Drugged driving after introduction of evidential breath alcohol testing.

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INTRODUCTION

Several drugs in addition to alcohol may impair driving skills: Prescribed drug such as tranquillisers, antidepressants, hypnotics and some analgesics, as well as illicit drugs such as cannabis, amphetamines and opiates. According to the Norwegian Road Traffic Act it is prohibited to drive a motor vehicle under influence of alcohol or drugs. A strict policy against driving under the influence of drugs other than alcohol, has been practised in Norway for many years, and approximately 5 000 and 1 400 people are sentenced because of drunken respectively drugged driving per year during the last period in Norway.

The National Institute of Forensic Toxicology (NIFT) in Oslo, received blood samples from all Norwegian drivers suspected for driving under influence of alcohol or drugs until 1996. During the 1980 ies and 1990 ies, an increase in the number of cases of impaired driving due to drugs other than alcohol has been recorded (Kruse et al., 1994; Skurtveit et al., 1995a; Christophersen et al., 1996a). The drugs most commonly found in blood samples from drivers arrested on suspicion of drugged driving in Norway include benzodiazepines, tetrahydrocannabinol (hashish or marijuana) and amphetamine (Skurtveit et al., 1995; Christophersen et al., 1996a). Approximately 80% of the drug positive blood samples contained also other drugs or alcohol. It has been documented that the frequency of drug detected in samples which contained alcohol is between 18-25% dependent on blood alcohol concentration (Beylich et al., 1996). A combination of alcohol and drugs has also been reported for many others countries (Christophersen et al., 1996b; Lillsunde et al., 1995; Augsburger et al., 1997). Thus, it seems of importance to be aware of the high prevalence of drugged drivers as well as the high prevalence of mixed drug - alcohol influence among subjects suspected of impaired driving.

During 1996 (from March to December), 16 Norwegian police districts started to use the evidential breath alcohol analyser Intoxilyzer 5000 N. The Intoxilyzer is a breath testing instrument that utilises infrared technology to measure the amount of alcohol in a breath sample. Since the Intoxilyzer do not measure drugs and since Norway has a high prevalence of drugged driving, the police has been instructed to refer suspects to blood sampling for drug
detection, in all cases where drug use was suspected or when the degree of impairment seemed out of proportion compared to the breath alcohol concentration measured.

In the present study we wanted to investigate how the introduction of evidential breath alcohol testing influenced the search for drugs as cause of impaired driving. This was done by comparing police districts with or without Intoxilyzer with respect to requests of analyses of blood samples from drugged drivers.

SUBJECTS AND METHODS

Blood samples received by NIFT from drivers suspected by the police for driving under influence of ethanol or drugs in 1995 and 1996 were studied. The samples were for both years divided into two groups, according to the primary suspicion by the police. The first group consisted of samples from drives suspected for drunken driving, the second for drugged driving.

In 1995, NIFT received samples from 5 445 suspected drunken drivers and from 3 331 suspected drugged drivers. Until March 1996 all blood samples were sent to NIFT for analysis of alcohol or other drugs. From March to the end of December 1996, 16 Norwegian police districts started to use the evidential breath analyser Intoxilyzer 5000N. From this time, samples from drunken drivers from these police districts were not sent to NIFT unless the driver was unable to deliver a sufficient breath sample, had fever or if there was suspicion on use of other drugs than ethanol. In 1996 the institute received totally 4 183 blood samples from suspected drunken drivers and 3 188 suspected drugged drivers.

RESULTS

The total number of blood samples from drivers apprehended on the suspicion of drunken or drugged driving analysed at National Institute of Forensic Toxicology, Oslo during period March - December in 1995 and 1996 are presented in Table 1. The number of samples from drunken drivers were reduced by 1 181 (25 %) from 1995 to 1996. During the same period 1 370 subjects were tested by means of the evidential breath instruments, demonstrating no major change in the total amount of cases analysed for drunken driving between 1995 and 1996. Table 1 also shows a 4 % reduction in samples from drugged drivers in the period March-December 1996 compared to the same period in 1995.
Table 1: Blood samples from drivers apprehended on suspicion of driving under influence of alcohol or drug during March-December in 1995 and 1996.

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<tr>
<td>Suspects of drunken driving</td>
<td>4 684</td>
<td>3 503</td>
<td>1 181 (25%)</td>
</tr>
<tr>
<td>Suspects of drugged driving</td>
<td>2 812</td>
<td>2 689</td>
<td>123 (4%)</td>
</tr>
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</table>

In table 2 the material of drugged drivers has been divided between police districts with Intoxilyzer and those without. For police districts using Intoxilyzer, a reduction of 16% in the number of suspected drugged drivers was observed, compared to the same period in 1995. On the other hand, an increase of 2% in the number of suspected drugged drivers was observed for police districts without Intoxilyzer.

Table 2: Suspicions on drugged driving during March-December in 1995 and 1996 in police districts equipped with and without Intoxilyzer 5000 N

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<th>1995</th>
<th>1996</th>
<th>Increase / Reduction (%)</th>
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<tr>
<td>Police district with</td>
<td>1 041</td>
<td>874</td>
<td>reduction 16%</td>
</tr>
<tr>
<td>breathtesting</td>
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<tr>
<td>Police district without</td>
<td>1 771</td>
<td>1 815</td>
<td>increase 2%</td>
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<td>breathtesting</td>
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During the period March-December 1996, 8 police districts started to use Intoxilyzer in March, 1 district in May, 1 district in June, 2 in September, 2 in October, 1 in November and 1 in December. The three largest police districts each of which in 1995 had a number of samples from suspected drugged drivers higher than 100, were the three largest Norwegian cities: Oslo, Bergen and Trondheim. Great variations from no reduction (Trondheim), 16% reduction (Oslo) to 46% reduction (Bergen) from 1995 to 1996 with respect to cases tested by blood samples for suspected drugged driving, were observed. A further analysis of the data from Oslo demonstrated that the number of subjects with drugs detected declined by 23 per cent from 1995 to 1996.
DISCUSSION

The importance of illegal and prescribed drugs as causal factors of impaired driving has been gradually recognised during the last 10-15 years. This has been reflected as an increasing demand of analyses for drugs in blood samples from drivers of motor vehicles in several countries. Data from 1992 (Christophersen et al., 1995) and 1994 (Skurtveit et al., 1996) on the prevalence of apprehended drugged drivers in Norway compared to other countries showed that Norway recorded the highest relative number of cases with suspicion of drugged drivers calculated per 1 mill inhabitants.

Many countries have taken into use evidential breath alcohol testing. Also in Norway some police districts have started to use this type of analysis for alcohol testing recently. Samples from all Norwegian suspected drunken and drugged drivers were until 1996 analysed at NIFT in Oslo. After introduction of breath alcohol testing all samples from suspected drugged drivers are still analysed at NIFT. Thus, it was possible to compare the number of samples from drugged drivers before the introduction of evidential breath alcohol testing with the number of such samples after this introduction. Our results showed a reduction in the number of suspected drugged drivers from 1995 to 1996. That this reduction is connected to the introduction of breath alcohol testing, was supported by the observation that the reduction in the number of samples occurred in the police districts which has introduced the Intoxilyzer, while the number of samples from the other police districts showed a small increase. The largest reduction of samples occurred in the largest police districts, and thus contributed most to the net reduction in number of samples from suspected drugged drivers. This reduction could be due to overlooking of drugged driving or could represent a sorting out of pure drunken driving cases from further blood sampling. In the first case this would represent a reduced ability of the police to detect drugged driving, in the second case the use of evidential breath testing would have lead to a sound decrease in unnecessary blood analysis. Preliminary results from Oslo show that the number of detection of drugs other than alcohol during the study period decreased from 1995 to 1996 by 23 %. This indicates strongly that cases of drugged driving have been missed after the introduction of Intoxilyzer 5000.

The present data represent results collected during a short time period. The results so far indicate that some drugged drivers may avoid penalty as a consequence of the introduction of breath alcohol testing. The mechanism behind this could be that the police will focus heavily on drunken driving while operating the evidential breath testing instruments, and when the result is zero or low, forget the possibility that drugs could have caused the impairment responsible for testing being performed. In order to detect drugged driving, it is important to be aware of this problem and focus on education on this point in teaching of the police personnel performing evidential breath alcohol testing.
REFERENCES


