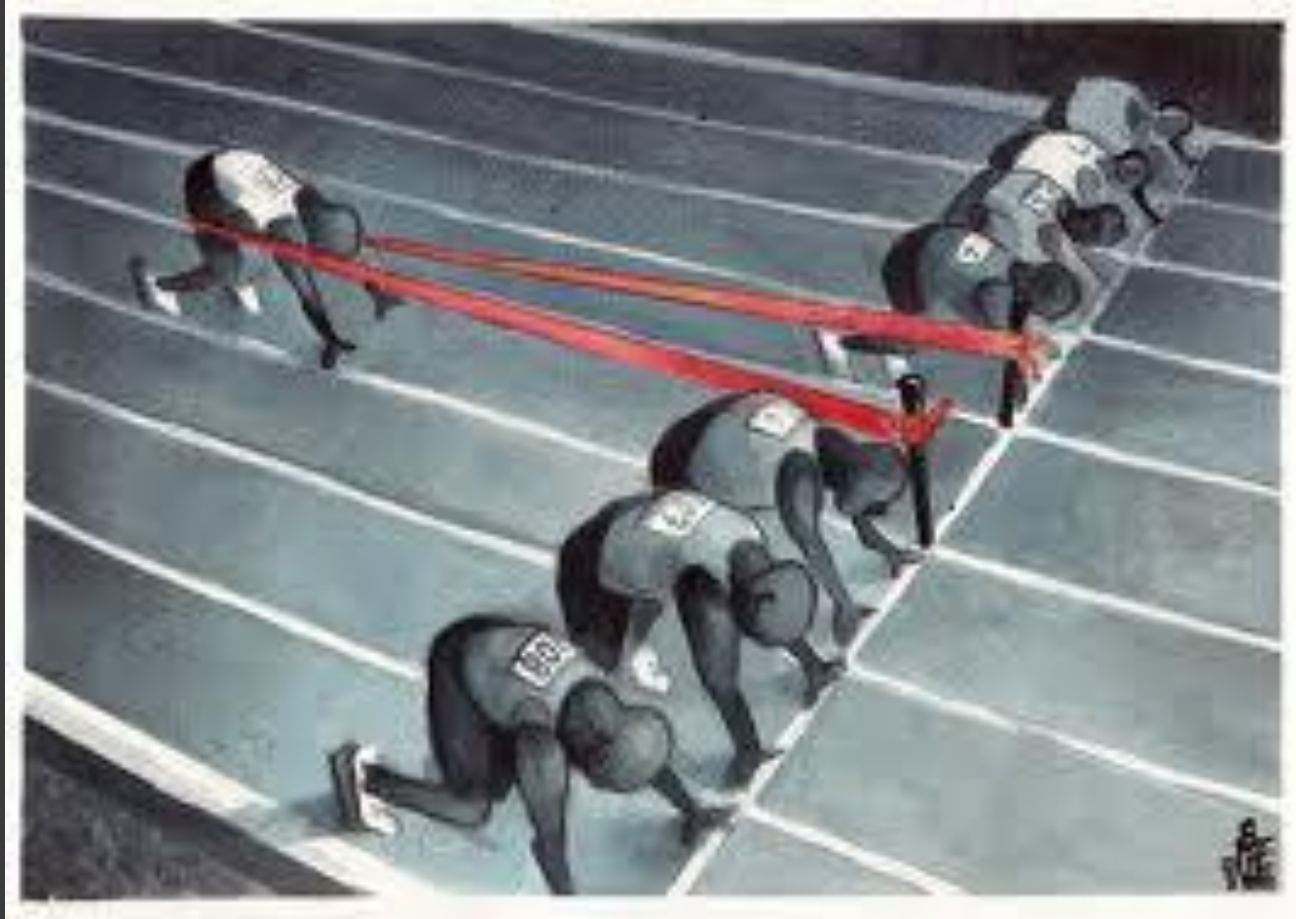


Doping issues for Practice Nurses

DR CHRIS MILNE
SPORTS PHYSICIAN
HAMILTON

Just the start you need. Bring on the coffee!



Super athlete or super dopey?



DRUGS IN SPORT AND EFFECTS

BUILDING MUSCLE AND BONE

Androgen Steroids
Anabolic Steroids
Androstanoles (steroids)
Dehydroepiandrosterone (DHEA)
Testosterone

USE EFFECTS
Psychological changes
Sex changes, facial problems
In women: voice changes
Hypertension

State of Anti-doping Agency
Prohibited
Prohibited

USE EFFECTS
Neurological, muscular, muscle wasting
Hypertension

Genetic Hormones
Cortisol (steroids)
Cortisol (steroids)
Cortisol (steroids)

USE EFFECTS
Increased internal organs, heart problems

Insulin

USE EFFECTS
Low blood sugar, weight gain, muscle and bone loss

ERGIC AGENTS

Epinephrine
Adrenaline
Dopamine

USE EFFECTS
Increased heart rate, high blood pressure, arrhythmia

WEIGHT CONTROL

Diuretics
Furosemide
Hydrochlorothiazide

USE EFFECTS
Dehydration, heart attack, kidney failure, low blood pressure

BALANCING FLUID

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Furosemide
Hydrochlorothiazide

USE EFFECTS
Increased heart rate, high blood pressure, arrhythmia

MAINTAINING LIVER

Protein Hormones
Growth hormone (GH)
Insulin-like growth factor (IGF-1)

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Topics to consider

- ⦿ Asthma drugs
- ⦿ Probenecid
- ⦿ Supplements/ Anti-ageing products
- ⦿ Blood testing to monitor health of people taking AAS- Androgenic Anabolic Steroids

WADA Chief David Howman and the athletes' message



Asthma drugs

- B2 agonists- Stick to salbutamol and then your athlete patients will be spared the need to have bronchial provocation tests. Still need to notify these if selected for testing
- LABA-Salmeterol OK
- Cromoglycate-Tilade etc, often under-used in athletes, and need no notification

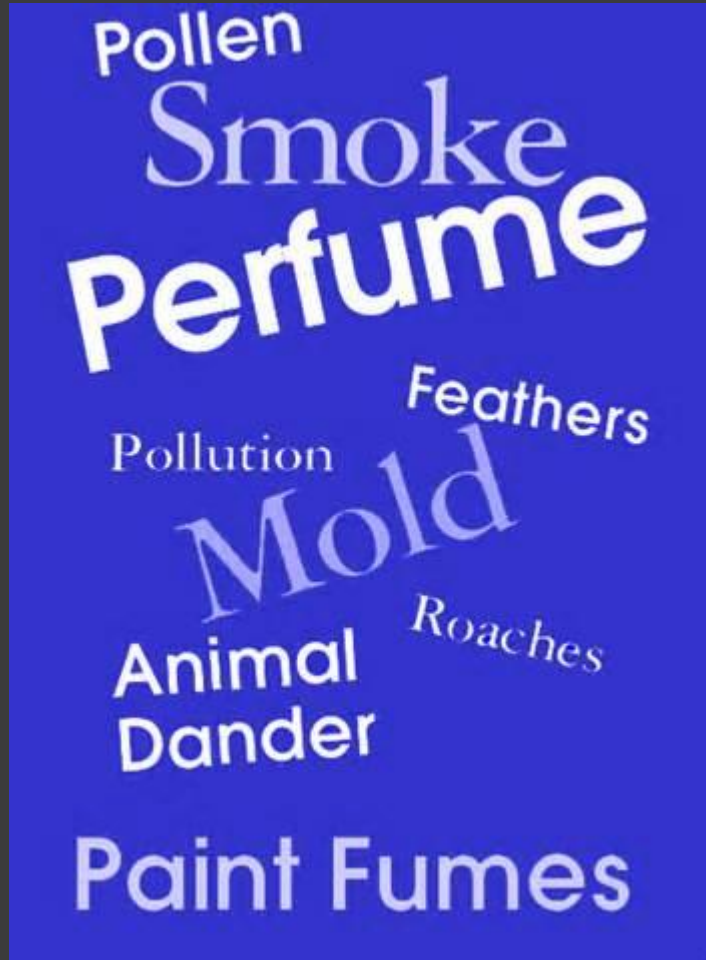
Being breathless can be scary



Asthma drugs continued

- Prednisone course needs notification to Drugfree Sport NZ- need objective data to justify its use
- Recommended to have spirometry, with a baseline for comparison. Minimum needed would be peak flow in an emergency

Remember triggers and give O2 generously



Probenecid

- ⦿ Blocks renal excretion of drugs
- ⦿ Hence its use to keep penicillin levels high in people with significant infections
- ⦿ In the protocols of many A+M centres
- ⦿ Athletes should know to inform staff that they are subject to testing, but you can imagine the pitfalls, even in otherwise well organised athletes....
- ⦿ Solution- double the dose of penicillin in athletes with significant infections. DON'T use probenecid

Next time you see an athlete with cellulitis, remember this talk!



Supplements/ Anti-ageing products eg DHEA

- ⦿ A minefield
- ⦿ Explain to any athlete, they [not you] are taking the manufacturer on trust
- ⦿ Contamination a huge concern eg 'natural' herbal ED products contaminated with Viagra
- ⦿ Helps sales of the product!
- ⦿ Can get athletes into BIG trouble

Because you're worth it !



Who would you rather wake up next to?



Blood testing to monitor health of people taking AAS

- ⦿ Why would you bother?
- ⦿ Could be accused of aiding/abetting a corrupt practice
- ⦿ No duty of care to such individuals- it is their choice to take AAS- they have to accept the risks.

Not something we need to encourage....



And you thought it was just Lance...



SPORT'S DARKEST DAY

Key points:

- Widespread use of illegal drugs
- Coaches & sports scientists involved
- Organised crime links
- Evidence of potential match fixing

What now?

- Investigations underway by police
- Major sports to establish integrity units
- Zero tolerance for any support staff who are involved
- People who refuse to cooperate liable for civil penalties



Thank you

