Limits, interests and future of systematic screening of psychoactive substances, a study in a population of truck drivers

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**Abstract**

This study is about a population of 528 truck drivers from two countries from the North of France, who have been screened concerning psychoactive substances during the first medical examination for the hiring. First of all, we tried to do the statement situation, analyzed by some graphic. We find 13% patients are positive, for one or two drugs. The social and economical context of this population, increasing requests from carriers (concerning industrial injuries) and discussions about the French depenalization of cannabis make this topic a very actual problem. This screening has been made since 1996 in our medical service.

After this study, some mistake can be found concerning the collection of urine before the screening. That's why we then tried to develop a better protocol of collection. Secondly we talk of juridical or legal problems (validity of positivity of screenings, validity of decision of aptitude, interest of laboratory confirmation, patient's professional following. It seems important to release previous information about drug addict behavior in professional world, with screening; and so open the enterprise's door at the prevention of drug addict behavior. In conclusion it is necessary to sharpen the screening, but simultaneously we should improve prevention and social medical following. In this idea we release a film on this subject for personal staff and trainers.

**Introduction**

We started our screening of psychoactive drug in the truck drivers in 1996. Our study is based on screening made during the hiring visit of candidates. The occupational physician is allowed after a medical visit to take a decision about a medical aptitude or inaptitude to a worker for a specially job. Our aims were:

- To draw up the situation
- To stigmatize the risk caused by toxicophile behavior and fight against the usual consummation of workers in security works.
- To think about difficulties daily meeting, in particular in the decision of aptitude and on the limits of screening.
- To be aware of managers and formatives about these problems and bring a medical psychological support.

Few French laws like the decree of 7 May 1997, the European directive of 91.439 CEE, the law of 8 June 1999 create rules for drivers under the influence of stupefacient and allow the police to take blood samples in case of traffic injuries (in the beginning only when there is one death people but since October 2002 even when there is only injuries people).
Furthermore occupational physician is authorized by art. 24/48, R24’52 from the French "code of work" to ask all the analysis he needs to take the decision of aptitude and detect diseases dangerous for the family circle. We were consult:

- By managers of enterprise about the delinquency, the lack of quality and the deterioration of enterprise's atmosphere that they notice.
- By trainers who were closed to new and young workers could feel the entrance of drug during the work and in enterprises and notices lack of professionalism, absences, and aggressive behavior.

We choose to screen three substances: cocaine, opiates and cannabis, and we describe general effects and special effects on driving. After smoking cannabis the driver feels important sensorial perturbation, troubles of concentration, modifications of coordination, thymic's troubles. Because of the lipophylie of cannabis this symptoms can be reactivated during a stress on the road.

**Methods**

During the first quarter of 2001 we realized a retrospective study for engaging files of truck driver from some road conveyor from the north of France. We study 8 measures: Age, Level of study, and family's situation, Place of residence, Addiction (alcohol, Tobacco) results of urinary test. Workers are warned that the urine will be used to do the test. This sort of screening is noticed in the enterprise's interior settlement. Around 10 % of warned workers quit spontaneously the enterprise before the realization of screen. These tests are realized with the urinary narrow band "Frontline" by "Roche diagnostic" screening cannabis (cut-off 50 ng/ml), opiates and cocaine (probably replace by the "Frontline cup"). After, the process is according to results:
FIRST URINARY TEST

Négative
Aptitude

Positive
Moral contract
Temporary inaptitude
Therapeutic orientation
(General practitioner or hospital)
Temporary inaptitude

Re-convocation
One month later

SECOND URINARY TEST

Négative
Apt to work
Following
Re-convocation
Admitting the results

Positive
Inapte to work
Contesting the results

tempo-legal expert appraisement
Results

Our population is 100 masculine with an average of 26 years. These tests are positive in 13% of cases: 11% by cannabis and 2% by opiate. The distribution of the positive tests shows that the consummation of psychotropic substances is less current in the old, married and high level of school population. Consecutively is the importance of a better professional insertion, a strong family's circle and information about use of drug. Moreover this study is on the slant because of falsification of urine, false positive, false negative results.

Discussion:

This screening shouldn't be interpreted by workers like a way of discrimination but a way to care for security and health in work (in addition with ECG, hematology, biochemistry, vision's test). The cut off of test must be real adapted according to research. We compare and select some narrow band "Triage 8 " from BMD laboratory, which can screen other substances like amphetamine, barbituric, methadone and which can be conserved to be used in case of juridical problems. We track attention on drugs but we keep careful about alcohol consummation. The prevention can begin with information during greeting day of engaged workers to open preciously the dialogue and use pedagogic supports.
Conclusion

This principle of screening during the hiring's visit (engage's visit) seems to use legitimate when it's realized with professional ethics. It's essential to have in the same time a politic of prevention in close collaboration with enterprises and trainers and round the future professional of the road to be really aware of their responsibility and their obligations. Furthermore positive tests shall engage the aptitude but there are the reflect of a medical diagnosis which needs a real medical undertaking.

Bibliography

1. Drs F. CARRIOT and A. J. SASCO  
   *Cannabis et cancer*  
   Revue Epidémiologique et santé publique  

2. Dr P. CATILINA, E. BENGHOUZI, C. BLANCHARD  
   *Evaluation des performances visuelles des conducteurs ayant fait l'objet d'une annulation du permis*  

3. Député P. DELNATTE  
   *Rapport sur les propositions de lois n° 2148 de Mr B. ACCOYER relatives à la conduite automobile sous l'emprise des stupéfiants*  

4. Dr A. EMERG  
   *Marijuana and alcohol combined severely impede driving performance*  

5. Drs B. FONTAINE, P. FRIMAT  
   *Quelle prévention au poste de travail*  
   *Travail et Sécurité N° 590 Novembre 1999.*

6. Drs B. FONTAINE, P. LAURE, I. BAILLY  
   *Prévention des risques toxicophiles en entreprise*  
   Communications issues du congrès du 7 janvier 2000 à Paris.

Prévalence des comportements toxicophiles en milieu professionnel : Une étude dans la région Nord Pas-de-Calais.

8. Dr L. HOVNANIAN

Le rapport Roques et le cannabis

9. G. LAGIER,

Sécurité routière, drogue licites ou illicites et médicaments
Livre blanc rapport au premier ministre. Journal officiel éd 1996

10. Dr LEDOUX

Le dépistage des toxicomanies en entreprise
Toxicomanie en milieu de travail. Syva France SNC, Page 102 à 106.

11. Dr G. PEPIN, P.MURAT, P.KINTZ, DUMESTRE-TOULET, M.H. GHYSEL, J.P. GOLLE

Recherche de stupéfiants dans le sang de conducteurs automobiles : résultats d’une compilation française d’expertises toxicologiques
Sociétés Française de Toxicologie Analytique
Toxicorama Vol XI, N°1, 1999