Pre-Race Inspections

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Profiling to Prevent Injury

Welfare and Safety of the Race Horse Summit 2012

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KENTUCKY HORSE RACING COMMISSION

The goal of the pre-race exam?

- To effect the withdrawal of horses—unsound, unfit to race, or with an unacceptable risk of injury.

The success of the pre-race exam program….

…is reflected in the exams that <u>don't</u> take place

- The trainer recognizes that a horse's condition will not be acceptable and therefore
  - Does not enter the horse, or
  - Withdraws the horse after entry

If our vets are recommending a large number of scratches…

…we have failed to adequately educate stakeholders with regard to our expectations of a horse's condition on race day.

The Pre-Race Exam

- Identification of horse by tattoo or microchip
- General assessment of condition
- Palpation and manipulation of forelimbs
- Observation of horse in-hand at the trot

- Additional evaluation as warranted

Has the pre-race exam been effective?

Cohen, et al., JAVMA 2000: 216: 1273-1278

- 3.7 % of horses examined were assessed to be at increased risk of injury
- 1.6% (of the 3.7%) were observed to be lame on track during, or immediately following a race

The Florida Experience

Calder Race Course
TB flat racing ~ April-December
Dirt /Turf courses
2000-2010: ~160,246 race starts

Gulfstream Park
TB flat racing ~ January-March
Dirt/Turf courses
2000-2010: ~77,081 race starts

Cases

- 407 horses for which scratches were initiated by regulatory veterinarians between 2000 and 2010
  - Included: pre-race exam, post-parade, and gate scratches for unsoundness
  - Excluded: trainer initiated scratches, scratches for conditions unassociated with lameness or orthopedic disease, and gate scratches associated with trauma

Controls

- 814 horses randomly selected out of those that started and passed the finish line in target races (races out of which Case horses were scratched)

Cases

88/407 (21.5%) did not start in a race after the date of the scratch

Controls

24/814 (2.9%) did not start in a race after competing in a target race

Cases

319/407 (78.4%) made a race start after the date of the scratch

- Mean interval from scratch to next race start: 109.8 days
- 22/319 (6.9%) did not make a race start in the 12 month interval after the scratch

Controls

790/814 (97.1%) made a race start after competing in a target race

- Mean interval from target race to next race start: 38.5 days
- 8/790 (1.0%) did not make a race start in the 12 month interval following the target race

Cases

- 296/319 (92.8%) made a race start within 12 months of the scratch
  - Mean interval from scratch to next race start: 82.7 days
  - 49/296 (16.6%) did not make a race start in the 6 month interval after the scratch

Controls

- 782/790 (99.0%) made a race start within 12 months of the target race
  - Mean interval from target race to next start: 34.2 days
  - 24/782 (3.1%) did not make a race start in the 6 month interval following the target race

Cases

- 247/319 (77.4 %) made a race start within 6 months of the scratch
- Mean interval from scratch to next race start: 52.3 days

Controls

- 766/790 (97.0%) made a race start within 6 months of the target race
- Mean interval from target race to next start: 30 days

So…

- It looks like scratch recommendations reflect a reasonably accurate ability to identify physically compromised horses that should not compete.

- Although the high percentage of non-starters post-scratch suggests intervention might be occurring too late.

- Given the occurrence of racing injury—and the lesions observed on necropsy—it's also clear that we're missing horses for which regulatory intervention is appropriate.

The Catch-22

- A clear line has been drawn in the sand with respect to requirements for clinical presentation on race day.

- A marginal horse's clinical presentation can be manipulated to satisfy pre-race exam requirements.

The *appearance* of soundness should not be equated with musculoskeletal health.

The problem with the race day exam is the risk of the illusion of soundness.

If a horse is sound, he should look fine no matter when, or how often, you examine him.

But if he's not sound, the more often you assess him, the more likely you are to accurately understand his condition.

The Expanded Protocol

- Identification of 'Horses of Interest' based on
  - Exercise history
  - Pre-race exam findings
  - Review of race replays
  - Post-race observations
  - Assessment of horses other than on race day
  - Drug testing results
  - Intelligence

Exercise History

- Past performances are reviewed when entries are published
  - 1st time starters (> June of 3 y.o. year)
  - Drop in class
  - 1st or 2nd start after layoff of 60 or more days
  - Jockey change
    - Multiple riders in race history
    - Journeyman to apprentice (particularly for non 'speed' horses)
  - Deviations from known trainer patterns

Pre-race Exam

- Change in findings
  - Negative
  - Positive
    - Improvement inconsistent with interval of rest between races

Review of Race Videos

- Historically, video reviews were performed for races in which horses sustained fatal injuries

- Reviews now expanded with goal of identifying the horse that warrants post-race assessment

Post-race Observation

- Random or ‘earned’ observation of horses cooling out after racing or follow up evaluations the following day.

Out of Competition Assessments

- After entry
- Between races
  - Regulatory veterinarian initiated
  - Trainer initiated
- Observation of the general population during training hours

Drug Testing Results

Ketoprofen	Naproxen	Phenylbutazone	Flunixin	Meclofenamic Acid	Diclofenac
		1.4 ug/mL			
0.6 ng/mL					
		1.5 ug/mL			
0.1 ng/mL		0.7 ug/mL	0.3 ng/mL		
0.1 ng/mL		0.4 ug/mL	0.4 ng/mL		
		0.4 ug/mL	1.0 ng/mL		
0.1 ng/mL	1.6 ng/mL	0.8 ug/mL	2.1 ng/mL		
		0.3 ug/mL	0.9 ng/mL		
	5.3 ng/mL	1.1 ug/mL			
	2.4 ng/mL	1.5 ug/mL	2.6 ng/mL		
		0.8 ug/mL			
		1.7 ug/mL			
		1.3 ug/mL			
			1.0 ng/mL		
		0.8 ug/mL			
		0.6 ug/mL			
		0.9 ug/mL			
		0.9 ug/mL	1.3 ng/mL		
0.1 ng/mL		0.1 ug/mL	0.2 ng/mL		0.1 ng/mL
		0.4 ug/mL	1.5 ng/mL		

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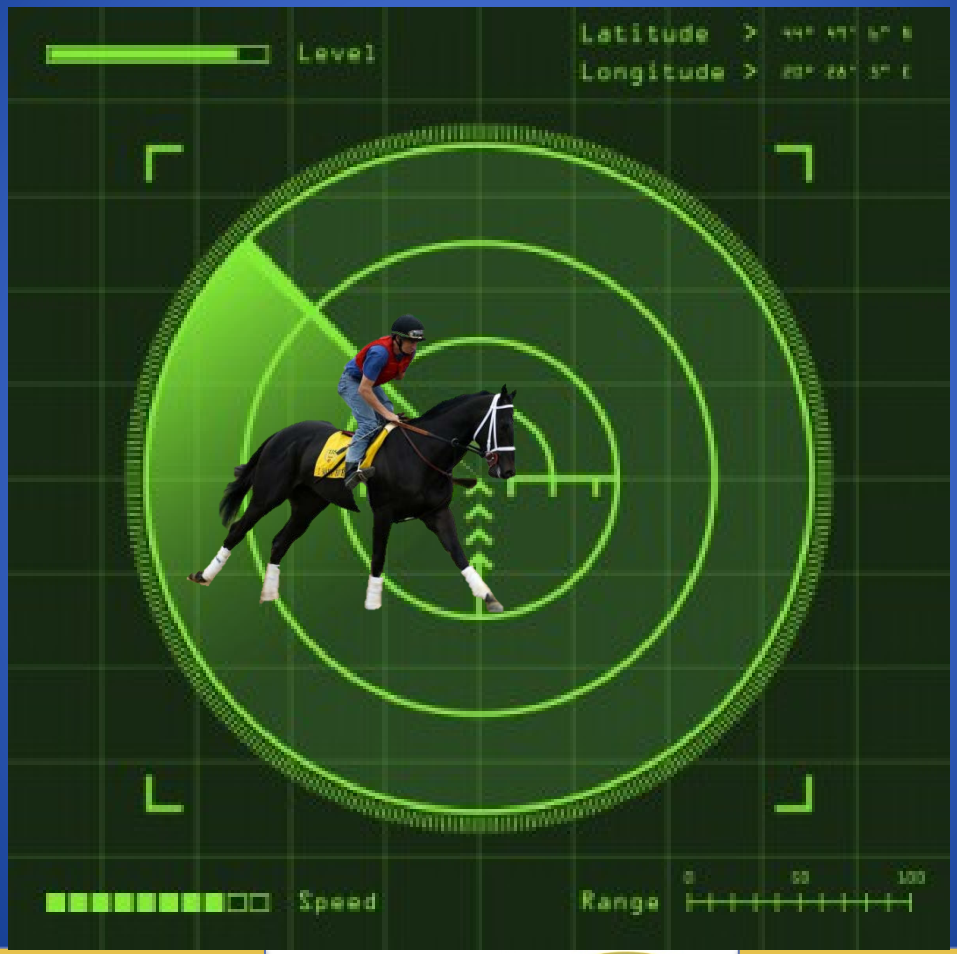
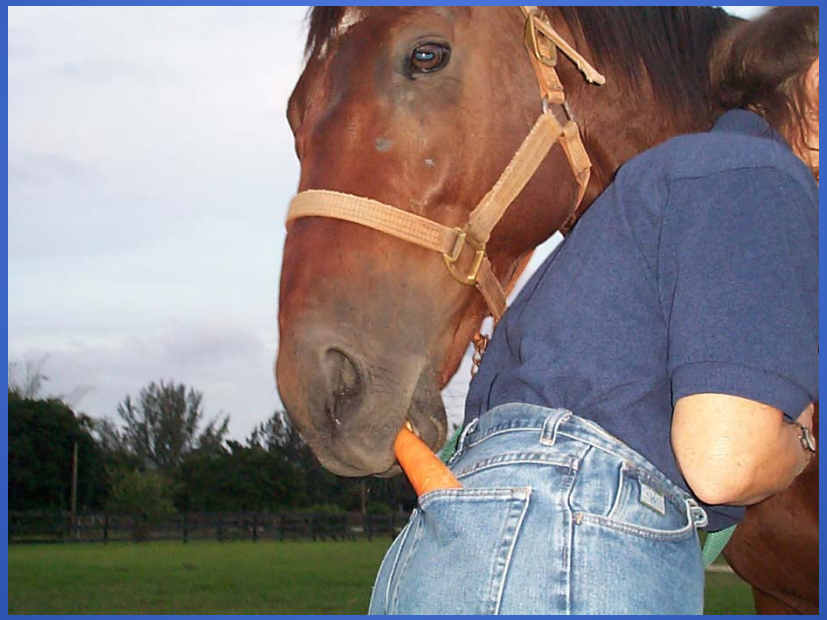
- Getting the right horse on the radar screen improves EVERYONE's decision making



Thank you



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