

Findings from Australia's anabolic-androgenic steroid checking trial

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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 I PEDs
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



Steroid Harms

- 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).
- 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.
 - **Consumer 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 'lusi') - 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 1.2 published: 14/05/24

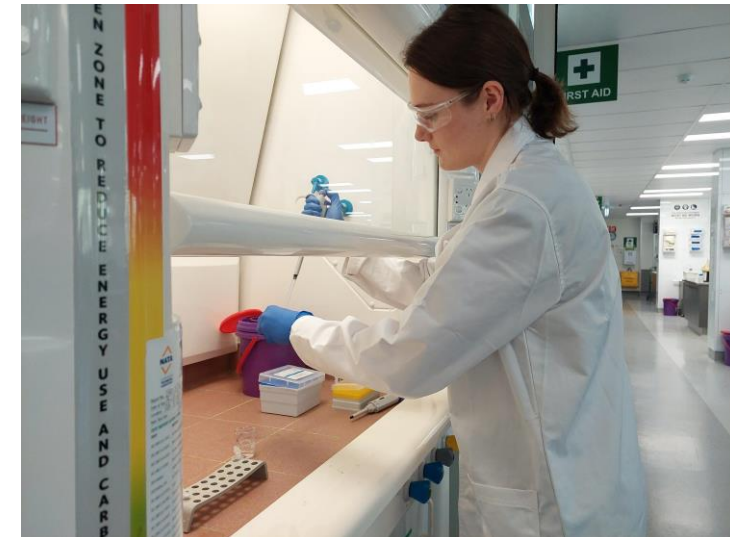
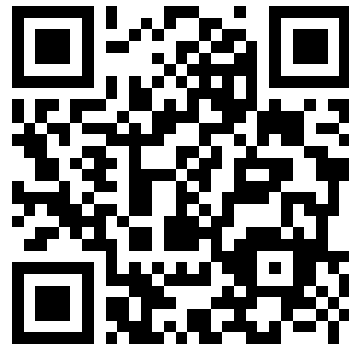
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(Bardwell & Kerr, 2018; Measham, 2019; Kennedy et al., 2018; Krieger et al., 2018; Palamar et al., 2019; ; Piatkowski et al., 2023; Sherman et al., 2019)

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.





Increase in use of 'contaminated' steroids fuelled by social media

triple j Hack

By Jackson Worthington By David Marchese Health

Wed 5 Feb



Professional powerlifter Connor believes more needs to be done to help people minimise the harms of steroid use. (triple j hack-Jackson Worthington)

World First Steroid Checking Trial



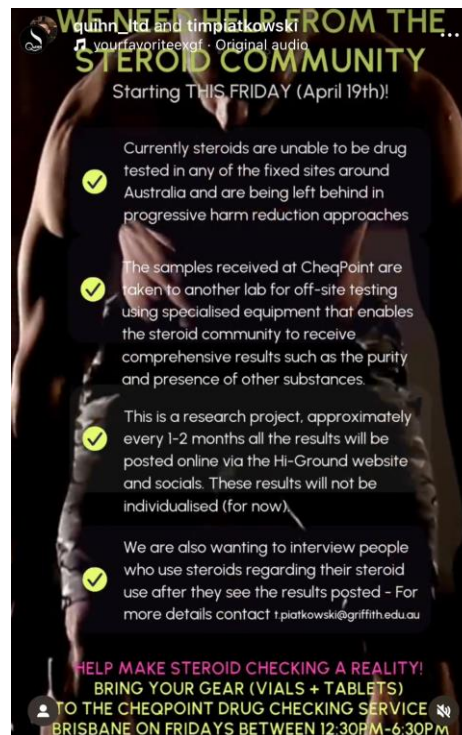
Method – Explanatory Sequential (Multi-Phase) Study



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

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×
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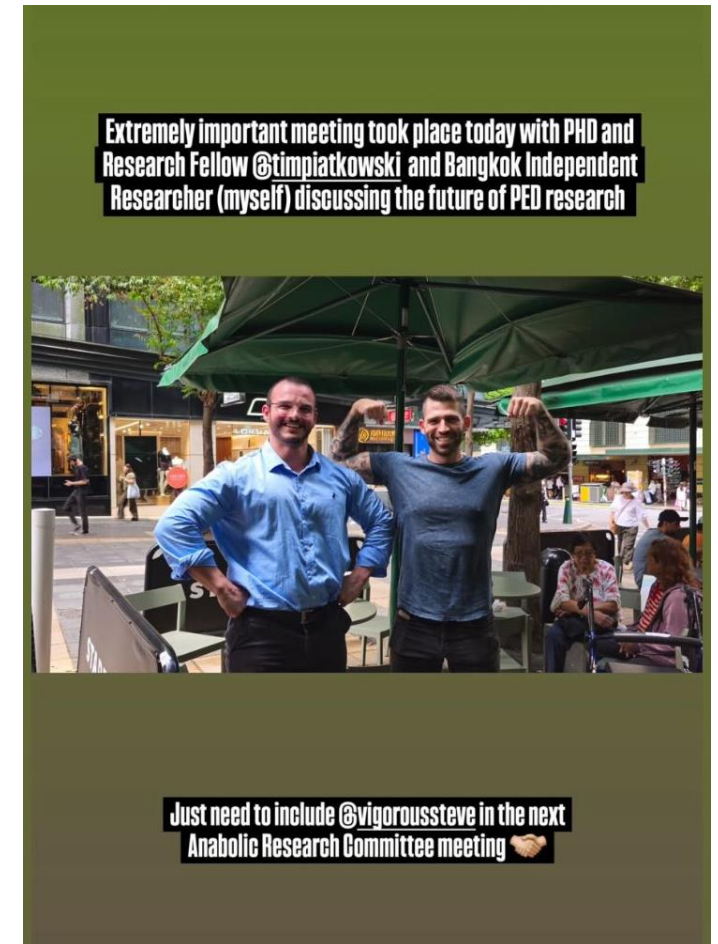
Link to full report in bio.



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).

- $N=25$ ($Mage = 35.92$ years)
- Gender: 20 men, 5 women
- Interview Duration: Median = 50 mins
- Key themes included the value of accurate information, the need for accessible testing services, and the limitations of subjective health markers.

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.



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.



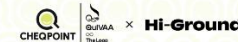
27 AUG 2024 - CHEQPOINT BRISBANE, QLD

Oxandrolone ('Anavar') found to contain stanozolol and testosterone

We received 2 samples labelled as **oxandrolone (Anavar)**.

In one sample we found **stanozolol** and **no oxandrolone**.

In another sample, we found **both oxandrolone and testosterone**.



27 AUG 2024 - CHEQPOINT BRISBANE, QLD

Stanozolol and testosterone found in oxandrolone



Stanozolol creates more liver strain and slightly higher androgenic activity than oxandrolone.

Sample 1 contained stanozolol (Winstrol). No oxandrolone detected.



Testosterone creates higher androgenic activity than oxandrolone. This increases risk of virilisation, especially for women.

Sample 2: Contained both oxandrolone and testosterone.



27 AUG 2024 - CHEQPOINT BRISBANE, QLD

Stanozolol and testosterone found in oxandrolone

What are they?

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.

Stanozolol (Winstrol) is another AAS, often associated with more significant liver strain than oxandrolone.

Testosterone is a primary androgenic hormone with higher androgenic activity compared to oxandrolone.



27 AUG 2024 - CHEQPOINT BRISBANE, QLD

Stanozolol and testosterone found in oxandrolone

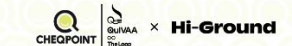
Packaging and labels can be misleading in an unregulated market.

However, you can find out what's really in your steroids (and other drugs) by getting them checked.



One of the samples we tested came in a bottle like this.

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.



27 AUG 2024 - CHEQPOINT BRISBANE, QLD

Stanozolol and testosterone found in oxandrolone

Make more informed decisions about what you're taking.

CheQpoint's drug checking services are free, legal and confidential.

Gold Coast: Thursdays 2pm-6pm
Quiln Gold Coast: Shop 12/89-99 West Burleigh Rd.
Burleigh Heads QLD 4220

Brisbane: Fridays 2pm-6pm
Quiln Brisbane: 1 Hamilton Pl,
Bowen Hills QLD 4006



27 AUG 2024 - CHEQPOINT BRISBANE, QLD

Stanozolol and testosterone found in oxandrolone



Thoughts? Feedback?

We'd love to know what you thought of this notice.

Comment, DM or email t.piatkowski@griffith.edu.au

Responses will inform ROIDCheck research:
Griffith University Human Research Ethics
Committee (GU Ref No: 2023/784)



Wave 2 + 3

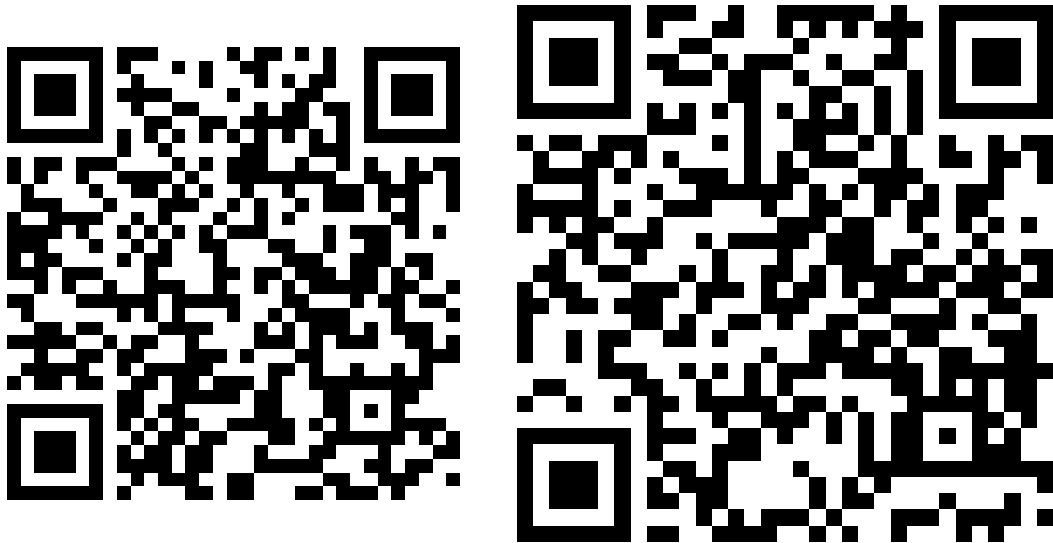
WAVE 3: 23 AUGUST 2024 - 18 OCTOBER 2024						
Testosterone Enanthate 250mg/mL	250mg/mL	Chemisis	YES	Testosterone Enanthate	NO: underdosed	103 mg/mL (± 5% error = 98 - 108)
				Testosterone Cypionate	NO: different PIED	7.2 mg/mL (± 5% error = 6.8 - 7.6)
				Boldenone Undecylenate (traces)	N/A (no reference material)	

- N=26 (Mage = 36.72 years)
- Gender: 21 men, 5 women
- Interview Duration: Median = 55 mins
- 41 Interviews (26, with 15 follow-ups)

- N=468 (surveys of people who use AAS and have seen full report)

A total of 105 samples were analysed across the three waves.

Cumulative Summary	Total (n)	%
Presence (n=105)		
Expected Steroid	82	78
Unexpected Steroid	23	22
	105	100
Purity (n=83)		
Underdosed Steroid	29	50
Correctly Dosed Steroid	26	32
Different/Unexpected Steroid	21	25
Overdosed Steroid	7	8
	83	100



Future Directions

- Steroid Checking Individual Results Delivery – QLD – N=146 samples in 2025.
- Steroid QNECT – QLD and national. >100 harm reduction interactions in 2025



Using steroids? Talk to our Peer Steroid Educator

Peer Qnect is a free and confidential service run by QuIVAA to provide support to people who use Performance & Image Enhancing Drugs (steroids), including those on TRT treatment or seeking support regarding steroid use across QLD.

What we do:

- Performance & Image Enhancing Drugs (Steroids) support/advocacy/ mediation
- Safer substance use, harm reduction and health optimisation information
- Assist with questions or concerns regarding accessing health care
- Support experiences of stigma or barriers to healthcare in Queensland
- Peer Qnect also provides training for frontline workers, nurses, GP's and other relevant community services



PEER QNECT
Connecting Queenslanders who use steroids to peer support.

Contact us
1800 175 889
odtp@quivaa.org.au
Mon - Fri 9-4pm

Scan for more information

