best practices" to secure horses on race day.
11. Reporting and Communication: All racing associations and commissions shall display and support a toll-free, anonymous tip line in both English and Spanish in one or more of the following

locations: track kitchen, each barn in the stabling area and the receiving barn, as well as in the overnight sheets and the condition book. Association investigators should, through appropriate dissemination mechanisms such as TRPB, ensure information regarding alleged untoward activity on the part of licensees, improper race-day substances, or other useful or actionable intelligence gleaned during their race meeting is shared among their peers and to racing commission investigators.

Exhibit 5

Medical Care Recommendations of Jockeys' Guild, Inc. and The NTRA Safety & Integrity Alliance Medical Director Committee

The NTRA Safety and Integrity Alliance is committed to ensuring that its accredited facilities observe high standards of medical care for those who are injured or become ill on racetrack grounds. The following recommendations and guidelines are designed to ensure the Alliance members address all aspects of medical care, particularly the care that is afforded to riders and others who sustain traumatic injuries. However, the Alliance does not advocate or endorse a “one-size-fits-all” approach. Our goal is simply to ensure that accredited facilities demonstrate a clear, comprehensive plan to provide timely, quality medical care to those who are injured or become ill on racetrack grounds.

1) Medical Director/Staff Oversight

It is strongly recommended that tracks have a designated Medical Director who is a licensed, insured, board-certified physician trained in family practice (minimum), or specialty areas such as internal medicine, emergency medicine or surgical specialties such as orthopedics, neurosurgery or trauma.

The Medical Director or a designated health care professional ensures that all professional medical staff are licensed and certified and oversees all racetrack emergency services, including nursing staff, paramedics/EMTs, facilities, injury treatment protocols, access to the Jockey Health Information System (JHIS), transportation to emergency medical facilities, communication with outside care providers (such as emergency care hospitals or post-op rehabilitation facilities), and compliance with the Alliance Code of Standards. The Medical Director is also responsible for certifying a rider's fitness to ride or to resume riding after any on-track incident that may impair the rider's reflexes, decision making or ability to maintain control of his/her horse in a race.

If a track does not retain a Medical Director, it must demonstrate a reasonable strategy for timely provision of comparable services at the levels described above, and a complete chain of command. At minimum, the individual assuming the responsibilities described above must be a licensed, certified Paramedic.

2) On-site Emergency Medical Staff

In addition to Medical Director or comparable physician-in-charge, the following emergency medical staff are recommended for staffing on-site emergency care facilities at racetracks:

Registered, licensed nurse(s) with experience in emergency medicine; certified paramedic(s) to be present during all races, as required by ARCI Model Rule **ARCI-007-020**; and Emergency Medical Technician(s) (EMTs) to assist the lead paramedic, nursing team and the Medical Director.

In consultation with racetrack management and the designated lead paramedic, the Medical Director will determine the number of individuals needed to staff each position and establish a clear chain of command/division of responsibilities for medical staff and other track personnel (e.g., security, outriders or communications team) with a “need to know.”

3) On-Site First Aid Facilities

The track's first aid facility must comply with Occupational Safety & Health Administration (OSHA) standards, be regularly serviced, inspected and updated and include the following minimum services/features:

Private room(s) equipped with enough trauma beds to handle at least one seriously injured rider, preferably two to three; adequate space/beds/facilities to enable patient triage in the event of simultaneous emergencies (either on track or in other parts of the track's physical plant, e.g., grandstand); treatment capabilities to stabilize a rider physically and medically and monitor the rider's vital signs until the rider can be transported to an emergency care facility (Medical Director or physician-in-charge to provide detailed lists of treatment capabilities); and HIPAA-compliant, detailed standards of care for riders.

Participation in the proprietary JHIS to facilitate use of jockeys' confidential health records by medical care providers in accordance with HIPAA is required. The Medical Director or physician-in-charge is responsible for establishing and enforcing standards for creating, accessing, using, sharing and updating JHIS information in accordance with HIPAA.

4) Transportation of Injured Riders

Any vehicle used to transport an injured rider or patient to an emergency care facility located on or off the racetrack grounds must at minimum accommodate the same level of care as a properly equipped, OSHA-approved emergency care facility. In consultation with track management, the track's Medical Director or physician-in-charge is responsible for designing a comprehensive transportation plan to:

Transport a rider to the nearest Trauma Level One (TLO) facility or to the track's own first aid facility for stabilization prior to moving to a TLO or comparable facility; provide direct communication between first responders and first aid staff; facilitate an ambulance following the field in each race, no more than ¼ mile behind the last horse running in the race; develop a plan for races where the ambulance is not directly following the field in each race (i.e., turf races or "off-track" races); enable the timely transportation of riders to appropriate care facilities in the event of a multi-horse accident; enable the timely transport of injured personnel to the appropriate care facilities in situations where track ambulances are prohibited from transport due to local ordinance or regulation, including detailing protocols for communications with municipal resources; field an ambulance in the event of mechanical failures or other equipment problems (i.e., a backup plan); and inform all racetrack and medical care personnel of their explicit duties/responsibilities to provide swift, appropriate care or services in the event of an emergency.

Provision for a helipad or a designated area in which a medical helicopter can safely land and take off from a racetrack is strongly encouraged.

5) Use of Trauma Level One (TLO) Facilities

Tracks are strongly encouraged to develop a working relationship with a Trauma Level One (TLO) facility. The Medical Director or physician-in-charge will provide written protocols for selecting emergency care facilities and addressing the following considerations:

Availability and proximity of TLO (first choice) or other emergency care facilities; the rider's injuries and personal preferences for emergency care; and availability of aftercare – including physical therapy, rehabilitative services and long-term care – to minimize the number of times a rider must be moved to secure the highest quality of care appropriate to his/her injuries.

Tracks are advised to establish communication with area hospitals regarding their readiness to accept injured riders in advance of a race meet (i.e., for general preparation) or a specific medical emergency.

Exhibit 6

Test Barn Chain of Custody and Procedures: Considerations and Recommendations

A Best Practices document by the Racing Medication & Testing Consortium and the National Thoroughbred Racing Association Safety & Integrity Alliance

Pre and post-race sampling protocols at the racetrack test barn are the industry's front line for ensuring fair, safe racing through medication and substance integrity. Neither the RMTC nor the NTRA Safety & Integrity Alliance advocate a "one-size-fits-all" solution but rather encourage jurisdictions to adopt procedures relevant to their regulations and in consideration of any facility-specific needs. To that end the RMTC and the Alliance provide the following as Best Practice recommendations for the efficient design and operation of test barn facilities in coordination with effective chain of custody protocols. Deviation from these recommended protocols does not necessarily indicate an operating deficiency or a compromise in the chain of custody. The goal for accredited facilities is to demonstrate comprehensive, thoughtful and consistent test barn procedures that ensure safety of all participants, chain of custody integrity, and regulatory value.

1. Identification of Horses for Sampling

It is important that the stewards or judges, racing officials, regulatory veterinarians, horsemen, and test barn personnel know — in advance of the diversion of any horse to the test barn — what subset of the racing population is eligible to be subjected to testing. Conventionally, the stewards will select the winner of a race plus one or more "stewards'/judges' specials". Additionally, claimed horses and/or injured horses may be tested.

Consideration must be given to test barn capacity, sampling personnel, and estimated retention period for a tested horse when determining how many horses can be safely presented for sampling.

A. From Unsaddling to Test Barn

It is important to know whether local regulations specify the trainer, the association, or the regulatory authority as responsible for securing the horse from the time it finishes the race to the time it is presented at the test barn.

If the regulatory authority is responsible, it is ideal to have a representative of the authority or the racing association escort horses from the racetrack to the test barn. Alternatively, horses may be kept under visual surveillance by a designated authority representative. Note that the Trainer Responsibility rule is not waived when the regulatory authority does provide an escort.

It may not be practical for the regulatory authority to assign an escort to each horse, in which case the authority's designee must be alert to, and observant of, all horses identified for sampling. At a hearing, this individual may be required to provide testimony that no substances were administered, nor was the horse in any other way 'tampered with' pending its arrival at the test barn.

B. The Winner

Testing notification may not be necessary for the winning horse; connections often assume the horse will be tested. That said, it may still be appropriate for a testing tag to be affixed to the horse's bridle to identify the horse to observing officials and security personnel from the time it exits the Winner's Circle and until it arrives at the test barn.

C. The Stewards'/Judges' Special

A stewards'/judges' special is a horse other than the winner that has been selected for post-race testing. Special selection considerations may include: beaten favorite; over-performers; runners out of high percentage shedrows; claimed horses; randomly selected runners; or horses associated with unusual wagering patterns.

It will be necessary to notify the horse's connections, usually the groom and/or the trainer, that a selected horse must report immediately to the test barn for post-race sample collection. Most commonly, a test barn official, security official, or a designee of the stewards or the clerk of the scales receives this notice from the stewards and subsequently notifies the respective horse's connections. It is helpful for exit gap attendants to also be notified in order to assist in diverting selected horses to the test barn.

A testing tag should be affixed to the bridle of any special selected for testing. These horses tend to exit the track as a group and a testing tag will clearly distinguish the horse after other identifiers (saddle towel, owner's silks) have been removed.



D. The Claimed Horse

It is difficult to accurately project test barn facility and staffing needs when sampling is mandated for all claimed horses, and so advance consideration must be given to the scope of analysis required for samples derived from claimed horses.

Ideally, the samples derived from every horse presented for post-race testing will be subjected to the laboratory's full scope of testing through the analysis of a paired sample. This may be an unrealistic goal when the test barn becomes overcrowded with multiple claimed horses. Thus, blood-only sampling may be contemplated for some or all claimed horses.

Consult the drug testing laboratory in advance to verify that analysis of blood-only sampling affords a scope of analysis that includes;

- all substances regulated by serum/plasma threshold, and
- substances having an extended post-administration detection interval (*i.e.*, anabolic steroids) which, as a consequence, could impact post-race testing results in the horse's subsequent starts.

For blood-only samples, the laboratory may require additional sample volume. Any such requirements should be conveyed to test barn personnel in advance.

E. The Injured Horse

Considering the medical needs of the injured horse it may be necessary to collect samples on the racetrack and under conditions where the trainer (or his designee) is not present as a witness. Prior to sample collection from any injured horse chain of custody must receive careful consideration and a protocol established.

It is prudent to seek advice from the authority's legal counsel with respect to:

- The individual(s) that may serve as witnesses to a collection in the absence of the trainer or his designee;
- How the sample should be managed prior to its transfer to the test barn given that the sampling veterinarian's focus may be, most appropriately, on managing the injured horse.

For the injured horse, it may be practical to divert the horse ambulance to the test barn before returning the horse to its barn. Blood sampling can be performed on the ambulance, and the sample immediately taken to the sample processing area of the test barn. Urine collection under these conditions may be unrealistic.

Note: Immediately post-exercise the relative fluid volume of the horse's blood is reduced. Comparatively less serum or plasma can be obtained from a tube of blood collected immediately post-exercise when compared to that obtained from standard post-race testing. For this reason, when horses are sampled immediately post exercise, additional tubes of blood should be collected to ensure an adequate volume of serum or plasma for analysis. If these samples are to be used for enforcement purposes it is important to acquire sufficient volume for both a primary and split sample.

If sampling is performed after emergency medications are administered, it is important to notify the testing laboratory of administered drugs so that analytical results can be reconciled with the administered emergency medications. The administration of typical emergency medications will not interfere with modern testing methodologies for other substances.

F. The Deceased Horse

Provisions must be made to secure the body from the time of death until its transfer to the veterinary diagnostic laboratory for necropsy.

It is recommended the logistics of regulatory sample collection at necropsy be discussed, in advance, by the regulatory authority (including legal counsel) and personnel from the drug testing and veterinary diagnostic laboratories.

As above with the non-fatally injured horse, it is recommended to collect additional tubes of blood.

Urine samples may be collected at necropsy. It is not uncommon for urine to drain as the deceased horse is loaded into the ambulance. It may be helpful to stock single-use urinary catheters on the ambulance, or supplies to facilitate free-catch collection before, or during, loading. Even if chain of custody requirement cannot be satisfied, urinalysis may provide useful intelligence for the mortality review process.

G. Veterinary Emergencies

The regulatory authority has an obligation to monitor the health of those horses and to promptly respond to emergent medical conditions. Horses within the test barn should be observed by regulatory veterinarians for signs of injury, epistaxis, unsoundness, or distress. Some conditions, such as minor lacerations, and run-down sores may be addressed on site and with the horse still detained for completion of sampling.

Other conditions, such as onset of lameness, may require blood-only sampling and release of the horse to the care of the trainer and private attending veterinarian. Horses so released should be placed on the Veterinarians' List and designated ineligible to enter until released by a racing regulatory veterinarian.

In the absence of a diagnosis, it may be appropriate to transport a lame horse back to its home barn via equine ambulance to reduce risk of further injury.

Some conditions, such as 'heat stroke' or 'heat exhaustion', require immediate veterinary intervention and can preempt sampling. Protocols must be in place to rapidly address these conditions. This can be achieved by summoning a private practicing veterinarian to initiate treatment. Alternatively, the regulatory authority's veterinarian can maintain a limited inventory of emergency medications for use in treating affected horses.

Note: In most cases, the treated horse can be sampled after the administration of emergency medications. The laboratory must be notified of the medication(s) administered so that the detection of those substances will not initiate confirmatory analysis and the issuance of a Report of Finding.

The stewards/judges should be notified whenever the sampling of a horse is abbreviated (blood-only or excused entirely from sampling) at the discretion of the official veterinarian.

2. Which Samples to Collect

Budgets constraints may encourage cost-saving measures in the test barn. Often the suggested solution is to collect blood-only samples. This practice is not advisable. Collecting blood-only samples risks inadequate or incomplete testing, as follows:

- Laboratory screening methodology for some substances is limited to urine – if urine is not submitted, those substances will go undetected;
- Some substances are quickly eliminated from the blood and can only be effectively regulated through analysis of urine; and

- Regulatory thresholds for some therapeutic medications require detection in urine or in both urine and blood – dual thresholds ensure that the medication was not administered at a therapeutic dose in proximity to racing and that a sub-therapeutic dose was not administered on race day.

A paired (blood and urine) sample is necessary for the laboratory to apply its full scope of analysis and provide the regulatory authority with comprehensive analytical support to its medication regulations.

There is diminished value in blood-only sampling of numerous horses. The better option would be to acquire paired samples on all horses but test a fewer number. This would ensure that tested horses are competing within the regulations.

3. Within the Test Barn Enclosure

A. Chain of Custody

Chain of custody are the procedures to account for the integrity of each sample by tracking its handling and storage from the time of collection to the final disposition of the specimen. At base, the chain of custody demands that a piece of evidence must be secured without any chance of tampering, loss, or contamination, if it is to be admissible in court. Currently, and in response to increased laboratory proficiencies, defense attorney arguments are more likely to challenge chain of custody rather than the analytical process itself. Maintenance, and documentation, of chain of custody cannot be overemphasized.

B. General Considerations

The test barn enclosure is a restricted area. Access should be limited to current license-holders and on an as-needed-only basis. Usually a groom, and perhaps a second individual, will attend to the horse through cooling out and sample collection. The trainer of the horse may also attend, but more often the groom will be that trainer's designee.

The facility should be secured at all times, and locked when not in use by regulatory personnel.

To accommodate off-hour/off-season access by emergency responders it may be advisable to install double intertwined locks on external fences or doors. A key to either the regulatory authority's lock or the racing association's lock can then afford access the facility.



Official samples retained within the enclosure should be maintained in locked refrigerators or freezers and be accessible only to the regulatory authority.

The regulatory authority is responsible for oversight of all activities within the enclosure.

It is recommended that bathing supplies (*i.e.*, shampoo, sponges, buckets, sweat scrapers) be provided in the test barn. This practice eliminates the introduction of materials into the enclosure that may contain regulated or banned substances with the ability to impact the results of drug testing. When infectious disease (*i.e.*, Influenza, Herpesvirus, or Strangles) is diagnosed or suspected on the premises, it may be appropriate to permit a trainer to provide his own bathing supplies. These materials should be inspected before being allowed into the test barn enclosure. Unlabeled products should not be permitted.

It is also recommended that materials brought into the test barn by the horse's attendants be inspected. Halters, lead shanks, bandage cutters, scissors, and stable sheets or coolers all have legitimate use and may be permitted within the enclosure.

Medicated shampoos, ointments, skin braces, other topical products, or orally administered products should not be permitted within the enclosure.

Food products, beverages, smoking and use of nicotine products should be strictly prohibited within the enclosure and these prohibitions should be clearly indicated by bilingual signage prominently displayed at the enclosure entrance.

That said, it may be necessary to establish a break area within the restricted area for test barn employees where food and beverages can be stored and consumed. In that case, the break area should be separate and distinct from the areas where horses are handled, sampling supplies are stored, and samples are processed/stored.

C. Arrival/Departure Procedures

1. Upon arrival at the test barn, each horse's identity must be verified by 1) inspection of its lip tattoo or freeze-brand, 2) microchip scan, or 3) physical description on its registration papers.

Each horse's respective attendant should flip the horse's lip to display its tattoo to the test barn staff. To avoid the potential for physical transfer of pathogens to the hands or clothing of test barn personnel or other horses, test barn staff should avoid contact with a horse's mouth and nostrils.

If test barn personnel are required to contact the horse's nose or mouth, single use disposable exam gloves should be worn and changed before contact with another horse. If unexpected contact occurs, the individual should promptly wash his/her hands with soap--before contact with sampling materials or another horse.

2. Station a security officer at the single access point of the enclosure. This officer will inspect and record racing licenses or track-issued credentials for all individuals accessing the enclosure. Individuals lacking current credentials and official business within the test barn should be denied access.

The security officer records on a daily log the time each horse enters the enclosure, and the names and pertinent licensing information of those attending with the horse.

If, for a given horse, no attendant has the necessary credentials, test barn personnel should detain and visually monitor the horse within the vicinity of the test barn and contact the stewards/judges for guidance. If this is not practical, it may be necessary to allow the horse and unlicensed attendant into the enclosure. However, it is not advisable to allow an unlicensed individual to serve as an official witness to a collection. Prompt communication with the stewards/judges is key to ensuring that sample collection is adequately documented when these events occur.

3. When sampling is completed test barn personnel will authorize the horse's departure.

Test barn personnel may attach a "release tag" to the horse's halter when sampling is completed. The security officer is then instructed to permit only tagged horses to exit. As the horse exits, the security officer retrieves the tag for disinfecting and reuse. This procedure will prevent horses from exiting the test barn before all sampling is completed.

The security officer will record the time of departure in the daily log. This establishes a record of when, and how long, the horse was in the test barn and what other horses and personnel were present during that interval.

4. Once a horse exits the secure enclosure, unless accompanied by a test barn employee, it cannot return. The chain of custody has now been interrupted and cannot be restored.
5. After the last sampled horse has left the test barn, the security officer submits the daily log to the test barn administrator. The log will be retained as evidence for the event of a Report of Finding.

State records retention requirements should be consulted for guidance on disposal of records associated with cleared or negative samples.

D. Sample ID card

Under no circumstances, at any time during the analytical process, should the laboratory know, or be able to determine, the identity of the horse or trainer associated with a specific sample. The "blinding" of samples is a fundamental aspect of testing integrity.

Upon notification from the stewards/judges of the horses to be sampled from a given race, the test barn administrator completes a Sample ID for each horse. The Sample ID card is the official document that establishes a link between a horse and a sample number.

It is critical that the card be completed correctly and legibly. Errors in recording gender or medication status (*e.g.*, Salix) can result in testing delays; the issuance of erroneous Reports of Finding; or the inability to pursue a medication violation and may delay distribution of purses. The Sample ID card also is a record of who collected samples from the horse, and who witnessed the sampling on behalf of the trainer.

Date: AUG 24 2012 17 0017002
 Track: EP
☒ Salfix ☐ Adjunct
 HORSE: Le Chevalier
 TATTOO NUMBER: M03458
 COLOR: Gr/lo SEX: G AGE: 3
 RACE: 9 FINISH: 1st
 TRAINER: T. Proctor
 SAMPLED BY: [Signature]
 SAMPLED BY: [Signature] BLOOD
 WITNESS NAME: [Signature]
 WITNESS LICENSE: 38894
 COMMENTS:

At the conclusion of each race day's sampling activities, a designated test barn employee should review and verify the contents of the Sample ID cards by reconciling each with the horses' information in the official racing program. For example, accurate gender reporting is necessary for the laboratory to support the authority's anabolic steroid regulations.

The Sample ID cards are then sealed in an envelope and retained in the test barn or transferred to the designated officials. The information on the cards remains confidential from the time sampling is completed until the issuance of a report by the official laboratory, thus insuring that:

- testing is conducted impartially;
- samples associated with individual horses or trainers cannot be singled out for enhanced or reduced testing, and;
- no one—either at the racetrack or the laboratory—is able to make a connection between a sample and a specific horse until all testing has been completed.

E. Test Barn Day Log

It is important that a record exists documenting any and every individual involved in collection, processing, and shipping of each specific sample. The Sample ID card and the Day log in combination should constitute a record of everyone contacting a given sample within the test barn. This is a key component of chain of custody, and the effort required to establish this record is well justified at an administrative hearing.

Recording information on this form (example below) establishes a composite record of all test barn activities for each race date.

Official Test Barn Report

Test Barn Supervisor: M.C. SCOLLAY, DVM (PRINT)
 Date: JULY 21, 2014 Test Barn Supervisor: [Signature] (SIGNATURE)
6 TH DAY OF RACING AT BAL

SAMPLE NUMBER	RACE	FINISH	BUCKET NUMBER	HORSE	GENDER	TRAINER	Salix Admin	Blood	UA
0077767	1	1	1	FRYCH N. TRISH	G	M. BEAVIS	✓	✓	✓
0077768	1	3	2	BECKY'S SUPER PET (Claimed P. MARQUIS)	G	R. VOLKNER	✓	✓	✓
0077769	2	1	3	ZEN TAN TARE	H	M. VADEZ	0	✓	✓
0077770	2	6	4	LEGS GALORE	H	R. COMBEST	✓	✓	0
0077771	3	1	5	HAI'S IMAGE	G	R. ROSS	✓	✓	✓
0077772	3	2	6	ARIPEKA SUGAR	G	M. MACHARG	✓	✓	✓
0077773	4	1	7	TATER PATCH	F	J. WILBY	0	✓	✓
0077774	4	2	8	ROSS'S KING VANTY	F	K. CRUMPLER	✓	✓	✓
0077775	5	1	9	SAM AND IEN'S TYRE	R	R. IRWIN	✓	✓	✓
0077776	5	4	10	SHICKERS MOOSE	G	J. WARD	✓	✓	✓

COMMENTS: 7770 - HIGHEST STROKE IN TEST BARN.
Txd w/ DETOMIDINE, EXCUSED BLOOD - ONLY.

INJURED HORSE(S): 0 WORK HORSE(S): 2

This horse raced without Salix. Laboratory must be notified in order to respond to presence or absence of furosemide in this horse's post-race sample.

Instruction to sample horse from the right jugular based on Salix administering veterinarian's notice of treating left jugular.

A urine sample was not collected from this horse. An explanation is provided in the Comments line. Lab must be notified that horse was treated with detomidine before blood

4. Sample Collection

A. General Considerations

- The regulatory authority should request from its official laboratory documentation of its requirements for sample collection, processing, and storage prior to collection of samples. The information requested could include:
 - What volume of urine/blood is necessary for proper testing;
 - Whether the samples require centrifugation. If so consider items such as:
 - what is the minimum and maximum interval after collection for starting the centrifuge;
 - the speed and duration of centrifugation;
 - How should samples be stored in the test barn (e.g., refrigerator versus freezer, etc.);
 - How should samples be packed for shipment to the laboratory?
- The regulatory authority's duty to protect the integrity of collected samples begins well before any horse is presented at the test barn. The inventory of yet-to-be-used sample collection materials should be stored in a secure location accessible only to test barn personnel. These materials must be protected from willful tampering as well as incidental exposure to regulated substances.
- The importance of a paired (blood and urine) sample cannot be overstated. The scope of analysis that can be applied to a paired sample is far greater than what can be applied to

blood or urine alone. As noted above, in the face of constrained operating budgets, the regulatory authority is better served by testing fewer, paired samples.

4. The timing of sample collection can affect testing results, particularly with respect to threshold substances having short half-lives (*e.g.*, flunixin [Banamine®]).

With a half-life of less than 90 minutes (a 50% decrease in blood concentration every 90 minutes), the concentration of flunixin in a sample collected 15 minutes post-arrival will be substantially higher than the concentration detected in a sample collected from the same horse 45-60 minutes post-arrival.

In order to establish fair enforcement practices, it is advisable to schedule blood collections at a consistent amount of time post-race for all horses (*e.g.*, 30 minutes after the horse's arrival at the test barn) and independent of urine collection, which is less time-sensitive.

5. Inappropriate timing of blood sample collection can also impede the laboratory's analytical capabilities due to inadequate sample volume.

During exercise, within the horse's blood, the ratio of cellular material to fluid increases dramatically. A blood sample collected immediately post-exercise may yield only 2-3mls of serum. If sampled 30 minutes post exercise, the serum yield may be 5-6 mL as a normal fluid balance has been re-established within the body.

It is for this reason that additional blood tubes must be collected when sampling is performed immediately post-exercise (*e.g.*, when sampling the injured horse on track).

It has been observed that in some test barns it is protocol that horses in the last race undergo blood collection immediately upon arrival at the test barn, enabling the phlebotomist to depart shortly thereafter. If all other horses from every race are not consistently sampled immediately upon arrival (which is not advisable), this practice establishes regulatory prejudice against participants in the last race.

6. When third-party race day furosemide (Salix®) is implemented it is both possible and advisable to define separate administration and sampling sites.

A standard policy of furosemide administration, for example through the left-side jugular vein and sampling from the right-side vein, eliminates the risk of confounding testing results—which can be the consequence of inserting a collection needle through a subcutaneous deposit of furosemide left at the time of administration.

If a trainer requests administration to the right side, the treating veterinarian can notify the test barn of the deviation, and post-race sampling (if required) can be performed on the left side.

7. Sample collection may be expedited, and made safer, by maintaining a readily-consulted log of individual horses having sampling idiosyncrasies (*e.g.*, “right jugular not patent, always sample left side”, “kicks”, “strikes”, “bites”, etc.).

B. Blood Collection

1. Blood should be collected directly into sealed vacuum tubes.
 - a. Alcohol swabs may be used to assist visualization of the jugular vein and to remove debris from the collection site. This practice can be particularly helpful in the winter months when sampling horses with long hair coats. However, the application of an alcohol swab may make the apprehensive horse more so, and thus its use is at the discretion of the phlebotomist.
 - b. The use of a needle and syringe with subsequent manual transfer to tubes is discouraged as it represents an opportunity for loss of sample integrity.
 - c. For horses identified as having allergies to silicone, it may be necessary to collect blood using a needle and syringe if silicone-free blood collection needles are not readily available.
 - d. When a syringe is required for blood collection, the phlebotomist should wear single-use exam gloves until the blood has been transferred to the collection tube and a tamper-evident seal is in place over the rubber stopper.
2. The trainer's representative must be afforded the opportunity to inspect the bar coded number labels applied to the blood collection tubes and verify that each is consistent with the unique number on the horse's Sample ID card.
3. While in the presence of the trainer's representative, the phlebotomist will cover each tube's rubber stopper with tamper-evident tape.

The tape should not be dislodged or manipulated for any reason until the samples arrive at the laboratory. Damage to, or disruption of, the tamper-evident seal should disqualify the sample from further analysis as chain-of-custody cannot be defended.

4. Blood samples should never be opened at the test barn. The efficiency in centrifugation of serum separator or plasma separator tubes to separate the fluid component from the cellular component of the blood eliminates any justification for this.
5. The volume of blood required by the official laboratory should be established before any sampling is performed. Likewise, the laboratory should indicate the appropriate volume to be collected for the 'split' or 'B' sample.
6. The split sample is a separate and distinct sample, collected at the same time as the 'primary' or 'A' sample and retained for the sole purpose of analysis at an approved referee laboratory upon incidence of a Report of Finding.

The 'split' sample is not the portion of the 'primary' sample that remains after the official laboratory has completed its analysis.

The absence of a split sample for analysis by a referee laboratory can be grounds for dismissal of a medication violation.

7. Regardless of necessary sample volume dictated by the laboratory, a minimum of two tubes should be submitted per each test subject.

8. The type of tube used—glass/plastic; serum separator/plasma separator/heparinized/EDTA—depends on the matrix to be analyzed (serum or plasma), and the regulatory authority's intentions with respect to long-term sample retention.

Glass tubes are not suitable for freezing. If samples are intended for long term, frozen storage and glass tubes are used for collection, the serum/plasma must be decanted into plastic storage vials. This practice establishes vulnerability in the chain of custody, and, if done in a test barn, is only recommended if subsequent analysis is intended to be for investigative or research purposes, only. However, if the regulatory authority intends to be able to pursue a finding detected in the analysis of a retained frozen sample, the trainer's representative must be afforded that opportunity to observe the decanting, labeling, and sealing process.

9. The selection of the proper collection tube type and volume is made in the regulatory authority's consultation with the official laboratory and in consideration of local regulations or statutes governing drug-testing procedures.

C. Urine Collection

1. Urine collection is achieved via free-catch as the horse voids. Unlike blood collection, it does not utilize a closed, or sealed system and additional care must be exercised to ensure the integrity of the resultant sample.

It is advisable that sterile urine collection cups be provided to the regulatory authority with snap-on lids in place and anchored with adhesive seals or provided in sealed, individual packaging to demonstrate that the interior of the cup has not been exposed to human contact or environmental detritus, or compromised in any other way.

If the lid is missing or has been dislodged, or the individual packaging damaged, the collection cup must not be used.

2. The urine collector should don a pair of disposable exam gloves before inserting the lidded cup into the collection stick, a long handled device with a receptacle for the urine collection cup at one end. The gloves will be worn until the sample has been poured off into two containers ('A' and 'B' samples) and the two containers sealed.

The lid remains on the cup until the horse is brought into the stall for urine collection. If the lid is to be replaced on the cup after sampling (*see*, Section C-6, *infra*) the regulatory authority should ensure that it is stored in a manner as to limit the exposure to potential contaminants.

If, at any time after the lid has been removed, and/or the urine collector's gloved hand, or anything other than the collected sample contacts the inside of the urine cup, the cup and its contents must be discarded and replaced with a new cup.

3. Urine collectors should not cover the open container with the palm of their hand as can occur in the event a horse is fractious and jostles the collector or the collection apparatus. The glove is not sterile, and it should not even be considered 'clean' as it was used to open

the stall door, contact the horse, and may bear dirt, dust, horse hair or sweat – that could be transferred to the sample.



4. The typical collection cup can receive an amount far in excess of the sample volume required for analysis. The jurisdiction's laboratory should be consulted to determine what constitutes an adequate sample volume for testing. While the sample cup need not be filled in order to declare urine collection a 'success,' it is important to remember that both the 'A' and 'B' samples must originate from the same collection.
5. Until employees have a clear understanding of the acceptable minimum sample volume, it may be helpful to mark the outside of the urine cup with a 'fill to' line. It is preferable that the sample be acquired from a single void. However, if the horse produces a small amount of urine, less than the required minimum, that sample cup should be covered and sealed pending the subsequent collection into another cup of a sufficient volume to meet the laboratory's requirement. The combining of these specimens should be witnessed by the trainer or his/her representative.
6. After a sufficient amount of urine has been caught in the collection cup, the collector may place the properly stored lid back on the cup and will then deliver the sample to the processing area.
7. The trainer's representative may remain in the stall during urine collection or observe from the outside through a porthole in the stall door.
8. The regulatory authority determines how long horses will remain in the test barn for the purpose of urine collection. This period generally ranges from 60 minutes to 2 hours. However, the regulatory authority can, at its discretion, increase the retention period for an individual horse. If at the end of the retention period, a horse fails to provide an adequate urine sample, that horse's postrace sample is designated a 'blood only' sample.
9. The urine collection stick should be thoroughly rinsed between uses.

D. Collection of Other Matrices (*i.e.*, hair)

In general, if the sample collection is achieved through a non-closed system (*i.e.*, pulling mane hairs, swabbing saliva), gloves should be worn by the collector throughout the process. If not, substances on the collector's hands or secreted through the pores can be transferred to the matrix and confound, or invalidate, testing results.

5. Sample Processing

A. General Considerations

The sample processing area should be further access-restricted to regulatory authority personnel actively engaged in processing samples and the trainers' representatives witnessing their samples' processing.

Trainers' representatives should have clear visibility on the processing of their horses' samples, but should not have physical contact with the samples. All samples should be sealed with tamper-evident tape and have applied a unique identifier (*e.g.*, bar-code or sample number).

The trainer's representative, after witnessing the sealing of samples, should sign the sample card. In addition, the representative's license number should be recorded in the event that they need to be identified at a later date.

B. Blood

1. If the blood matrix to be analyzed is serum, the whole blood must clot before the serum can be separated from the cellular material.

The sealed blood tubes should be allowed to sit upright at room temperature for 30-45 minutes and then centrifuged.

Following centrifugation each tube should be inspected to ascertain if complete separation of serum from the red blood cells has been achieved. If necessary, centrifugation should be repeated one time.

Following centrifugation, the blood tubes should be refrigerated pending packing and shipping to the laboratory. Once centrifuged, it is no longer necessary for the tubes to be stored in an upright position.

2. If the blood matrix to be analyzed is plasma, anticoagulants are present in the collection tube and the blood should therefore not clot. If the blood clots, or forms clumps, the collection should be considered failed and the horse re-sampled.

Some plasma collection tubes contain a separator gel that will establish a barrier between the plasma and the cellular material after centrifugation; others do not. The official laboratory should provide clear instructions for the processing of plasma samples within the test barn.

C. Urine

1. After a sufficient amount of urine has been caught in the collection cup, it is promptly transferred to the sample processing area.
2. Two urine sample containers are placed on an absorbent towel or pad, and the urine is poured directly from the collection cup into the sample containers.

It is critical that the urine be poured into the sample cups. The introduction of syringes or other devices into a sample risks the transfer of urine from one horse's sample to another horse's.

Once the caps are firmly affixed, the exterior of each sample cup should be wiped dry with a disposable towel.

3. The urine collector is then able to remove and dispose of the exam gloves.
4. Tamper evident seals should be applied over the urine containers, the corresponding Sample ID bar code sticker applied, and unless otherwise instructed by the laboratory, the samples should be placed in a secured, locking freezer pending shipment to the laboratory.

D. Other Matrices (*i.e.*, hair)

For other matrices, sample collection processes should be clearly established, in consultation with the official testing laboratory, and prior to any attempts at sample collection.

1. For hair sample collection, gloves should be worn, and changed between horses. The gloves help prevent substances on the collector's skin or secreted through the pores from adhering to the sample and thereby confounding or invalidating test results.
2. Pulling combs or scissors should be washed, rinsed, disinfected, and dried after each use. When not in use, these tools should be secured in a clean, dry location.

6. Sample Management

A. General Considerations

At the conclusion of the day's sample collections one individual should be tasked with:

1. Verifying the information recorded on the Sample ID cards and the documents to be transferred to the laboratory,
2. Affirming that all Sample ID cards have been signed by the phlebotomist, urine collector, and the trainer's representative,
3. Ensuring that the individual samples collected from the day are accurately reflected on any documents submitted to the laboratory for that day (*e.g.*, sample inventory forms) and that all such samples are included in any other chain of custody documents, and
4. Affirming that for every primary sample there is a corresponding split sample.

B. Primary Samples

The official laboratory will provide instructions for packing the primary samples for transport.

If samples are shipped via commercial carrier (*e.g.*, FedEx or UPS) it is recommended that the regulatory authority enable automatic delivery/delay notifications for each shipment's tracking number.

C. Split Samples

1. The split sample is, as noted above, a separate and distinct sample, collected at the time of the 'primary' or 'A' sample and retained for the sole purpose of analysis at an approved referee laboratory upon incidence of a Report of Finding.
 - a. It is not the portion of the 'primary' sample remaining after the official laboratory completes its analysis.
 - b. The absence of a split sample for analysis by a referee laboratory may be grounds for dismissal of a medication violation finding.
2. "RMTC Guidelines for Split Sample Analysis" can be found at:
<http://rmtcnet.com/wp-content/uploads/2016/03/Split-Sample-Guidelines.pdf>
This document explains the obligations and expectations of both the regulatory authority and the referee laboratory that performs split sample analysis.
3. The RMTC's "Guide to the Split Sample Analysis Solicitation Form" can be found at:
<http://rmtcnet.com/wp-content/uploads/2016/03/Guide-to-Split-Sample-Analysis-Solicitation-Form.pdf>
This document explains each section of the Request for Split Sample Analysis form, and clarifies the importance of the information provided to potential laboratories. The goal of the solicitation is to ensure that laboratories capable of performing the requested analysis respond to the request. Providing incomplete, or inaccurate, information to candidate laboratories can jeopardize the regulatory authority's ability to prosecute a rule violation.
4. The interactive PDF form "Request for Split Sample Analysis" referenced in the Solicitation Guide above can be downloaded at:
<http://rmtcnet.com/wp-content/uploads/2016/03/Request-for-Split-Sample-Analysis-Form-4.pdf>
5. It is recommended that Split Samples be retained by the regulatory authority rather than transferring them automatically to the official laboratory.

Retention can be on-site in the test barn if sufficient, secured storage capacity exists. Alternatively, an off-site location may be utilized. If an off-site storage location is utilized the transfer must be documented to maintain chain of custody.

Whatever facility is used, the regulatory authority must ensure that the samples are secure, storage conditions are consistent, there is an alert or notification system in the event of a power outage, and that samples are accessible to authorized personnel should a split sample analysis be required.

6. Split samples should be retained, at a minimum, until the regulatory authority receives final testing clearance from the official laboratory.

It is not advisable to pre-determine an 'automatic' disposal date. Should the laboratory request a deadline extension for completion of its work, split samples will need to be retained until the laboratory issues its report.

Retained split samples corresponding to passed/cleared samples may have investigative or research value which warrants a longer retention period.

7. Split samples (urine and blood) corresponding to a primary sample for which a Report of Finding has been issued should be retained indefinitely, pending disposal authorization by

the regulatory authority's legal counsel. While a finding may be reported in a specific matrix (*i.e.*, serum), administrative hearing officers often accede to trainers' requests for analysis of the corresponding urine sample.

8. The process for split sample retrieval and shipment to an approved reference laboratory may be specified in the regulatory authority's regulations. If it is not, a split sample protocol should be established and applied consistently in all cases. The important aspects of the split sample process are:
 - a. Verifying the security of the split sample from the time of collection and entry into storage until it is retrieved for analysis.
A log should be maintained that records all activity associated with the split sample storage unit: when, by whom, and for what reason has the storage unit been accessed.
 - b. Verifying that the sample ID number is consistent with the sample ID associated with the laboratory's report of finding.
 - c. Inspecting the sample container to verify that the tamper-evident seal is intact.
 - d. Ensuring that correct information accompanies the split sample to the reference laboratory.
 - e. Packing, shipping, and tracking the split sample for arrival at the referee laboratory in the best possible condition.
 - i. Determine if the split sample laboratory is capable of receiving shipments on the weekend. If not, it is advisable not to ship after Wednesday of any given week to provide reasonable assurance that the sample will be received no later than Friday.
 - ii. A frozen sample thawed, or a chilled sample at room temperature, may undergo degradation that can impact the results of the analysis.
 - iii. Monitor the shipment for in-transit delay or failed delivery.

7. TCO₂ Testing

Many jurisdictions perform total carbon dioxide (TCO₂) testing on all participants in one or more races as a part of race-day sampling. It is important to note that these samples have different considerations than post-race testing with regard to sample timing and split samples. Sample processing will be similar to that of post-race test processing.

A. Sample Collection Timing

1. Pre-race blood sampling for TCO₂ is preferred. Pre-race sampling should be collected 45 minutes (+/- 15min) pre-race and approximately three hours after furosemide (Lasix, Salix) administration.
 - a. Furosemide produces an elevation in TCO₂ averaging approximately 1.7mmol/l for a standard 250mg IV dose administered four (4) hours prerace. The furosemide effect has been considered in the standard 37mmol/l regulatory TCO₂ threshold. Because of this, timing of the TCO₂ sample is crucial to ensure an accurate reading.
 - b. Sampled runners should remain in a secure detention area until race time.
2. Post-race sampling of horses for TCO₂ testing should be discouraged. But, if necessary:
 - a. The selected horses must remain in the test barn for a minimum of one and one-half (1.5) hours prior to sampling to permit TCO₂ to approach actual values.

- b. The subject horse must be reasonably well cooled off prior to sampling. Post-exercise hyperventilation can cause artificially low TCO₂ findings.

B. Sample Processing

Samples must be handled in a consistent manner and must not be frozen.

Blood samples must be processed and tested using standardized, reproducible, validated procedures designed to preserve chain of custody and process consistency.

In general, the sooner samples intended for TCO₂ testing are analyzed post collection, the better, in order to minimize sample degradation that results in decreased TCO₂ values. This typically requires that any split sample travel immediately to the reference testing laboratory. Later verification by an independent reference laboratory — as would be done for a finding in a post-race sample for a controlled therapeutic medication or banned substance -- is not feasible.

8. Out of Competition Sampling

Out of Competition samples represent another aspect of test barn protocol. Most often, these are blood-only samples but can include hair samples and other biologic matrices. The handling of samples largely depends upon where the sample is collected and for whom.

For any sample collected, it is important that the following guidelines are adhered to:

- a. The individual collecting the sample should be a veterinarian licensed in the jurisdiction in which the collection occurs, or a veterinary technician as permitted by state law; and carry appropriate credentials to display to the trainer.
- b. The individual collecting the sample should inform the trainer or assistant trainer of the purpose of their visit – to collect out of competition samples. In the trainer's absence, available barn personnel should be notified and instructed to inform the trainer, assistant trainer, or barn foreman;
- c. The individual collecting the samples should identify the horse via microchip, tattoo number, freeze-brand or markings;
- d. The individual collecting the sample should ensure that they have an appropriate location to safely sample the horse;
- e. Adequate sample should be collected to allow for a split sample (*i.e.*, 3 blood tubes);
- f. The trainer's representative should witness the labeling of sample collection materials, the collection of the sample, and the sealing of the sample; and
- g. The trainer's representative should sign the collection card provided to acknowledge they witnessed the collection and sealing of the sample.

A. On Association Grounds

If a sample is collected by the regulatory authority having jurisdiction over the association grounds' location, the sample – once collected and sealed – should be promptly returned to the test barn. Thereafter the sample should be managed consistent with test barn handling of post-race samples.

If the sample is collected on association grounds but requires transport to another location for sample processing, the sample should remain on ice packs/dry ice in a cooler or refrigerated

until it can be processed. Chain of custody maintenance is particularly important when sample collection is performed at a location remote from the sample processing and shipping site.

The split sample should be retained pending the Commission's authorization for disposal.

B. In-state, Off-site

If a sample is collected within the testing authority's jurisdiction, but not on association grounds, the sample, once collected and sealed, should be brought to a location where the sample can be managed as a post-race sample. Pending transfer and processing, samples should be kept on ice packs/dry ice in a cooler or refrigerated, and in the custody and control of the individual performing the sampling.

The primary sample can be sent to the laboratory and the split sample retained in a secured manner with post-race samples.

C. Out of State

Where a jurisdiction (the Requesting Jurisdiction) asks another (the Sampling Jurisdiction) to obtain an out of competition sample, the Requesting Jurisdiction should include the following information with the request:

- a. Instructions regarding the Requesting Jurisdiction's procedures for sample collection and processing;
- b. Horse information (name, tattoo/microchip number/description, likely location of horse – *e.g.*, last work location);
- c. Contact information for someone at the Requesting Jurisdiction (including weekends/evenings);
- d. A copy of the relevant Out of Competition sampling rule and/or a letter from the Requesting Jurisdiction indicating its authority and potential penalties for refusal;
- e. Sampling materials (*e.g.*, blood tubes, needles, needle holders, urine specimen cups);
- f. Sample identification card, and associated documentation;
- g. identification labels for individual blood tubes/urine containers;
- h. Sufficient evidence tape/materials to seal samples;
- i. Cold packs for shipment;
- j. Packing material for shipment; and
- k. Pre-made/pre-paid courier labels for shipping.

The Sampling Jurisdiction should then follow the above instructions based upon whether the horse is located on Association Grounds in the Sampling Jurisdiction (section 8.A.), or elsewhere in the Sampling Jurisdiction (section 8.B.).

If the horse cannot be located within the respective jurisdiction, the Sampling Jurisdiction should inform the Requesting Jurisdiction as soon as practical.

9. Facilities

A. Design, Layout

1. Secured Perimeter, single access point:

The test barn should have a secure perimeter with a chain link or solid fence fully surrounding the enclosure (see picture below). This prevents individuals from leaving or entering the test barn without approval of the regulatory authority. This also prevents the general public from interacting with the horses.

The entrance should be staffed at all times that there are horses in the test barn by either a regulatory authority or association employee.



2. Signage:

Install signage (*i.e.*, English and Spanish) at the entrance to the test barn indicating that:

- The test barn is a secured, monitored area;
- Only licensed personnel are allowed to enter;
- There are limitations on the number of individuals that can accompany a horse in the test barn; and
- Food, drink, and nicotine products are prohibited.



3. Stalls should:

- Be of sufficient size for horse to turn around comfortably,
- Be constructed of easily disinfected materials such as fiberglass or sealed wood. Unsealed wood can harbor bacteria and pathogens and is difficult to effectively clean.
- Include a tie ring at the corner or center of interior wall,
- Have dutch doors with latches that allow release from the inside and outside, and include an observation portal (see photo).



- e. Consider a corner wall panel for test barn personnel to stand behind or as an escape avenue from especially fractious horses (see photo).



9. Lighting:

The test barn should have adequate lighting in the stalls for safe collection of urine and venipuncture. Stall lighting should be installed sufficiently high or caged to protect the horse from injury.

10. Ventilation:

The stalls should have adequate air flow in all seasons including access to windows, regardless of season, and fans for warmer months.

11. Bathing Area:

Wash stalls should be available for the trainers' use. They should be located in an area that is line-of-sight visible to test barn personnel and located within the fenced enclosure.

The ideal bathing stall is a 3-wall standing stall with a concrete floor, rubber mats, and drainage (see photo). Test barn staff should rinse bathing stalls and remove debris between horses for cleanliness.

Bathing equipment (e.g., sponges, scrapers, and buckets) may be provided but should be kept clean and disinfected.



12. Equipment:

Water buckets should be provided by the regulatory authority. Each horse should be assigned its own bucket for the period of time it remains in the test barn. Buckets may be re-used through the race day but should be thoroughly washed and disinfected between uses.

Note: After the prescribed contact time for the disinfectant (see subsection *D.4. General* for recommended disinfectants), generously rinse buckets with fresh, potable water before filling them for horse use.

Trainer supplied equipment, if allowed, should not be shared between horses.

13. Break Room:

The employee break room should be isolated and located away from the location of sampling and sample storage. Signs should be posted reminding employees that all food and beverages must be consumed in those areas and may not be brought into areas of sampling collection, handling, or storage.

B. Surveillance

1. Lines of Sight:

It is important to be able to observe horses in the test barn enclosure at all times. Ideally, the test barn has an open design that allows viewing of horses at all times when they are not in a stall (see photo). If that is not possible, based on the test barn layout, observers can be staged to maintain visibility on horses walking or being bathed.



2. Security Cameras:

Security cameras are recommended throughout the test barn facilities. Key points for camera locations include stalls, shed rows, entry, laboratory, sample processing, and storage areas.

Beyond direct monitoring of horses during their time in the test barn, recording of these areas will enable the racing authority to submit tapes into evidence when test barn practices/specific instances are challenged. Recordings should be maintained until respective tests are cleared by the official testing laboratory.

Each regulatory authority should consult its attorney regarding the limitations/disclosures required for video and/or audio recordings.

C. Signage

Adequate signage should be installed at the test barn entrance to inform licensees of test barn regulations. Bilingual signage should be used if available.



D. Sanitation

1. When the facility is in use, manure deposited in walking areas and wash racks should be removed as promptly as is reasonably possible.

2. Bedding:

Maintain adequate bedding in each stall. The decision to use sawdust, straw, or shavings should be made in consideration of bedding conventionally used by horsemen at that location. If multiple bedding types are in use, it is advisable to have one or more stalls bedded with each type to afford horses reasonably familiar environments in which to sufficiently relax to produce a urine sample. For shavings, however, use only bagged pine shavings to avoid potential contaminants originating from other trees. To decrease the amount of dust, it is advisable to lightly dampen shavings prior to the start of races and as necessary through the day.

Between horses, wet or soiled bedding should be removed.

Stalls should be completely stripped at the end of the race day and any wet spots in/on the flooring should be addressed. The stalls should remain empty overnight to allow any remaining wet areas to dry. All used bedding should be completely removed from the test barn enclosure.

3. Hazardous waste removal:

Install adequate facilities for hazardous waste removal including a sharps bucket and provisions for disposing of biological samples in accordance with all applicable regulations.

4. General:

It is recommended that all stall walls and bathing areas are washed and disinfected weekly. All visible organic materials (*i.e.*, urine, manure, bedding, dirt) should be removed from stall walls and bathing areas prior to washing with a nozzled hose and detergent. Pressure washing is not advisable as it aerosolizes organic matter and bacteria or viruses contained within. These organisms can be subsequently activated and infect horses.

Following the label instructions, sanitize the cleaned areas with a solution adequate to disinfect in the presence of organic material. Recommended disinfectants contain oxidizing agents, phenols, or quaternary ammonium compounds. A useful resource for selecting an appropriate disinfectant can be found at:

<http://www.cfsph.iastate.edu/Disinfection/Assets/CharacteristicsSelectedDisinfectants.pdf>

Note: Dilute bleach solution is ineffective and should not be used.

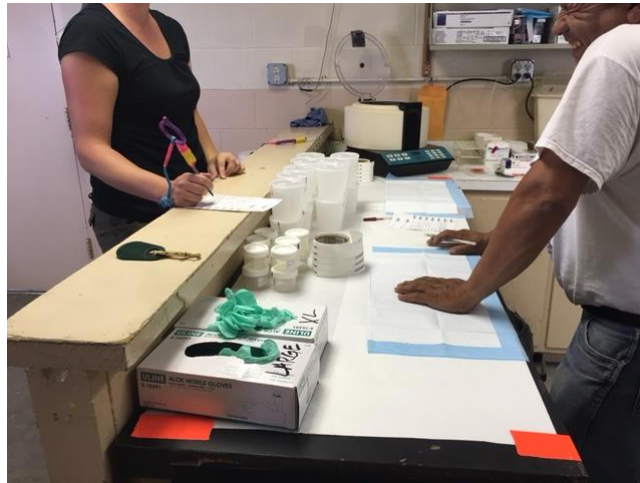
If constructed of amenable materials, walking areas and flooring should also be washed with detergent and disinfected on a weekly basis, as above.

E. Sample Processing Area

The sample processing area should be maintained in a clean and orderly manner. This should include layering disposable towels or other materials to prevent contact between spilled sample and the workbench.

Access to this area should be further restricted to test barn employees and designated trainers' representatives who are witnessing sample processing.

The witness should be separated from the sample processing area, such as by a work counter, but be allowed to observe the process. Do not share writing pens or other devices across the counter. Provide separate writing pens for test barn employees and witnessing representatives. You have little knowledge of, or control over, what substances (legal or otherwise) may be present in or on the individuals who present horses for sampling. It is advisable to constrain the ability of those individuals to inadvertently introduce substances into the environment where samples are collected or processed.



When serum is the regulated matrix, it is advisable that samples be centrifuged on-site to separate the serum from the cellular components within the sealed collection tubes. This can also apply to plasma. If a centrifuge is necessary but not supplied by the laboratory, one should be purchased that meets specifications provided by the laboratory.

A landline and television for monitoring races are also important. The entire area should have a door that locks from the outside allowing it to be secured when test barn personnel are not present.

When samples are stored at the test barn, it should have a backup power source and/or an automatic notification system for when power is interrupted. This is necessary to protect the integrity of the samples as repeated thawing and freezing can degrade the sample.

Alternatively, there should be a protocol whereby the racing association will notify the regulatory authority of any power outage affecting the test barn that occurs outside of normal working hours. If a backup power source is unavailable, it is recommended that the regulatory authority have a plan for transportation of samples under chain of custody to an alternate location to maintain sample integrity.

10. Personnel

A. General Considerations

It is important to remember that the work of the test barn staff includes the handling of evidence that may be introduced in a hearing. Because of this, professionalism should be

stressed to each employee. Regulatory authorities may want to consider a uniform or, at a minimum, a dress code for test barn staff. This could include:

- a. Polo shirts, vests, or jackets identifying test barn or regulatory staff;
- b. Jeans, khakis, or walking length shorts;
- c. Minimal jewelry; and
- d. Footwear appropriate to working with horses.



B. Attending Veterinarian

A licensed veterinarian should be at the test barn, at all times when horses are present, to monitor their health and welfare and assist in any emergencies. The test barn veterinarian should observe the horses to ensure they are recovering well from the races and capable of remaining in the test barn for urine sampling.

It is acceptable to maintain a limited stock of emergency medications in the test barn. These medications should be isolated and locked in an area away from locations of sample collection, processing, and storage. It is also helpful to have spare equipment—halters, lead shanks, bandage cutters, and shoe pullers—to make available for those who arrive unprepared or in the event their equipment breaks.

C. Veterinary Technicians

In authorized jurisdictions, veterinary technicians are allowed to perform venipuncture for post-race and other sampling. These veterinary technicians must meet the requirements of supervision of the veterinary board. Other individuals, including veterinary assistants, are not licensed to draw blood regardless of supervision.

D. Urine Collection

Appropriately trained lay-staff are capable of collecting urine samples. It is important that they are trained regarding safety around horses, appropriate sample handling, and chain of custody prior to sampling horses.

E. Integrity and Confidentiality

Integrity is vital. Test barn employees should not be in the grandstand during the race day. Employees should remain at the Test barn at all times except when assigned to tag/escort horses on-track, when on a scheduled break, or otherwise instructed or authorized by the test barn veterinarian. Test barn staff should limit time on the backside and in the grandstand outside of work duties.

All regulatory authority employees must follow ethical regulations regarding wagering on horses – under no circumstance should an employee bet on horses that are racing during their shift. Potential conflicts of interest should be disclosed at the time of hiring, and subsequent disclosures should be made if conflicts arise over time.

Potential conflicts of interest can include the following:

- Being related to another licensee;
- Personal relationship with another licensee;
- Racehorse ownership;
- Business relationship with another licensee (*e.g.*, farrier, private veterinarian, trainer, tack shop); and
- Employment by another licensee whether at the track or off association grounds.

Exhibit 7

MedStar Sports Medicine Concussion Protocol for Jockeys and Horsemen (2018)



MEDSTAR SPORTS MEDICINE CONCUSSION PROTOCOL FOR JOCKEYS AND HORSEMEN

UPDATED 5/20/18 - KR

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Background

Sports-related concussion is a change in brain function following a force to the head, which may be accompanied by temporary loss of consciousness, but is identified in awake individuals, with measures of neurologic and cognitive dysfunction (1).

Diagnosis of a sports-related concussion can be very difficult and signs and symptoms may present differently for each athlete. It is important to educate riders and safety officials along with the medical professionals at the racetrack, as not every track has a physician or a professional that is trained specifically in sports-related concussions. A **clinical diagnosis** should be made based on the judgment of a physician (2-4) who feels comfortable and has been trained in evaluating and treating sports-related concussions. However, a **suspicion** of a head injury or concussion can be made by multiple personnel that have been educated on sports-related concussion management.

Diagnosis and management of sports related concussion is challenging as the findings on a physical and cognitive exam can initially be normal. Additional tests, such as CT, MRI and blood test, are also usually normal. Comprehensive neuropsychological tests may be a useful adjunctive tool supporting the diagnosis of sports-related concussion but the valid administration and interpretation of these tests can be complex and require appropriate training and/or supervisory oversight (5).

Sports-related concussions may manifest with immediate or delayed-onset signs and symptoms. An individual's signs and symptoms can vary depending on the location of the impact to the head, gender, individual conditions such as ADHD, migraines, and vertigo, and the timing and number of past concussions.

Concussions are characterized by diverse symptoms and impairments that may result in different recovery trajectories. There are emerging data that guide us with regard to how concussion management may differ based on the manner in which the concussion manifests. (6).

The goals of best practices for the diagnosis and management of sport-related concussion at the racetrack are to aid in safe riding with a process for diagnosis and management of a sports related concussion. It is also to develop prevention strategies for sport related concussion and promote injury resolution. With best practices and concussion protocols in place, we hope to minimize risk of prolonged symptoms and protect all riders, including those with concussion and non-injured riders.

Concussion Management Plan

Education

The racetrack will provide a handout on symptoms of a concussion, importance of reporting, associated risks, management, and return to ride protocol to all riders and all necessary safety officials when they first arrive to the track, supplied and reviewed with rider by physician or medical staff during entrance physical. This handout is based off of recommendations by the CDC Heads Up Program (7). There will be signed and witnessed acknowledgement that all parties have read and understand these concussion facts and the concussion management plan. It is recommended, and required for new riders, to watch Horsemen Health Concussion Video.

https://youtu.be/ZtXeyJAdK_E

Pre-participation assessment

Riders must have a pre-participation physical exam (PPE) once a year to ride. They are to complete to medical history questionnaire, including a record of previous injuries. A specific concussion assessment will include:

1. History of prior concussions including number of concussions, and length to recovery
2. Associated risk factors that may complicate concussions, such as psychological history, prolonged past concussion symptoms, migraine history and/or any headache disorders, learning disabilities, and ADHD.

If a rider has completed a physical at another track within the year, they must provide documentation of the exam, but they also must complete the medical history questionnaire as above. A baseline SCAT 5 (Appendix A) will be performed by a physician or qualified clinical personnel properly trained in concussion evaluation during the pre-participation physical exam to include symptom evaluation, cognitive assessment, and balance evaluation (8). These physicals will then be scanned into EMR/JHIS who has been trained in HIPAA compliance.

Recognition and diagnosis of concussion

On race days, any rider that falls off of a horse should be quickly evaluated by EMS. If there is significant impact and any question of injury by medical staff on-site, they need to be evaluated immediately. Evaluation must include injury assessment, at physician discretion, usually SCAT 5 as well as Vestibular/Ocular – Motor Screening. If there was suspected head injury, or if the rider is experiencing signs, symptoms, or behaviors consistent with a sports-related concussion, they must be removed immediately from racing for the day. In the case that there is a physician at the racetrack, there should be a mutual agreement for medical decision-making between EMS and track health officials. In the state of Maryland, transport and ultimate decision making is determined by a MedStar Sports Medicine Physician.

After a fall, an assessment should be performed for head and cervical spine injury and implementation of the emergency action plan as warranted.

Transportation to the designated hospital should occur if the patient is experiencing any of the following:

Glasgow Coma Score less than 13
Prolonged loss of consciousness (longer than 1 minute)
Focal neurological deficit; repetitive vomiting
Persistently diminished or worsening mental status change
Any other neurological signs or symptoms
Potential spine injury

If the patient does not require transport to Emergency Department, a medical professional should use SCAT 5 as a rapid assessment tool to aid in the diagnosis of concussion and compare it to riders' baseline to help determine if concussion is present or suspected. These baseline SCAT 5 tests are kept in the file and ideally scanned into JHIS or EMR (HealtheAthlete).

In the case that a rider has a suspected concussion, but there is not a medical professional trained in concussion evaluation and management, the rider will be held from all races that day and must see a physician that is trained in managing concussions, preferably a sports medicine specialist or neurologist. The decision to hold a rider from races must be communicated immediately from a designated medical provider to the stewards. If other safety officials at the track witness abnormal behavior or a head injury, they should alert the track medical professional and clerk of scales. The clerk of scales, must aid in preventing a rider suffering from suspected concussion from riding again that day.

After initial evaluation, a serial assessment should be performed and monitoring for deterioration prior to rider leaving track. Education will be provided to rider by either oral and/or written instructions on concerning signs or symptoms that would require immediate evaluation. It is best that athlete with suspected concussion not drive home or stay alone during acute phase of concussion.

Return to Ride

Serial assessments of concussions will be performed by medical care providers specialty trained in managing concussions. Although initial treatment for concussions typically involves prescribed physical and cognitive rest, there is emerging evidence that active, targeted approaches for treating concussion may be more effective for certain patients (6, 10, 11). However, activities that put a patient at risk of another head injury or overexerting themselves should be avoided. This is the reason that it is important to follow up with someone proficient in concussion management. Specifically targeting treatments for athlete's concussion clinical profiles (ie symptoms, impairment) such as vestibular, oculo-motor, cognitive fatigue, migraine, cervicogenic and anxiety/mood (12, 13) may be helpful. It is important to note that the effects of targeted post-concussion treatments on the underlying physiology of concussion are unknown. To date, there are no empirical data to inform the timing, intensity, or type of treatment for patients with concussion (9). A symptom-free waiting period is not predictive of either clinical recovery or risk of repeat concussion (14). The current return to ride guidelines are based on expert consensus of Berlin Guidelines (15).

Once an athlete has returned to his/her baseline, the return to play decision must be made by physician specialty trained in concussions. They must follow the return to ride protocol which is a stepwise process including incremental increase in physical activity and includes rider specific activities (Appendix C). While there is a recommended return to ride progression, it should be done on an individualized plan due to concussion symptoms and other factors like history and co morbid conditions.

At any point, when rider becomes symptomatic (more symptomatic than baseline), riders are to stop and must repeat the same step after 24 hours.

Once a patient has completed the Stepwise protocol without experiencing recurrent signs or symptoms of sports-related concussion, they must be re-evaluated by the physician trained in concussions. The physician will re-evaluate the rider and if they have a normal exam and near baseline relative to previous testing, the physician will clear the rider. The physician will send an email to the stewards and notify the Clerk of Scales that the rider is clear to return to ride.

The goal of our concussion protocol is to ensure the safety of all of our riders and to be their advocate. Returning to ride with a concussion and prior to complete healing may put riders at increased risk for long term health effects of concussions, including death. If you have any questions or concerns, please feel free to reach us at Jockeyhealth@medstar.net.

For additional information:

<https://www.medstarsportsmedicine.org/treatments/sports-concussion-program-3/#q={}>

<https://www.medstarsportsmedicine.org/about-us/team-affiliations/maryland-thoroughbred-horsemens-association/#q={}>

<http://healthprofessionalradio.com.au/dr-kelly-ryan-concussions-horse-racing-industry/>

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15. McCrory P, Meeuwisse W, Dvorak J, *et al* Consensus statement on concussion in sport—the 5th international conference on concussion in sport held in Berlin, October 2016 *Br J Sports Med* Published Online First: 26 April 2017. doi: 10.1136/bjsports-2017-097699

Appendix B: CONCUSSIONS – WHAT MARYLAND RIDERS NEED TO KNOW

CONCUSSION

A MUST READ FOR MARYLAND RIDERS

CONCUSSION FACTS

- Concussion is a brain injury that alters the way your brain functions
- Concussion can occur from a blow to the head/body:
 - following a fall from horse and hitting your head or even from a whiplash motion
- Most concussions occur without being knocked unconscious
- Severity of injury depends on many factors and is not known until symptoms resolve and brain function is back to normal
- All concussions are not created equally. Each rider is different, and all injuries should be evaluated by your team medical staff.

CONCUSSION SYMPTOMS

- Different symptoms can occur and may not show up for several hours. Common symptoms include:
 - Confusion
 - Headache
 - Amnesia/difficulty remembering
 - Balance Problems
 - Irritability
 - Dizziness
 - Difficulty Concentrating
 - Feeling sluggish, foggy, or groggy
 - Nausea
 - Sensitivity to Noise
 - Sensitivity to Light
 - Slowed Reaction Time
 - Feeling more emotional
 - Sleep disturbance
 - Loss of Consciousness
 - Double/ fuzzy vision
- Symptoms may worsen with physical or mental exertion (e.g., lifting, computer use, reading)

WHY SHOULD I REPORT MY SYMPTOMS?

- Your brain is the most vital organ in your body
- Riding while still experiencing symptoms can prolong the time it takes to recover and return to ride, and could put you or other riders at risk of a significant injury due to difficulty making good decisions and having slower reaction time
- Unlike other injuries, there may be significant consequences to “riding through” a concussion
- Repetitive brain injury, when not managed promptly and properly, may cause permanent damage to your brain

WHAT SHOULD I DO IF I THINK I HAVE HAD A CONCUSSION?

1. REPORT IT. Never ignore symptoms even if they appear mild. Look out for your fellow jocks. Tell your Race Track Physician if you think you or another rider may have a concussion

2. GET CHECKED OUT. Your team medical staff has your health and well being as its first priority. They will manage your concussion according to best practice standards which include being fully asymptomatic, both at rest and after exertion, and having a normal neurologic examination, normal neuropsychological testing, and clearance to play by the team medical staff.
3. TAKE CARE OF YOUR BRAIN. According to the CDC, “traumatic brain injury can cause a wide range of short or long term changes affecting thinking, sensation, language, or emotions.” These changes may lead to problems with memory and communication, personality changes, as well as depression and the early onset of dementia. Concussions and conditions resulting from repeated brain injury can change your life and your family’s life forever.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT YOUR MEDICAL STAFF

In order to insure a safe return to ride, your race track physician will guide you through a Return to Ride Protocol. It is a protocol made of 5 steps that makes sure that your brain recovers appropriately. These steps may vary slightly, but essentially after you are symptom free for 24-72 hours, depending on severity, you may start return to ride protocol.

See Return to Ride

Adapted from www.cdc.gov/Concussion. For more information about concussion, please visit www.cdc.gov/Concussion

I _____ have read and understood this concussion form that is presented to me today. I am aware that at the conclusion of reading this form that I have the opportunity to ask the medical staff any questions/concerns I may have.

Signature

Date

Appendix C: Return to Ride Communication Tool

Return to Ride Communication Tool

STAGE 1:	STAGE 2:	STAGE 3:	STAGE 4:	STAGE 5:	STAGE 6:
No sporting activity Symptom-limited physical and cognitive rest; Any person sustaining a head injury must be without symptoms prior to starting Return to Ride (RTR) progression	Light aerobic/cardiовascular exercise Walking, swimming, stationary cycling, 15-30 minutes No resistance training. Heart rate \leq 70% Grooming/Feeding Horses	Equine/Sport-specific exercise Jump Rope/Squat Jump Jumping Jacks Box Jumps/Step Ups Burpees/Lunge Jump Mountain Climbers Bicycle Circles/Pushups Equicizer: 2 trials at 30-45 seconds each with 30 second rest. No head-impact activities; Barn work, cleaning stalls	Noncontact riding Equicizer: 6 trials: 30 sec on/off 1 min on/off 1.5 min on/off 2 min on/off May start resistance training	Re-introduction to Horse Following medical clearance, participating in galloping and breezing during morning workout (no others on track); 30-min mounted individual trot Release to all strength/endurance activities at max HR	Return to Horse/Competition: Medical clearance will be determined by team physician
Recovery	Increase heart rate	HR \leq 85% Maximum; increase strength, balance	HR to $<$ 95% Max; increase balance/coordination/cognition	Restore confidence; assess functional skills	
Symptom-free for 24 hours? Yes: Begin Stage 2 No: Continue resting. Time and date completed: _____	Symptom-free for 24 hours? Yes: Move to Stage 3 No: Return to Stage 1. Time and date completed: _____	Symptom-free for 24 hours? Yes: Move to Stage 4 No: Return to Stage 2. Time and date completed: _____	Symptom-free for 24 hours? Yes: Move to Stage 5 No: Return to Stage 3. Time and date completed: _____	Symptom-free for 24 hours? Yes: Return to play No: Return to Stage 4. Time and date completed: _____	
Medical clearance required before moving to Stage 5					

If symptoms reappear at any stage, go back to the previous stage until symptom free for 24 hours. You may need to move back a stage more than once during the recovery process.