AS/NZS 4308:2008

Australian/New Zealand Standard™

Procedures for specimen collection and the detection and quantitation of drugs of abuse in urine

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CH-036, Analysis of Body Fluids and Wastes. It was approved on behalf of the Council of Standards Australia on 21 January 2008 and on behalf of the Council of Standards New Zealand on 25 January 2008.
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Australian/New Zealand Standard™

Procedures for specimen collection and the detection and quantitation of drugs of abuse in urine

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PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee CH-036, Analysis of Body Fluids and Wastes to supersede AS/NZS 4308:2001, *Procedures for the collection, detection and quantitation of drugs of abuse in urine.*

The objective of this Standard is to ensure that the detection of drugs in urine meets the expectations for testing of specimens for medico-legal, workplace or court-directed purposes. This Standard addresses appropriate procedures for the collection of urine, on-site screening, handling and dispatch of specimens to the laboratory for screening and confirmatory tests. Testing for clinical use or in sport is not covered.

This revision provides additional requirements for collection procedures, laboratory screening procedures and quantitative laboratory confirmatory procedures. It also includes an appendix specifying the requirements for optional on-site screening since this procedure has become an established screening technique in a number of industries.

Statements expressed in mandatory terms in footnotes to tables are deemed to be requirements of this Standard.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is for information and guidance only.

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FOREWORD

This Standard sets out the procedures for specimen collection, packaging and transportation to a laboratory and the detection and quantitation of drugs in urine. This edition of the Standard introduces the option of on-site screening.

After collection of the specimen, the Standard allows for either screening at the collecting site or at a laboratory using the cut-off levels as specified in the Standard. If all test results for drugs are negative and specimen integrity is not a question, then a final report is issued at this stage.

As the results of screening are used for evidentiary purposes, it is necessary to ensure that on-site and laboratory screenings are substantially equivalent.

For on-site screening, this necessitates the implementation of procedures such as quality controls, proficiency testing, verification of testing devices, competency based training and accreditation.

These procedures have been a requirement for laboratory testing in this Standard since its inception and provide confidence in the quality of results obtained.

Any unconfirmed result requires laboratory confirmatory testing using mass spectrometry.

Figure 1 provides a flowchart showing the steps involved in specimen collection, screening, confirmation and reporting results.

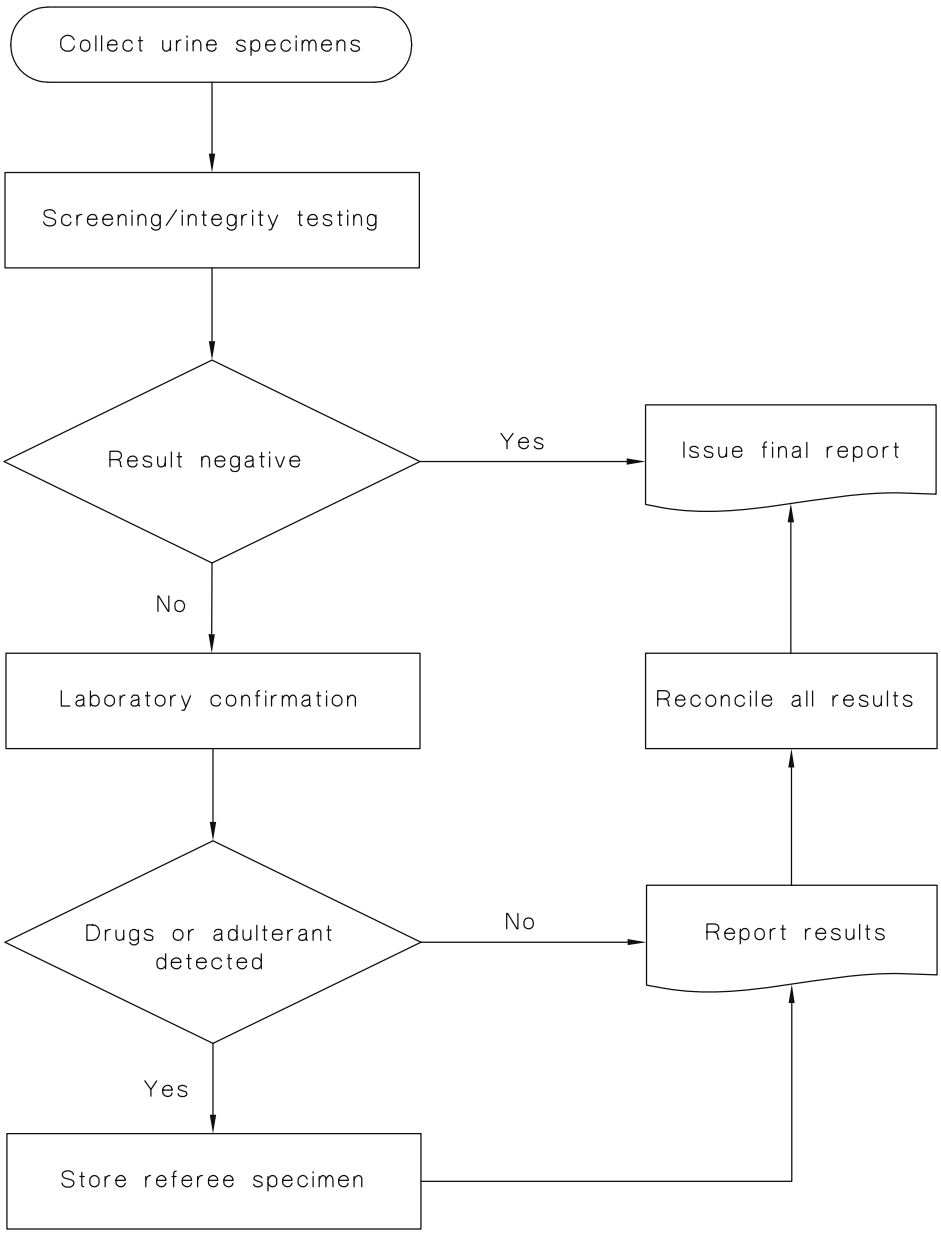

FIGURE 1 FLOWCHART

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard

Procedures for specimen collection and the detection and quantitation of drugs of abuse in urine

S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE

This Standard sets out procedures for specimen collection, screening, confirmation, quantitation and reporting of drugs in human urine as well as integrity testing of the specimen. The procedures are intended for but not limited to medico-legal, workplace, correctional services or court directed testing of any or all of the following classes of drugs:

(a) Amphetamine type substances.

(b) Benzodiazepines.

(c) Cannabis metabolites.

(d) Cocaine metabolites.

(e) Opiates.

NOTES:

1 The detection and reporting of drugs other than those listed in Table 2 is not precluded.

2 This Standard has no relevance to the issue of impairment.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard.

AS

2162 Verification and use of volumetric apparatus
2162.1 Part 1: General—Volumetric glassware
2162.2 Part 2: Guide to the use of piston-operated volumetric apparatus (POVA)
2164 Laboratory glassware—One-mark volumetric flasks
2166 Laboratory glassware—One-mark pipettes
2167 Graduated straight pipettes
4633 Medical laboratories—Particular requirements for quality and competence

AS ISO/IEC

17025 General requirements for the competence of testing and calibration laboratories

AS/NZS

2243 Safety in laboratories
2243.1 Part 1: Planning and operational aspects
2243.2 Part 2: Chemical aspects
2243.3 Part 3: Microbiological aspects and containment facilities

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