

Reimagining harm reduction for people who use anabolic-androgenic steroids through testing, community engagement, and peer-led care

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ACKNOWLEDGEMENT OF COUNTRY

Griffith University acknowledges the Traditional Custodians of the land on which we are meeting and pays respect to the Elders, past and present, and extends that respect to all Aboriginal and Torres Strait Islander people.

- QuIVAA would like to recognise the bravery of peers who have enabled us to be here today, facilitating open discussions on harm reduction.

QuIVAA



Introduction – Image and Performance Enhancing Drugs (I PEDs)



Injectables		
Testosterone C-17 esters	19-Nortestosterones	Dihydrotestosterone (DHT) derivatives
Testosterone cypionate (Test C)	Nandrolone compounds (Deca Durabolin, NPP)	Mesterolone (Proviron)
Testosterone enanthate (Test E)	Trenbolone compounds (“Tren,”)	Drostanolone (Masteron)
Testosterone propionate (test prop)		Stanozolol (Winstrol)
Testosterone decanoate		Metenolone (Primobolan, “Primo”)
Boldenone undecylenate (Equipose, EQ)		
Sustanon 250 (Blend of testosterone esters)		
Orals		
Methylated testosterone derivatives	Dihydrotestosterone (DHT) derivatives	Other IPEDs
Methyltestosterone (“M1T”, MethylTest)	Oxandrolone (Anavar)	Methasterone (Superdrol)
Metandienone (“Dianabol”, “D-bol”)	Oxymetholone (Anadrol)	Insulin
Fluoxymesterone (halotestin)	Metenolone (Primobolan, “Primo”)	Peptides (e.g., BPC-157, TB-500)
Chlorodehydromethyltestosterone (Turinabol,)	Stanozolol (Winstrol,)	Human Growth Hormone



Steroids

- Used by 3.3% globally for a large variety of reasons – **aesthetic**, **wellbeing**, **performance**, ‘youthfulness’, mental health
- Steroids are associated with substantial physical and psychosocial risk, ranging from physical (e.g., hypertension, reproductive issues, blood-borne virus transmission and infections) to psychosocial (e.g., depression, suicidal ideation).



Steroid Harms

- These risks are amplified when people use mislabelled steroids.



Illicit Steroid Markets

- Steroid-related arrests in Australia have increased **218 per cent** over the last decade - from 365 in 2010–11 to 1,160 in 2019–20 - to a record **1,320** in 2020–21.
 - **End user arrests** continue to account for the greatest proportion of arrests, accounting for **82%** of national steroid arrests in **2020–21**
- The weight of steroids seized nationally increased **1,372%**, from 33.7 kilograms in 2011–12 to a record 496.8 kilograms in 2020–21.



Harm Reduction Innovations

Drug Checking

- The implementation of drug checking programs has shown positive outcomes and increased safety
- Feasibility studies indicate acceptance and willingness among people who use drugs (and steroids) to engage with these services



Table 2. Summary of results by expected drug type

All samples analysed on-site (N=51)		Psychoactive substances detected (onsite FTIR / reagent testing)	
Expected drug type	n	Expected drug only (n)	Other substances detected (e.g. unexpected psychoactive substances)
MDMA	12	11	1x MDMA + 4-CMC (a synthetic cathinone) + MSM (methylsulfonylmethane)
Alprazolam tablets	6	-	All results were inconclusive and require further laboratory testing. Alprazolam and similar benzodiazepines occur at low concentration in tablets and may not be detected by FTIR. We did get 1x low quality match for bromazolam (a novel benzodiazepine).
LSD	6	6	Note: Reagent tests could only indicate that an indole consistent with LSD was present.
Ketamine	5	5	
Cocaine	4	3	1x dimethylpentylone (DMP) - a synthetic cathinone - no cocaine detected
2C-B	3	1	1x mixture of ketamine + MDMA (consistent with 'hus') - no 2C-B detected 1x MDMA - no 2C-B detected
Methamphetamine	2	1	1x no psychoactive substance detected (magnesium sulphate also known as epsom salts)
Bromazolam (novel benzodiazepine)	2	2	
4-AcO-DMT	1	1	
2F-NENDCK (aka Can Ket)	1	1	
3-MMC (synthetic cathinone)	1	0	1x dimethylpentylone (DMP) - a synthetic cathinone - no 3-MMC detected
Modafinil	2	2	
Fluorenil (also known as Hydranil)*	1	1	Confirmed by off site laboratory testing
PRL-8-53**	1	1	Confirmed by off site laboratory testing
Expected drug unknown	4	n/a	1x methamphetamine 1x inconclusive result (possible ketamine) - requires further laboratory testing 2x no psychoactive substance detected, 1x vitamin B + cellulose, 1x starch + caffeine + paracetamol

* Fluorenil (also known as hydranil) was originally patented as an insecticide, and has been studied as a possible alternative to modafinil in animal studies.

** PRL-8-53 has been reported to have some non-stimulant nootropic effects in a single double-blind trial (eg. improved memory) however this effect has not been widely replicated.

CheQpoint Monthly Report 1 - 19 April to 17 May 2024
Version 12 published 14/06/24

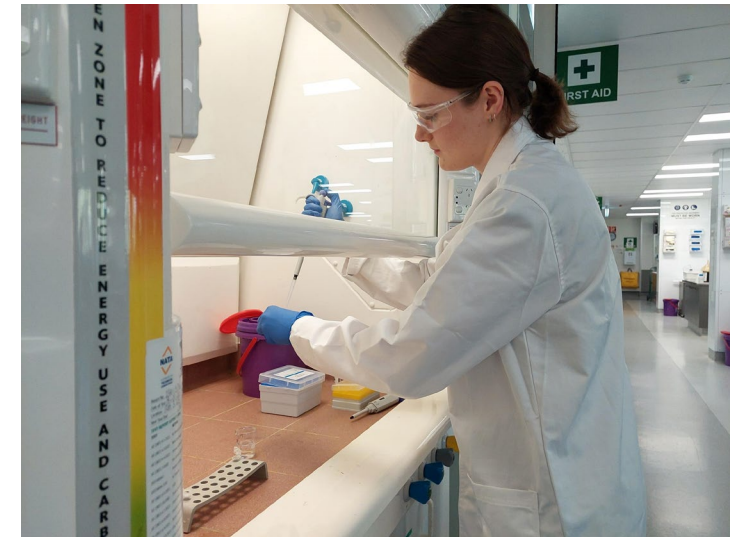
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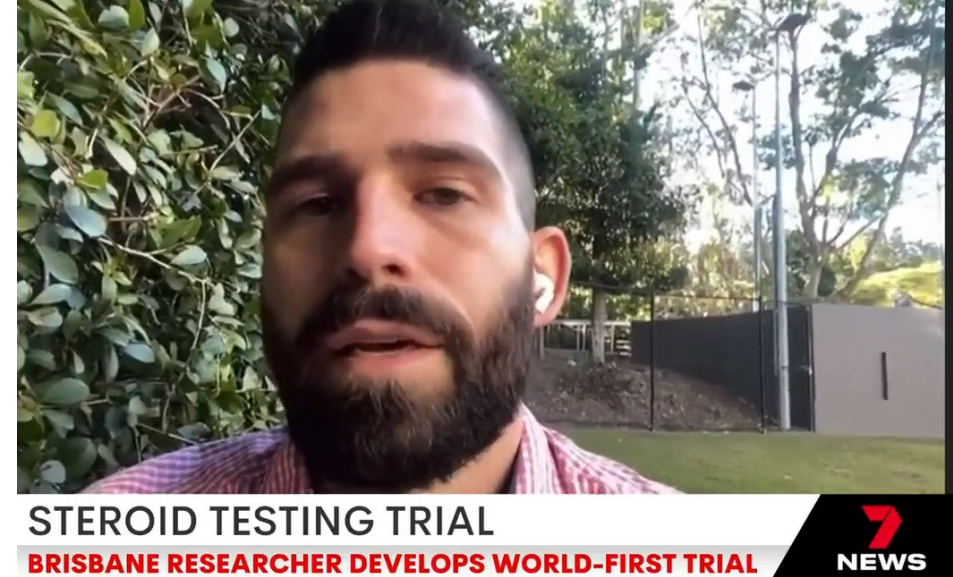


(Bardwell & Kerr, 2018; Measham, 2019; Kennedy et al., 2018; Krieger et al., 2018; Palamar et al., 2019; ; Piatkowski et al., 2023; Sherman et al., 2019)

Steroid Checking?

- Steroid checking is absent on a global scale, primarily due to logistical and technical challenges.
- Foremost of these is the need for expensive off-site testing facilities equipped with validated methods and reference standards and qualified staff.





World First Steroid Testing Trial



- This would not have been possible without the engagement, contributions, and expertise from the community – We are SO grateful



Timothy Piatkowski, Ross Coomber, Cameron Francis,
Emma Kill, Geoff Davey, Sarah Cresswell, Alan White,
Madeline Harding, Karen Blakey, Steph Reeve, Brooke
Walters, Cheneal Puljevic, Jason Ferris, Isabelle Volpe,



Rita Brien, Monica Barratt



Method

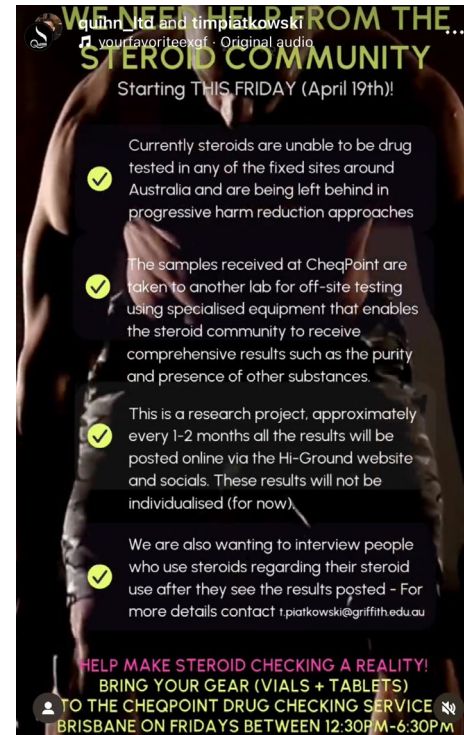


Method – Multiphase Exploratory Pilot



Method

- **Phase 1: Data Collection**
 - Chemical analysis of AAS samples (oils, tablets, powders) at CheQpoint, Brisbane and GC
 - Techniques: Mass detection, Liquid Chromatography, Infrared Spectroscopy
 - Results disseminated via posters and social media



1/10

ROIDCheck

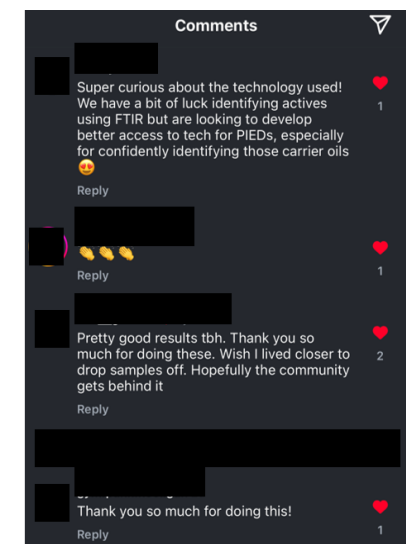
steroid checking project

WAVE 1 RESULTS

19th April-7th May 2024

CHEQPOINT
×
Hi-Ground

Link to full report in bio.



Method

- **Phase 2: Interviews**

- Semi-structured interviews with people who use AAS recruited from community networks
- Questions focused on perceptions of AAS risks and impact of test results
- Data Analysis: NVivo 12, guided by Health Belief Model, using deductive and inductive coding

Wave 1

- 32 samples submitted (April 19 – June 7, 2024); 87.5% were previously tried – **23 tested**.
- Main motivations: curiosity (78.1%), seeking information (12.5%).
- Top Compounds: nandrolone, testosterone, and trenbolone (12.5% each).



Hi-Ground

CHEPOINT
Wave 1 Snapshot Data

QuIVAA

The following results are from samples submitted to CheQpoint between the dates of 19th April 2024 to 7th June 2024. The total number of samples submitted was 32. The total number of samples qualitatively analysed was 23.

Table 1: Qualitative results of submitted samples.

Expected Drug Type	Samples Submitted (n, %)	Expected Drug Detected (n)	Notes on unexpected/inconclusive results	Expected Carrier Oil	Carrier Oil Detected
Injectable					
Testosterone Propionate	1 (4.3)	1		Not Provided = 1	MCT = 1
Testosterone Cypionate	1 (4.3)	1		Not Provided = 1	MCT = 1
Testosterone Enanthate	4 (17.4)	3	Testosterone Cypionate was detected in 1.	GSO = 1 Not Provided = 3	GSO = 1 MCT = 3
Methenolone Enanthate [Primobolan]	1(4.3)	1		Not Provided = 1	MCT = 1
Drostanolone Enanthate [Masteron]	3 (13.0)	3		GSO = 1 MCT = 1 Not Provided = 1	GSO = 1 MCT = 1 MCT = 1
Nandrolone Phenylpropionate [NPP]	3 (13.0)	3		MCT = 2 Not Provided = 1	MCT = 2 MCT = 1



Well-informed choices

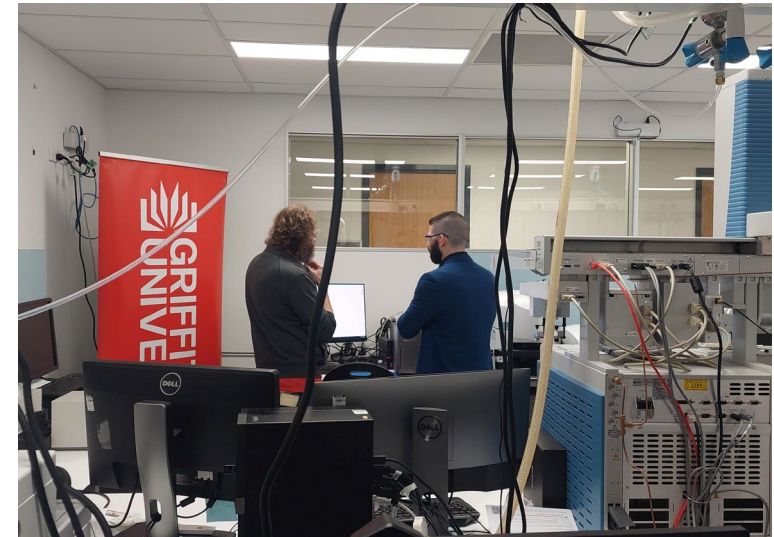
Yeah [...] these results, I would be quite confident in, in my ability to change my usage for sure.

I would know that if things were for the most part incorrect, I wouldn't use them, or I'd reduce my use heavily.

So yeah, there's that harm reduction side right there.

See, I'll be honest. Like that's one thing. The quantitative results like the Concentration's always so hit and miss, I reckon particularly black market like I know in the past even changing between different brands and stuff.

- $N=25$ ($Mage = 35.92$ years)
- Gender: 20 men, 5 women
- Interview Duration: Median = 50 mins
- AAS Acquisition:
 - Community networks ($n = 13$)
 - Online markets ($n = 11$)
 - Prescription + community ($n = 5$)



Community Drug Notices

- We identified contamination in two oxandrolone samples, which prompted issuing of the first-ever AAS community notice.
- The Instagram post by CheQpoint reached 1,376 users, with 3,429 impressions and 87 interactions.
- Community feedback indicated receptivity to the notice
- Responses highlighted the need for more thorough testing and indication of sample content, given the perception of a growing number of new people using AAS.

The only negative of the current testing and broadcasting of results is there is not enough of it being done (I realise that you can only test with what you have), and the broadcasting needs to be on a bigger platform more available to the public

<p>27 AUG 2024 - CHEQPOINT BRISBANE, QLD</p> <p>Oxandrolone ('Anavar') found to contain stanozolol and testosterone</p> <p>We received 2 samples labelled as oxandrolone (Anavar).</p> <p>In one sample we found stanozolol and no oxandrolone.</p> <p>In another sample, we found both oxandrolone and testosterone.</p> <p></p>	<p>27 AUG 2024 - CHEQPOINT BRISBANE, QLD</p> <p>Stanozolol and testosterone found in oxandrolone</p> <p> Stanozolol creates more liver strain and slightly higher androgenic activity than oxandrolone.</p> <p>← Sample 1 contained stanozolol (Winstrol). No oxandrolone detected.</p> <p> Testosterone creates higher androgenic activity than oxandrolone. This increases risk of virilisation, especially for women.</p> <p>← Sample 2: Contained both oxandrolone and testosterone.</p> <p></p>
<p>27 AUG 2024 - CHEQPOINT BRISBANE, QLD</p> <p>Stanozolol and testosterone found in oxandrolone</p> <p>What are they?</p> <p>Oxandrolone (Anavar) is an anabolic-androgenic steroid (AAS) with a half-life of 9-10 hours. It's known for its anabolic effects with less liver strain and lower androgenic activity compared to other AASs like stanozolol and testosterone. It's often preferred by women because of these milder androgenic side effects.</p> <p>Stanozolol (Winstrol) is another AAS, often associated with more significant liver strain than oxandrolone.</p> <p>Testosterone is a primary androgenic hormone with higher androgenic activity compared to oxandrolone.</p> <p></p>	<p>27 AUG 2024 - CHEQPOINT BRISBANE, QLD</p> <p>Stanozolol and testosterone found in oxandrolone</p> <p>Packaging and labels can be misleading in an unregulated market.</p> <p>However, you can find out what's really in your steroids (and other drugs) by getting them checked.</p> <p> One of the samples we tested came in a bottle like this.</p> <p>ROIDCheck is a Griffith University project developing ways to test the contents of steroids. If you want to be part of ROIDCheck, you can drop off samples at CheQpoint.</p> <p></p>
<p>27 AUG 2024 - CHEQPOINT BRISBANE, QLD</p> <p>Stanozolol and testosterone found in oxandrolone</p> <p>Make more informed decisions about what you're taking.</p> <p>CheQpoint's drug checking services are free, legal and confidential.</p> <p>Gold Coast: Thursdays 2pm-6pm QuiHN Gold Coast: Shop 12/89-99 West Burleigh Rd, Burleigh Heads QLD 4220</p> <p>Brisbane: Fridays 2pm-6pm QuiHN Brisbane: 1 Hamilton Pl, Bowen Hills QLD 4006</p> <p></p>	<p>27 AUG 2024 - CHEQPOINT BRISBANE, QLD</p> <p>Stanozolol and testosterone found in oxandrolone</p> <p> Unexpected item in oxandrolone</p> <p>Thoughts? Feedback?</p> <p>We'd love to know what you thought of this notice.</p> <p>Comment, DM or email t.piatkowski@griffith.edu.au</p> <p>Responses will inform ROIDCheck research: Griffith University Human Research Ethics Committee (GU Ref No: 2023/784)</p> <p></p>

Health Conversations and Engagement

- **Co-Production Approach:** Rooted in the concept of co-production, the health conversation was co-produced by AAS peers ($n=30$) and experts to ensure it reflected lived-living experiences, fostering peer-led, people-centred harm reduction.
- **Multi-Stage Development:** Five-stage process, realistic vignettes, feedback loops ($n=6$; 75 min workshop), and peer-led revisions to ensure relevance and feasibility.
- **Tailored Content:** The final conversation focused on informed choice, non-judgmental dialogue, and practical advice.

STRATEGY

Do you test your steroids or other image and performance enhancing drugs?

Have you ever received/performed regular health checks or regular health monitoring done (inc. bloodwork, and blood pressure)?

Do you have access to information and resources to keep you safe(r) with your use?

How do you administer your steroids? (if injectable – safe injecting – if oral then liver).

Are you taking breaks between your periods of use?

Do you have a usage strategy in place?

Are you experiencing any physical or mental distress?

For example: shutdown of natural testosterone production, hair loss or excessive growth, and the development of breast tissue (gynecomastia) in men, changes in sexual function, infertility, high blood pressure and changes in cholesterol levels, acne, mood swings and bouts of depression, heightened aggression, paranoia, anxiety, sleep disturbances, menstrual cycle changes, virilisation.

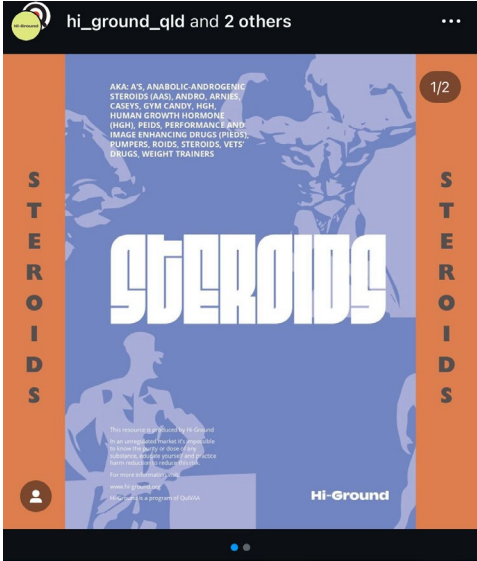
Harm Reduction Advice (Brief)
IF NO: Regular steroid checking is vital. Make sure you're using services to verify what you're taking (e.g., PEDTest Australia, CheQpoint in Queensland).
IF NO: 1. Getting regular bloodwork is crucial, either under in-person medical professional's supervision or through online services (i-medical, roidsafe, i-screen). This helps you monitor your health and catch any issues early. 2. Checking blood pressure weekly (or 2-3 times) and ensuring it does not stay elevated for prolonged periods (e.g., hypertensive category I, II, or III).
IF NO: Please see digital literacy resources. Safer Use Information: Steroid-Specific Info: I recommend checking out the steroid-specific information on Hi-Ground. They have excellent resources developed with the community. These resources cover everything from first-time use and safe injecting practices to the properties and half-lives of different compounds, common side effects, and where to get further support. Here are the links: https://hi-ground.org/substances/steroids/ https://hi-ground.org/resource-types/steroid-resources/
IF Oral only: If you're on an oral-only steroid cycle, keep it short to minimise liver stress. If injectable: Do you have any injection sites red/swollen/infections/ etc.? We have NSP here (at QulHN) for your equipment needs and safe injecting resources available (hi-ground).
IF YES MEN: If you are ‘cycling’, ensure that time ‘off’ really does equal time on, and make sure you have a post-cycle therapy (PCT) plan or taper IF YES WOMEN: Taper use down if possible.
IF NO: Are you having any adverse side effects that concern you? If so, see Hi-Ground resources.
IF YES: Checking in with peers regarding mental health, re-assessing goals, reconsidering usage practices – see Hi-Ground for details.

Digital ‘Steroid Literacy’

Steroid Checking Trial Results

Steroid/PIED Info

Steroid/PIED resources and training



Hi-Ground

SAFER USING

Injecting:

When using Anabolic-Androgenic Steroids (AAS) this is likely going to be the primary mode of use. Steroids are generally suspended in oil or water, and these are injected into the muscle, where they are then released into the blood gradually. It is important to try to inject deep into the muscle belly. The main muscles used for these injections are the bum (glutes), thighs (quadriceps). Other common injection sites include shoulder (deltoid), latissimus dorsi (under the shoulder blade), and trapezius (traps).

Equipment

You will need:

- Barrels
- Needles
- Swabs
- Sharps Container

Selecting the correct needles:

Size	Use
Grey 19G	Drawing up oils from vials
Green 21G	Drawing up oils from vials (can be used for larger muscle injections)
Blue 23G	Injection into larger muscles (Glutes, Quads)
Orange 25G	Injection into smaller muscles (Deltoid)
27-29G 1 mil	Subcutaneous injections (fatty tissue)

Procedure

Make sure you use soap and water to wash your hands thoroughly and to also clean the site you will be injecting into before you start the process. Use a swab on the top of the vial before taking out the substance. When you have everything ready for the injection, also use a swab in one direction once on the injection site and let the alcohol dry. Once you have finished the injection, use a cotton ball or band aid to control any bleeding and

Wave 2

Analysed samples (n = 46)

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
WAVE 2: 14 JUNE 2024 - 16 AUGUST 2024						
Sustanon 250mg (Testosterone propionate 30mg/mL, Testosterone Phenylpropionate 60mg/mL, Testosterone Isocaproate 60mg/mL, Testosterone Decanoate 100mg/mL)		Molecule	NO	Testosterone Enanthate	NO: different PIED	62mg/mL (\pm 5% error = 59 - 65)
NOTE: Sample labelled with expiry of 2016						
Trenbolone Enanthate	200mg/mL	Russian brand? Anabolic Research Lab (ARL)	YES	Trenbolone Enanthate	NO: underdosed	34mg/mL (\pm 5% error = 32-36)
Tamoxifen (Nolvadex)	20mg	Alphapharm	YES	Tamoxifen	YES	20mg
Exemestane (Aromasin)	25mg	Platinum Anabolics	YES	Exemestane	NO: underdosed	15.5mg
Methandienone (Dianabol)	Not Provided	Keifei Pharma, pink pill	YES	Methandienone	N/A	8.6mg
Methandienone (Dianabol)	10mg	Keifei Pharma	NO	Oxymetholone, Methandienone	NO: different PIED	<0.1mg Methandienone
				NOTE: Unable to quantify oxymetholone (no reference material). Analysis indicates oxymetholone is the major PIED in this sample. Methandienone is likely contamination.		
Oxymetholone (Anadrol)	50mg	Not Provided	NO	Methandienone, Oxymetholone	NO: different PIED	2.5mg Methandienone



Future Directions

- Wave 2 follow-up interviews currently underway
- Wave 3 collection completed (18th October)
- This shift opens up new ways of **KNOWING** and **RESPONDING** to steroid consumption, promoting more balanced, inclusive and culturally-sensitive approaches.

Thank You

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