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# AEAV RECOMMENDATIONS

**1** The Society of Hair Testing (SoHT) Guidelines for drug testing in hair be included in the ‘Regulations, Standards and Government Policy Guidelines’ of section 3 Regulatory and policy hierarchy of the AV AOD policy POL/PAC/066 as a reference document.

**2** The following is incorporated into the POL/PAC/066 and/or PRO/PAC/075:

*Hair testing may be included in AOD screening only:*

- i. When an AV staff member returns a non-negative result to oral fluids and/or urine during on-site random screening and confirmation tests on these biological samples confirm the presence of an illicit drug or an AV medication, or*
- ii. For Cause testing from self-reporting, reasonable belief (with the provision detailed below), or AOD prescribed criteria, or*
- iii. When there is strong evidence that a staff member/s may have misappropriated AV medications. The ‘strong evidence’ must be provided to the employee/s by AV in writing, prior to hair samples being obtained.*

**3** Staff members are required to consent to all AOD screening, and AV is required to obtain written consent to be provided to the collecting agency and analysing laboratory.

The period to be examined should be no longer than three months. This equates to testing only the 3 cm of hair specimen, harvested at the time of screening, that is closest to the root of the hair shaft.

Written consent for hair testing must be given at the time of harvesting and must include the hair sample size to be tested, e.g. 3 cm, and the number of segments to be tested, e.g. 3 x 1 cm segments. Once these segments have been tested, any remaining hair collected, that is more than the required 3 cm must be destroyed by the tester and the consent for testing will have been exhausted.

Should further testing be required on any remaining hair, before destruction, the above process for obtaining consent must be repeated for every 3 cm section of hair beyond the original 3 cm tested up to a total of 6 cm of hair.

Any testing beyond the required 3 cm or 3-month period must be justified by reasonable belief which in turn must be communicated, in writing, to the staff member/s at the time of seeking consent.

**4** The SoHT definition of cut-off levels be included verbatim in the section 8 Definition AOD Policy PRO/PAC/066 and s 18 Definitions AOD Procedure PRO/PAC/075.

**5** A table detailing the SoHT cut-off levels for drugs testing in hair must also be included in POL/PAC/066 and/or PRO/PAC075.

**6** The SoHT cut-off level for detected Ketamine determined to be 0.2 ng/mg be adopted. The adoption of this cut-off level must be included in the cut-off level table (proposed in recommendation 5) as an aid, but not the only means, to distinguishing between potential personal consumption and OEE.

**7** That new cut-off levels for drugs in hair testing, as they are determined by the SoHT be updated and incorporated into the cut-off tables (proposed above in recommendation 5) as the information is made available to affiliated hair testing organisations.

**8** Only those drugs detected in hair that exceed the determined cut-off level be reported as a positive result.

**9** AV accept and recognise environmental exposure to drugs, especially AV medications, in the ambulance operational and operational support environments is a real and prevalent possibility.

Any positive results of drugs detected in hair at any concentration, especially those related to drugs that do not have a determined cut-off level, must be interpreted as to a cause of the positive result against all known surrounding circumstances and evidence on a case-by-case basis.

Where a test for an AV medications is determined to be positive in a hair sample, the possibility that occupational environmental exposure is the cause must be the default interpretation, until all the surrounding circumstances have been considered, and there is strong documented evidence indicating active personal consumption of the AV medication detected.

AV treat any non-negative drug test results as a welfare matter rather than immediately considering the matter to be misconduct.

**10** That the detection of metabolites as being present be mandatory for any drugs detected in hair before a finding of a positive result can be made.

- i. at any concentration that do not have a determined cut-off level, and/or*
- ii. that the SoHT has determined it be mandatory for, and/or*
- iii. that are AV medications, at any concentration regardless of whether a cut-off level has been determined,*

**11** The cut off tables for oral fluid and urine AOD screening as detailed in the Australian/New Zealand standards 4760 and 4308 be re-inserted into the AV AOD policy POL/PAC/066 and/or the AOD procedure PRO/PAC/075.

**12** A positive oral fluid or urine AOD confirmation test must include the detection of any parent drug and its associated metabolites at levels that are above the determined cut-off level, whether prescribed by either Australian/New Zealand standards 4760 or 4308, must be considered against any evidence of the surrounding circumstances, including but not limited to alternative explanations before any final determinations of active personal consumption can be made.

If a positive finding from oral fluid or urine confirmation test has traces of an AV medication, or a drug that does not have a determined cut-off level has not been prescribed by Australian standard 4760 or 4308 at any concentration is reported, the detection of the drug's associated metabolites must be mandatory. Consideration must be given to all the evidence of the surrounding circumstances, including but not limited to alternative explanations for the positive result before any final determinations of active personal consumption can be made.

**13** Any positive result from any AOD screening must be reviewed by an independent AOD Specialist Medical Review Officer within twenty-four hours of AV receiving the certificate of analysis from the reporting laboratory. The Medical Review Officer will liaise with a toxicologist from the reporting laboratory and the affected staff member and consider all the surrounding circumstances and evidence of the positive result.

(13 continued)

The Medical Review Officer has the authorisation to issue a negative report on a positive result on a certificate of analysis after considering all the surrounding circumstances. The Medical Review Officers report should be supplied within 5 working days of receiving the request for review from AV. The costs associated with the Medical Review Officers investigation will be borne by AV.

No allegations of misconduct relating to a positive AOD screening against a staff member can be made until the independent Medical Review Officers report has been received by all parties, and they have concluded that there are not reasonable alternative explanations for the positive AOD result.

- 14** Staff who have been placed on temporary leave because of an initial non-negative AOD screening result to oral fluids, urine and/or hair must be remunerated as if they were still on roster. This would consist of the rolled in rate of pay and any allowances payable that would be a normal incidence of their roster had they been working e.g. on-call or single officer allowance etc. Those allowances paid to cover expenses e.g. travel allowance etc, would not be payable unless incurred in returning to their place of residence immediately after being placed on temporary leave.
- 15** AV compile, in conjunction with the AEA-V, a list of approved accredited, laboratories that perform testing on biological samples of oral fluid, urine and hair. This list, accompanied by an explanatory note, is to be provided to the test subject along with and at the time their receipt of the Medical Review Officers report.
- 16** The definition of serious misconduct, as defined in POL/PAC/047 be replaced, verbatim, with the definition of serious misconduct as written and found in the Fair Work Act 2009 (Cth) reg 1.07.
- 17** Where a staff member who is required to provide biological samples for the purposes of AOD screening, claims to have a valid and/or lawful reason for not doing so at the time of collection, must provide reasonable evidence substantiating their claims at the time of testing. If they are unable to do so at the time of collection, they should be given one day to produce that evidence to their immediate manager who will forward it onto the AV AOD Welfare specialist.
- 18** At the time of any AOD screening, declaring of any medications must be done in the presence of the contracted specimen collector and the AOD specialist only.  
An intranet medication declaration interface be developed for staff to confidentially declare medications, outside of AOD screening, that can only be accessed by the AOD specialist.  
Notifications to include letter from prescribing Doctor where relevant.
- 19** Various definitions to be included in either POL/PAC/066 and/or PRO/PAC/075 detailed in section XI.

# I INTRODUCTION

Alcohol and Other Drug screening is one tool in promoting a safe operational working environment and the personal welfare of Ambulance Victoria employees. However, the use of this tool in an ad hoc ill-informed manner leads to spurious allegations of personal drug use that have flow on impacts for the organisation and staff involved. These spurious allegations have had a financial and operational impact for Ambulance Victoria and are stigmatising, psychologically traumatic and financial damaging for the accused employees.

The below submission details the Ambulance Employees Association Victoria (AEAV) position on changes that must be made to the Ambulance Victoria (AV) Alcohol and Other Drug (AOD) policies and procedures. This submission details recommendations that will mitigate AV employees (staff) from spurious allegations of personal illicit drug use without affecting the efficacy of those AOD policies and serve as an aid to streamlining the management of alleged staff AOD issues, saving time money for AV and reducing the trauma and stigma for the affected staff member.

# II BACKGROUND

Since 2017, AV have modified and adapted the AOD policy POL/PAC/066 (the policy) and AOD Procedure PRO/PAC/075 (the procedure). The effect of these changes has been to broaden the policy and procedure, removing detail that served as protection for paramedics in general and others directly affected by their application. The AV AOD policy acts primarily as an instrument ensuring staff are free from intoxication when on-duty and on-call. The AOD procedure is a working document allocating responsibilities to appropriate personnel for the management of the AOD process and detailing AOD testing procedures and decision trees for decision making.

In addition to the above, a significant number of paramedics have been involuntarily removed from duty because of positive drug test results. Of primary concern are those paramedics that have been removed from duty for a positive test result to Ketamine, generated through hair shaft testing. These paramedics were removed and placed on a disciplinary pathway for, what the AEA-V contends, was occupational environmental exposure (OEE) to drugs, particularly Ketamine and a poor working knowledge of AOD research on screening issues.

After significant periods of time away from the workplace, these paramedics were generally reinstated with varying levels of disciplinary outcomes. The AEA-V is concerned that an increasing number of paramedics will also be involuntarily removed from duty as the administration of Ketamine to patients increases due to the introduction intra-nasal Ketamine into the matrix of analgesia available via the pain management guideline.

The issues surrounding OEE to Ketamine were discussed in the 2020 Enterprise Agreement (EA) negotiations where it was agreed that it should be an issue for the EA implementation committee. This submission forms part of AEA-V's contributions to this committee.

# III HAIR TESTING

## 1. Society of Hair Testing Guidelines

The most significant stumbling block in the AV AOD screening environment is the lack of a recognised Australian Standard as exists for urine and oral fluid screening. This obstacle can be overcome through AV recognising and applying the guidelines for drug testing in hair published by the Society of Hair Testing (SoHT).

The most significant stumbling block in the AV AOD screening environment is the lack of a recognised Australian Standard as exists for urine and oral fluid screening. This obstacle can be overcome through AV recognising and applying the guidelines for drug testing in hair published by the Society of Hair Testing (SoHT).

The SoHT is the pre-eminent internationally recognised body that determines recommended best practice guidelines for laboratories conducting hair testing for drugs. Compliance with these guidelines has been accepted as appropriate by Australian courts in cases such as (but not limited to) Commissioner of Police (NSW) v Zisopoulos,<sup>1</sup> Bloxham v Bloxham (No 2),<sup>2</sup> Bardwell v Bardwell,<sup>3</sup> Sellers v Burns.<sup>4</sup>

The SoHT determines best practice standards for laboratories worldwide, including the external contractor engaged by AV, the Victorian Institute of Forensic Medicine (VIFM). Those analytical procedures are beyond the scope of this submission and are accepted as being adhered to by VIFM. The SoHT also issues directions on acceptable cut-off levels and interpretation of positive results from hair testing which will be discussed below.

## Recommendation 1

The Society of Hair Testing Guidelines for drug testing in hair be included in the 'Regulations, Standards and Government Policy Guidelines' of s 3 Regulatory and policy hierarchy of the AV AOD policy POL/PAC/066 as a reference document.

## 2. Windows of Detection and Hair Testing

A recognised advantage of hair testing over oral fluids and urine screening is that it has the longest window of detection. Detection can be up to 6 months,<sup>5</sup> dependent on the length of hair being sampled. AEA-V accepts that hair testing is a useful tool to assess an individual's drug use history, however, hair testing has limitations in being able to distinguish regular versus one-off or occasional drug use.<sup>6</sup>

Conversely, a disadvantage of hair testing, in employment AOD screening, is that it is unable to detect recent drug use or exposure that is within seven days prior to testing.<sup>7</sup> Therefore, hair testing's usefulness in the assessment of immediate fitness for duty is limited. AV's AOD policy specifies that hair testing could be included in all testing types (random, for cause and workgroup testing). The AOD procedure adequately details the use of hair testing in 'for cause' and AV medications screening, but notably absent is a prescribed procedure for random testing. The AEA-V's position is, given the limitations of hair testing to detect recent drug use and thus immediate fitness for duty, it should not be part of the 'random' screening matrix.

The AEA-V strongly recommends that both the policy and procedure make specific reference to the circumstances in which hair testing can be utilised to remove any ambiguity.

## Recommendation 2

The AEA-V strongly recommends the below being incorporated into the POL/PAC/066 and/or PRO/PAC/075. Hair testing may be included in AOD screening only

- i. When an AV staff member returns a non-negative result to oral fluids and/or urine during on-site random screening and confirmation tests on these biological samples confirm the presence of an illicit drug or an AV medication, or
- ii. For Cause testing from self-reporting, reasonable belief (with the provision detailed below), or AOD prescribed criteria, or
- iii. When there is strong evidence that a staff member/s may have misappropriated AV medications. The 'strong evidence' must be provided to the employee/s by AV in writing, prior to hair samples being obtained.

<sup>1</sup> [2020] NSWCA 236 [23].

<sup>2</sup> [2020] FamCA 1040 [3].

<sup>3</sup> [2020] FamCA 264 [4].

<sup>4</sup> [2019] FamCA 662 [11].

<sup>5</sup> Human testing', HUMAN AND SUPPLEMENT TESTING Australia, (WEB Page, 2017) <https://hasta.org.au/human-testing/>

<sup>6</sup> Kate Dolan, David Rouen and Jo Kimber, 'An overview of the use of urine, hair, sweat and saliva to detect drug use' (2004) 23 Drug and Alcohol Review 213, 216.

<sup>7</sup> Ibid 215

### 3. Hair Sampling

A historical timeline of potential AOD use that can be produced by hair testing is determined through sequential hair segment testing. An individual's hair grows at slightly different rates. However average normal hair growth is 1 cm/month.<sup>8</sup> The part of the hair shaft that is required for testing is that area closest to the scalp. Thus, when a hair sample is collected, the potential to take a specimen that is quite long is a reality, individual hair length considered, as the whole hair shaft will be obtained. These specimens are then segmented into 1 cm sections for analysis, with each segment equating to one month. Hair testing can reliably detect AOD use for up to six months prior to testing. Therefore, a six months' period would equate to approximately 6 cm of hair. It is accepted universally by testing laboratories, that one centimetre of hair collected represents approximately one month of potential possible analysis. It should be noted that segmented analysis of hair does not provide a day by day record rather it provides a potential month/centimetre estimate of potential AOD use.

In earlier iterations of the AOD procedure (Pro/PAC/075 v4.0 s 4.3.1) it was prescribed that only a 3 cm section of hair was required for testing, this requirement has since been removed from the procedure. This prescription provided surety and a legitimate proscription on the activities of AV in AOD screening of staff and hair test sample collection. There have been documented occasions of AV ordering further tests on the remaining hair, more than the prescribed 3 cm, without the knowledge or consent of the staff member being screened. The AEA-V strongly recommends that this sampling prescription be returned to the AOD procedure. If further investigative analysis of AOD hair screening is required beyond this three-month period, then AV must be required to document and provide by way of reasonable belief, and inform the staff member/s in writing of the reasonable belief that necessitates analysis beyond the stipulated three month period.

#### Recommendation 3

Staff members are required to consent to all AOD screening, and AV is required to obtain written consent to be provided to the collecting agency and analysing laboratory.

The period to be examined should be no longer than three months. This equates to testing only the 3 cm of hair specimen, harvested at the time of screening, that is closest to the root of the hair shaft.

Written consent for hair testing must be given at the time of harvesting and must include the hair sample size to be tested, e.g. 3 cm, and the number of segments to be tested, e.g. 3 x 1 cm segments. Once these segments have been tested, any remaining hair collected, that is more than the required 3 cm must be destroyed by the tester and the consent for testing will have been exhausted.

Should further testing be required on any remaining hair, before destruction, the above process for obtaining consent must be repeated for every 3 cm section of hair beyond the original 3 cm tested up to a total of 6 cm of hair.

Any testing beyond the required 3 cm or 3-month period must be justified by reasonable belief which in turn must be communicated, in writing, to the staff member/s at the time of seeking consent.

<sup>8</sup> Hair Drug Test Facts and FAQs', PSYCHEMEDICS, (Web Page, 2021) < <https://www.psychemedics.com/hair-drug-testing-facts-faqs/#how-much>>.

<sup>9</sup> Human testing', HUMAN AND SUPPLEMENT TESTING Australia, (WEB Page, 2017) <https://hasta.org.au/human-testing/>.

## 4. Cut-off Levels and Hair Testing

As mentioned above, unlike oral fluid and urine AOD screening, no Australian standards exist for analysis of hair and the interpretation of its findings. This has led to significant conflict between AEA-V and AV when staff members face allegations of drug use. An important aspect of interpreting hair screening results is the application of cut-off levels. The SoHT has an agreed set of cut-off levels that are universally accepted by hair testing laboratories in Australia including VIFM. The SoHT, in 2020, determined a final working definition of cut-off level to be applied as part of their guidelines. The SoHT working definition of a cut-off level is 'the cut off is a level that enables [the ability] to determine adult drug users.'<sup>10</sup> Cut-off levels are subject to continual review and have been set at a level that distinguishes and minimises the reporting of environmental exposure to detected drugs as against personal use.<sup>11</sup> Thus, only those drugs that are detected at a level above the cut-off should be classified as being potential evidence that a test subject has used drugs.

### Recommendation 4

The SoHT definition of cut-off level be included verbatim in the s 8 Definition AOD Policy PRO/PAC/066 and s 18 Definitions AOD Procedure PRO/PAC/075.

The latest iteration of the AV AOD policy, v 7.0, and procedure, v 8.0, have removed the specific tables, documenting the cut-off levels for oral fluid and urine from these documents detailing and a table of cut-offs for hair testing has never been included in any version. The removal of these tables has introduced a lack of openness and clarity for staff being screened and/or returning non-negative results. As this information is non-controversial, it should be re-included into the policy and/or procedure.

### Recommendation 5

A table detailing the SoHT cut-off levels for drugs testing in hair must also be included in POL/PAC/066 and/or PRO/PAC/075.

Of significant concern to the AEA-V is the reporting of positive findings of drugs in hair samples when the concentration found is very low or where a cut-off level has yet to be determined.

Detection of Ketamine in screened hair is a significant concern for the AEA-V. The positive results to ketamine, generally detected in low concentrations, have been reported as positive due to a lack of a cut-off level having been determined for this drug. There has been significant peer reviewed research over the years that has proposed a cut-off level for Ketamine with suggestions ranging from 0.4 ng/mg to 0.8 ng/mg. The European Guidelines for Workplace Drug and Alcohol Testing in Hair has prescribed a cut-off level of 0.5 ng/mg.<sup>12</sup> The SoHT had resisted determining a cut-off level until more evidence had been considered. After their 2020 Consensus meeting, the SoHT determined that an appropriate cut-off level for Ketamine that would reliably distinguish between passive exposure and active consumption would be determined to be 0.2 ng/mg. Almost all operational staff that have been stood down from duty due to a positive hair result to Ketamine, and have claimed occupational OEE have had detected concentrations of Ketamine in hair samples below this level.

### Recommendation 6

The Society of Hair Testing cut-off level for detected Ketamine determined to be 0.2 ng/mg be adopted. The adoption of this cut-off level must be included in the cut-off level table (proposed in recommendation 5) as an aid, but not the only means, to distinguishing between potential personal consumption and OEE.

<sup>10</sup> 'Society of Hair Testing – The 2020 Drug of Abuse Consensus and Recommendations', DNA Legal (Web Page, 24 February 2020) <https://www.dnalegal.com/blog/society-hair-testing-2020-drug-abuse-consensus-and-recommendations>.

<sup>11</sup> Olaf Drummer et al, Letter to the Editor, 'Concerns on the Misinterpretation of Very Low Drug Concentrations in Hair', (2020) 44 Journal of Toxicology e6, e6 (advance).

<sup>12</sup> European Workplace Drug Testing Society, European Guidelines for Workplace Drug and Alcohol Testing in Hair, Version 2.0, 1 November 2015. [8.3.9]

The SoHT in its 2020 consensus also determined two other cut-off levels being for Oxycodone and Buprenorphine. This is an illustration that cut-off levels are constantly being reviewed by the SoHT.

## Recommendation 7

That new cut-off levels for drugs in hair testing, as they are determined by the SoHT be updated and incorporated into the cut-off tables (proposed above in recommendation 5) as the information is made available to affiliated hair testing organisations.

## Recommendation 8

Only those drugs detected in hair that exceed the determined cut-off level be reported as a positive result.

## 5. Occupational Environmental Exposure and Low Concentrations of Drugs, and Metabolites

### (a) *Low Concentrations of Drugs and Occupational Environmental Exposure*

The interpretation of positive results to drugs found in tested hair is still relatively controversial due to the inability to distinguish from passive environmental exposure and active personal use. A 2016 study of veterinary personnel, known not to personally use Ketamine, provided positive hair results to Ketamine from simply handling, preparing, and administering the drug.<sup>13</sup> Another report cites a case study where an anaesthesiologist, who was under a period of strict supervision from a previous AOD issue, prepared and administered Ketamine to several patients (again under strict supervision and all of the drug was accounted for both administered and discarded), tested positive to Ketamine when his hair was tested for drugs.<sup>14</sup>

Syringe dispensing and mixing of drugs does not occur in a closed system as some aerosolising of the drugs does occur. Environmental contamination of hair due to drugs can also occur through fumes from smoke or residual powder from drugs.<sup>15</sup> Occupational environmental exposure no longer carries the controversy it once did as more evidence arises. 'External contamination [from drugs] is a scientific fact; it happens; it is not for debate.'<sup>17</sup> Interpretation of results from hair testing is controversial due to the influence of these external contamination factors.

The New South Wales Industrial Commission (NSWIRC) ordered the re-instatement of a police Sergeant whose employment was terminated for alleged personal drug use. The allegations made against him resulted from a low concentration detection to MDMA and Methamphetamine in his hair. The presiding NSWIRC commissioner found that where the 'possibility' of environmental contamination exists, it is impossible to rule it out and conclude that the positive result could only be from personal drug use. The Sergeant had been on duty at a particular station when these drugs were being handled and processed for evidentiary use. An appeal against this decision by the NSWIRC by the police commissioner was unsuccessful.

<sup>13</sup> D Favretto et al, 'Occupational exposure to ketamine detected by hair analysis: a retrospective and prospective toxicological study', (2016) 265 Forensic Science International 193, 193.

<sup>14</sup> R B Cope, 'The potential for occupational exposure of veterinarians to ketamine resulting in positive drug tests', (2018) 96(3) Australian Veterinary Journal 59, 61.

<sup>15</sup> Ibid 60.

<sup>16</sup> Madeline Montgomery, Marc LeBeau and Cynthia Morris-Kukoski, letter to the Editor, 'New Hair testing Conclusions' (2017) 41 Journal of Analytical Toxicology 161, 161.

<sup>17</sup> Pascal Kintz, Alberto Salomone and Marco Vincenti, Hair Analysis in Clinical and Forensic Toxicology (Elsevier Inc, 2015) 62.

The acute operational environment for AV staff exposes paramedics to drug users and environments where traces of illicit drugs on surfaces are present or in the air. Additionally, these staff are handling and administering medications to patients that are regularly tested for in AOD screening.

*While the use of personal protective equipment is strongly advocated when handling drugs, it is not always possible to know when and what surfaces have been contaminated. The hair [of operational staff] may also be positive, because they have been exposed to a drug based on their occupation and not their personal use of drugs.*<sup>18</sup>

The potential of inadvertent exposure to AV medications is an unequivocal incidence of the AV operational environment. Although the use of personal protective equipment is generally good, unavoidable inadvertent exposure to AV medications through administration, handling accidents or poor housekeeping are inevitable. Historically AV have refused to recognise the possibility of inadvertent environmental exposure to drugs and deemed all positive reports of drugs detected in hair as conclusive evidence of active personal use.

Of concern to the AEA-V are the numerous positive AOD screening reports from hair testing that have been generated from low concentrations of drugs detected and/or for drugs where no established cut-off level has been determined. Historically, AV medications that have not had a determined cut-off level for hair testing include Ketamine (see above), Fentanyl, Midazolam and Methoxyflurane among others.

Professor Olaf Drummer, an Australian expert in the area of testing hair for drugs, warns 'of an alarming trend [from reporting laboratories] to report ultra-low concentrations of drugs of abuse in hair without outlining limitations, despite the availability of international cut-off levels.'<sup>19</sup> Drummer continues that '[l]aboratories that report below recommended cut-off levels may unfairly affect tested individuals by suggesting drug use when it may not have occurred.'<sup>20</sup> He further concludes that when drugs have been detected unambiguously but at concentrations below the cut-off level, where they exist, statements of limitations of the findings must be made, including 'that personal use cannot be unequivocally proven without other evidence.'<sup>21</sup>

The above discussion is cause for considerable concern to the AEA-V, especially in the light of the expanded use of Ketamine, which will see a 10-20-fold increase (conservative estimate) in administration of the drug by AV paramedics.

## Recommendation 9

That AV accept and recognise environmental exposure to drugs, especially AV medications, in the operational and operational support environments is a real and prevalent possibility.

Any positive results of drugs detected in hair at any concentration, especially those related to drugs that do not have a determined cut-off level, must be interpreted as to a cause of the positive result against all known surrounding circumstances and evidence on a case by case basis.

Where a test for an AV medication is determined to be positive in a hair sample, the possibility that occupational environmental exposure is the cause must be the default interpretation, until all the surrounding circumstances have been considered, and there is strong documented evidence indicating active personal consumption of the AV medication detected..

<sup>18</sup> Olaf Drummer et al, Letter to the Editor, 'Concerns on the Misinterpretation of Very Low Drug Concentrations in Hair', (2020) 44 Journal of Toxicology e6, e6 (advance) (emphasis added).

<sup>19</sup> Ibid.

<sup>20</sup> Ibid e7.

<sup>21</sup> Ibid

(b) *Metabolites*

The current research and judicial decisions warn against conclusions that definitively interpret positive hair results as only being from personal active consumption of the detected drug when even the possibility of external environmental contamination exists. Subsequent research has suggested that there is a possibility that in addition to the parent drug, the detection of a drugs metabolites of that parent drug may point to active use.<sup>22</sup>

The detection or absence of metabolites of the parent drug will reduce if not eliminate false positive findings.<sup>23</sup>

The SoHT in its 2020 consensus advised that ‘the presence of several metabolites was **considered a must** to definitively confirm the active consumption of the drug in question such as 6 MAM for heroin, THC-COOH for cannabis, Desmethyiltramadol for tramadol, EDDP for methadone, BZE or Ncoc Or CE or hydroxycocaine ( meta or para hydroxycocaines) for cocaine, **norketamine for ketamine.**<sup>24</sup> The SoHT, in the 2020 consensus also abolished cut-off levels for metabolites, it [has deferred] to the experts and the testing laboratories to “establish cut-off levels’ metabolites as minimum detection levels between drugs, the method of and reason for testing.<sup>25</sup> It should be noted that AV’s preferred tester, VIFM has a minimum reporting level for norketamine of 0.02 ng/mg.

### Recommendation 10

That the detection of metabolites as being present be mandatory for any drugs detected in hair before a finding of a positive result can be made.

- iv. at any concentration that do not have a determined cut-off level, and/or
- v. that the SoHT has determined it be mandatory for, and/or
- vi. that are AV medications, at any concentration regardless of whether a cut-off level has been determined,

## IV ORAL FLUIDS AND URINE TESTING

The use of oral fluid and urine AOD screening in workplaces is well established. Unlike testing for drugs in hair, the windows of detection are shorter and thus serve as one tool in the AOD screening matrix for assessment of immediate fitness for duty. Applicable Australian standards prescribe all facets of the collection, analysis and reporting of oral fluid and urine specimens and as such are generally well regimented. However, there does exist some gaps in the detection and reporting of some drugs, as with hair testing, particularly surrounding reporting where cut-off levels have not been determined.

### 1. Cut-off levels and Oral Fluid and Urine Screening

The scope of drugs that have a determined cut-off level and are therefore prescribed in the applicable Australian standard for the parent drug and their associated metabolites is large. The provision of cut-off level tables, as detailed in the Australian standards, has inexplicably been removed from the latest iterations of the policy and procedure. The AEA-V contends that the inclusion of these cut-off level tables serves as a clear concise point of reference for employees to be subjected to AOD screening for any reason.

<sup>22</sup> Ibid.

<sup>23</sup> Pascal Kintz, Alberto Salomone and Marco Vincenti, *Hair Analysis in Clinical and Forensic Toxicology* (Elsevier Inc, 2015) 50.

<sup>24</sup> Society of Hair Testing – The 2020 Drug of Abuse Consensus and Recommendations’, DNA Legal (Web Page, 24 February 2020) <<https://www.dnalegal.com/blog/society-hair-testing-2020-drug-abuse-consensus-and-recommendations>> (emphasis added)

<sup>25</sup> Ibid.

## Recommendation 11

The cut-off tables for oral fluid and urine AOD screening as detailed in the Australian/New Zealand standards 4760 and 4308 be re-inserted into the AV AOD policy POL/PAC/066 and/or the AOD procedure PRO/PAC/075.

There are however some significant omissions particularly regarding some AV medications. The lack of cut-off for those drugs can lead to reporting of their presence even at low concentrations. As with hair testing, the possibility for environmental exposure through transdermal absorption or inhalation is a reality in the AV operational environment. The interpretation of positive results from confirmation testing as being consistent with personal use of the drug, particularly those detected at low concentrations without regard to all the surrounding circumstances is problematic and can result in unsafe allegations of active personal drug use.

## 2. Metabolites and Oral Fluid and Urine Testing

Staff are not immune to the pitfalls of environmental exposure to drugs with AOD screening that utilises oral fluids or urine. Drugs absorbed transdermally or inhaled will be metabolised and excreted as waste (urine) or deposited in oral fluids such as saliva. As drugs that have entered the blood stream from an environmental exposure will be metabolised the detection of metabolites is less conclusive of active personal use especially where detected concentrations are below determined cut-off levels or in low concentrations where cut-off levels have not been determined. The presence of a metabolite is only possibly indicative but not conclusive of potential active personal consumption of a drug. All the surrounding circumstances must be considered before any determination can be made.

## Recommendation 12

A positive oral fluid or urine AOD screening must include the detection of any parent drug and its associated metabolites at levels that are above the determined cut-off level, whether prescribed by either Australian/New Zealand standards 4760 or 4308, must be considered against any evidence of the surrounding circumstances, including but not limited to alternative explanations before any final determinations of active personal consumption can be made.

If a positive finding from oral fluid or urine screening is positive to an AV medication, or a drug that does not have a determined cut-off level has not been prescribed by Australian standard 4760 or 4308 at any concentration is reported, the detection of the drug's associated metabolites must be mandatory. Consideration must be given to all the evidence of the surrounding circumstances, including but not limited to alternative explanations for the positive result before any final determinations of active personal consumption can be made.

# V MEDICAL REVIEW OFFICERS

The AV AOD screening process, policy and procedure currently details the roles and responsibilities, procedures and decision-making processes based on reported screening results. Withing the AV AOD framework there is no mandated systematic review of positive AOD results to be performed by any suitably qualified medical officer, except in the case of Safety Sensitive Aviation Activity (SSAS) staff where a Drug and Alcohol Management Plan (DAMP) Medical Review Officer (MRO) is specified. However, the overwhelming majority of AV staff members that will be subjected to AOD screening are not from a SSAS area of operation but none the less also operate in mission critical safety sensitive environments.

The AOD procedure is the only instrument that provides any guidance on the processing of positive AOD screening results. With regard to positive AOD results the responsibilities lie solely with the AOD Specialist Welfare Officer who is responsible for 'receiving laboratory results and distributing them to relevant Executive/Regional Department directors.'<sup>26</sup> There is no option for independent review included in the policy other than for SSAS staff.

It has been the AEA-V's experience in representing staff in AOD matters that basic certificates of analysis, stipulating detected drugs and their concentrations, are the only written reports provided to AV. As matter of course, expert opinion in interpreting the results is not sought prior to allegations being made against staff members for misconduct because of reported positive results. No effort is made by AV to consider all the circumstances surrounding a positive AOD result before allegations are made. In addition, AEA-V is aware of at least one instance, where a verbal report was received by the AOD Specialist Welfare Officer from VIFM, that stated that a result could potentially be a result of an environmental exposure. This advice was subsequently ignored and was not investigated prior to allegations being made, nor after. In this instance, despite the verbal advice received by AV, they incorrectly adopted a position that the extremely low concentration of detected drug and the absence of its associated metabolites could only be consistent with personal active use.

Examples like the one briefly detailed above, unfortunately are not isolated cases around AOD screening and AV. The AOD Specialist Welfare Officer employed by AV is not a medical officer. Their primary role is the management of staff with established AOD issues. As the procedure clearly details that have no interpretive role to play in this process.

Best practice for the review of positive AOD screening results is illustrated in the European guidelines for workplace drug testing which in turn is supported by a strong body of research evidence. The guidelines stipulate that positive results must be reviewed by a suitably qualified MRO. The MRO must be independent and external to the organisation and will review all the surrounding circumstances including liaising with the testing laboratory's toxicologist and the subject of the screening. The guidelines further stipulate that the MRO must have 'specialist knowledge and training in specimen collection procedures, analytical procedures, chain of custody, and alternative explanations for positive results.'<sup>27</sup> Finally, the guidelines provide that the MRO can 'issue a negative report for a positive analytical result if...a valid alternative medical explanation has been found.'<sup>28</sup>The consequences arising from a spurious allegation of drug misuse are grave and warrant the necessitation of an independent review.

## Recommendation 13

Any positive result from any AOD screening must be reviewed by an independent AOD Specialist Medical Review Officer within 24 hrs AV receiving the certificate of analysis from the reporting laboratory. The Medical Review Officer will liaise with a toxicologist from the reporting laboratory and the affected staff member and consider all the surrounding circumstances and evidence of the positive result.

The Medical Review Officer has the authorisation to issue a negative report on a positive result on a certificate of analysis after considering all the surrounding circumstances. The Medical Review Officers report should be supplied within 5 working days of receiving the request for review from AV.

The costs associated with the Medical Review Officers investigation will be borne by AV.

No allegations of misconduct relating to a positive AOD screening against a staff member can be made until the independent Medical Review Officers report has been received by all a parties, and they have concluded that there are not reasonable alternative explanations for the positive AOD result.

<sup>26</sup> Alcohol and Other Drugs PRO/PAC/075, Ambulance Victoria, Version 8.0, 23 June 2020 [4].

<sup>27</sup> Sanna Taskinen et al, 'European guidelines for workplace drug testing in urine', (2017) 9 Drug Testing and Analysis 853, 862-863.

<sup>28</sup> Ibid.

## VI AOD AND THE STANDING DOWN

### FROM DUTY OF STAFF

Those staff placed on 'Temporary Leave' because of returning a non-negative result in AOD screening of any type, are usually done so whilst they and AV are awaiting the results of confirmation testing to be completed. At this juncture, there are no allegations that have been made or substantiated against a staff member in this position, i.e. there are no conclusions that can be drawn.

When placed on this form of involuntary leave staff face not only the stigma associated with their abrupt unplanned removal from the workplace, but also a financial penalty due to the loss of allowances normally received as an incidence of their normal roster. In short, these staff members are financially penalised without any proof of misconduct. AV clearly recognises in the AOD policy that there are circumstances where a non-negative AOD screening result may be legitimate and 'does not necessarily mean that a person is not fit for duty.'<sup>29</sup>

As there are no assumptions of guilt that can be inferred in the first instance from a non-negative AOD result, staff members should not be financial penalised whilst involuntarily placed on temporary leave because of these non-negative results.

#### Recommendation 14

Staff who have been placed on temporary leave because of an initial non-negative AOD screening result to oral fluids, urine and/or hair must be remunerated as if they were still on roster. This would consist of the rolled in rate of pay and any allowances payable that would be a normal incidence of their roster had they been working e.g. on-call or single officer allowance etc. Those allowances paid to cover expenses e.g. travel allowance etc, would not be payable unless incurred in returning to their place of residence immediately after being placed on temporary leave.

## VII REFEREE SAMPLES

AV have mandated in the AOD policy that '[a]ll referee samples [of collected biological samples oral fluids, urine and hair] must be tested by Victorian Institute of Forensic Medicine.'<sup>30</sup>The AEA-V strongly disagrees with this requirement and contend that this prescription is not within the domain of AV to make.

The referee or 'B' sample is not the property of AV or VIFM. The B sample is in fact the property of the staff member from whom the sample was collected and theirs to do with as they see fit at their expense. Additionally, AV are mandating that the B sample can only in effect be tested by the same organisation that likely did the testing of the A sample, this of course represents an obvious conflict of interested.

It is reasonable for AV to prescribe that if the affected staff member required the B sample to be tested, that it should only be done so by an accredited laboratory at the staff member's expense. A list of accredited laboratories could be provided to the staff member, including VIFM if desired, along with the MRO's report. In addition, an explanatory note detailing the rights of ownership and possible uses of the B sample should be included.

<sup>29</sup> Alcohol and Other Drugs POL/PAC/066, Ambulance Victoria, Version 7.0, 23 June 2020 [2.1].

<sup>30</sup> Alcohol and Other Drugs PRO/PAC/075, Ambulance Victoria, Version 8.0, 23 June 2020 [5].

### **Recommendation 15**

AV compile, in conjunction with the AEA-V, a list of approved accredited, laboratories that perform testing on biological samples of oral fluid, urine and hair. This list, accompanied by an explanatory note, is to be provided to the test subject long with and at the time their receipt of the Medical Review Officers report.

## **VIII SERIOUS MISCONDUCT**

The definition of 'serious misconduct' detailed in the Misconduct Policy POL/PAC047, has been altered from that provided by the Fair Work Act 2009 (Cth) reg 1.07. The altered words provided a different meaning and therefore interpretation of the meaning of serious misconduct.

### **Recommendation 16**

The definition of serious misconduct, as defined in POL/PAC/047 be replaced, verbatim, with the definition of serious misconduct as written and found in the Fair Work Act 2009 (Cth) reg 1.07.

## **IX CONSENT GENERALLY**

From time to time staff members required to undergo AOD screening of any type, will have valid and/or lawful reasons why they cannot consent to giving a biological sample of oral fluid, urine or hair at the time of testing. Such valid or lawful reasons may include, inter alia, cultural, religious beliefs or medical reasons. The AV AOD policy makes no allowances for these occasions. To require a staff member to act contrary to their cultural or religious beliefs may be in contravention of the various state and federal ant-discrimination and equal opportunity legislative instruments.

### **Recommendation 17**

Where a staff member who is required to provided biological samples for the purposes of AOD screening, claims to have a valid and/or lawful reason for not doing so at the time of collection, must provide reasonable evidence substantiating their claims at the time of testing. If they are unable to do so at the time of collection, they should be given one day to produce that evidence to their immediate manager who will forward it onto the AV AOD Welfare specialist.

# X DECLARING MEDICATIONS

The current requirement is for AV staff is to declare any medications to their immediate supervisor or the AOD specialist. Given the potential sensitivity of this information the AEA-V believes the controls around storage and management of this information are inadequate. A very real concern amongst staff is disclosing this information to managers that may only be temporary in tenure, with a resulting carousel of staff occupying the position who would have access to the confidential information.

The AEA-V recognises that the requirement to declare medications could constitute a lawful and reasonable direction and could be a legitimate prescription of the AV AOD policy. The AEA-V's concern is in how the declared information is stored, handled, and who can access the information.

It is accepted that staff are required to, and it is often in their best interests, to declare medications at the time of any AOD screening. The declaration in this scenario, however, should only be made to the specimen collector and in the presence of the AOD specialist representative. The AEA-V insists that there is no requirement for an AV manager to be present at this juncture.

The AEA-V considers the declaration of medications outside of an AOD screening event as a reasonable requirement by AV. In this scenario, medications should only be declared to an AOD specialist. This could be done by way of a confidential intranet interface reporting system for staff that can only be viewed by the AOD specialist. The proposed interface could provide for the uploading of supporting evidence, such as a doctor's letter affirming the prescription. If after reviewing the declared medications the AOD specialist has concerns about a staff members fitness for duty from an AOD perspective, then the issue must be referred to an MRO for review and opinion. The affected staff member must be made aware of the referral. The MRO must consult with the affected staff member during this period of review.

## **Recommendation 18**

At the time of any AOD screening, declaring of any medications must be done in the presence of the contracted specimen collector and the AOD specialist only.

An intranet medication declaration interface be developed for staff to confidentially declare medications, outside of AOD screening, that can only be accessed by the AOD specialist. Notifications to include letter from prescribing Doctor where relevant.

Any AOD concerns that the AOD specialist may have concerning declared medications by a staff member, must be reviewed by a Medical Review Officer. The staff member that is the subject of the referral to the Medical Review Officer must be notified of the referral and provided an opportunity to consult with the Medical Review Officer.

# XI DEFINITIONS TO BE INCLUDED OR MODIFIED IN POL/PAC/066 AND/OR PRO/PAC/075

<p><b>Cut-off level (new)</b></p>	<p>Cut-off is a value, above the limit of quantitation, that enables to determine adult drug users. Only values above the cut-off level resulting from a confirmation test, can be reported as a positive result.</p>
<p><b>Detectable levels (modification)</b></p>	<p>Detectable levels of illicit substances shall be defined as the Immunoassay Screening test cut-off levels (as defined by AS/NZS 4308-, AS 4760-, and SOHT Guidelines detailed in PRO/PAC/075).</p> <p>In the case of breath, oral fluids and urine, a non-negative result does not necessarily imply impairment and as such will be initially managed under the support framework and referred, if appropriate to the PCU.</p> <p>In case of hair testing, no inference impacting immediate fitness for duty can be reasonably concluded. Any non-negative results from hair testing will be initially managed under the support framework and if appropriate referred to the PCU.</p>
<p><b>Hair samples (modification)</b></p>	<p>Two hair samples comprising of a test and a referee sample will be collected from the skull at scalp level or upper body and forwarded to the authorised laboratory for analysis. The collected samples should conform with the requirements of the AOD procedure (PRO/PAC/075).</p>
<p><b>Hair testing (new)</b></p>	<p>Hair testing is well established as a complementary technique with a range of applications in both clinical and forensic toxicology. The advantage of hair is its ability to provide an historical profile of an individuals' exposure to drugs following chronic use or a Single exposure.</p>
<p><b>Limit of Quantitation (new)</b></p>	<p>The smallest concentration of a measurand that can be reliably measured by an analytical procedure.</p>
<p><b>Medical Review Officer</b></p>	<p>A Medical Review Officer (MRO) is a medical physician with responsibility for interpreting laboratory results together with a toxicologist. A medical physician usually has greater access to medical records than a toxicologist and may therefore be in a better position to provide interpretation of positive analytical results. The MRO must have specialist knowledge of and training in</p> <ul style="list-style-type: none"> <li>• specimen collection procedures,</li> <li>• analytical procedures,</li> <li>• chain of custody, and</li> <li>• alternative explanations for positive analytical results.</li> </ul> <p>The MRO can issue a negative report for a positive analytical result if the test result is likely to be due to the use of declared medication, or a valid alternative medical explanation has been found.</p>

## Metabolite

### Society of Hair Testing Guidelines

A substance that is formed as a by-product from the metabolism of a parent compound.

The acknowledged industry standard for hair alcohol and (new) drug testing.

“

**Whilst no one disagrees that an organisation such as Ambulance Victoria needs a drug testing policy, such a policy needs to be fair, reasonable and practical in its application. AV's AOD policy should be evidence based and be of a standard that would meet world's best practice.** ”

***Simon, Paramedic***



## XII CONCLUSION

The AEA-V is extremely concerned with the AV policy and procedure instruments that initiate, conduct, and manage AOD screening and the results that emanate from this process. The current policy and procedures have slowly eroded the workplace rights and protections of AV staff members. The AEA-V support any initiative that promotes the welfare and a safer working environment for staff. However, the current policy and procedure represent an ill-informed, overly zealous, and biased approach to AOD screening in the workplace. The consequence of spurious allegations of personal AOD use are grave for the affected staff members.

The above discussion and its associated recommendations provide a more nuanced approach to AOD screening in the workplace that is both mindful of the intent and purpose of the AOD screening program, without affecting its efficacy and concurrently is respectful of workplace rights and protections.

The AEA-V strongly recommends that these recommendations be incorporated into the AV AOD policy and procedure instruments immediately in their entirety.



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**AOD policies and procedures are in place to protect both employees and patients. The shortcuts taken over many years have destroyed careers and caused significant harm to mental health.**

”  
**Brett, AEA-V Secretary**