Limiting production of crystal meth

I read with interest the recent Public Health piece on methamphetamine hydrochloride (crystal meth).[1] Two subsequent articles on the same topic provided more details, but there were no comments on prevention programs or on limiting production of this drug.[2,3]

I had a distinct sense of déjà vu. Forty-five years ago, I reported in *CMAJ* the first North American case of addiction to diethylpropion.[4] This drug is chemically distinct from amphetamines, but the symptoms resulting from abuse are identical to those described by Buxton and Dove.[1] The only difference is one of degree.

My hospital colleagues and I believed that limiting availability was the best way to deal with the abuse problem. We persuaded the manufacturer to have the product made available by prescription, not on demand. This reduced the problem significantly.

I would suggest the same approach be used to address the illegal manufacture of crystal meth. It is clear that the manufacturing process is widely known. Is there any chemical used in the production of crystal meth that could be made subject to licensing if it were purchased in large quantities?

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[One of the authors responds:]

Joseph Caplan's suggestion that the chemicals involved in the synthesis of methamphetamine hydrochloride be regulated is highly relevant to the prevention of crystal meth use, but this issue was outside the scope of my review article.[1] Canada's Precursor Control Regulations include requirements, as Caplan recommends, to control precursors and other substances used in the production of methamphetamine, including ephedrine, pseudoephedrine and red phosphorus.[2] Before 2003 these regulations did not exist and there was much concern, especially in the United States, about the export of precursors from Canada for illicit methamphetamine production.[3] It can be argued that the Canadian legislation should be strengthened by requiring more frequent reporting by the chemical industry of the sale of precursors, by requiring licensing of end-users and by other approaches such as requiring that anhydrous ammonia (a nitrogen fertilizer used in methamphetamine synthesis) be stored in government-approved containers.[4]

There is also the controversial (at least in Ontario) question whether cold medications containing pseudoephedrine should be sold only in pharmacies (i.e., not in corner grocery stores) and only behind the counter so that the extent of use can be better monitored. Because of a severe problem with methamphetamine abuse, Oklahoma has required that such cold medications be sold only behind pharmacy counters in this state. Curious about the availability of pseudoephedrine in Canada, I contacted a Canadian Internet pharmacy and visited a major Canadian drugstore: the Internet pharmacy would sell customers only 60 tablets of a medication containing pseudophedrine whereas in the drugstore the quantity that customers could purchase was limited only by the availability of the drug.

It is obvious that methamphetamine precursors used for legitimate purposes must be tightly controlled. However, it now appears that precursors smuggled from outside of the country are often used to manufacture methamphetamine in Canada.[5] Drug prevention using precursor control thus remains a challenge.

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A question of ethics

In his review of the pharmacologic mechanisms of methamphetamine hydrochloride (crystal meth),[1] Stephen Kish made no mention of the fact that the so-called research in one of the articles he cited[2] was conducted at a military hospital in a military dictatorship. Kish also failed to mention that the article contained no indication of ethics approval. The neurosurgical intervention described in this study was performed first on rats and then on people who apparently gave their consent freely.

I believe that members of the medical community should not refer to such