

UNBRIDLED “SPIRITS”: AN INTEGRATED ANALYSIS OF THE LAW, THE SCIENCE, AND THE FUTURE OF THOROUGHBRED MEDICATION

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I. INTRODUCTION

On March 25, 2006, Fred Bradley’s thoroughbred, Brass Hat, ran second in the Dubai World Cup (UAE-I) and won \$1.2 million in purse money.¹ Less than two months later on May 3, the racing stewards ordered the horse be disqualified, required Bradley to return the \$1.2 million in winnings, and imposed a fine of \$5,400 on Bradley’s son and trainer, Buff.² The reason given for the penalties was that the Equine Forensic Unit in Dubai discovered trace amounts of methyl prednisolone acetate, a prohibited long-acting corticosteroid,³ in Brass Hat’s system.⁴ These punishments served as an ominous warning to thoroughbred owners and trainers participating in the international racing arena: either follow the rules of the country in which your horse is racing or face the penalties.

In attempting to justify the existence of the medication in Brass Hat’s system, Bradley illuminated a major problem prevalent in the international racing industry: it is often difficult to determine which rules an owner must follow to legally compete in international horse racing.⁵ In an affidavit, Bradley stated that William “Bill” Greely, the former Keeneland Association President who was acting as a representative of the Emirates Racing Association, provided him with a two-page document that listed the allowable race day medications and withdrawal times. Pursuant to this document and Greely’s representative position, Bradley believed he was acting within the local guidelines.⁶ However, there was a discrepancy

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¹ Dan Liebman, *Brass Hat Disqualified from Second in Dubai World Cup*, BLOODHORSE.COM (May 3, 2006, 1:34 PM), <http://www.bloodhorse.com/horse-racing/articles/33373/brass-hat-disqualified-from-second-in-dubai-world-cup>.

² *Id.*

³ *Rules & Regulations*, DUBAI RACING CLUB, <http://www.dubairacingclub.com/race/horsemen-info/rules-regulations> (last visited Sept. 2, 2013).

⁴ Liebman, *supra* note 1.

⁵ *Id.*

⁶ *Id.*

between this document and the actual rules and regulations instituted by the Emirates Racing Association.⁷

Regardless of the discrepancy in the papers, future misunderstandings could be avoided if uniform, or substantially similar, rules and regulations governing the use of race-day medication are adopted worldwide. This would make it easier for those travelling outside of their home country to race to ensure that they are in compliance with the requirements abroad. Outside of the United States, racing commissions in locales such as the United Arab Emirates and Hong Kong have dealt with this issue by passing rules and regulations that mimic one another.⁸ Other nations that have large participation in equine racing, such as the United States, would be wise to follow suit.

As clear as the need for uniformity in racing rules and regulations between countries may seem, other issues plaguing the United States racing industry may complicate the problem further. Horse racing in the U.S. is not federally governed; agencies in each individual state are charged with governing horse racing.⁹ Because of this, the United States will not be in uniformity with other racing nations until either each individual state agrees to adhere to the same rules or the federal government institutes overarching rules for all racing that occurs within the United States. The Kentucky General Assembly's recent failure to pass a regulation outlawing the use of race day medications evinced the inability of racing in the United States to attain the uniformity in the law that other countries have achieved, thanks in large part to simple politics.¹⁰ In August 2012, a Kentucky state legislative committee also failed to pass regulations that would have banned all race day medications because the committee found the regulations to be deficient.¹¹ This failed regulation, known as the "Amended Model Rule" in the horse racing community, was formulated by the National Thoroughbred Racing Association ("NTRA"), the American Association of Equine Practitioners ("AAEP"), and the Racing and Testing Consortium

⁷*Id.*

⁸ Compare EMIRATES RACING AUTHORITY, RULES OF RACING AND INSTRUCTIONS (2013), available at <http://emiratesracing.com/industry/rules-racing>, with THE HONG KONG JOCKEY CLUB, RULES OF RACING AND INSTRUCTIONS (2013), available at http://www.hkjc.com/english/racinginfo/rules_pdf/12rulesOfRacing_e_full.pdf.

⁹ See, e.g., *About Us*, KY. HORSE RACING COMMISSION, <http://khrc.ky.gov/Pages/aboutus.aspx> (last visited Sept. 4, 2013).

¹⁰ Matt Hegarty, *New Kentucky Drug Rules Stopped by Committee*, DAILY RACING FORM (Aug. 28, 2012, 7:14 PM), <http://www.drf.com/news/new-kentucky-drug-rules-stopped-committee>.

¹¹ Tom LaMarra, *KY Committee Says New Drug Rules 'Deficient'*, BLOODHORSE.COM (Aug. 28, 2012, 4:31 PM), <http://www.bloodhorse.com/horse-racing/articles/72384/ky-committee-says-new-drug-rules-deficient>.

("RMTC").¹² The Amended Model Rule is in effect in New York and Minnesota.¹³

Not only does the problem of uniformity in rules and regulations in the U.S. have practical implications, such as those regarding compliance with the rules, but there are also scientific, political, economic, and health issues involved.¹⁴ For instance, the inability of veterinarians and trainers to agree as to whether or not some race day medications are harmful, directly affects the process of implementing and adopting regulations.¹⁵ Further, this matter has pitted horse owners against trainers and state and national racing commissions against various actors in the industry, causing political turmoil throughout.¹⁶ Lobbying groups, such as the National Horsemen's Benevolent and Protective Association ("NHBPA"), have also contributed to delays in the legislative process.¹⁷

The development and use of race day medication dates all the way back to 1750 when Peruvian cocoa leaves reached Europe and were given to horses along with cocaine and caffeine.¹⁸ These practices reached the Americas as early as 1895.¹⁹ In the 1930's, heroin became the popular poison of choice as a stimulant for racehorses.²⁰ The victory of Dancer's Image in the 1968 Kentucky Derby, which occurred while the horse was under the influence of Butazolidin, popularized the movement to utilize regulations and adjudications to police medication use in the United States.²¹

This Note will primarily focus on how the international racing industry and scientific community have influenced regulations for using race day medications in thoroughbreds. It will deal with solutions in both the legal arena and in the area of scientific and therapeutic remedies. This Note will also discuss comparative law and veterinarian practice on a global scale, looking at the disagreements within the racing community between owners, trainers, veterinarians, and the racing commissions. The success of proposed solutions will also be analyzed. In order to effect this analysis,

¹² Alex Waldrop, *Progress on the Race Day Medication Front?*, RACING MEDICATION & TESTING CONSORTIUM (Aug. 27, 2012), http://www.rmtcnet.com/content_headlines.asp?id=&s=&article=1296.

¹³ *Id.*

¹⁴ See Tom LaMarra, *Test for Blood-Doping Agent Developed*, BLOODHORSE.COM, <http://www.bloodhorse.com/horse-racing/articles/54186/test-for-blood-doping-agent-developed> (last updated Dec. 1, 2009, 2:53 PM); Hegarty, *supra* note 10.

¹⁵ Hegarty, *supra* note 10.

¹⁶ Hegarty, *supra* note 10; Janet Patton, *Horse Racing Groups Irate that Rules are Blocked*, LEXINGTON HERALD-LEADER, Aug. 30, 2012, at C5.

¹⁷ Hegarty, *supra* note 10; Patton *supra* note 16.

¹⁸ Steve Haskin, *The History of Drugs in America*, BLOODHORSE.COM (July 1, 2012, 7:34 PM), <http://cs.bloodhorse.com/blogs/horse-racing-steve-haskin/archive/2012/07/01/the-history-of-drugs-in-america.aspx>.

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

this Note will argue that Hong Kong's regulatory structure regarding race day medications is ideal and that this system should be used as a model for other countries. This Note argues that there is a dire need for the United States to adopt a system of uniform regulations, not unlike those in Hong Kong, in order to protect the racing industry.

This Note presents the thesis that the countries dominating the international racing industry have adopted uniform regulations and have been successful in policing race day medication use in thoroughbreds. For the racing industry in the United States to thrive, the federal government must follow the example of the international community and enact regulations to protect the economy, the sport's integrity, and the horses' health.

This Note begins with a brief history of common doping agents, looks at the effect of these medications on the industry, the evolution of these regulations, and the policing of the industry. Next, this Note presents a delineation of the current state of race day medications internationally, in the United States, and in Kentucky. This Note will then discuss the science of these medications and their effects on horses, including: the risks, benefits, side effects, and mortality rates. Next, the analysis will focus on the Hong Kong model and how the United States can attain the level of success achieved in Hong Kong. Finally, this Note will discuss the consequences on the U.S. racing industry if action is not taken.

II. THE EVOLUTION OF RACE DAY MEDICATION & ITS REGULATION

Drug use in horse racing is not a recent development.²² Many of the drugs utilized for doping in thoroughbreds, such as cocaine and heroin, had previously been consumed by humans.²³ Prior to the 1930s, drug use in this industry went largely unnoticed because scientific methods of drug detection, such as those which tested saliva, had yet to be developed.²⁴ There is dispute as to whether horse doping originated in America or Europe.²⁵ One scholar, Professor J.B. Robertson, believed that the administration of sedative drugs and stimulants could be traced back to Europe during the reign of King James I.²⁶ Professor Robertson took the position that in 1750, European cocoa leaves were administered to racehorses as a stimulant in Peru, a practice that was in use before Americans arrived in France in 1895.²⁷

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

When the importation of doping agents into the United States began around 1895, there was a sense of mystery surrounding the drugs.²⁸ The “Speed Sustaining Elixir”, as it was known, was known domestically as a concoction composed of mystery ingredients that came from across the ocean.²⁹ A French chemist is believed to have created the formula and tested it in France before passing it along to the English and subsequently to Americans.³⁰ Using drugs on thoroughbreds became more commonplace and systematic by the twentieth century, with cocaine and heroin becoming popular drugs of choice by the 1930s.³¹

One of the most important events affecting regulations on horse doping occurred in Saratoga in August 1931.³² A thoroughbred named Ladana was prohibited from participating in the Burnt Hills Handicap when a stable hand confessed to administering a drug called Chloral, a sedative and hypnotic, to the horse.³³ This incident inspired the “Absolute Insurer Rule.”³⁴ The Rule imposed a presumption that a trainer is responsible when their thoroughbreds test positive for illegal substances.³⁵ Many states, such as New York³⁶ and Texas,³⁷ adopted Absolute Insurer Rules, and these rules have withstood judicial review despite arguments that these rules violate due process.³⁸

As race day medication use has increased, the testing methods used to detect illicit drugs in horses have improved throughout the twentieth and twenty-first centuries. In 1934, the National Association of State Racing Commissioners (“NASRC”) sent Florida Racing Commission chemist Charles E. Morgan and veterinarian J. Garland Catlett to France to become versed in saliva testing.³⁹ Later that year, the NASRC endorsed saliva testing in the U.S. and promoted research into newer methods that could detect cocaine and other drugs with greater accuracy.⁴⁰ Dr. Catlett developed a well-respected method for testing horse urine that detected drugs administered orally or hypodermically, an improvement from the saliva test which only detected orally dispensed medications.⁴¹ Eventually, the NASRC formed the Association of Official Racing Chemists

²⁸*Id.*

²⁹*Id.*

³⁰*Id.*

³¹*Id.*

³²*Id.*

³³*Id.*

³⁴*Id.*

³⁵ Allison Rowe, *Race Horse Trainers “Guilty Until Proven Innocent”*, EQUINE L. BLOG (Mar. 14, 2008), <http://equinelaw.alisonrowe.com/tags/absolute-insurer-rules/>.

³⁶ N.Y. COMP. CODES R. & REGS. tit. 9, § 4116.11 (2013).

³⁷ 16 TEX. ADMIN. CODE § 311.104(b) (2013).

³⁸ Rowe, *supra* note 35.

³⁹ Haskin, *supra* note 18.

⁴⁰*Id.*

⁴¹*Id.*

(“AORC”), a professional association for racing chemists.⁴² Drug testing labs in the United States were founded, including one started by Robert Vessiny in New York on behalf of the New York Racing Commission.⁴³

Developed in the 1980s, Thin Layer Chromatography (“TLC”) was another inexpensive drug testing method, but it was not sensitive enough to detect high potency narcotics, stimulants, bronchodilators, or tranquilizers.⁴⁴ The Kentucky State Racing Commission sought a better testing system, resulting in the development of Enzyme Linked ImmunoSorbent Assay (“ELISA”).⁴⁵ Used in conjunction with Mass Spectral Confirmation, ELISA is used to determine whether or not there is a drug in the thoroughbred’s system and, if there is, the identity of the drug.⁴⁶ The ELISA test is very sensitive; it can detect five parts per billion of a drug or drug metabolite in a sample as small as a drop of urine.⁴⁷ After the ELISA test is completed, analysts perform a Mass Spectral Configuration, at which time a potential drug molecule is isolated, and has its mass is measured. It is then separated into fragments to identify the drug based on a drug’s specific mass and fragmentation pattern.⁴⁸ Next, the sample is processed through a Mass Spectrometer to effectively determine the drug’s identity.⁴⁹ The success of ELISA and Mass Spectral Configuration has only spurred advancements in the availability of testing. More recently, chemists invented Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (“LC/MS/MS”), which is another mode of testing that is highly sensitive and widely available.⁵⁰ This urine sample test can be used to detect parts per trillion, making it more sensitive than the ELISA and Mass Spectral Configuration system.⁵¹

Although advancements in science and regulation promoted better internal policing in the industry, neither of these came close to solving the drug problem in the sport. For instance, during this time, the United States adopted a “permissive medicine” policy and allowed the use of drugs in racing that other countries had previously banned.⁵² The actual intent of the policy was to legally regulate drug administration for therapeutic use,⁵³ but

⁴² Thomas Tobin et al., *Equine Drugs, Medications, and Performance Altering Substances: Their Performance Effects, Detection, and Regulation*, THOMAS TOBIN, <http://www.thomastobin.com/drugsmeds/drugsmeds.htm> (last updated Dec. 2010).

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² Jane Allin, *Part 4: Drugs and Their Actions*, HORSEFUND.ORG (Apr. 2011), <http://www.horsefund.org/the-chemical-horse-part-4.php>.

⁵³ *Id.*

the policy actually perpetuated the creation and utilization of more drugs in the racing industry.⁵⁴ Prior to the “permissive medicine” rule, states such as Kentucky used a default rule because there were no regulations or quantitative analytical methods applicable to racing.⁵⁵ The default rule stated that horses could not run on stimulants, depressants, local anesthetics, tranquilizers, or narcotic analgesics, but therapeutic substances could be utilized.⁵⁶

The RMTC and the Association of Racing Commissioners International (“ARCI”) went on to develop model rules regarding therapeutic substance thresholds, and overall limits on substance levels in the horse’s system in relation to when the horse is intended to race.⁵⁷ Individual states may have thresholds that differ from the model rules set forth by the RMTC and ARCI.⁵⁸ For example, the RMTC and ARCI deemed the following categories of substances “therapeutic” and determined the threshold allowance for each drug within those categories: non-steroidal anti-inflammatory medications (“NSAIDs”), furosemide, anti-ulcer medications, environmental substances (including caffeine),⁵⁹ androgenic-anabolic steroids, and alkalinizing substances.⁶⁰ As will be shown, controversy exists within the racing community as to whether some of the substances considered therapeutic are actually utilized for the well-being of the horse. In addition, there is dispute as to what dosage removes the drug from its therapeutic designation.⁶¹ For example, debate continues over the anti-bleeding medication furosemide, also known as Lasix,⁶² as trainers argue that the substance is beneficial while the owners and racing commissions argue that its risks outweigh any purported benefits.⁶³ Table 1 below illustrates the categories and designations of drugs that will be discussed further in this Note.

⁵⁴ *Id.*

⁵⁵ Tobin et al., *supra* note 42.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ LaMarra, *supra* note 11.

⁶² *Id.*

⁶³ *Id.*

TABLE 1

Drug Name	Drug Use
Furosemide (such as Lasix and Salix)	Anti-bleeder Medication and Diuretic ⁶⁴
Phenylbutazone (Bute)	Non-steroidal Anti-inflammatory Drug (NSAID) ⁶⁵
“Cobra Venom”	Stimulant & pain killer ⁶⁶
Erythropoietin (EPO)	Stimulates red blood cell production ⁶⁷

As mentioned previously, other countries began regulating drug use in horses much earlier than the United States.⁶⁸ In the late nineteenth and early twentieth centuries, American racers would venture overseas to race their medicated horses and would win frequently.⁶⁹ Naturally, this was not well received in Europe, leading the Jockey Club of England to make running a medicated horse in any English race an offense in 1903.⁷⁰ One story of American drug fraud in overseas racing involved a man named Jack Keene. Mr. Keene sent a horse to race in Russia and was promptly banned from ever racing there again after some saliva taken from his horse was given to a frog that began acting strange.⁷¹ Mr. Keene returned home to Kentucky, having been exiled from racing in Russia and Europe, and opened Keeneland, now considered one of the most prestigious and historic racetracks in the United States.⁷² Since then, the no-drug racing policy exhibited in Russia and England has been adopted by the International Federation of Horseracing Authorities (“IFHA”),⁷³ whose members include: Great Britain, France, Ireland, the United Arab Emirates, Hong Kong, and Bahrain.⁷⁴

⁶⁴ Ray Paulick, *What's Missing in the Racing Medication Debate?*, PAULICKREPORT.COM (Oct. 4, 2012, 7:08 AM), <http://www.paulickreport.com/news/ray-s-paddock/what-s-missing-in-the-racing-medication-debate/>.

⁶⁵ *Id.*

⁶⁶ Matt Hegarty, *Preventing Venom Use “Difficult”*, DAILY RACING FORM (July 5, 2007, 11:00 PM), <http://www.drf.com/news/preventing-venom-use-difficult>.

⁶⁷ Mark Hansen, *Deadly Doping Meets Its Match*, BLOODHORSE.COM, [http://www.epoequine.com/EpoEquine_BloodHorse_4%20\(3\).pdf](http://www.epoequine.com/EpoEquine_BloodHorse_4%20(3).pdf).

⁶⁸ Jane Allin, *Part 2: Historical Aspects*, HORSEFUND.ORG (Apr. 2011), <http://www.horsefund.org/the-chemical-horse-part-2.php>.

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.*

⁷³ *About Us: Members*, INT’L FED’N OF HORSERACING AUTHORITIES, <http://www.horseracingintfed.com/aboutDisplay.asp?section=5> (last updated July 22, 2012).

⁷⁴ *International Screening Limits*, INT’L FED’N OF HORSERACING AUTHORITIES (Mar. 2013), <http://www.horseracingintfed.com/racingDisplay.asp?section=24>.

A major source of the doping problem in the United States arises from the fact that no centralized body exists that can promulgate regulations and ensure their enforcement.⁷⁵ Instead, thirty-eight individual state agencies operate as adjuncts to the Association of Racing Commissioners International (“ARCI”), but the ARCI has no formal power.⁷⁶ In addition to state agencies, other organizations exist as well, including: the National Thoroughbred Racing Association; the Racing Medication and Testing Consortium; the Jockey Club; Thoroughbred Owners and Breeders Association; and the National Horsemen’s Benevolent and Protective Association. The ability of these groups to influence regulations is generally limited to lobbying.⁷⁷

Some states give broad power to their state agencies tasked with the responsibility of regulating their intrastate horse industry.⁷⁸ For instance, New York vests its regulatory power in the New York State Gaming Commission, which “regulates all horse racing and pari-mutuel wagering in New York State.”⁷⁹ Likewise, the Kentucky Horse Racing Commission is a state agency that is similarly charged with adoption and enforcement of regulations in the horseracing arena.⁸⁰ The Kentucky Commission requires compliance with its rules in order for tracks to maintain their accreditation and for persons wishing to participate in the sport.⁸¹ Although many other states have agencies that may promulgate and enforce regulations in their jurisdiction, common sense dictates that a significant part of horse racing requires the movement of horses between states, whether it is for races or sales. With each state passing and enforcing different rules and regulations, it is difficult for actors in the horse racing industry wishing to participate in the business to stay compliant with each jurisdiction’s requirements and for the states to effectively police the industry.

III. THE CURRENT STATE OF THE LAW

Some countries who play a role in the horse-racing industry have implemented a zero tolerance drug policy. For example, the Emirates Racing Authority (“ERA”), which governs racing in the United Arab Emirates, states that “[a]part from a small number of certain Prohibited Substances, which are naturally occurring, the United Arab Emirates is a

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Horse Racing & Pari-Mutuel Wagering*, NYS GAMING COMMISSION, <http://www.gaming.ny.gov/horseracing/> (last visited Sept. 4, 2013).

⁷⁹ *Id.*

⁸⁰ *About Us*, KY. HORSE RACING COMMISSION, <http://khrc.ky.gov/Pages/aboutus.aspx> (last visited Sept. 4, 2013).

⁸¹ *Id.*

zero tolerance jurisdiction.”⁸² For these naturally occurring substances, the ERA provides threshold levels which, should they exceed a certain level, will be deemed prohibited.⁸³ Similarly, the British Horse Racing Authority (“BHA”) adopted a zero tolerance policy while advocating for a controlled medicine regime by which horses who need medication for health and survival will be provided that treatment.⁸⁴ Both the ERA and BHA define a “prohibited substance” as:

Substances capable at any time of acting on one or more of the following mammalian body systems: the nervous system, the cardiovascular system, the respiratory system, the digestive system, the urinary system, the reproductive system, the musculoskeletal system, the blood system, the immune system except for licensed vaccines against infectious agents, the endocrine system, endocrine secretions and their synthetic counterparts, and masking agents.⁸⁵

The adoption of that definition is in accordance with the IFHA agreement.⁸⁶

The threshold levels for prohibited substances that have been adopted by the ERA and BHA are identical to the recommendation made by the IFHA in Section 10 of Article 6 in the International Agreement on Breeding and Racing.⁸⁷ Sections 5 and 6 of the Article delineate the appropriate sanctions for failure to abide by the rules.⁸⁸ In relevant part, these sections state that “[a] horse shall be disqualified whenever a sample is taken after it has raced contains a prohibited substance. The trainer of the horse shall be penalized . . .” and “horseracing authorities may, according to their own rules, impose sanctions on the horse, trainer, owner, or other persons.”⁸⁹ A total of thirty-five countries have completely and totally agreed to Article 6 of the IFHA agreement, including: Austria, Bahrain, Canada, France, Hong Kong, India, Qatar, South Africa, and Turkey.⁹⁰

⁸² *Rules & Regulations*, DUBAI RACING CLUB, <http://www.dubairacingclub.com/race/horsemen-info/rules-regulations> (last visited Sept. 5, 2013).

⁸³ *Id.*

⁸⁴ *Medication and Doping Control FAQs*, BRIT. HORSERACING AUTHORITY, <http://www.britishhorseracing.com/resources/equine-science-and-welfare/medication-and-doping-faqs.asp#1> (last visited Sept. 5, 2013).

⁸⁵ *Id.*; *Rules & Regulations*, *supra* note 82.

⁸⁶ *International Agreement on Breeding and Racing and Appendixes*, INT’L FED’N OF HORSERACING AUTHORITIES, <http://www.horseracingintfed.com/racingDisplay.asp?section=10#a6> (last visited Sept. 24, 2013).

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ *Id.*

The United States joins the list of other countries that have partially agreed but the United States made exceptions for Sections 5 and 10 of the Article.⁹¹ Section 5 states: “A horse shall be disqualified whenever a sample taken on race day demonstrates a positive finding for a prohibited substance The trainer of the horse shall be penalized, except when he has discharged his responsibilities as described hereunder beyond reproach.”⁹² Section 10 outlines the previously listed prohibited substances.⁹³ While the United States has agreed to a significant amount of the IFHA Agreement, this has little legal force in the country because each state agency has sovereign power to promulgate and effectuate their own rules and regulations in the horse racing industry. The following table, Table 2, demonstrates the inability of states to create a simple, uniform system of regulation.⁹⁴ The first column lists states that have totally banned the use of adjunct bleeder medication. The second column lists those states which limit the administration of Salix, a diuretic used to remove excess fluid from the body, to use by a regulatory veterinarian.⁹⁵ The third column lists the states that approved the use of a low level of Phenylbutazone, a drug used for short term treatment of pain and fever in animals.⁹⁶

TABLE 2

Prohibition on Adjunct Bleeder Medications	Limit the administration of Salix to regulatory veterinarians	Approved a lower level on Phenylbutzone (Bute)
Arkansas, Colorado, Delaware, Illinois, Indiana, Iowa, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Washington (West Virginia pending)	Delaware, New York, Minnesota (California pending)	California, Delaware, Florida, Indiana, Maryland, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Texas, Virginia (Arizona, Illinois, Minnesota, West Virginia pending)

⁹¹ *Id.* (Other countries that partially agreed include Saudi Arabia, Canada, and Switzerland.)

⁹² *Id.*

⁹³ *Id.*

⁹⁴ Tom LaMarra, *Groups Critical of KY Medication Rules Vote*, BLOODHORSE.COM (Aug. 29, 2012, 1:02 PM), <http://www.bloodhorse.com/horse-racing/articles/72423/groups-critical-of-ky-medication-rules-vote>.

⁹⁵ Tobin et al., *supra* note 42.

⁹⁶ *Id.*

As will be shown below, popular racing states such as California, Louisiana, and Illinois have varying laws regarding the use of medication on horses. For example, California Rule 1843 is quite general and overarching in nature, and states in brief:

(a) No horse participating in a race shall carry in its body any drug substance or its metabolites or analogues, foreign to the horse, except as hereinafter expressly provided; (b) No drug substance shall be administered to a horse which is entered in a race to be run in this State except for approved and authorized drug substances as provided in these rules.⁹⁷

California Rules 1844 and 1845 list authorized medications and include the controversial anti-bleeder drugs, like furosemide, and higher thresholds for other therapeutic substances.⁹⁸

Adversely, in Louisiana, Chapter 15 of the Louisiana Rules of Racing Book governs the intricacies of the sport.⁹⁹ While it outlaws the use of stimulants and other performance enhancing drugs, Louisiana Rule 1507 allows the use of bleeder medication when a licensed veterinarian administers it more than four hours before the race in which the horse is to run.¹⁰⁰ It states:

A. No bleeder medication may be administered to a horse in training for a race during any race meeting except upon compliance with the following.

1. Only a licensed veterinarian may prescribe, dispense and administer bleeder medication.
2. No horse entered to race may be administered bleeder medication within four hours of post-time of the race in which the horse is to run.¹⁰¹

Louisiana rules also authorize a lower level of Phenylbutazone (commonly referred to as "Bute") to be used in graded stakes races only.¹⁰²

Illinois Racing Board Adopted Rules Part 603 delineates the state's requirements regarding medication.¹⁰³ These regulations mimic those of Louisiana and California by allowing the use of NSAIDs, but the anti-bleeder medications in the form of furosemides may only be administered

⁹⁷ CAL. CODE REGS. tit. 4, § 1843 (2013).

⁹⁸ CAL. CODE REGS. tit. 4, §§ 1844-1845 (2013).

⁹⁹ LA. ADMIN. CODE tit. 25, pt. I, chap. 15 (2013).

¹⁰⁰ LA. ADMIN. CODE tit. 35, pt. I, § 1507 (2013).

¹⁰¹ *Id.*

¹⁰² LaMarra, *supra* note 94.

¹⁰³ ILL. ADMIN. CODE tit. 11, § 603 (2011).

“between 4 hours and 15 minutes and 3 hours and 45 minutes prior to the scheduled post time of the race in which the horse is entered” pursuant to § 603.70(e)(2).¹⁰⁴ Illinois is working to eliminate the use of anti-bleeder medications completely, and has proposed a rule to lower the threshold level of acceptable Bute.¹⁰⁵

Kentucky Administrative Regulation (“KAR”) Title 810 generally states the rules regarding thoroughbred racing.¹⁰⁶ For example, those racing in the state must abide by the medication rules listed in Chapter 1:018.¹⁰⁷ In relevant part, Section 2 establishes that: “(1) [t]herapeutic measures and medication necessary to improve or protect the health of a horse shall be administered to a horse in training under the direction of a licensed veterinarian”.¹⁰⁸ That section also prohibits using performance enhancing drugs.¹⁰⁹ Sections 6 through 8 delineate the rules for using furosemide on race day, furosemide eligibility, and permitted NSAIDs.¹¹⁰ Kentucky requires a veterinarian to administer the furosemide¹¹¹ and the horse remains eligible to race so long as “the licensed trainer or a licensed veterinarian determines that it would be in the horse’s best interests to race with furosemide.”¹¹² The regulations also state that notice of the furosemide use must be given at the time of entry in the race.¹¹³

Pursuant to 810 KAR 1:028, Kentucky also provides for disciplinary action if an unlawful drug or unlawful amount of a permitted medication is found in the thoroughbred’s system.¹¹⁴ Penalties include fines of up to \$10,000 for the existence of certain drugs and the return of any purse money earned if a horse is found to have a particular illegal medication in its system post-race.¹¹⁵ Among other penalties, multiple violations may lead to suspending the trainer’s license or suspending the horse from racing for a period of up to a year.¹¹⁶ Kentucky’s regulations, in comparison to those of other states and countries, evince the sporadic and inconsistent nature of the rules regarding thoroughbred medication use.

¹⁰⁴ *Id.* § 603.070(e)(1)-(2).

¹⁰⁵ LaMarra, *supra* note 94.

¹⁰⁶ 810 KY. ADMIN. REGS. (2013).

¹⁰⁷ 810 KY. ADMIN. REGS. 1:018 (2013).

¹⁰⁸ *Id.* at (2)(1).

¹⁰⁹ *Id.* at (2)(4).

¹¹⁰ *Id.* at (6)-(8).

¹¹¹ *Id.* at (6)(2)(a).

¹¹² *Id.* at (7)(2).

¹¹³ *Id.* at (7)(1)(a).

¹¹⁴ 810 KY. ADMIN. REGS. 1:028 (2013).

¹¹⁵ *Id.* at (4)(1)(a)(1).

¹¹⁶ *Id.* at (4)(1)(a)(2).

IV. THE SCIENCE AND EFFECTS OF RACE DAY MEDICATIONS

While Lasix and saline are currently popular and provocative substances in the racing community, other drugs such as: Erythropoietin (“EPO”); steroids such as Winstrol; “milkshakes” consisting of a mixture of EPO and sodium bicarbonate; and many others are used just as frequently.¹¹⁷ The use of many of these drugs results in masking underlying injuries, causing major problems in the horses’ anatomy to go unnoticed and, presumably, untreated.¹¹⁸ The horse medication controversy also caused turmoil in the veterinary community, as many vets cannot agree whether certain therapeutic medications are actually harmful.¹¹⁹

There are numerous health effects associated with steroid use in horses. Steroids increase the horse’s upper body mass, putting pressure on the horse’s fragile legs.¹²⁰ Steroid use may also lead to permanent infertility and other sexual issues for the thoroughbreds.¹²¹ Liver damage, heart attacks, strokes, weakened tendons, clotting disorders, and erratic behavior can also be attributed to steroid use.¹²² Though steroids are largely restricted, new drugs are frequently developed to go undetected by conventional testing methods and, as a result, the policing of steroid use becomes increasingly difficult.¹²³

“Cobra venom” is quite literally cobra venom, acts similarly to an opiate painkiller when taken in small doses.¹²⁴ Cobra venom is legal to possess and comes in a crystallized form.¹²⁵ It is very difficult, if not impossible to detect through drug testing because such a negligible amount is used.¹²⁶ Like many other substances utilized in race horses, cobra venom masks underlying injuries by dulling or numbing the pain to the horse, making it run longer and faster, which in turn causes greater injury to the

¹¹⁷ *The Horseracing Industry: Drugs, Deception and Death*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS, <http://www.peta.org/issues/Animals-in-Entertainment/the-horseracing-industry-drugs-deception-and-death.aspx> (last visited Sept. 5, 2013); Andrew Rule, *How Lance Armstrong’s Drug of Choice Has Turned Horse Racing into a Sport for Cheats – And What Must Be Done to Fix It*, SUNDAY HERALD SUN (Nov. 11, 2012, 12:00 AM), <http://www.news.com.au/top-stories/how-lance-armstrongs-drug-of-choice-has-turned-horse-racing-into-a-sport-for-cheats-and-what-must-be-done-to-fix-it/story-e6frfkp9-1226514267540>.

¹¹⁸ *The Horseracing Industry: Drugs, Deception and Death*, *supra* note 117.

¹¹⁹ Ray Paulick, *What’s Missing in the Racing Medication Debate?*, PAULICK REP. (Oct. 4, 2012, 7:08 AM), <http://www.paulickreport.com/news/ray-s-paddock/what-s-missing-in-the-racing-medication-debate/>.

¹²⁰ Jane Allin, *Part 6: Class 3 Drugs — Performance Enhancing or Not?*, HORSEFUND.ORG (Apr. 2011), <http://www.horsefund.org/the-chemical-horse-part-6.php>.

¹²¹ *Id.*

¹²² *Id.*

¹²³ Allin, *supra* note 110; Rule, *supra* note 117.

¹²⁴ Hegarty, *supra* note 66.

¹²⁵ *Id.*

¹²⁶ *Id.*

thoroughbred in the long run.¹²⁷ Other opiate-like painkillers include oripavine, “elephant juice,” and “frog juice.”¹²⁸

Synthetic EPO is illegal as a performance-enhancing hormone to boost endurance.¹²⁹ The drug boosts the thoroughbred’s muscle energy by influencing the creation of more oxygen-producing red blood cells.¹³⁰ The drug’s long-term effects are quite disturbing; when a horse administered with EPO during its racing years is turned out, the horse’s health begins to deteriorate because its body cannot produce the artificial amount of red blood cells they relied upon for survival during training.¹³¹ Many horses that are administered EPOs develop leukemia-type symptoms.¹³² Like cobra venom, EPO is difficult to detect, but for different reasons. EPO naturally occurs in the liver and kidneys, and breaks down rapidly, making it difficult to discover through testing.¹³³

A task force consisting of veterinarians, racing association heads, and jockeys recently did a study at Aqueduct Park in New York that uncovered the gruesome reality of the effects from arguably therapeutic horse medications, such as corticosteroids, Bute, furosemide, and NSAIDs.¹³⁴ The study found that many euthanized horses had been administered steroids and NSAIDs in the days before their races, possibly to cover up symptoms of underlying injuries.¹³⁵ Still, some veterinarians hold firmly to their belief that the use of these medications is beneficial to the horses, citing to poor living conditions and ventilation in barns in support for using drugs to open up horses’ airways.¹³⁶

Jim Squire, a thoroughbred farm owner, effectively illustrated the serious nature and harsh reality of the effects from a commonly used furosemide:

If you examine the science on the side effects of Lasix on human bones, you will see that over a period of time it weakens them considerably by repeatedly interrupting the bone maturation process. This causes a horse to leech replacement calcium out of its bones. With every dose,

¹²⁷ *Id.*

¹²⁸ Rule, *supra* note 117.

¹²⁹ Mark Hansen, *Deadly Doping Meets Its Match*, EPOEQUINE.COM, [http://www.epoequine.com/EpoEquine_BloodHorse_4%20\(3\).pdf](http://www.epoequine.com/EpoEquine_BloodHorse_4%20(3).pdf) (last visited Sept. 5, 2013).

¹³⁰ *Id.*

¹³¹ Rule, *supra* note 117.

¹³² *Id.*

¹³³ Rule, *supra* note 117.

¹³⁴ Paulick, *supra* note 119.

¹³⁵ *Id.*

¹³⁶ *Id.*

calcium falls beneath the needed balance with phosphorus and potassium.¹³⁷

By beginning this harmful process in 18-month-old horses, the bones never have the opportunity to build density.¹³⁸ Further, independent research conducted in Japan and Australia uncovered similar findings about Lasix: it prevents bone density development and causes internal organs to malfunction over time.¹³⁹

Perhaps as compelling as the scientific data regarding the effect of drugs on horse health, is the economic data indicating the effect of the drugs on horse performance. A research study conducted by Ohio State University uncovered the following:

After analyzing the race records of 22,589 thoroughbreds, researchers found that 74 percent of the horses were given furosemide prior to a race. These horses raced faster, were 1.4 times more likely to win a race, 1.2 times more likely to finish in the top three, and earned an average of \$416.00 more than the horses not receiving the drug.¹⁴⁰

There is obviously an implication that lobbying groups consisting of horse owners and trainers that utilize medications on their horses would want to continue to use those methods in order to secure a financial advantage over other participants. A former Churchill Downs public relations director once stated: “[w]ith so much money on the line, people will do anything to make their horses run faster.”¹⁴¹

V. THE HONG KONG MODEL

To the naked eye, the Hong Kong model for thoroughbred race medication is simple: zero tolerance for drug use.¹⁴² This policy has proven successful for Hong Kong because Hong Kong enjoys a lower horse fatality rate than the United States.¹⁴³ However its implementation abroad would

¹³⁷ Earl Ola, *Drugs, Conditioning, and the American Horse*, BLOODHORSE.COM (Oct. 5, 2012, 2:37 PM), <http://cs.bloodhorse.com/blogs/racinghub/archive/2012/10/05/drugs-conditioning-and-the-american-racehorse.aspx>.

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ *Common Drug Associated with Improved Performance in Race Horses*, SCI. DAILY (Sept. 14, 1999), <http://www.sciencedaily.com/releases/1999/09/990914081452.htm>.

¹⁴¹ *The Horseracing Industry: Drugs, Deception and Death*, *supra* note 117.

¹⁴² See Sid Fernando, *A Closer Look at the Hong Kong Model, Breakdowns, Lasix*, SID FERNANDO + OBSERVATIONS (May 11, 2012), <http://sidfernando.wordpress.com/2012/05/11/a-closer-look-at-the-hong-kong-model-breakdowns>.

¹⁴³ Joe Drape, *Medication is Cited in Racing's Decline in U.S.*, N.Y. TIMES, June 14, 2011, at B12.

require significant effort because of the inherent differences in the cultures of countries who participate in the industry. For example, where the United States breeds a majority of the horses that race on its soil, all of the thoroughbreds racing in Hong Kong are imported because no breeding market exists there.¹⁴⁴ Still, Hong Kong rivals the United States in its revenue from betting, having earned \$10.3 billion in 2010 while only racing eighty-three days out of the year.¹⁴⁵ The United States saw a decrease in betting revenue from \$14.7 billion in 2007 to \$14.4 billion in 2010.¹⁴⁶

The Hong Kong Jockey Club, a non-profit organization, conducts races at the region's two tracks, and the sport accrues millions of dollars in tax revenue.¹⁴⁷ Horse racing regulation, enforcement, and operation is centralized in The Hong Kong Jockey Club.¹⁴⁸ As stated previously, all horses to be used for racing are imported into Hong Kong.¹⁴⁹ In order to be imported, not only must each horse pass a screening, but any owners or trainers seeking to import a horse must be a member of the Hong Kong Jockey Club¹⁵⁰ and must win a lottery that allows them to import a horse.¹⁵¹ The screening test is quite stringent to ensure the integrity of Hong Kong's top sport is respected. Numerous veterinary exams are required, with specific guidelines to determine whether importation shall be granted.¹⁵² Among other things, the Hong Kong Jockey Club requires a review of the musculoskeletal system, soft tissue, and internal organs.¹⁵³ Further, the Hong Kong Jockey Club requires a \$5000 deposit on imported horses to insure the thoroughbred has a place to retire when it reaches the end of its racing career.¹⁵⁴

Medication regulations adopted by the Hong Kong Jockey Club are arguably the most restrictive in the world, as their zero tolerance policy truly means zero tolerance. Rule 136 of The Hong Kong Jockey Club's Rules of Racing delineates the prohibited drugs and the thresholds for naturally occurring substances that exist in the horse's body, but do not

¹⁴⁴ Fernando, *supra* note 142.

¹⁴⁵ Drape, *supra* note 143.

¹⁴⁶ *Id.*

¹⁴⁷ *The Origin of Hong Kong Horse Racing*, HONG KONG JOCKEY CLUB, <http://corporate.hkjc.com/corporate/history/english/index.aspx> (last visited Sept. 8, 2013).

¹⁴⁸ Steve Zorn, *Hong Kong 3: Drug Rules and Horse Care*, BUS. RACING (Dec. 30, 2011, 7:56 AM), <http://businessofracing.blogspot.co.uk/2011/12/hong-kong-3-drug-rules-and-horse-care.html>.

¹⁴⁹ Fernando, *supra* note 142.

¹⁵⁰ *Id.*

¹⁵¹ *Id.*

¹⁵² *The Veterinary Protocol for the Examination of Racehorses for Importation into Hong Kong*, HONG KONG JOCKEY CLUB, http://www.mathildetexier.com/mathildetexier.com/Home_files/HKJC%20Veterinary%20Protocol%20for%20the%20Examination%20of%20Racehorses%20for%20Importation%20into%20Hong%20Kong.pdf (last updated Aug. 15, 2013).

¹⁵³ *Id.* at 8-9.

¹⁵⁴ Zorn, *supra* note 148.

allow for higher thresholds for therapeutic medications.¹⁵⁵ Drug testing for horses in Hong Kong has a wider scope than testing in the United States. The Hong Kong Jockey Club's lab tests a higher proportion of horses than in the United States because the racing stewards may order testing of any horse that performs in a suspicious manner.¹⁵⁶ The Rules of Racing give the stewards the ultimate power in determining which horses to test and how long to keep the samples.¹⁵⁷ Bleeding is strictly regulated in Hong Kong. Hong Kong has an average of forty-two bleeding incidents per season, but prohibits using anti-bleeder furosemides, such as Lasix.¹⁵⁸ A horse is banned from racing for a three month period after the first bleeding incident, and is usually forced to retire if there are subsequent bleeding incidents.¹⁵⁹ The Hong Kong Jockey Club's website lists the following reasons for not introducing Lasix to combat bleeding:

- (1) Interference with analysis for prohibited substances, (2) The perception of attempting to pharmacologically adapt the horse to the demands of the industry instead of adapting the demands of the industry to the limitations of "flesh and blood", (3) Race day medication may be seen to be a substitute for skillful training, veterinary input, and horsemanship, (4) A desire to achieve international harmonization of medication policy, (5) Concerns about dehydration and electrolyte imbalance in sub-tropical conditions, (6) Concerns about the impact of race day medication, especially Lasix on the consistency of racing performances, (7) The principle that a race should be a test of the best athlete at that particular point in time, and (8) The degradation of the thoroughbred breed.¹⁶⁰

Where the United States has adopted the Absolute Insurer Rule to impute liability automatically on the trainer when a prohibited substance is found in the horses system, Hong Kong Rule of Racing Rule 139 states, "[a]ny person commits an offence against these Rules if he is found to have administered or caused to be administered a prohibited substance to a

¹⁵⁵ HONG KONG JOCKEY CLUB, RULES OF RACING AND INSTRUCTIONS (2013) [hereinafter HONG KONG RULES], available at http://www.hkjc.com/english/racinginfo/rules_pdf/12rulesOfRacing_e_full.pdf.

¹⁵⁶ Zorn, *supra* note 148.

¹⁵⁷ *Id.*

¹⁵⁸ Drape, *supra* note 143.

¹⁵⁹ *Id.*

¹⁶⁰ Brian Stewart, *A Summary of 'Bleeder' Data from the Hong Kong Jockey Club*, HONG KONG JOCKEY CLUB, http://www.harnesstracks.com/pdf_documents/RDMS%20Brian%20Stewart.pdf (last visited Sept. 8, 2013).

horse.”¹⁶¹ Rule 140 goes on to mimic the Absolute Insurer Rule of the United States, but only applies on race day.¹⁶² Rules 144 and 145 cover the disqualification of horses.¹⁶³ Specifically, Rule 144 states: “[a]ny horse which has been subject of a fraudulent practice may at the discretion of the Stewards of the Jockey Club be disqualified for such time and for such races as they shall determine.”¹⁶⁴

The United States is capable of thriving once more in an industry that it economically dominated, but certain changes must be made regarding how horse racing is regulated, operated, and policed. The federal government should form a federal commission with agency-like powers, such as the power to promulgate rules, enforce those rules, and adjudicate any diversion from these rules. This commission should consist of veterinarians, association heads, jockeys, trainers, track owners, and others educated about and committed to the sport. The veterinary community must come to an agreement as to the classification of drugs as either therapeutic or as performance enhancing. Other members of the racing industry, such as trainers, owners, and track operators, must be willing to examine issues with clarity, uninfluenced by profit-seeking motives. A federal racing commission would have the ability to forcibly regulate the industry and make the decisions necessary for the United States to thrive once more in one of its most prized industries.

VI. CONCLUSION: THE PATH TO AMERICAN RACING DOMINANCE INTERNATIONALLY

As this Note has demonstrated, the countries dominating the international racing industry have adopted uniform regulations that are successful in policing the use of race day medication in thoroughbreds. For the United States’ racing industry to continue its success, the federal government must follow the example of its international peers and impose regulations to protect the economy and integrity of the sport, as well as the health of the horses. The NTRA’s requirement that tracks seeking accreditation and those seeking to renew their accreditation pass the Amended Model Rule is the first step necessary for the United States’ racing industry to continue to thrive. Ultimately, the federal government must promulgate its own uniform rules and regulations in order for the country to meet international economic and ethical standards.

The Hong Kong Model for using racing medications should be utilized by the United States for the following reasons: (1) the Hong Kong

¹⁶¹ HONG KONG RULES, *supra* note 155.

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.*

Jockey Club has power to promulgate and enforce regulations, making it easier to regulate the industry and to inform participants in the industry of rules and penalties; (2) the humane treatment of the thoroughbreds demands strict policy; and (3) the Hong Kong racing industry thrives economically, though fewer races are held throughout the year than in the United States. If the United States creates a central commission to promulgate and enforce regulations that will in turn provide a consensus on the use of therapeutic substances, the United States can rise to prominence in the racing industry. The personal profit sought by horse owners, trainers, track owners, and others who gain from the use of medications, must be cast aside, with the focus being on the best interest for the horses and industry as a whole. Ultimately, the responsibility lies with the United States government to decide the horse racing industry's future: either take the steps necessary to compete in the global arena, or continue down the same path of inconsistency, economic downturn, and ethical frustration in an industry that it once dominated.