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ROIDCheck: Wave 3
Report

About ROIDCheck

ROIDCheck is a project led by Dr Timothy Piatkowski in collaboration with Hi-Ground and CheQpoint. The project aims to develop methods to analyse the contents of performance and image enhancing drugs (PIEDs). Find out more here. We thank the community for their continued support of this trial program. Without their assistance this would not have been possible.

Three waves of sample analysis, are presented here together. Across 3 Waves, a total of 128 samples were presented for analysis, with 105 of those being suitable for analysis.

Wave 1 and Wave 2, together, encompassed 58 samples submitted for testing analysis, with 46 samples able to be analysed and 12 unable to be analysed. Wave 3 consisted of 65 samples presented for analysis with 59 of those samples being able to be analysed under the protocol.

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

Of those 105 samples 78% contained what was expected (n = 82) with 22% of samples containing unexpected substances (n= 23).

Purity data was available for 83/105 samples. With respect to dosage, 34% (n=26) samples were correctly dosed, 50% of samples were underdosed (n=29), and 7 (8%) were overdosed. There were 21 samples (n= 25%) that were unable to be analysed for concentration due to them not being the expected steroid compound they were labelled as.

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Report overview – WAVE 3

Wave 3, included in this report, includes analyses from **65 samples** submitted to CheQpoint from 23 August to 18 October 2024, including those collected in our Wave 2 period (14 June - 16 August), and additional analyses of samples collected in the Wave 1 period (19 April - 7 June 2024).

Out of 65 samples, 1 was unknown, 3 samples could not be calculated due to missing information, 1 sample was destroyed during preparation, and 1 fell outside the scope of the study – leaving us with **59 samples for analysis**.

Qualitative analysis (what's in there?)

We analysed the compounds in 59 samples. We found:

- Expected compound in 45 samples (76%)
- Unexpected compounds in 14 samples (24%)

We were unable to analyse 6 samples due to scope, resources and equipment.

Quantitative analysis (how much is in there?)

We analysed concentration for 47 samples (with ±5% error allowance). We found

- Expected concentration in 11 samples (23%)
- Underdosing in 16 samples (35%): there was *lower concentration* than expected
- Overdosing in 3 samples (6%): there was *higher concentration* than expected.

The remaining 17 samples (36%) were unexpected compounds.

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Full results

Notes on Wave 3 results

Branding disclaimer

Brand information is based on self-reports or packaging, but its legitimacy cannot be verified due to the possibility of counterfeits. Please consider this when reviewing brand names.

Analysed samples (n = 105)

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
WAVE 1: 19 APRIL 2024 - 7 JUNE 2024						
Trestolone - 7α-methyl-19-nortestosterone (MENT)	50mg/mL	Apex Anabolics	NO	Trestolone Acetate	N/A (no reference material)	-
Testosterone Propionate	100mg/mL	Platinum	YES	Testosterone Propionate	YES	96mg/mL (± 5% error = 91 - 101)
Nandrolone Phenylpropionate (NPP)	100mg/mL	Platinum	YES	Nandrolone Phenylpropionate	NO: underdosed	87mg/mL (± 5% error =83 - 91)
Stanozolol (Winstrol)	10mg	Sparta Brand - Capsule	YES	Stanozolol	NO: underdosed	3.3mg
Testosterone Cypionate	253.65mg/mL	Chief Lab	YES	Testosterone Cypionate	NO: overdosed	434mg/mL (± 5% error = 412 - 456)
Trenbolone Enanthate	200mg/mL	OZPharm Labs	YES	Trenbolone Enanthate	YES	199mg/mL (± 5% error = 189 - 209)
Oxandrolone (Anavar)	10mg	Swiss Pharm - Capsule	NO	Stanozolol	NO: underdosed	3.3mg
Methenolone Enanthate (Primobolan)	200mg/mL	Not Provided	YES	Methenolone Enanthate	N/A (no reference material)	-
Oxandrolone (Anavar)	10mg	Not Provided	NO	Oxandrolone, Testosterone	NO: underdosed	7mg Oxandrolone, 1.6mg Testosterone
Mesterolone (Proviron)	25mg	Sealed Blister Viropace - Tablet	YES	Mesterolone	NO: underdosed	22mg
Testosterone Enanthate	400mg/mL	Eagle1 Laboratories	YES	Testosterone Enanthate	YES	411 (± 5% error = 390 - 432)
Nandrolone Decanoate (Deca)	200mg/mL	Eagle1 Laboratories	YES	Nandrolone Decanoate	N/A (no reference material)	-
Drostanolone Enanthate (Masteron)	200mg/mL	Eagle1 Laboratories	YES	Drostanolone Enanthate	NO: overdosed	215mg/mL (± 5% error = 204 - 226)
Testosterone Enanthate	250mg/mL	Eagle1 Laboratories	YES	Testosterone Enanthate	YES	238mg/mL (± 5% error = 226-250)
Nandrolone Phenylpropionate (NPP)	100mg/mL	HYBRID	YES	Nandrolone Phenylpropionate	NO: underdosed	93mg/mL (± 5% error = 88-98)
Nandrolone Phenylpropionate (NPP)	100mg/mL	HYBRID	YES	Nandrolone Phenylpropionate	NO: overdosed	116mg/mL (± 5% error = 110-122)
Drostanolone Enanthate (Masteron)	200mg/mL	HYBRID	YES	Drostanolone Enanthate	YES	201mg/mL (± 5% error = 191-211)
Trenbolone Enanthate	200mg/mL	ShelbyPharma Corp	YES	Trenbolone Enanthate	YES	204mg/mL (± 5% error = 194 - 214)

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
Testosterone Enanthate	250mg/mL	ShelbyPharma Corp	YES	Testosterone Enanthate	NO: underdosed	229mg/mL (± 5% error = 216-240)
Drostanolone Enanthate (Masteron)	200mg/mL	ShelbyPharma Corp	YES	Drostanolone Enanthate	YES	203mg/mL (± 5% error = 193 - 213)
Testosterone Enanthate	250mg/mL	Australian Genetic Pharmaceuticals	NO	Testosterone Cypionate	YES	253mg/mL (± 5% error = 240 - 267)
Trenbolone Enanthate	200mg/mL	Platinum	YES	Trenbolone Enanthate	NO: underdosed	167mg/mL (± 5% error = 159 - 175)
Trenbolone Enanthate	200mg/mL	Sparta	YES	Trenbolone Enanthate	YES	200mg/mL (± 5% error = 190-210)
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 (± 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 (± 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
			NOTE: Unable to quantify oxymetholone (no reference material)			
Trenbolone Acetate	100mg/mL	Balkan Pharmacuticals	YES	Trenbolone Acetate	NO: underdosed	45mg/mL (± 5% error = 43 - 47)
Nandrolone Decanoate (Deca)	300mg/mL	Shelby Pharma Corp	YES	Nandrolone Decanoate	N/A (no reference material)	-
Sustanon 300mg/ml (TestPP 70mg/mL, Test Isoc 70mg/mL, Test Prop 60mg/mL, Test Deca 100mg/mL)		King 300 Labs	NO	Testosterone Cypionate	NO: different PIED	165mg/mL (± 5% error = 157 - 173)

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
Testosterone Enanthate	250mg/mL	Not Provided	YES	Testosterone Enanthate	NO: underdosed	160mg/mL (± 5% error = 152 - 168)
Testosterone Enanthate	250mg/mL	Green Dispensary Pharmacy	YES	Testosterone Enanthate	YES	249mg/mL (± 5% error = 237 - 261)
Anastrozole (Arimidex)	2mg	Not Provided	YES	Anastrozole	N/A (no reference material)	-
MK-677 (Ibutamoren)	Not Provided	Not Provided	YES	MK677	N/A	2mg
MK2866 (Ostarine) and MK677 (Ibutamoren)	Not Provided	Not Provided	YES	MK2866, MK677	N/A	5.1mg MK2688 and 0.1mg MK677
Methenolone Enanthate (Primobolan)	100mg/mL	Chief Labs	YES	Methenolone Enanthate	N/A (no reference material)	-
Drostanolone Enanthate (Masteron)	200mg/mL	Polar	YES	Drostanolone Enanthate	NO: overdosed	257mg/mL (± 5% error = 244 - 270)
Methenolone Enanthate (Primobolan)	200mg/mL	Polar	YES	Methenolone Enanthate	N/A (no reference material)	-
Tamoxifen (Nolvadex) [Raw powder]	Pure	Not Provided	YES	Tamoxifen	YES	99% purity
Oxandrolone (Anavar) [Raw powder]	Pure	Not Provided	YES	Oxandrolone	YES	97% purity
Exemestane (Aromasin) [Raw powder]	Pure	Not Provided	YES	Exemestane	YES	95% purity
Unknown peptide [Raw powder]	Pure	Not Provided	YES	LGD4033	YES	99% purity
Unknown peptide [Raw powder]	Pure	Not Provided	YES	RAD140	NO: underdosed	77% purity
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)	

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
Testosterone Enanthate	300mg/mL	Nexnos	NO	Testosterone Propionate	NO: different PIED	29 mg/mL (± 5% error = 27.5 - 30.5)
				Testosterone Isocaproate	NO: different PIED	42.6 mg/mL (± 5% error = 40.5 - 44.7)
				Testosterone Decanoate	NO: different PIED	85 mg/mL (± 5% error = 80.75 - 89)
				Testosterone Phenylpropionate	NO: different PIED	40 mg/mL (± 5 % error = 38 - 42)
Testosterone Enanthate	300mg/mL	Nexnos	YES	Testosterone Enanthate	YES	291 mg/mL (± 5% error = 276 - 306)
				Testosterone	NO: different PIED	36 mg/mL (± 5% error = 34 - 38)
Nandrolone Decanoate (Deca)	200mg/mL	Nexnos	YES	Nandrolone Decanoate	N/A (no reference material)	
Methenolone Enanthate (Primobolan)	200mg/mL	Nexnos	YES	Methenolone Enanthate	N/A (no reference material)	
Methenolone Enanthate (Primobolan)	200mg/mL	Nexnos	YES	Methenolone Enanthate	N/A (no reference material)	
Testosterone Cypionate	250mg/mL	Kachhela, TestoboonCP 250	YES	Testosterone Cypionate	NO: overdosed	290 mg/mL (± 5% error = 275 - 304)
Testosterone Enanthate	250mg/mL	Apex Anabolics	YES	Testosterone Enanthate	NO: underdosed	163 mg/mL (± 5% error = 155 -171)
Oxandrolone (Anavar)	10mg	Not Provided	NO	Stanozolol	NO: different PIED	7 mg
Oxandrolone (Anavar)	20mg	Nexnos Pharma	YES	Oxandrolone	NO: underdosed	1.1 mg
Methandienone (Dianabol)	25mg	Apex Anabolics	YES	Methandienone	NO: underdosed	8 mg
Boldenone Undecylanate (Equipoise)	200mg/mL	British Knight Pharmaceuticals	YES	Boldenone Undecylenate	N/A (no reference material)	

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
Testosterone Enanthate	250mg/mL	Pyramid Labs 12/27	YES	Testosterone Enanthate	NO: underdosed	114 mg/mL (± 5% error = 108 - 120)
Testosterone Enanthate	200mg/mL	Not Provided	NO	Testosterone Cypionate	NO: different PIED	68 mg/mL (± 5% error = 64.6 -71)
Testosterone Enanthate	250mg/mL	Spartan	YES	Testosterone Enanthate	NO: underdosed	153 mg/mL (± 5% error = 145 - 161)
				Testosterone Decanoate	NO: different PIED	37 mg/mL (± 5% error = 35 - 39)
Drostanolone Enanthate (Masteron)	Not Provided	Not Provided	YES	Testosterone Enanthate	NO: different PIED	88 mg/mL (± 5% error = 84 - 92)
				Drostanolone Enanthate	N/A (no reference material)	73 mg/mL (± 5% error = 69 - 77)
Testosterone Enanthate	300mg/mL	ENA-GOLD	YES	Testosterone Enanthate	NO: underdosed	224 mg/mL (± 5% error = 213 - 235)
Oxandrolone (Anavar)	Not Provided	Not Provided	NO	Tadalafil	N/A (no reference material)	
				Stanozolol	N/A	No dosage could be provided due to no tablet mass provided
Testosterone Enanthate	250mg/mL	Eagle1 Laboratories	YES	Testosterone Enanthate	NO: underdosed	221 mg/mL (± 5% error = 210 - 232)
Testosterone Enanthate	250mg/mL	Eagle1 Laboratories	YES	Testosterone Enanthate	YES	253 mg/mL (± 5% error = 240 - 266)
Testosterone Enanthate	250mg/mL	Eagle1 Laboratories	YES	Testosterone Enanthate	NO: underdosed	150 mg/mL (± 5% error = 142 - 158)
Testosterone Enanthate	250mg/mL	Eagle1 Laboratories	YES	Testosterone Enanthate	YES	239 mg/mL (± 5% error = 227 - 251)
Testosterone Enanthate	250mg/mL	Eagle1 Laboratories	YES	Testosterone Enanthate	YES	266 mg/mL (± 5% error = 253 - 279)
Testosterone Enanthate	250 mg/mL	Stromusc	YES	Testosterone Enanthate	YES	256 mg/mL (± 5% error = 243 - 269)
Trenbolone Acetate (Tren)	100 mg/mL	Hepius	YES	Trenbolone Acetate	NO: underdosed	82 mg/mL (± 5% error = 78 - 86)

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
Boldenone Undecylate (Equipoise)	300 mg/mL	Hepius	YES	Boldenone Undecylenate	N/A (no reference material)	
Trenbolone Acetate (Tren)	100 mg/mL	Ultra Performance Labs	YES	Trenbolone Acetate	NO: underdosed	68.7 mg/mL (± 5% error = 62 - 72)
				Testosterone Cypionate	NO: different PIED	26.8 mg/mL (± 5% error = 25 - 28)
Testosterone Cypionate	200 mg/mL	Pyramid Labs	NO	Testosterone Enanthate	NO: different PIED	211 mg/mL (± 5% error = 200 - 222)
Methenolone enanthate (Primobolan)	300 mg/mL	Sassy's Pharmaceuticals	YES	Methenolone Enanthate	N/A (no reference material)	
Trenbolone Enanthate	200 mg/mL	Shelby Pharma Corp	YES	Trenbolone Enanthate	YES	205 mg/mL (± 5% error = 195 - 215)
Methenolone enanthate (Primobolan)	100 mg/mL	Performance labs	YES	Methenolone Enanthate	N/A (no reference material)	
Trenbolone Acetate (Tren)	100 mg/mL	-	NO	Testosterone propionate	N/A	traces
				Testosterone Enanthate	NO: different PIED	103 mg/mL (± 5% error = 98 - 108)
				Testosterone Cypionate	NO: different PIED	20 mg/mL (± 5% error = 19 - 21)
				Testosterone Decanoate	NO: different PIED	11 mg/mL (± 5% error = 10.45 - 11.55)
Methenolone enanthate (Primobolan)	100 mg/mL	-	NO	Boldenone Undecylenate	N/A (no reference material)	
Sustanon 250	250 mg/mL	NA	YES	Testosterone propionate	YES	31 mg/mL (± 5% error = 29.5 - 32.5)
				Testosterone isocaproate	YES	66 mg/mL (± 5% error = 62.7 - 69.3)
				Testosterone Phenylpropionate	YES	64 mg/mL (± 5% error = 60.8 - 67.2)

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
				Boldenone Undecylenate (traces)	N/A	
				Testosterone decanoate	YES	98.7 mg/mL (± 5% error = 94 - 104)
Nandrolone Decanoate (Deca)	300 mg/mL	NA	YES	Nandrolone Decanoate	N/A (no reference material)	
Trenbolone Acetate (Tren)	130 mg/mL	NA	YES	Trenbolone Acetate	YES	133 mg/mL (± 5% error = 126 - 140)
Methenolone Enanthate (Primobolan)	200 mg/mL	NA	YES	Methenolone Enanthate	N/A (no reference material)	
Testosterone Enanthate	250 mg/mL	NA	YES	Testosterone Enanthate	NO: overdosed	277 mg/mL (± 5% error = 263 - 291)
Drostanolone Propionate (Masteron)	130 mg/mL	NA	NO	Testosterone Decanoate	NO: different PIED	78.6 mg/mL (± 5% error = 75 - 83)
				Testosterone Propionate (traces)	N/A	traces
Boldenone Undecylate (Equipoise)	300 mg/mL	NA	YES	Boldenone Undecylenate	N/A (no reference material)	
Oxymetholone (Anadrol)	Not Provided	NA	YES	Oxymetholone	N/A	Dosage could not be provided due to tablet mass not provided
Methandienone (Dianabol)	Not Provided	NA	YES	Methandienone	N/A	5.5 mg
				17-a methyltestosterone	N/A (no reference material)	
Sustanon	350 mg/mL	Pinman Labs	NO	Testosterone Enanthate	NO: different PIED	188 mg/mL (± 5% error = 179 - 197)
Drostanolone Enanthate (Masteron)	200 mg/mL	Pinman Labs	YES	Drostanolone Enanthate	NO: underdosed	106 mg/mL (± 5% error = 100.7 - 111.3)
				Testosterone Enathate (traces)	N/A	traces

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
Oxymetholone (Anadrol)	20 mg [capsule contents = 0.043g]	NA	YES	Oxymetholone	NO: underdosed	10.64 mg
Stanozolol (Winstrol)	20 mg [whole tab = 0.109g]	ZLOXSPHARM	YES	Stanozolol	NO: underdosed	10.75 mg
Methandienone (Dianabol)	NA [weight = 0.037g]	NA	YES	Methandienone	N/A (concentration not provided)	2.7 mg
Testosterone Cypionate	100 mg/mL	NA	NO	Testosterone Propionate	NO: different PIED	28 mg/mL (± 5% error = 26.6 - 29.4)
Boldenone Enanthate (Equipoise)	200 mg/mL	NA	NO	Boldenone Undecylenate	N/A (no reference material)	
Oxymetholone (Anadrol)	20 mg [contents = 0.171g]	EAGLE1	YES	Oxymetholone	NO: underdosed	15.3 mg
Oxymetholone (Anadrol)	50 mg [contents = 0.395g]	NA	YES	Oxymetholone	NO: underdosed	9.7 mg
Fluoxymesterone (Halotestin)	10 mg [contents = 0.133g]	Lambo	YES	Fluoxymesterone	NO: overdosed	15.9 mg
Methasterone (Superdrol)	25 mg [tab = 0.201g]	Platinum Anabolics	YES	Methasterone	N/A (no reference material)	
Oxandrolone (Anavar)	10 mg [contents = 0.138g]	Lambo	NO	Epitestosterone	N/A (no reference material)	
Methandienone (Dianabol)	5 mg [tab = 0.131g]	NA	YES	Methandienone	N/A (concentration not provided)	4 mg
Dihydroboldenone (DHB)	100 mg/mL	Polar	NO	Testosterone Cypionate	N/A	could not prepare quant sample due to nature sample was received
Methenolone Enanthate (Primobolan)	NA	NA	YES	Methenolone Enanthate	N/A (no reference material)	
Dihydroboldenone (DHB)	75 mg	Evil Corp	NO	Testosterone Cypionate	N/A	could not prepare quant sample due to nature sample was received

Expected PIEDs	Expected concentration	Expected brand	PIED match?	Detected PIED/s	Concentration match?	Detected concentration
Trenbolone/Testosterone	20 mg	Alpha Labs	YES	Trenbolone [no ester]	N/A	could not prepare quant sample due to nature sample was received
				Testosterone [no ester]	N/A	could not prepare quant sample due to nature sample was received
				Methasterone (traces)	N/A	could not prepare quant sample due to nature sample was received
				Oxymetholone (traces)	N/A	could not prepare quant sample due to nature sample was received
Unknown	10 mg [tab = 0.116g]	NA	N/A	Methandienone	N/A (concentration not provided)	3.5 mg
Unknown	20 or 25 mg [contents = 0.08g]	APL	N/A	Methasterone	N/A (no reference material)	
Unknown	5 mg [tab = 0.131g]	Alpha Labs	N/A	Oxymetholone	N/A (concentration not provided)	13.9 mg

Unable to analyse (n = 15)

We did not complete analyses for 12 compounds due to limitations of current resources and equipment.

Expected PIEDs	Expected concentration	Expected brand	Notes
WAVE 1: 19 APRIL 2024 - 7 JUNE 2024			
Oxymetholone (Anadrol)	20mg	Eagle1 - Capsule	No reference material
HGH	Not Provided		Outside Scope
HGH	Not Provided		Outside Scope
HGH	Not Provided		Outside Scope
HGH	Not Provided		Outside Scope
HGH	Not Provided		Outside Scope
HGH	Not Provided		Outside Scope
HGH	Not Provided		Outside Scope
HGH	Not Provided		Outside Scope
WAVE 2: 14 JUNE 2024 - 16 AUGUST 2024			
RAD140 (Testolone)	Not Provided		Confirmatory analysis not completed due to PEG [Polyethylene glycol] carrier, future investigation required.
Clenbuterol	125µg/mL	Azelique	Confirmatory analysis not completed due to PEG [Polyethylene glycol] carrier, future investigation required.
Unknown [peptide?]	Not Provided		Outside scope
WAVE 3: 23 AUGUST 2024 - 18 OCTOBER 2024			
Testosterone Cypionate	250mg/mL	Evolve Biolabs ampuole	Sample destroyed during preparation
HGH	Not Provided		Outside scope

Unknown	25mg	Not Provided	Sample could not be analysed due to nature sample was presented.

Health Enhancement and Harm Reduction

Wave 3

1. Y-0358 – Testosterone Enanthate → Testosterone Blend (Sustanon-like) & Underdosed

Instead of Testosterone Enanthate, this sample contained a mix of testosterone esters similar to Sustanon®250. Additionally, it was underdosed at 196.6 mg/mL rather than the expected 250 mg/mL.

Harm reduction guidance: The ester blend impacts release timing: The shortest ester (Test Propionate) has a 1-2 day half-life, while the longest ester (Test Decanoate) reaches peak levels around day 6 and has an apparent half-life of ~2 weeks (1). This slower-release profile aligns more with options like Sustanon®250, which is often used in clinical testosterone replacement protocols (2, 3). People should be mindful of longer clearance times, which could affect cycle transitions, post-cycle therapy (PCT), and potential suppression duration.

2. X-0466 – Oxandrolone (Anavar) → Stanozolol (Winstrol) & Tadalafil (Cialis)

No Oxandrolone was detected; instead, it contained Stanozolol (Winstrol) and Tadalafil (Cialis).

Harm reduction guidance: Stanozolol is more liver toxic than Oxandrolone, increasing risks of liver strain (4). Tadalafil (Cialis®) increases blood flow and is a known treatment for erectile dysfunction (5). People expecting Oxandrolone's milder androgenic profile should reassess their cycle (6).

3. Y-0541 – Trenbolone Acetate (100mg) → Testosterone Blend (Enanthate, Cypionate, Decanoate, Traces of Propionate) at 134 mg/mL

No Trenbolone detected—this was a Testosterone blend instead.

Harm reduction guidance: THERE IS NO TREN IN HERE - adjust expectations accordingly. People will not experience trenbolone's potent anabolic or nutrient partitioning effects (7, 8). Testosterone blend may aromatise differently, increasing the risk of estrogen-related side effects (3, 9, 10) if you are not expecting this and accounting for it in your total androgenic load.

4. X-0554 – Drostanolone Propionate (Masteron P) (100mg) → Testosterone Decanoate (78.6 mg) & Testosterone Propionate Traces

No Drostanolone detected; this was a mix of long- and short-acting Testosterone esters.

Harm reduction guidance: Drostanolone enhances mineralocorticoid biosynthesis but has minimal impact on androgen production (11), meaning its substitution with Testosterone Decanoate shifts the hormonal balance toward greater estrogenic activity (10). Testosterone Decanoate has a longer half-life, leading to extended effects compared to the Drostanolone ester (Propionate) expected here (12, 13).

5. X-0600 – Fluoxymesterone (Halotestin) (10mg) → Overdosed at 15.9mg

Unexpected Outcome: 50% overdosed.

Harm reduction guidance: Fluoxymesterone (Halo) already has notably high anabolic and androgenic potency (14, 15, 16). Profound testosterone suppression can occur with prolonged use (17). Halo is highly hepatotoxic, long-term use may lead to structural liver changes (18). Clinical doses have ranged between 1-4mg/day (16). A 50% overdose, equating 5-6mg per tablet per day, could sharply amplify toxicity.

Scenario

- Tim wants a target dose of Halo at 30mg/day
- Tablet strength: 15.9mg/tablet (overdosed)
- Calculation: 30mg/15.9 mg/tablet=1.89 tablets/day
- Tim should take ~2 tablets per day to achieve 30mg, not 3 tablets.

References

1. Srinivas-Shankar U, Wu FC. Drug insight: testosterone preparations. Nature clinical practice Urology. 2006;3(12):653-65.
2. Albrethsen J, Østergren PB, Norup PB, Sønksen J, Fode M, Kistorp C, et al. Serum Insulin-like factor 3, testosterone, and LH in experimental and therapeutic testicular suppression. The Journal of Clinical Endocrinology & Metabolism. 2023;108(11):2834-9.
3. Bhasin S, Brito JP, Cunningham GR, Hayes FJ, Hodis HN, Matsumoto AM, et al. Testosterone therapy in men with hypogonadism: an Endocrine Society clinical practice guideline. The Journal of Clinical Endocrinology & Metabolism. 2018;103(5):1715-44.
4. Nunes V, Schinoni MI, Bessone F, Lucena MI, Medina-Cáliz I, Hernandez N, et al. Stanozolol-induced liver injury: A distinctive cholestatic clinical and biochemical phenotype at presentation. Journal of Clinical and Experimental Hepatology. 2025:102506.
5. Porst H. IC351 (tadalafil, Cialis): update on clinical experience. International Journal of Impotence Research. 2002;14(1):S57-S64.
6. Wu C, Kovac JR. Novel uses for the anabolic androgenic steroids nandrolone and oxandrolone in the management of male health. Current Urology Reports. 2016;17(10):72.
7. Motsinger LA, Okamoto LL, Ineck NE, Udy BA, Erickson CL, Harraq Y, et al. Understanding the Effects of Trenbolone Acetate, Polyamine Precursors, and Polyamines on Proliferation, Protein Synthesis Rates, and the Abundance of Genes Involved in Myoblast Growth, Polyamine Biosynthesis, and Protein Synthesis in Murine Myoblasts. Biology. 2023;12(3):446.
8. Zhang S, Li X, Li X, Wang X, Ru S, Tian H. 17β-Trenbolone activates androgen receptor, upregulates transforming growth factor beta/bone morphogenetic protein and Wnt signaling pathways, and induces masculinization of caudal and anal fins in female guppies (Poecilia reticulata). Aquatic Toxicology. 2023;263:106677.
9. Mwamba RN, Ekwonu A, Guimaraes PV, Raheem OA. The efficacy, safety, and outcomes of testosterone use among transgender men patients: A review of the literature. Neurourology and Urodynamics. 2023;42(5):921-30.
10. Snyder PJ, Bhasin S, Cunningham GR, Matsumoto AM, Stephens-Shields AJ, Cauley JA, et al. Effects of testosterone treatment in older men. New England Journal of Medicine. 2016;374(7):611-24.
11. Patt M, Beck KR, Di Marco T, Jäger M-C, González-Ruiz V, Boccard J, et al. Profiling of anabolic androgenic steroids and selective androgen receptor modulators for interference with adrenal steroidogenesis. Biochemical Pharmacology. 2020;172:113781.
12. Zelleroth S, Stam F, Nylander E, Kjellgren E, Gising J, Larhed M, et al. The decanoate esters of nandrolone, testosterone, and trenbolone induce steroid specific memory impairment and somatic effects in the male rat. Hormones and Behavior. 2024;161:105501.
13. Minto CF, Howe C, Wishart S, Conway AJ, Handelsman DJ. Pharmacokinetics and pharmacodynamics of nandrolone esters in oil vehicle: effects of ester, injection site and injection volume. Journal of Pharmacology and Experimental Therapeutics. 1997;281(1):93-102.
14. Arnold A, Potts G, Beyler A. The ratio of anabolic to androgenic activity of 7: 17-dimethyltestosterone, oxymesterone, mestanolone and fluoxymesterone. Journal of Endocrinology. 1963;28(1):87-92.
15. Rideout D. Androgenic Potency of Fluoxymesterone. British Medical Journal. 1960;2(5213):1672.
16. Buckle RM. Fluoxymesterone. British Medical Journal. 1959;1(5134):1378.
17. Jones TM, Fang VS, Landau RL, Rosenfield RL. The effects of fluoxymesterone administration on testicular function. The Journal of Clinical Endocrinology & Metabolism. 1977;44(1):121-9.
18. Gragera R, Saborido A, Molano F, Jimenez L, Muñiz E, Megias A. Ultrastructural changes induced by anabolic steroids in liver of trained rats. Histology and Histopathology. 1993.

Previous Waves

Wave 1

Oxandrolone, stanozolol, and testosterone are all anabolic-androgenic steroids but differ in their properties. Oxandrolone has a half-life of 9-10 hours and is known for its anabolic effects with less hepatic strain (compared to other C17α-alkylated AASs, for example, stanozolol) and androgenic activity than, for example, testosterone [1,2]. The presence of stanozolol and testosterone indicates a shift towards compounds with potentially higher hepatic strain and androgenic effects but varying anabolic properties. Out of the four samples submitted as testosterone enanthate (17.4%), three matched the expected drug. In one sample, testosterone cypionate, which has a slightly shorter half-life than enanthate [3], was detected instead.

References
[1] Orr, R., & Singh, M. F. (2004). The anabolic androgenic steroid oxandrolone in the treatment of wasting and catabolic disorders: review of efficacy and safety. *Drugs*, *64*, 725-750.
[2] Kuhn, C. M. (2002). Anabolic steroids. Recent progress in hormone research, 57, 411-434.
[3] Turza, A., Pascuta, P., Mare, L., Borodi, G., & Popescu, V. (2023). Structural insights and intermolecular energy for some medium and long-chain testosterone esters. *Molecules*, *28*(7), 3097.

Wave 2

Testosterone sometimes contains a different ester than expected, such as Cypionate instead of Enanthate. This affects the half-life, so it is important to adjust injection intervals accordingly [1]. For example, a sample of testosterone contained Cypionate instead of Enanthate. Monitor haematocrit levels and blood pressure closely, especially with testosterone cypionate and enanthate, as both can elevate the percentage of red blood cells in the blood [2, 3].
Some products may be underdosed or mislabelled, such as finding underdosed Testosterone Enanthate or Cypionate instead of Sustanon. This can affect both concentration and half-life, requiring adjustments to weekly dose calculations. For instance, this was observed with two samples of submitted as Sustanon.

Oral compounds, particularly those like methandienone or oxymetholone, carry risks of hepatotoxicity [4, 5], so regular monitoring of liver health is crucial. This was relevant to samples submitted as oxymetholone and methandienone.
For samples that are underdosed, you may consider re-evaluating your usage plan and adjust your dosages accordingly—avoid the temptation to simply increase your intake without recalculating based on the new information. Conversely, for overdosed samples, review your usage plan and modify your dosage to align with the actual concentration—do not continue with the same amount without reassessing.

For Example:

- Tim wants to use 400 mg per week of Drostanolone Enanthate. When using an overdosed sample, such as one with a concentration of 257 mg/mL, it's important to adjust the dosage to avoid exceeding 400 mg. Instead of injecting the typical 2 mL, Tim should inject about 1.56 mL to achieve his desired weekly intake.

- Tim wants to use 200 mg per week of Nandrolone Phenylpropionate. If the sample is underdosed, like one with a concentration of 87 mg/mL, Tim would need to increase the volume. To reach his target of 200 mg, he would inject around 2.30 mL instead of the usual 2 mL.

Always prioritise safety and informed decision-making when adjusting your usage.

References

[1] Kaufman, J. M. (2004). Evolution of delivery systems for testosterone administration. *Current Sexual Health Reports*, *1*(3), 109-114.
[2] Best, J. C., Gonzalez, D., Masterson, T. A., Blachman-Braun, R., Pai, R., & Ramasamy, R. (2021). A cross-sectional comparison of secondary polycythemia in testosterone-deficient men treated with nasal testosterone gel vs. intramuscular testosterone cypionate. *Canadian Urological Association Journal*, *15*(2), E118.
[3] Weinbauer, G. F., Jackwerth, B., Yoon, Y. D., Behre, H. M., Yeung, C. H., & Nieschlag, E. (1990). Pharmacokinetics and pharmacodynamics of testosterone enanthate and dihydrotestosterone enanthate in non-human primates. *European Journal of Endocrinology*, *122*(4), 432-442.
[4] Nesterin, M. F., Budik, V. M., Narodetskaia, R. V., Solov'eva, G. I., & Stoianova, V. G. (1980). Effect of methandrostenolone on liver morphology and enzymatic activity. *Farmakologiia i Toksikologiia*, *43*(5), 597-601.
[5] Welder, A. A., Robertson, J. W., & Melchert, R. B. (1995). Toxic effects of anabolic-androgenic steroids in primary rat hepatic cell cultures. *Journal of Pharmacological and Toxicological Methods*, *33*(4), 187-195.