

# Australasian Forensic Toxicology Meeting



**October 11-14, 2009**

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**RACV Club, 501 Bourke St, Melbourne, Australia**

**Monday Oral Session 2:  
(Clinical toxicology/workplace drug testing)**

**14<sup>00</sup> Evaluation of the Biosens device to test for the presence of d-methamphetamine and MDMA**

Steve Korkoneas

**14<sup>15</sup> A novel reductive transformation of oxazepam catalysed by beta-glucuronidase**

Shanlin Fu, John Lewis, Hongjie Wang, Michael Dawson

**14<sup>30</sup> Urine adulteration - preliminary investigation into using bleach to conceal MDMA use**

Annie Q. N. Pham, Michael Dawson and Shanlin Fu

**14<sup>45</sup> Control quality of rapid tests which are distributed in Indonesia**

Gelgel Wirasuta

**15<sup>00</sup> Methyl salicylate toxicity**

Maria G Pricone, Dimitri Gerostamoulos, Michael Burke, Olaf H. Drummer

**15<sup>15</sup> The changing Victorian drug scene: heroin deaths and trends since 1991**

Jessica Woods, Jennifer Wallington, Voula Staikos, Dimitri Gerostamoulos, Olaf H. Drummer

**15<sup>30</sup>-16<sup>00</sup> Sponsored Afternoon Coffee and Tea**

**Thermo Fisher Scientific Sponsors Workshop  
– lab based immunoassays testing for hair and saliva**

**Free Evening**

## Control quality of rapid tests distributed in Indonesia

Dr.rer.nat. I M.A. Gelgel Wirasuta<sup>1,2</sup>

- 1) Institute of forensic sciences and criminology – Udayana University
- 2) Departement of Pharmacy – Basic Sciences Faculty – Udayana University, Denpasar Bali Indonesian.

The quality of rapid tests distributed among Indonesian have been controlled. The program was conducted by the Indonesian Health Minister in collaboration with the Institute of Forensic Sciences and Criminology – Udayana University in Denpasar. The aim of the program was to control the quality of rapid tests, so that the results of screening tests can be assured.

Seventy four rapid tests from 14 brand-names were used this program to screen amphetamine, methamphetamine, methylenedioxyamphetamine (MDMA), benzodiazepine, opiate, and cannabinoid. Five concentration levels 0%, 75%, 100%, 125%, and 200% of cut off as specified by SHAMSA-USA were used as references. The substance-references were dissolved in methanol, and then diluted with blank urine, so that the above five concentration levels were achieved. Five stick rapid tests were applied for each concentration level.

The result shows that 21.6 % of the rapid-tests did not meet the required quality. This may be due to the reduction of the reactivity of the embedded enzyme on stick. The reduction of the embedded enzymes was due to uncontrolled temperature storage during transportation of the test kit from host to the laboratories. In the repeated control qualities test by using other rapid test from the same batch number, in which the controlled temperature of transportation, produced improved the quality of the embedded enzyme activities.

# Australasian Forensic Toxicology Meeting


This is to certify that

*Gelgel Wirasuta*

Attended and presented at the  
AUSTRALASIAN FORENSIC TOXICOLOGY MEETING  
Held in  
MELBOURNE, AUSTRALIA,  
OCTOBER 12-14, 2009

Organised by  
THE VICTORIAN INSTITUTE OF FORENSIC MEDICINE

Professor Olaf H. Drummer  
Chairman of Organising Committee &  
Current TIAFT President

  
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# Control quality of rapid tests distributed in Indonesia

*by* Gelgel Wirasuta

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SUBMISSION ID	757825047	CHARACTER COUNT	1501

## **Control quality of rapid tests distributed in Indonesia**

Dr.rer.nat. I M.A. Gelgel Wirasuta<sup>1,2</sup>

<sup>1)</sup>Institute of forensic sciences and criminology – Udayana University

<sup>2)</sup> Departement of Pharmacy – Basic Sciences Faculty – Udayana University, Denpasar Bali Indonesian.

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### Abstract,

The quality of rapid tests distributed among Indonesian has been controlled. The program was conducted by the Indonesian Health Minister in collaboration with the Institute of Forensic Sciences and Criminology – Udayana University in Denpasar. The aim of the program was to control the quality of rapid tests, so that the results of screening tests can be assured.

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# Control quality of rapid tests distributed in Indonesia

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## ORIGINALITY REPORT

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*by* Gelgel Wirasuta

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FILE	QUALITY_CONTROL-GELGEL_WIRASUTA.PDF (206.76K)	WORD COUNT	621
TIME SUBMITTED	28-JAN-2017 05:07 AM	CHARACTER COUNT	3275
SUBMISSION ID	763503175		




# Control quality of rapid tests distributed in Indonesia




## Control quality of rapid tests distributed in Indonesia

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### Background

- Quality control was addressed to Rapid test for screen:
  - Amphetamine,
  - Methamphetamine,
  - MDMA
  - Benzodiazepine
  - Opiate, and
  - Cannabis



### Background

- It was found, that a poor of performance quality of the "Externally Quality Control-Program of Drugs Abuse Laboratories in Indonesia" on July 2008
  - The screening tests were based on EMIT-Rapid test
- The Recommendation of the committee was:
  - to control the quality of Rapid-test, which is distributed in Indonesia




### The aim of the program

- Evaluate the quality of rapid test distributed in Indonesia
- To certify the quality of rapid tests
- To make recommendation for laboratories to use the certified rapid test for the screening test
- To assure screening test result.



### Background


- In earlier of 2009
  - Under Department of Health Laboratories and Health devices of the Indonesian Health Minister
    - It was built the committee to do the control quality of rapid tests distributed in Indonesia
    - The quality control was hold in Forensic Toxicology Lab. – Institute of Forensic Sciences and Criminology – Udayana University - Denpasar



### Method

- Five concentration control levels
  - Level 0 : 0 ppm.
  - Level 3 : 75 % of cut-off strip test
  - Level 4 : 100 % of cut-off strip test
  - Level 5 : 125 % of cut-off strip test
  - Level 6 : 200% of cut-off strip test
- Rapid-test
  - Five strip-tests in same batch number for every levels → 25 strip-test
  - Three difference batch number for all strip tests

# Control quality of rapid tests distributed in Indonesia

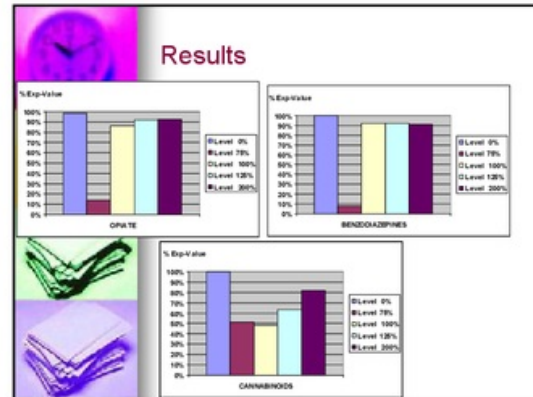



### Cut-off Levels, Number of Participants

Drug Group	Cut off (ng/ml)	Number of Participants (Brand Name)
Amphetamine	1000	13
MA	1000	14
MDMA	1000	8
Opiate	300	14
Benzodiazepines	200	13
Cannabinoids	50	12
Sum		74

2


*Cut-off Levels referenced: UK Laboratory Guidelines for Legally Defensible Workplace Drug Testing and SAMHSA*

### Percent Expectation Value

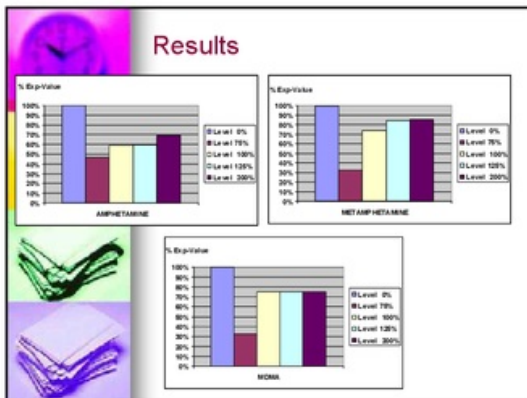
Conc. Levels	Expectation Result	%Exp. Value
0%	-	N (-) / Ntot
75 %	-	N (-) / Ntot
100 %	+	N (+) / Ntot
125%	+	N (+) / Ntot
200 %	+	N (+) / Ntot


1




### Result of Quality Control 1 st Phase

Drug Group	N-Pariticipan	Lack - Quality	Good Quality
Amphetamine	13	5	8
MA	14	2	12
MDMA	8	2	6
Benzodiazepines	13	1	12
Opiate	14	1	13
Cannabinoids	12	5	7
Sum	74	16 (21,6%)	58 (78,4%)



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- ### Result of Quality Control 2 nd Phase
- Under advice the controlled temperature of transportation
    - All Strip-test pass the Quality

## Control quality of rapid tests distributed in Indonesia



**Conclusion**

- Under cut-off referenced to SAMHSA:
  - At the first phase were 21,6% of Strip-test not passed the quality
  - The controlled temperature by transportation from host to the Lab. can maintenance the quality of rapid-test



# Control quality of rapid tests distributed in Indonesia

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## ORIGINALITY REPORT

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**buero bass.ch**

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**2**

**www.laboratorievejledning.dk**

Internet Source

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