International Paralympic Committee

Anti-Doping Updates in Paralympic Sport

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Important Resources
Dietary Supplements

• **REALIZE** there are safety issues with dietary supplements.
• **RECOGNIZE** risk when you see it.
• **REDUCE** your risk of testing positive and experiencing health problems by taking concrete steps.
Catheters – Glycerol-based lubricants

- Glycerol is a prohibited substance
- Unintentional positive tests resulting from glycerol-based lubricants
- Updated IPC Position Statement On the Use of Catheters in Doping Control in January 2015
- Glycerol thresholds recently increased by WADA (Kelly, 2013)
- Consider alternatives which do not include the use of glycerol
Intravenous Infusions

**PROHIBITED**

- All Infusions & Injections
- Over 50 Milliliters
- Per Six Hour Period

**NOT PROHIBITED**

- Infusions & Injections
- Under 50 Milliliters
- NOT on the Prohibited List

*Exceptions for emergency situations, check the WADA Prohibited List for details.*
# The Present and Future of the Athlete Biological Passport

<table>
<thead>
<tr>
<th>Module</th>
<th>BioMarkers</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haematological</td>
<td>Hb, Ret%, Red Blood Cell Indices</td>
<td>2009</td>
</tr>
<tr>
<td>Steroidal</td>
<td>Testosterone (T), T/E, A/T, A/Etio,…</td>
<td>2014</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Growth Factors (IGF-1, PIIP…)</td>
<td>2017?</td>
</tr>
<tr>
<td>-Omics</td>
<td>Genomics, proteomics, …</td>
<td>?</td>
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</tbody>
</table>

Source: WADA
Athlete Biological Passport

BMJ 2012;344:e2077 doi: 10.1136/bmj.e2077 (Published 22 May 2012)

Normal haematological profile of an athlete

Profile of an athlete convicted of doping
Number of Blood Doping Cases since 2005

Source: WADA
Future of Anti-Doping

Dried Blood Spots & Oral Fluid = Less Invasive Sample Collection
Important Reminders

- Health professionals are key players in protecting clean sport
- Awareness of anti-doping rules, athlete’s rights and responsibilities is critical
- Work together with athletes and their medical support staff to be knowledgeable on anti-doping matters
- Act as an athlete representative in the doping control sample collection process
- Ask questions
- Encourage clean sport by acting a positive role model
Health Professional Anti-Doping Education

- https://med.stanford.edu/cme/courses/online/USADA.html
Obrigado!