



**THE EXPERT ADVISORY COMMITTEE ON DRUGS (EACD)
ADVICE TO THE MINISTER OF HEALTH ON:**

EPHEDRINE

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ADVICE TO THE MINISTER OF HEALTH ON PSEUDOEPHEDRINE

Executive Summary

This paper considers ephedrine, a key precursor chemical used in the illicit production of methamphetamine.

Ephedrine has legitimate uses, including as a prescription medicine for a number of ailments.

The classification suggested for the EACD's consideration of ephedrine was that of Schedule 3 (Part 5).

Recommendations

After considering all of the information put to the Committee and the classification criteria in the Misuse of Drugs Act 1975, the EACD makes the following recommendations to the Minister of Health:

- (a) Ephedrine should be classified in a part of the Third Schedule that will allow for import and export restrictions and the requirement for a licence to deal, whilst still being available as a prescription medicine. This is understood to be a classification of C5.
- (b) This paper should be made publicly available (eg, posted on the National Drug Policy website www.ndp.govt.nz).

Problem identification

The EACD recently considered the classification of psuedoephedrine as a controlled drug and recommended to the Associate Minister of Health Hon Jim Anderton that pseudoephedrine be classified as a C3 controlled drug. Since this recommendation was made it has become apparent that ephedrine is also becoming a significant problem in New Zealand in terms of the illicit production of methamphetamine.

As the availability of pseudoephedrine has become more restricted domestically the importation of pseudoephedrine and ephedrine has increased dramatically. In 2000 approximately 10,000 tablets of pseudoephedrine and ephedrine were seized by Customs, in 2001 this number increased to approximately 32,000, in 2002 approximately 254,000 tablets were seized and in to June 2003 391,698 tablets have been seized, of which 84% were ephedrine. Customs report that there has been a change in the balance of tablets seized from pseudoephedrine to ephedrine (Information from Customs).

Customs have noted the increasing involvement of criminal syndicates in the importation of ephedrine. Customs believe that these syndicates are fully aware of the legislation around the importation of ephedrine and other precursors and accept the penalties for unlawful importation under the Medicines Act 1981, a \$500 fine and/or up to 3 months imprisonment, as an acceptable risk/cost of business.

A classification under the Misuse of Drugs Act 1975 would give Customs wider powers to investigate importation syndicates, including the ability to conduct controlled deliveries, as well as allowing for penalties that would be a genuine deterrent to the importation of ephedrine. Health and Police support Customs on the need to classify ephedrine under the Misuse of Drugs Act.

Therefore it is considered necessary to close this avenue for securing ephedrine for the illicit manufacture of methamphetamine in order to counter the current problem of methamphetamine abuse in New Zealand.

Ephedrine is also a substance of concern in and of itself. However, in this form it is adequately controlled under the Medicines Act.

Table 1 - New Zealand Customs Border Seizures - Precursors 2002- 2003

	2002	2003 (up to 23 Sept)
Total Precursor Tabs seized	254,987	623,117 (330 incidents)
Ephedrine tabs seized	118,316	413,880
% of total	30%	66%

Current Classification (if any)

Ephedrine is currently classified as a prescription medicine under the Medicines Act.

Rationale for Classification

Classification under C5 would allow ephedrine to be prescribed by an appropriate medical practitioner, whilst providing for stronger penalties in relation to the illegal importation of these products.

Likelihood or evidence of drug abuse

Although ephedrine can be abused as a stimulant it is suitably controlled as a prescription medicine. As such, it is difficult to source domestically unless it is for legitimate use approved by a health professional.

As an imported precursor for illicit methamphetamine production it has a far higher likelihood of abuse. It is arguable that the large amounts of ephedrine that are being seized are destined for illicit methamphetamine production.

Specific effects of the drug

Ephedrine releases endogenous norepinephrine from its storage sites, this represents a sympathomimetic effect. Ephedrine relaxes bronchial smooth muscle (relieving mild bronchospasm) and increases both heart rate and blood pressure. Ephedrine also has a mild stimulatory effect on the Central Nervous System (CNS).

Ephedrine can cause chest pain, confusion, dizziness or fainting spells, hallucinations, numbness or tingling in hands and feet, rapid or troubled breathing, seizures, headache, anxiety, palpitations, insomnia, tremor and vomiting (www.cp.gsm.com 20/06/03).

Risks to public health

The risk ephedrine poses to public health as a substance of possible abuse is largely controlled by its classification as a prescription medicine under the Medicines Act.

The key public health risk that is being addressed in this paper is that of ephedrine as a precursor ingredient in illicit methamphetamine production. As stated earlier, the main issue is providing additional controls under the Misuse of Drugs Act to stop the importation of ephedrine for the illicit production of methamphetamine.

Therapeutic value

Ephedrine has traditionally been used as a medicine in China and India for several centuries. In modern western medicine ephedrine has been used as a CNS stimulant for depressive states and narcolepsy, and for the treatment of enuresis (bed-wetting) and myasthenia gravis (a form of muscular weakness) (www.cp.gsm.com 20/06/03). However, the primary use of ephedrine in clinical

medicine is intravenously to prevent or treat hypertension associated with spinal anesthesia and topically for the treatment of sinus congestion.

The only ephedrine products available legally in New Zealand are:

- Ephedrine 30mg Tablets manufactured by PSM Healthcare Ltd in Auckland. This means they keep ephedrine powder for this purpose.
- Ephedrine Injection 30mg/ml in packs of 5 x 1ml ampoules. (Nationwide Zuellig (Now trading as Propharma (NZ) Ltd, one of New Zealand's biggest wholesaling chains) have only 28 packs of these ampoules in stock.)
- Pharmaceutical Compounding in Auckland make ephedrine capsules and a limited amount of compound nose drops at the request of individual medical practitioners for their patients. The powdered ephedrine for this comes from a 5 kg pack of powdered ephedrine held by a security company. So far they have used 3 kg of the original 5 kg.
- PSM Healthcare used to sell Ephedrine HCl powder to pharmacies, but this is now discontinued. There may however be residual stocks of this in a few pharmacies.

Potential to cause death

Ephedrine has some potential to cause death. In the 1980s and 1990s a number of reports were made of fatal cerebral hemorrhage and stroke caused by ephedrine consumption (www.hsph.harvard.edu 04/09/03).

However, this potential to cause death is largely controlled by ephedrine's status as a prescription medicine.