THE ELABORATION OF THE NEW PER SE LEGISLATION ON DRUGS AND DRIVING IN BELGIUM

Alain G. VERSTRAETE¹, Viviane A. MAES²

¹Laboratory of Clinical Biology-Toxicology, University Hospital, Ghent, Belgium

²Department of Clinical Chemistry-Toxicology, Academic Hospital, Free University of Brussels, Brussels, Belgium

ABSTRACT: In Belgium, a new per *se* legislation on drugs and driving was adopted unanimously by parliament in March 1999. The different steps in the elaboration of this law, and the involvement of toxicologists are described.

KEY WORDS: DUID; Drugs and driving; Cut-offs.

Problems of Forensic Sciences, vol. XLII, 2000, 189–194 Received 9 September 1999; accepted 16 May 2000

INTRODUCTION

In most European countries, legislation on drugs and driving is part of some general regulation on impaired driving or on drunken driving. However, it is not easy to prove that the driver was impaired if no fixed protocols for impairment evaluation (either by a police officer or a medical doctor) exist. While these "impairment-type laws" are successfully enforced in some countries like Norway, in other countries, like ours, they are very rarely applied. Because of the difficulty of proving impairment, some countries have changed their laws and introduced a *per se* type law: it is forbidden to drive if some substances can be detected in the blood of the driver [1, 5, 6, 9].

In this article, we will explain how such legislation came into being in Belgium. A *per se* type law is effective in Germany (since August 1998) and Sweden (applicable since July 1999, with inclusion of benzodiazepines in supratherapeutic concentration or without proof of medical prescription); other countries are planning to introduce them (Switzerland probably in 2001). In some states of the United States, *per se* type laws exist for drugs in urine: it is forbidden to drive if drugs can be detected in the urine of the driver.

TABLE I. CHRONOLOGY OF THE DIFFERENT STEPS IN THE ELABORATION OF THE BELGIAN LEGISLATION ON DRUGS AND DRIVING

Date	Event	
January 1995 – June 1996	Belgian Toxicology and Trauma Study	
July 95, December 96	Proposals by deputies	
December 1996	BTTS results presented to the press	
March 1997	First government proposal	
June 1997	Scientific committee established and first meeting	
September 1998	Scientific report ready	
November 1998	Second government proposal	
January 21, 1999	Adopted by house	
March 5, 1999	Adopted by Senate	
March 30, 1999	Published in the official journal	

In 1995 and 1996 (Table I) at the initiative of the Belgian Society of Emergency and Disaster Medicine, the Belgian Toxicology and Trauma Study (BTTS) was carried out [3, 8, 10]. In December 1996 the results were presented to the press by the Secretary of State for Security (Mr. Jan Peeters, in December 1996) who on this occasion announced that the Belgian government would prepare a legislation to combat driving under the influence of drugs. Some deputies from the majority had already introduced law proposals in July 1995 and December 1996. In March 1997, a first proposal was adopted by the government. At that time, no toxicological experts were consulted. In the proposal, it was forbidden to drive if an impairing substance was present in the organism (urine) at a concentration greater than a cut-off value. The list of substances, the tests to detect them and the cut-offs were to be determined later by Royal decree. In May 1997, the proposal was submitted to the Council of State to check its constitutionality. The Council of State had strong objections and considered the proposal to be unconstitutional: substances, concentrations and type of test had to be specified in the law. The Secretary of State then convened a scientific committee. In addition to the two authors of this paper, a senior State Police officer in charge of the drugs programme, a representative of the National Institute of Criminalistics and a well-known expert on drugs and driving from the Netherlands were members of this committee, which held several meetings. The following questions were asked:

- Which illicit drugs must be included in the law?
- Which cut-offs must be used? Should zero values or cut-offs be used?
- What are the available and recommended detection methods for test (screening) and analysis (confirmation). What is their reliability and which laboratories can perform them?
- Should only illicit drugs be included, or also medicines?

After gathering information from other countries and consulting the scientific literature, a few options were chosen. The law would be limited to illicit drugs. Medicines would not be included but an information campaign on medicines and

182 A. G. Verstraete, V. A. Maes

driving would be launched [7]. The law would be limited to the drugs most frequently abused in Belgium: amphetamines, some designer amphetamines (MDMA, MDEA, MBDB), cannabis, cocaine and heroin. For all these drugs (or their metabolites) a cut-off had to be proposed (this was an explicit request of the Council of State). The literature [4] however clearly states that no good correlation has been found between blood drug concentration and the impairing effect. For this reason, following the example of the German legislation, a zero-limit approach was chosen. Moreover introducing legal limits (like for alcohol) could tempt drivers to use low quantities of drugs, just enough to stay under the legal limit (like "one joint is OK, two joints is too much") and could give the false message that using a small quantity of drugs while driving is permitted; this is in contradiction, if not with the letter, then with the spirit of the Belgian law on drugs (the law does not explicitly prohibit drug use, but it does prohibit drug use in group, drug possession, manufacturing and trade). Finally, it is the experience of many toxicologists that for some drugs, the greatest danger arises when the effect of the drugs is diminishing, e.g. the sudden occurrence of sleepiness after use of amphetamines) and that the approach of zero tolerance would give a clear warning that the combination of drugs and driving is dangerous.

A scientific report was written and added to the proposal that was submitted to Parliament [2].

The second version of the law proposal thus included a three step process for the detection of DUID: first, a (trained) policeman checks for external signs of the use of impairing substances. If these are present, a urine sample is taken and a roadside urine test for amphetamines, cannabinoids, cocaine and opiates (using the Samhsa cut-offs) is performed. If one or more of the drugs are positive in the urine, a doctor is summoned to take a blood sample. The analytical cut-offs for the individual substances (to be determined by GC/MS with deuterated internal standards, are given in Table II.

Some other rules were included in the law proposal. If a driver is positive for drugs (external signs + urine test), he is prohibited from driving for a (renewable) period of 12 hours. The results from the tests can only be used for the law on traffic safety, but not for the law on illicit substances (but this does not prevent the police to prosecute if e.g. drugs are found in the car). If the analysis is positive, the subject has to pay the costs. If the analysis is negative, the State pays.

TABLE II. ANALYTICAL CUT-OFFS FOR THE DRUGS MENTIONED IN THE LAW [ng/ml] $\,$ PLASMA

Substance	Cut-off [ng/ml]
Amphetamine	50
MDMA	50
MDEA	50
MBDB	50
Tetrahydrocannabinol	2
Cocaine	50

Benzoylecgonine	50
Morphine (free)	20

This proposal was adopted by the government in November 1998 and submitted to the House of Parliament in early December 1998. The parliamentary commission on infrastructure, traffic and public enterprises met three times to discuss the project. These meetings were carefully prepared and the aides of the Secretary of State, together with the experts, prepared 30 cue cards, with short answers to the questions the members of Parliament could/might ask. After an introduction by the Secretary of State, 4 of the experts gave a presentation to the members of the commission, covering different aspects like the effects of drugs on driving behaviour, the prevalence of drugs and driving in Belgium, the opinion of the driving population, the time course of blood and urine concentration of drugs, the analytical techniques for detecting drugs with their advantages and disadvantages, the existing experience of the police in detecting DUID, etc.

A constructive discussion followed, and many questions (both technical and more general) were asked. Examples of questions, which illustrate the concerns of the members of parliament, were:

- Questions about the training of policemen, or, how can the driver be sure that the policeman who tests him has the required knowledge?
- How will the selection of the drivers to be tested be done, or isn't there a risk that the policemen will select only young or foreign drivers?
- What about medical use of morphine and methadone? Will cancer patients who use morphine pumps also test positive?
- Questions about the cross-reactivity of codeine, anorectics (...) How can this be avoided?

What do the cut-offs mean, are these zero limits low enough?

After this discussion, and very positive feedback for the experts, the parliamentary commission unanimously adopted the text submitted by the government without amendments and the earlier proposals were withdrawn. Soon thereafter the text was submitted to the plenary session in the House and adopted unanimously.

The Senate "evoked" the project (i.e. decided to discuss the project as well). Two meetings of the Commission of the Senate were held, with again an introduction of the Secretary of State and questions by the senators. The project of law was adopted by the commission and adopted unanimously by the Senate (minus 1 abstention).

The law was published in the official journal *Moniteur Belge/Belgisch Staatsblad* on March 31, 1999, and became applicable on April 9.

The training of policemen started in May 1999 and a Royal decree that described the procedures and methods for sampling and storage of blood, the form to be used for recording the external signs and the accreditation of laboratories was published on June 8, 1999, a few days before the elections. A letter from the College of General Prosecutors, that aims to standardize the procedures in the whole country, is in

184 A. G. Verstraete, V. A. Maes

preparation. In the meantime, the law is already being enforced by police checkpoints in some places where driving under the influence of drugs is common, like roads to and from discotheques, or roads used by "drug tourists".

FINAL CONSIDERATIONS

It was exciting to have the opportunity to contribute to the legislation on drugs and driving in our country. We enjoyed the constructive multi-disciplinary approach that prevailed during the whole process, in which people with different backgrounds (police, science, politics, justice) searched together for the most practical solution considering the present state of the art. For the scientific advisers it was sometimes a challenge to find answers to very practical questions, and to put scientific knowledge into practice. This fast elaboration of a new legislation would not have been possible without an exchange of information with our international colleagues, from Australia, Finland, France, Germany, Norway, Switzerland, the United Kingdom, etc.

References:

- 1. Aderjan R., Bonte W., Daldrup T., Käferstein H., Kauert G., Joachim H., Moeller M. R., Reinhardt G., Schewe G., Wilske J., "Analytische Grenzwerte" für Drogen im Blut zur geplanten Änderung des § 24 a StVG, Düsseldorf 1997, *Toxichem + Krimtech* 1998, Bd. 65, S. 70–71.
- 2. Chambre des représentants de Belgique. Projet de loi modifiant la loi relative à la police de la circulation routière, coordonnée le 16 mars 1968, session ordinaire 1998–1999, 24 novembre 1998, Chambre des représentants de Belgique.
- 3. Charlier C., Verstraete A., Maes V., Wennig R., Plomteux G., Narcotic drugs and traffic safety in Belgium, *Toxicorama* 1998, vol. 10, pp. 27–31.
- 4. Consensus report, Drug concentrations and driving impairment, Consensus Development Panel, *Journal of the American Medical Association* 1985, vol. 254, pp. 2618–2621.
- 5. Krüger H. P., Bud Perrine M. W., Huessy F. B., Mettke M., Illicit drugs in road traffic. Strasbourg: Co-operation group to combat drug abuse and illicit trafficking in drugs Strasbourg: Co-operation group to combat drug abuse and illicit trafficking in drugs (Pompidou group), 1999.
- 6. Krüger H. P., Bud Perrine M. W., Huessy, F. B, Mettke M., Illicit drugs in road traffic. Appendix. Strasbourg: Co-operation group to combat drug abuse and illicit trafficking in drugs (Pompidou group), 1999.
- Maes V., Grenez O., Charlier C., Smet H., Verstraete A., Wennig R., Classification of medicines according to their influence on driving ability. *Acta Clinica Belgica* 1999, vol. 54 (Supplement), pp. 82–88.
- 8. Meulemans A., Hooft P., Van Camp L., De Vrieze N., Buylaert W., Verstraete A., Vansnick M., Belgian toxicology and trauma study. Brussels: Belgian Society of Emergency and Disaster Medicine, Belgian Institute of Traffic Safety and the Toxicological Society of Belgium and Luxembourg, 1996.

- 9. Wennig R., Die Drogenproblematik im Straßenverkehr im europäischen Kontext Dokumentation, 4. Wissenschaftliches Symposium über Drogen/Medikamente und Verkehrssicherheit (Schmoldt-Symposium), Hamburg 1998, S. 75–85.
- 10. Wennig R., Verstraete A., First results of the Belgian toxicology and traumatology study (BTTS), TIAFT-Meeting, Padova 1997, pp. 91–104.