

15 July 2009

Hon Peter Dunne  
Associate Minister of Health  
Parliament Buildings  
WELLINGTON

Dear Minister

**Classification of pseudoephedrine and ephedrine under the Misuse of Drugs Act 1975**

1. Following recent publicity about diversion of domestic pseudoephedrine (PSE) for the manufacture of methamphetamine, the Expert Advisory Committee on Drugs met on Wednesday 17 June 2009 to discuss the drug's current classification under the Misuse of Drugs Act 1975 (MoDA).
2. As you will know, the Minister is required to seek advice from the EACD prior to classifying or reclassifying a substance under the MoDA. The Committee had an extensive discussion, informed by a paper prepared by the Ministry of Health (attached).
3. This letter outlines the EACD's current thinking on the classification of PSE and the closely related substance ephedrine. The Committee's discussion focused on PSE, but the recommendations apply to both substances.
4. In summary, the Committee's preliminary view is that:
  - as PSE is the main precursor ingredient used to manufacture methamphetamine in New Zealand the harms of ongoing availability of PSE in New Zealand now outweigh the benefits
  - both PSE and ephedrine should be reclassified as Class B2 substances under the MoDA
  - PSE's current status as a registered medicine in New Zealand should be reviewed by Medsafe, with a view to 'delisting' it.

Adopting this course of action would have a significant regulatory impact on stakeholders, including some pharmaceutical manufacturers, pharmacists and some members of the public. Therefore, before providing you with formal advice on this matter the Committee proposes to consult with the pharmaceutical industry and pharmacies to ensure that all relevant information is considered in its final advice.

## Background

Ephedrine is currently scheduled as a Class C5 controlled drug, making it a prescription-only medication. The current MoDA classification of PSE is more complex:

- cough/cold/flu preparations classified as Class C3 and may be sold in pharmacies if they are:
    - slow-release formulations delivering no more than 240mg of PSE in a 24 hour period
    - sold or supplied in packages containing not more than 1.8 grams of PSE
    - contain not more than 60 mg of PSE per dosage unit.
  - all other forms of PSE are classified as Class C5 and are therefore prescription only medicines.
5. In summary, the Class C3 category for PSE largely covers common cough and cold decongestants, while the Class C5 category controls higher PSE-bearing medications.
  6. The Ministry paper presented several options for reclassification of PSE, in summary:
    - i Continue the current classifications
    - ii Make PSE a pharmacist-only medicine
    - iii Make PSE a prescription only medicine.

## Discussion

7. The EACD carefully considered the evidence presented in the Ministry of Health paper (attached) and discussed a range of issues. There was a strong consensus that tighter regulation of PSE is warranted, given the substantial harms arising directly from its diversion for the production of methamphetamine, a Class A controlled drug. Police data show that around one third of clandestine methamphetamine laboratories detected contain PSE that has been obtained from pharmacies.
8. Since the Committee last considered PSE in 2003, there has been a substantial change in the market with a pronounced shift away from PSE. Many products, including most of the major cough and cold remedies, have been reformulated to include the decongestant phenylephrine. These reformulated products are estimated to account for 80% of the sales of decongestants in the market.
9. Other actions have also reduced the size of the domestic market for products containing PSE. A high level of pharmacy awareness of the diversion of PSE has led to voluntary control measures and the removal of PSE-containing products from some pharmacies.
10. Therefore, there is now a widely available alternative to PSE for the treatment of illnesses that are generally mild and self limiting. While there are some anecdotal reports that phenylephrine-containing products are not as effective as those containing PSE, the Committee could find no

evidence to support this. Likewise, the two substances have similar side effect profiles. The considerable shift in the New Zealand market towards phenylephrine also suggests that products containing phenylephrine instead of PSE are acceptable to both manufacturers and consumers.

11. Importantly, phenylephrine cannot be converted into methamphetamine, while domestic diversion of PSE continues to be a problem. The relatively low cost of PSE-containing products and the substantial profits to be made from its illicit diversion act as a strong incentive for this to continue happening.

## **Conclusions**

12. The Committee considered all the options put forward by the Ministry of Health. The status quo was considered unacceptable.
13. The option of making PSE a 'restricted' i.e. pharmacist-only medication was discussed briefly. This would represent little change from current practice and could increase the risk to pharmacists of threatening behaviour. Such behaviour already occurs, and can include threats. Presently, pharmacy staff members bear some of the brunt of this behaviour, one of the reasons why some pharmacies no longer stock PSE.
14. A consensus emerged that, at the very least, it would be appropriate for PSE to no longer be available over the counter in pharmacies, and that it should be a prescription-only medicine. This would require the removal of the Class C3 classification.
15. However, further Committee discussion identified a very real concern about the additional risks this creates for prescribers who will come under pressure and threats from 'pill shoppers' to prescribe PSE. Such behaviour is likely to become much more of a problem if PSE is made prescription only (and is thus less available), given the substantial profits to be made from its diversion. Making PSE prescription only would merely shift this risk from pharmacists onto prescribers.
16. The Committee also concluded that the clinical indications for prescribing PSE are limited, namely the treatment of symptoms for upper respiratory tract infections which are generally mild and self-limiting. A safe and equally efficacious alternative (phenylephrine), which cannot be diverted for the production of methamphetamine, is now widely available and used.
17. The Committee concluded that while PSE is not in itself a particularly harmful substance, its ongoing diversion to the manufacture of methamphetamine, combined with the significant increases in illegal imports intercepted at the border by Customs, continues to create significant harm in New Zealand. After considerable discussion, the Committee concluded that the most appropriate course of action is to recommend reclassification of both ephedrine and PSE as Class B2 controlled drugs as their potential as precursors to methamphetamine is currently leading to harm in New Zealand that clearly outweighs any

benefits. This would be in line with the classification of other precursors for other amphetamine-class drugs that have limited or no therapeutic use in New Zealand e.g. norpseudoephedrine.

18. In addition, the Committee concluded that it is timely to review the ongoing appropriateness of PSE continuing to be a registered pharmaceutical in New Zealand, as it is the main precursor ingredient used to manufacture methamphetamine in New Zealand. The Committee's view is that the harms of the ongoing availability of PSE in New Zealand now outweigh the benefits.
19. Therefore, the Committee proposes that you ask MedSafe to review the status of PSE with a view to considering deregistering it.
20. Deregistering PSE in New Zealand would also make the enforcement of the legislation much clearer for both Customs and Police, as there would be no confusion about the status of PSE imported into New Zealand.
21. The Committee's preliminary view is:
  - both PSE and ephedrine should be reclassified as Class B2 controlled drugs under the MoDA
  - PSE's current status as a registered medicine in New Zealand should be reviewed by Medsafe, with a view to 'delisting' it.
22. Both of these moves will have implications for the pharmaceutical companies that manufacture or import products containing PSE, as well as pharmacies. If you agree, the Committee proposes as a next step to seek the views of these groups. This will ensure that the Committee has considered all relevant information before providing you with its formal advice.
23. Appended is a summary of the evidence that informed the Committee's conclusions under each of the criteria that require consideration under the MoDA.
24. I would be pleased to discuss with you this advice or any issues arising.

Yours sincerely

Ashley Bloomfield (Dr)  
**Chair, Expert Advisory Committee on Drugs**

cc Dr Janice Wilson, Deputy-Director General, Population Health

## Appendix

### Evidence used to inform EACD conclusions regarding PSE as assessed against the criteria contained in the MoDA

The matters that the Minister must have regard to under subsection (1)(b), and on which the Expert Advisory Committee on Drugs must give advice, are:

- (a) the likelihood or evidence of drug abuse, including such matters as the prevalence of the drug, levels of consumption, drug seizure trends, and the potential appeal to vulnerable populations; and
- (b) the specific effects of the drug, including pharmacological, psychoactive, and toxicological effects; and
- (c) the risks, if any, to public health; and
- (d) the therapeutic value of the drug, if any; and
- (e) the potential for use of the drug to cause death; and
- (f) the ability of the drug to create physical or psychological dependence; and
- (g) the international classification and experience of the drug in other jurisdictions; and
- (h) any other matters that the Minister considers relevant.

In its 2003 assessment of EPH and PSE, the EACD considered them to pose a risk to the public as principal ingredients in the manufacture of the Class A drug methamphetamine, in addition to being drugs in their own right. Their classification was intended to:

- Increase legislative control of the supply and use of these precursor substances;
- Give Customs wider powers to investigate importation syndicates, including the ability to conduct controlled deliveries;
- Allow for stronger penalties that would be a genuine deterrent to importation;
- Retain the availability of these substances as prescription and pharmacy-only medicines for legitimate use by the public.

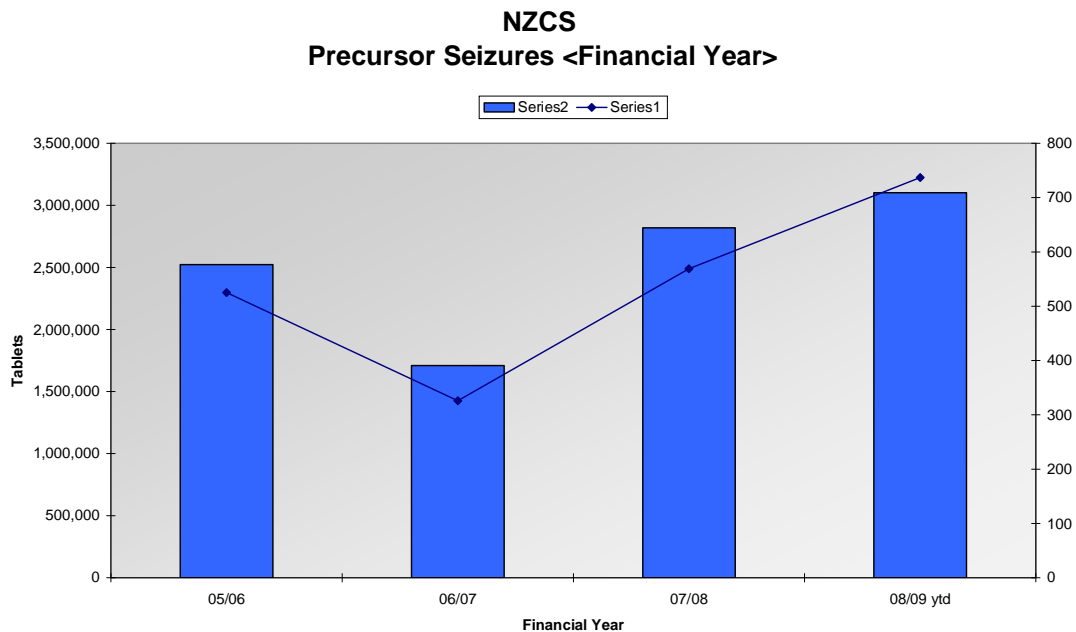
The manufacture and use of methamphetamine, for which PSE is the main precursor chemical, continue to create significant harms in New Zealand. Thus, the EACD considered the impact of its diversion for this purpose in its reassessment of PSE against the above criteria.

### The likelihood or evidence of drug abuse

- There are no quantitative data on the misuse of PSE *per se*.
- The EACD noted that it is misused as a performance enhancing substance by a small number of people.
- There is significant 'misuse' of PSE in New Zealand through its diversion to manufacture methamphetamine. Survey data show that methamphetamine use in New Zealand is high by international standards, but is declining slowly. Last year use of amphetamines, including methamphetamine,

among 15 to 45 year olds reached a high of 5.0 % in 2001 and reduced to 4.0 % in 2003 and 3.4 % in 2006.

- While the majority of PSE is sourced via illegal importation, Police estimates one-third of all clandestine laboratories (clan labs) detected contain PSE that has been obtained from pharmacies. It is estimated that the PSE located at the remaining two-thirds of clan labs is either unidentifiable or illegally imported. Police intelligence indicates that domestically sourced PSE is more commonly found in lower scale clan labs.
- NZ Customs reports that seizures of illegally imported PSE amounted to the equivalent of 2.2 million tablets in 2006; 1.8 million in 2007; and more than 3.3 million in 2008.



### The specific effects of the drug

- PSE preparations are indicated for the effective relief of runny nose, sinus and nasal congestion and sinus pain due to congestion. Some are intended to reduce the swelling and secretions in the nose and sinuses, allowing the patient to breathe more easily and relieving the pressure behind the nose and eyes, which is cause of sinus pain and headache.
- There are a number of potential adverse effects on the cardiovascular and central nervous system.
- Symptoms associated with PSE overdose may include restlessness, excitement, nervousness, nausea, vomiting, abdominal pain, ataxia, hallucinations, convulsions and tachycardia.

### The risks, if any, to public health

- The diversion of PSE to the manufacture of methamphetamine represents a significant risk to public health.

- The primary public health risk specific to methamphetamine manufacture is exposure to substances and chemical processes used to manufacture methamphetamine. This includes the risk of explosion, chemical burns and poisoning.
- Risks associated with the use of methamphetamine include the transmission of communicable diseases such as HIV / AIDS and Hepatitis B and C (injecting drug users), the impact on the ability to drive (e.g. increased risk taking, post-use fatigue or withdrawal), and possible prenatal complications, increased rates of premature delivery, altered neonatal behaviour patterns and developmental disorders.

### **The therapeutic value of the drug**

- PSE preparations are indicated for the effective relief of runny nose, sinus and nasal congestion and sinus pain due to congestion, generally as a result of upper respiratory tract infections, which are largely mild and self-limiting in nature.
- They are effective in this regard, but there is also an alternative, phenylephrine, of similar effectiveness, which cannot be used as a precursor ingredient for methamphetamine manufacture.
- A December 2007 assessment of the safety and efficacy of cough and cold preparations for children, including those containing PSE, concluded that there is:
  - very limited evidence of efficacy of these products in children under two years of age
  - an absence of evidence-based dosage advice for the use of cough and cold medicines in children aged less than two years
  - evidence of harm in therapeutic use in this age group
  - evidence of significant toxicity, including death, in overdose in this age group.

### **The potential for use of the drug to cause death**

- PSE *per se* does not present a risk of death.
- There are no reported deaths in New Zealand from methamphetamine specifically, but this probably reflects a gap in reporting in that drug mortality data do not identify methamphetamine specifically.

### **The ability of the drug to create dependence**

- PSE has a very low ability to create physical dependence, however it is used extensively by some people for the alleviation of cough and cold symptoms.
- Methamphetamine is a highly addictive stimulant. The potential for dependence is subject to dosage and route of administration, due to its effect on the dopamine neurotransmitter.

## **The international classification and experience of the drug in other jurisdictions**

- Precursor chemicals used for illicit drug manufacture are covered by the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988 (the Vienna Convention), to which New Zealand is a party.
- EPH and PSE are listed in Table I of the Vienna Convention, as they are considered 'immediate chemicals'.
- A number of other jurisdictions have restricted the availability of EPH and PSE in various ways, particularly those who are experiencing problems with methamphetamine manufacture and use. In the Commonwealth of Australia's Standard for the Uniform Scheduling of Drugs and Poisons, PSE is listed as a Schedule 2 Pharmacy Medicine, Schedule 3 Pharmacist Only Medicine and Schedule 4 Prescription Only Medicine, depending on the preparation.
- The US state of Oregon, and Mexico have recently made PSE a prescription only medicine. As noted above, the UK is also considering reclassification of PSE to a prescription only medicine.
- The Netherlands withdrew PSE from the market in 1989 because of concern about the cardiac safety of the drug.

## **Any other matters that the Minister considers relevant**

- The ongoing diversion of PSE, both illegally imported and domestically, for the production of methamphetamine causes significant harm to individuals and the wider community.
- There is a widely available therapeutic alternative to PSE, phenylephrine, which is now the active ingredient in around 80% of the 'cough and cold' products sold for the purpose of symptom relief.
- The ongoing harms of diversion of PSE for the manufacture of methamphetamine now outweigh the potential benefits of the ongoing availability of PSE as a pharmacy-only over-the-counter medication.
- Making PSE a prescription only medication could lead to a risk of 'pill-shoppers' putting considerable pressure on and using threatening behaviour towards prescribers, given the significant profits to be made from illegal diversion.