TUEs for Glucocorticoids
The UCI Experience

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Dr Mario Zorzoli

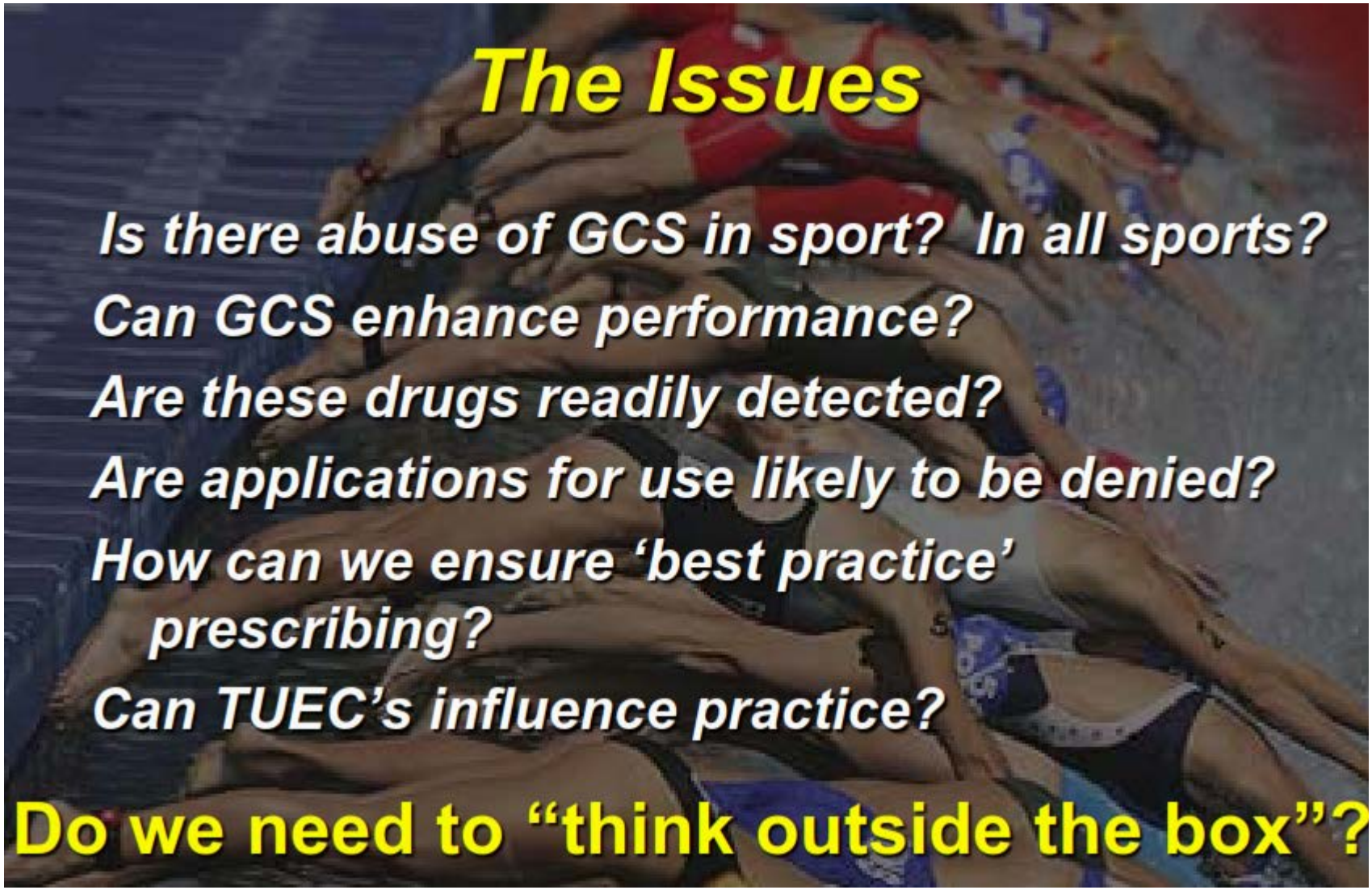
WORLD ANTI-DOPING AGENCY

Union Cycliste Internationale

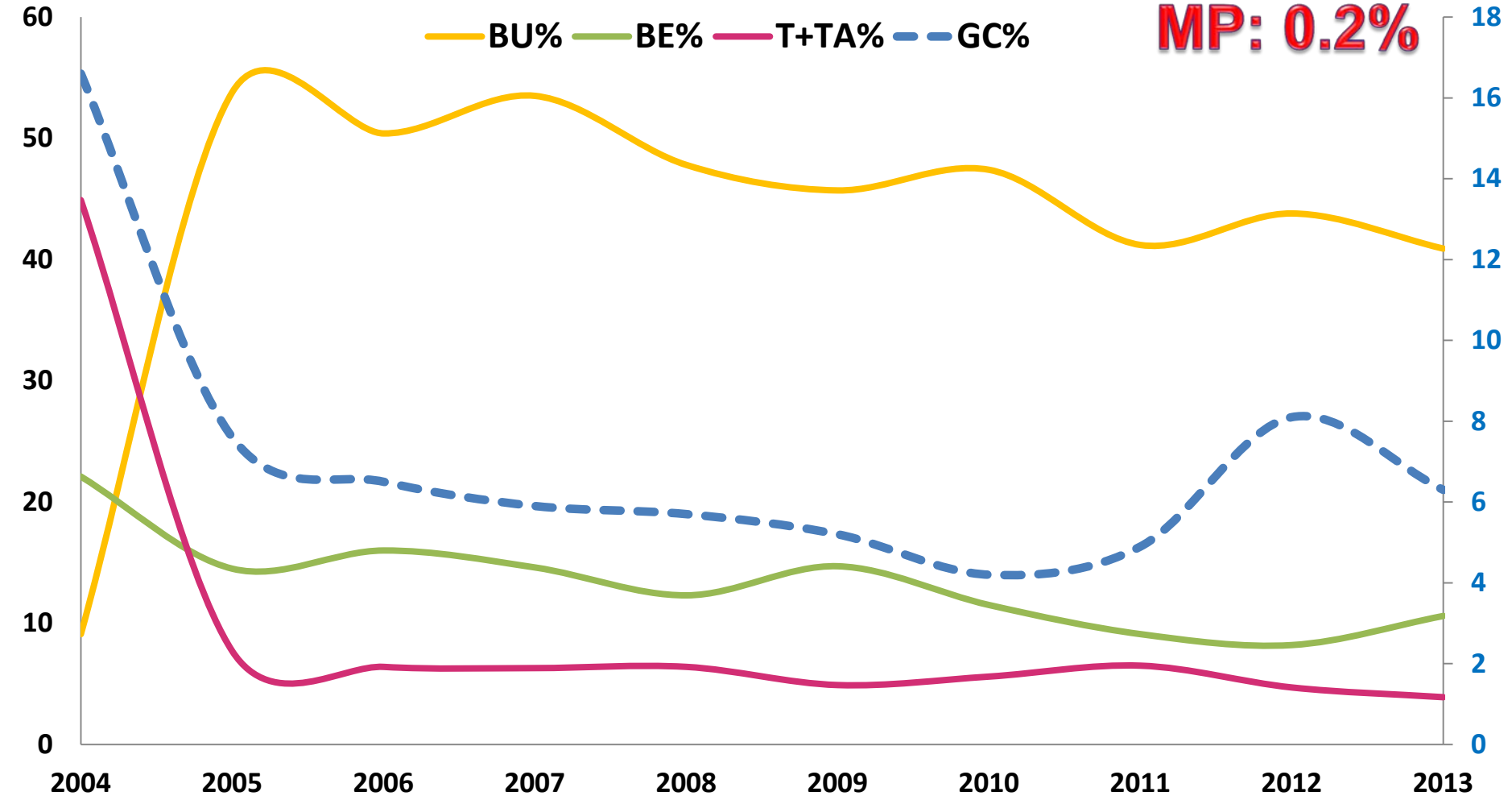
Overview

- Where do we start?
  - GC detection in anti-doping samples
  - Excretion studies of GC
- UCI TUEs statistics
- How to deal with a TUE for GCs?
- Consequences of granted GC TUEs
  - Health risks – adrenal insufficiency
  - Performance enhancement
- Conclusions

Bonn 2011…


The Issues
Is there abuse of GCS in sport? In all sports?
Can GCS enhance performance?
Are these drugs readily detected?
Are applications for use likely to be denied?
How can we ensure 'best practice' prescribing?
Can TUEC's influence practice?
Do we need to "think outside the box"?

GC detection in anti-doping samples



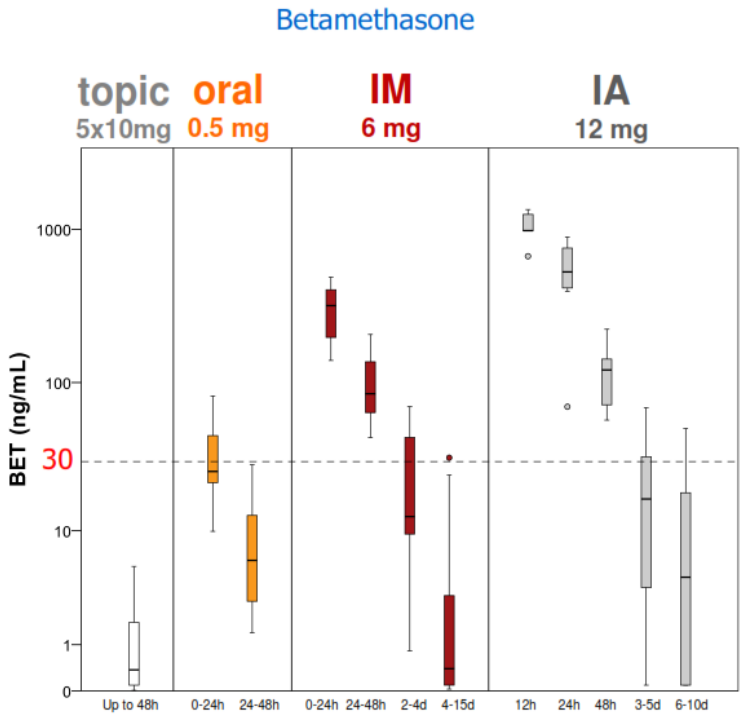
GC Route of administration

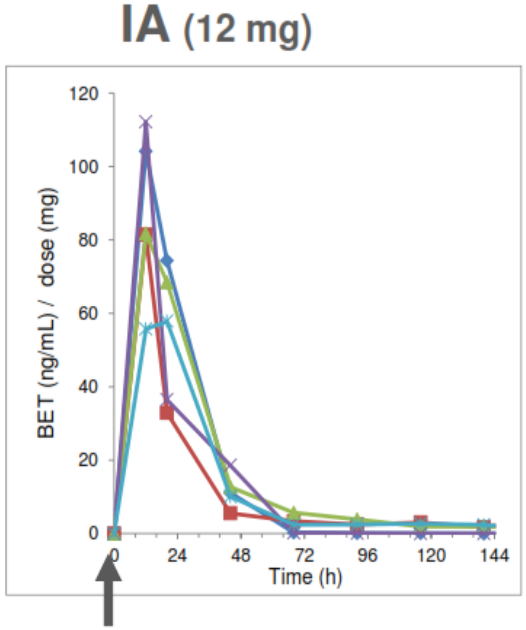
S9. GLUCOCORTICOIDS

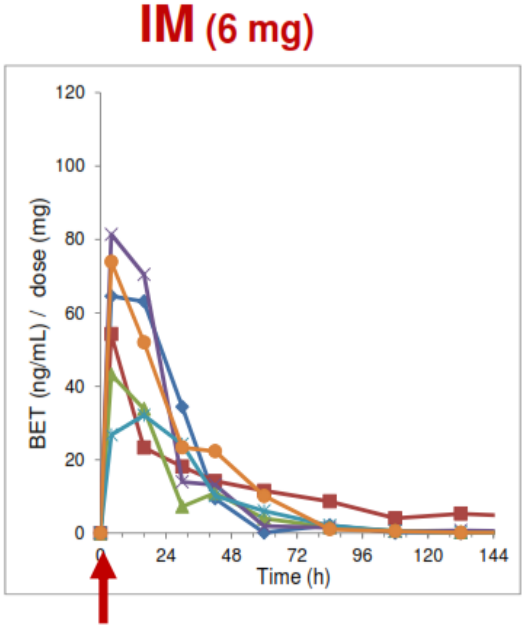
All **glucocorticoids** are prohibited when administered by oral, intravenous, intramuscular or rectal routes.

Excretion studies:

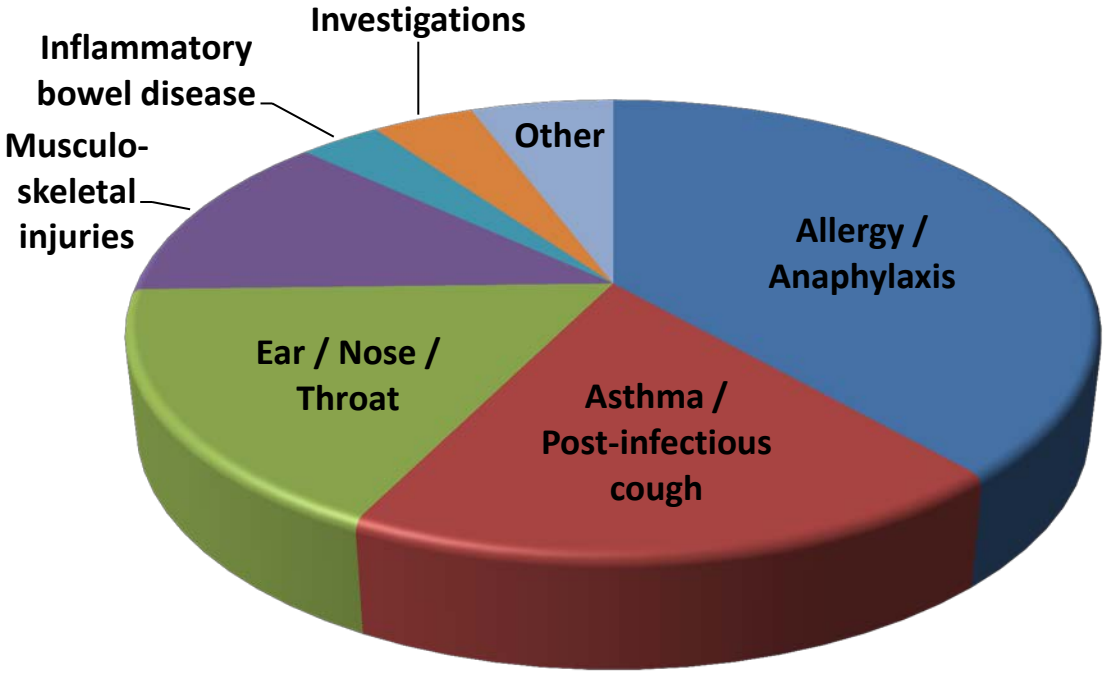
Institut Hospital del Mar d'Investigacions Mèdiques







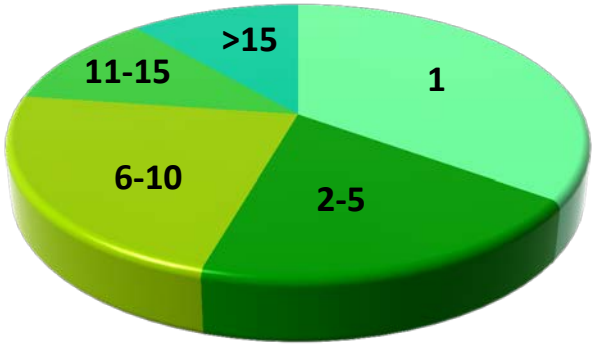
UCI TUEs for Glucocorticoids

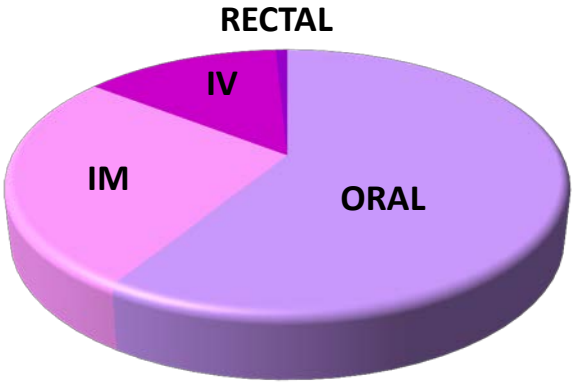


DIAGNOSIS

YEARS	STANDARD TUES	STANDARD TUES FOR GC
2009-2014	175	122

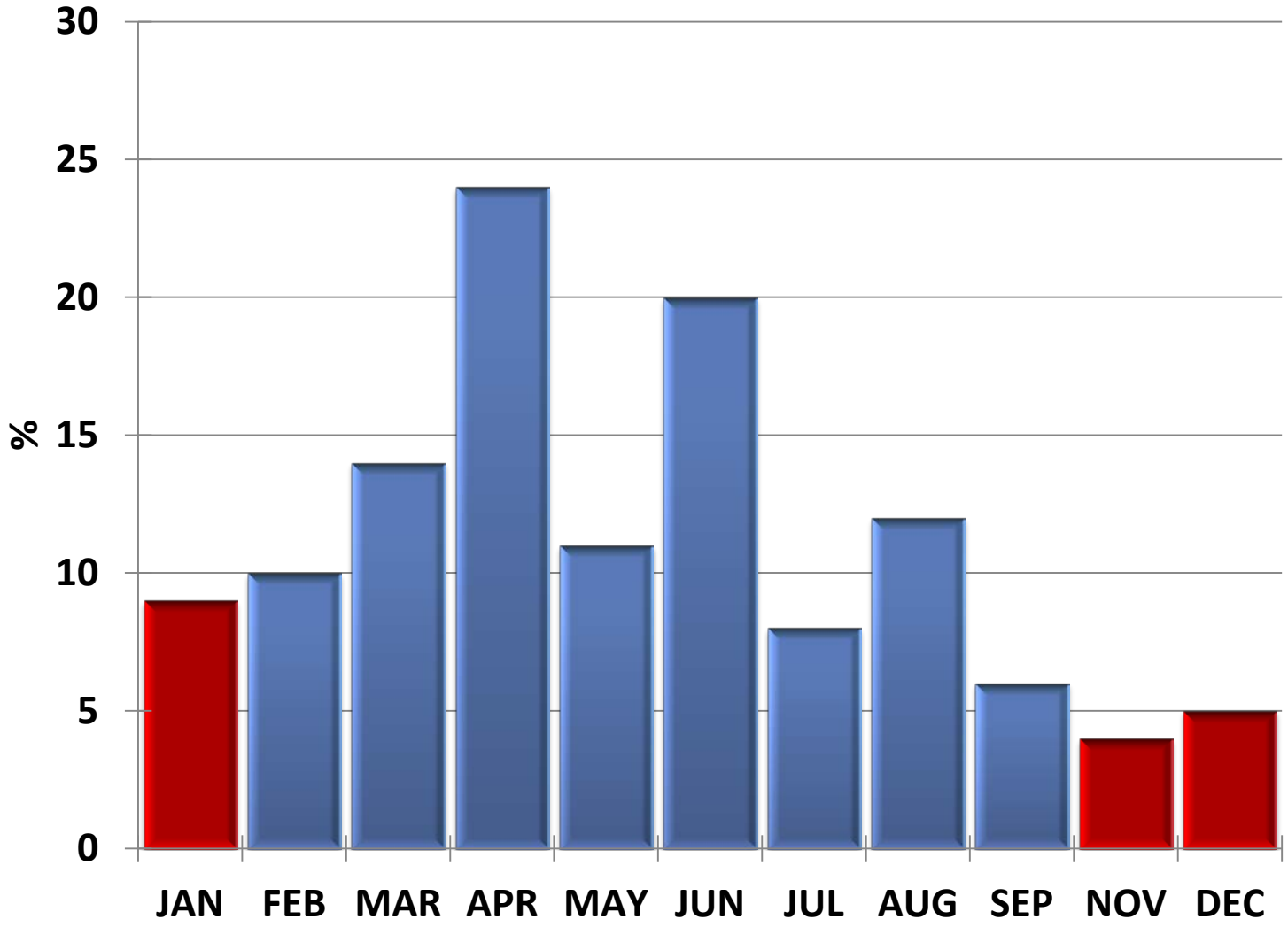
VALIDITY (DAYS)





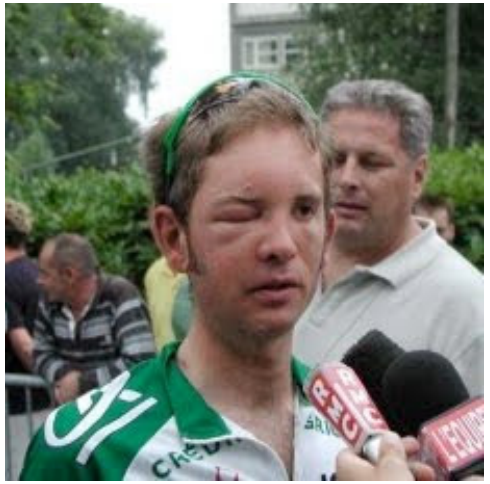
ROUTE OF ADMINISTRATION

UCI TUEs for Glucocorticoids



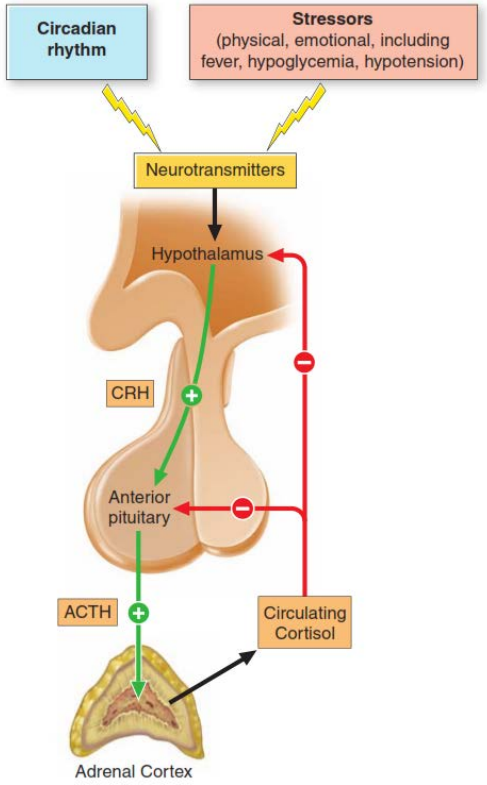
How to evaluate TUEs for GCS

- Compliance with “Medical Information for TUEC”
- Objective information
  - Photos in case of visible allergic reactions;
  - Pulmonary function tests for asthma
  - Reports of investigations for inflammatory or infectious conditions
  - Hospital reports
- Treatment duration
- Next competition
- Difficulties:
  - Only objectable data
  - Retroactive TUE



Biological adrenal insufficiency

- *(…) some athletes (eg, cyclists, rugby players, soccer players) are at risk of severe injuries that may require surgery and have a high risk of infections, affecting the upper respiratory tract in particular. Although biologic insufficiency did not seem to be always associated with clinical symptoms, in view of the severity of cases of adrenal crisis described in subjects taking corticosteroids, in the event of some form of superimposed stress (eg, infection, physical injury entailing surgery), there is a real risk of life-threatening acute adrenal insufficiency*



Endocrinol Metab Clin N Am 39 (2010) 107–126

Biological adrenal insufficiency

- Biological finding vs. clinical relevance
  - Independent by the route of administration (systemic > topical)
  - Independent from reasons for GC use
- What to do ?
  - Inform the athlete on the TUE certificate?
  - Inform the competition doctor?
  - Cortisol measurement and stop the athlete?
  - Adrenal insufficiency sign/card?

- Secondary adrenal failure
  - Low incidence and usually mild and non specific clinical features
  - Consequence of previous use of GC (CAVE Art. 4.1.d ISTUE 2015 - *prohibited at the time of such use*)!

Performance enhancement

- GC seem to be performance-enhancing (decrease fatigue, increase glycogen reserves) [M. Duclos]
- Granted TUE implies to allow GC use in competition
- ISTUE / Medical information for TUEC are not sport specific
- Can a specific sport grant a TUE and not allow an athlete to compete because of the performance-enhancement effect (oxymoron-like decision)?
  - How to differentiate among sports?
  - UCI: no-needle policy requires a period of rest of 8 days after a local injection of GC

Summary

- GC are reported to be largely used in sport but detection in in- or out-of-competition samples is low or “artificially” low?
- Permitted and prohibited administration routes are impossible to differentiate (effects and urinary excretion)
- Theoretical risk of lethal adrenal-failure
- TUEs for GC:
  - Very frequent, mainly for a single dose or a short duration
  - Applications also during out-of-competition period
  - Often retroactive approval
  - Medical evidence can be scarce or subjective

Paris 2014…

- Should we automatically inform athletes of the risk of adrenal insufficiency?
- Are there other measures to take to prevent possible dramatic evolutions?
- Should we take into consideration sport specific performance-enhancement when granting TUEs?
  - For which sports? In which situations?
- Would this be in contradiction with the concept of TUE and the philosophy of the Code?