RANDOM DRUG TESTING OF DRIVERS IN VICTORIA

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Abstract

Victoria has had a legislative framework to randomly screen drivers for the presence of alcohol at prohibited levels since 1976. The past thirty years has seen a significant reduction of the contribution of alcohol to road trauma in Victoria through the general deterrent effect of this type of enforcement.

The emergence of increased involvement of drugs other than alcohol drug in road trauma in Victoria led to legislation being introduced in 2000 to detect and prosecute drives found to be impaired by drugs other than alcohol. The drug impaired driving legislation is based on the recognition of observable impairment in drivers. The impairment based program does not provide a high level of general deterrence from using drugs and driving as the enforcement is not highly visible.

In December 2004 a legislative framework for the random drug screening of drivers modelled on the successful random alcohol screening methodology was introduced in Victoria. The framework prohibits driving while methamphetamine (MA), methylenedioxymethamphetamine (MDMA) and cannabis (THC) is present at any level and, for police to randomly drug test drivers for the presence of the drugs by oral fluid (saliva) sample screening at the roadside. The new drug screening program has the potential to substantially reduce the contribution of drug use to road trauma in Victoria in the same way as the alcohol screening program has over the past thirty years. The results of the random drug screening program thus far clearly indicate this potential may be realised.

Background

In 2000, legislation was introduced for the detection and prosecution of persons found driving while impaired by a drug. The operation of this legislation is specific in nature to the detection of impairment. This legislation is only applicable when a driver demonstrates observable impairment. In the first four years of operation of the new legislation 588 drivers were charged with offences under the new provision. Of the 588 drivers, 53 per cent were detected by police observation of driving behaviour and 47 per cent were detected following involvement in non-injury collisions.

The impairment based program has been shown to be effective in the detection of drivers with an observable level of impairment. However, the program does not address cases where the ability of a driver to control a vehicle safely is affected by drug use and outward signs of impairment are not visible. This situation is analogous in many ways to a comparison between a drive under the influence of alcohol case and an exceeding the prescribed concentration of alcohol case. In the case of alcohol affected driving enforcement, research conducted by Borkenstein, et al. (1964) established a driver with a BAC of 0.05 per cent has a two fold higher risk of collision compared to a driver with a zero BAC. A driver with a 0.05 per cent BAC will not necessarily exhibit observable signs of impairment.

The establishment of a relationship between the presence of alcohol at the prescribed BAC of 0.05 per cent and a higher risk of collision lead to the introduction of legislation to make it an offence to drive a vehicle with a BAC exceeding 0.05 per cent without evidence of impairment. On the basis of the level of risk associated with involvement of drivers with a 0.05 per cent BAC in road trauma, random alcohol screening of drivers was introduced in 1976. The introduction of random alcohol screening of drivers had two objectives, to detect errant drivers and to deter errant driver behaviour. At the time of introduction much scepticism existed on the value of such a move. Great concern was expressed over whether the benefits in terms of the level of reduction in road trauma out weighed the level of interference to civil liberties. Over time and particularly from 1990 when the principles of a highly visible, highly publicised, sustained and credible enforcement program were adopted (Homel, 1988; Homel, Carseldine, & Kearns, 1988), the level of involvement of alcohol in road trauma significantly reduced. The initial scepticism and civil liberty concerns have since been forgotten and the process has been accepted. To a large degree the success of the process is attributable to the adherence to the above mentioned principles and the allocation of the resources necessary to give effect to those principles.

The contribution of drug use by drivers to road trauma has been examined throughout the world. The research has shown inappropriate drug use by drivers, in particular the use of illicit drugs, does increase the risk of collision and therefore road trauma. A 10-year study of drug involvement in fatal collisions by the Victorian Institute of Forensic Medicine (VIFM) (Drummer, et al., 2004) found drivers that have used drugs have an increased risk of being involved in a fatal collision compared to drug free drivers. In the case of cannabis (where the active component, THC, is present) the risk is almost three times greater and in the case of amphetamine type stimulant drugs the risk is almost two and one half times greater.

There is also evidence to show there are discrete cohorts within the driving population that have a higher incidence of collision involvement relative to drug use in conjunction with a specific activity. The 10-year study conducted by the VIFM found the risk of heavy vehicle drivers being involved in a fatal collision when a amphetamine type stimulant drug is present is almost nine times greater compared to drug free drivers (Drummer, et al., 2004). Enforcement intelligence also indicates the use of stimulant type drugs in association with social activities is increasing. The relatively recent emergence of the ‘dance’ and ‘rave’ environment as a social activity of the young where the use of stimulant type drugs is often substituted for the use of alcohol represents another discrete cohort within the driving population. It follows that drivers who engage in social activity of this type have a collision involvement risk of almost two and one half times that of drivers who do not.

The impairment based drug driving enforcement program is specific to overtly drug impaired drivers and does not provide a high degree of general deterrence to the drug using driver population. Research carried out in Australian indicates a belief among the drug using driver population that there

is less likelihood of being detected while driving when using drugs than when using alcohol (Davey, et al., 2002). The research indicates that there is a demonstrated need for a general deterrence strategy directed at the drug using driver population. Given the reduction seen in the involvement of alcohol in road trauma as a result of the general deterrence strategy of random alcohol screening of drivers, it is appropriate to consider the application of random drug screening of drivers as a mechanism to reduce the involvement of drugs in road trauma.

In the case of the random alcohol screening there has been a considerable period of evolution in the application of the process. In 1976 the process commenced with a defined legislative authority to intercept drivers and carry out an alcohol screening test at the roadside. The legislation authorised the use of technology, although rudimentary, for the purpose of screening drivers for the presence of alcohol. The cost of the technology was considerable and its use cumbersome. A driver was detained for four to five minutes to undergo alcohol screening test at the roadside. The cost and nature of the technology together with the level of human resource available to apply the process limited the volume of alcohol screening carried out. Consequently the effectiveness of the process in terms of detecting errant drivers and deterring errant driver behaviour was limited.

Thirty years later, the advances in alcohol screening technology in terms of lower cost per test and ease of use together with the use of dedicated human resources using special purpose vehicles has made it practical for high volume alcohol screening of drivers to be carried out. A driver is now detained for no more than one minute to undergo alcohol screening test at the roadside. The process has become highly effective for detecting errant drivers and deterring errant driver behaviour.

In the case of random drug screening of drivers there has been no evolutionary period and a process has not yet been defined. It is new ground. The situation is analogous with when random alcohol screening was under consideration immediately prior to introduction in 1976. As was the case with the introduction of random alcohol screening, an acceptable process is required for implementation as a commencement point. As operational experience is gained and technological advancements occur, the process can be reviewed and modified accordingly.

Drug Screening Technology

The screening of drivers for the presence of drugs may be achieved by examination of body fluids such a blood, urine or oral fluid (saliva). The collection of blood for examination is a very invasive sampling process and impractical for screening at the roadside. The collection of urine samples is also impractical for screening at the roadside in terms of the process of collection and the limited ability to determine recent drug use. The collection of oral fluid is relatively non-invasive and can provide an indication of recent drug use. The non-invasive nature and relative ease that oral fluid samples may be collected provides a degree of practicality to enable screening at the roadside. Research overseas and in Australia has demonstrated that oral fluid is a suitable medium for the detection of drugs.

Even though oral fluid sampling can be considered a practical as a means to drug screen drivers, oral fluid sampling is not as simple to carry out as collecting a sample of breath for alcohol screening. The technology available to carry out oral fluid screening is not as efficient in terms of cost, time and operation as the technology available for breath alcohol screening. Oral fluid screening technology is in its infancy when compared to breath alcohol screening technology that has been under development for the past thirty years. However, there is considerable effort being applied in the development of oral fluid technology and significant advances have been made and no doubt will continue to be made at a rapid rate. A number of the oral fluid drug screening technologies already possess the necessary technical and practical attributes to carry out the drug screening of a driver at the roadside for the presence of methamphetamine (MA), methylenedioxymethamphetamine (MDMA) and cannabis (THC).

The use of oral fluid screening of drivers for the presence of drugs affords a mechanism to indicate whether further investigation is warranted. The current oral fluid technology is only suitable for screening purposes and therefore confirmatory analysis in a laboratory to an acceptable evidential standard is required for prosecution purposes.

Legislative Framework

Research demonstrates that the use of illicit drugs by drivers, particularly in the case of stimulant type drugs and cannabis (THC) represents an increase in the risk of collision involvement and therefore road trauma. An impairment based legislative framework only provides for the detection of drivers with an observable level of impairment but does not address the increase in collision risk by drug use where outward signs of impairment are not overtly visible. The factors involved in drug use detection and drug effect are more complex than that of alcohol use detection and alcohol effect.

The physiological, pharmacological and toxicological aspects of drug use vary from one set of circumstances to another. A relationship between the level of a drug present and the effect of that drug can not be so readily established as is the case with alcohol. However, the research indicates there is a relationship between illicit drug use and increased collision risk. The increased collision risk is not dependent on the presence of a specific level of drug or overtly visible signs of impairment. Therefore, a strong argument can be made for structuring a legislative framework on the prohibition of driving when an illicit drug such as MA, MDMA or THC is present at any level in the body. This approach is analogous with prohibition of the presence of alcohol for certain classes of driver.

On 9 December 2003 the Road Safety (Drug Driving) Act 2003 was enacted to provide a legislative framework to prohibit driving while MA and THC is present at any level and for police to randomly drug test drivers by saliva sample screening. The provisions of the Act came into force 1 December 2004. Enforcement of the provisions commenced on 13 December 2004. An independent evaluation of the first year of program operation was conducted and led to legislative amendment to add the prohibition of driving with MDMA present. This amendment came into force on 1 September 2006.

The legislation is applicable to all drivers with the tactical application of the process remaining a matter of police operational prerogative. Flexibility to apply the process on a general basis or to specific higher risk driver cohorts is determined at an operational level based on contemporary intelligence. There are three principal ways of operational application of the process. Firstly, as an adjunct to the general random alcohol screening operations where the operations are in areas where intelligence indicates a significant level of drug use. Secondly, in special operations directed at high risk drug user groups associated with the road transport industry. Thirdly, in special operations directed at high risk drug user groups associated with the 'dance' and 'rave' environment.

The legislative framework for drug screening is modelled on the alcohol screening process. The utility of the legislative framework for alcohol screening has been demonstrated and has the added benefit of familiarity to enforcement practitioners, jurists and the driving population. Community acceptance of random drug screening is more likely to be achieved by comparison to a familiar process that already enjoys community acceptance and wide support.

The new legislative framework is a three stage process. The first stage involves police intercepting a driver and conducting an alcohol screening test. The alcohol screening test takes 20 to 30 seconds. Then a preliminary drug screening test (first test) is conducted at the roadside. Based on the use of the currently available oral fluid sample screening technology, the preliminary drug screening routinely takes approximately 5 minutes for a MA, MDMA and THC test. All police are authorised to conduct the preliminary alcohol and drug screening tests. If the test indicates a negative result, the driver is not detained further. Total detention time for a negative screen is approximately 5 minutes in the most cases.

The second stage, where the preliminary drug screening indicates the presence of one or more of the three target drugs, the driver is required to accompany police to a place (testing vehicle) to provide a further sample of oral fluid (second test). The second and evidential oral fluid sample is collected and tested on an oral fluid screening device by a specifically trained and authorised police. In the unlikely event that this second test indicates a negative result, the driver is not detained further. Total time of detention up to this point of the process is approximately 15 minutes. Where the second and evidential screening test indicates the presence of one or more of the three target drugs, the driver is informed of the result and relevant information is obtained from the driver for the purpose instituting a charge if the presence of the drug is confirmed by laboratory analysis. This second oral fluid and evidential sample is divided and one part is given to the driver and the other part is sent to a laboratory for confirmatory analysis by chromatography-mass spectrometry (GC-MS). The driver is prohibited from driving for a specified time. The total time of detention to complete the process is approximately 30 minutes.

The third and final stage is, where the presence of one or more of the three target drugs in the second and evidential oral fluid sample is subsequently confirmed by laboratory analysis, the driver is charges with an offence. The laboratory analysis result is the evidence presented to prove the charge.

Results

The results of the program application demonstrate the utility of the implemented legislative framework in terms of the successful detection of drivers driving with one or more of the three target drugs present. From the commencement of enforcement on 13 December 2004 to 31 December 2006, a total of 25,273 drivers where screened for the presence of the three target drugs, 18,121 car drivers and 7,152 heavy vehicle drivers. Of all the drivers screened the presence of the target drugs were confirmed by laboratory analysis in 503 drivers, a detection rate of 1:50. MA only was found in 328 drivers, MDMA only was found in 7 drivers, THC only was found in 37 drivers. A combination of MA and MDMA was fond in 16 drivers, MA and THC in 16 drivers and all three drugs were found present in 4 drivers. No drivers were found with a combination of MDMA and THC present. It is important to note when considering the breakdown of the drug type and combinations found in the drivers that the detection for MDMA did not commence until 1 September 2006. Of the 18,121 car drivers screened, 395 drivers were confirmed to have one or more of the target drugs present and of the 7,152 heavy vehicle drivers screened, 108 drivers were confirmed to have one or more of the target drugs present. Detection rates of 1:46 and 1:66 respectively.

Conclusion

The implementation of a random alcohol screening program as an enforcement and deterrence strategy has significantly reduced road trauma in Victoria. Given research has shown drug use by drivers represents a substantial increase to the risk of collision involvement, the implementation of a random drug screening program modelled on the alcohol program methodology has the potential to reduce the incidence of drug driving and therefore reduce road trauma in Victoria. The results of the random drug screening program thus far clearly indicate this potential may be realised.

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