PROCEDURE AND PERIODICITY OF THE MEDICAL EXAMINATION

Commission Internationale des Examens de Conduite Automobile, CIECA

The "Commission Internationale des Examens de Conduite Automobile" (CIECA) is an organisation for authorities in the field of driver licensing and was founded in 1956. It has an official status as observer to the United Nations. The European Commission decided to subsidize a project entitled "Comparative analysis and practical guide on driver licensing in the European Union". To this end, several workshops were organised, four of which dealt with the procedures and periodicity of the medical examination.
This report is also available in German and French.

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Foreword by the Workshop President

It is an honour for me to present this report on the "procedures and periodicity of the medical examination". It proves that CIECA has become an organisation which is consulted at an international level. The procedures and periodicity form an important assignment for the Driver licensing authorities in Europe. They are also part of the project "Comparative analysis and practical guide to driver licensing in the European Union".
I would like to state here that this report must not be regarded as the end of this part of the project. The studies in this field will be continued and scientific proof has not been brought forward in a satisfactory way to support the recommendations made. In that sense this report is a preliminary report.
I am grateful to the Directorate General for Transport of the Commission of the European Communities for subsidising this project. I would also like to thank the experts from all countries, who participated to these workshops. Without their contribution this report would not have been possible.

Summary

Annex III of Directive 91/439/EEC of 29 July 1991 stipulates the minimum standards of physical and mental fitness for driving licence candidates and -holders. Even though most Member States of the European Community have adopted the minimum standards as described in Annex III of this Directive in their legislation, there still remain large differences between the countries as far as the periodicity and procedures of the medical examination are concerned.
Participants from several countries, all members of CIECA, discussed these items in three general workshops and one workshop to the special item of eye-sight. The participants to the workshops must all be regarded as experts. As such they have tried to come to best practice recommendations for the harmonization of the above-mentioned areas.
This report describes the recommendations which the experts arrived at during the workshops, as well as the discussions and which preceded them. The report is a basis document in a field, in which CIECA will also be active in the future. After approval by the members of CIECA, it will be forwarded to the European Commission.

Table of Contents

Introduction

Annex II of Directive 91/439/EEC on the driving licence describes the "minimum standards of physical and mental fitness for driving a power-driven vehicle". The question if driver licence applicants or -holders meet the requirements stipulated in this annex, is answered in a different way by the various countries of the European Union. Even though the medical standards have been harmonized by Directive 91/439/EEC, the procedures and periodicity of the medical examination are left to the Members States themselves. This may lead to problems concerning the mutual recognition of driving licenses in accordance with what is stipulated in article 1.3 of the Directive:

"Where the holder of a valid national driving licence takes up normal residence in a Member State other than that which issued the licence, the host Member State may apply to the holder of the licence its national rules on the period of validity of the licences, medical checks and tax arrangements and may enter on the licence any information indispensable for administration".

These gaps in the Directive gave cause to three general workshops on the procedure and the periodicity of the medical examination and one workshop on the special theme of eye-sight, which have been organised to find out how and in which way a medical examination for driving licence applicants and holders should be carried out.
The first workshop, which was held on 25 and 26 March at the offices of the Centraal Bureau Rijvaardigheidsbewijzen (CBR) in Amsterdam, the Netherlands, can be seen as an introduction to the following two workshops: during this first workshop the current situation regarding the procedures, contents and periodicity of the medical examination in the various countries were outlined. They served as a basis for discussions during the second and third workshops which were held on 7 and 8 November 1996 and 20 and 21 November 1997 respectively, at the same location.

The principal aim of the workshops was to compare and discuss the procedure, the contents and the periodicity of the medical examination in the different countries with each other. Secondly, each point of Annex III of the Directive had to be judged on its correctness and importance. The most important task for the participants to the three workshops was to come to best practice recommendations as experts. This best practice has been described as recommendation.

In the course of the general workshops it became clear that eye-sight was the key point in the medical examination. Therefore it was decided to organize an extra workshop to this subject together with the European Commission. Ophthalmologists and experts from different European countries were invited to this workshop. As a preparation to this workshop, Dr. van Rijn of the Free University Hospital of Amsterdam carried out a meta analysis of the literature published on the correlation between impaired vision and accident risks. The outcomes of his study will be available as an annex to this report.

During the workshop, six internationally renown speakers were asked to present their studies to the subject of eye-sight and motorized traffic. The results of this workshop are a support of the recommendations given in the general workshops. The report of the special workshop on eye-sight with abstracts of the presentations and picture material is available in an extra CIECA publication.

This report describes the items discussed at the workshops. Because there was a clear distinction between driving licence applicants and -holders of group 1 and group 2, this report has also been divided into two parts: part I deals with the procedures, the contents and the periodicity of the medical examination for group 1, part 2 deals with the same issues for group 2. Each chapter has the same structure: first of all, the current situation in the different participating countries is described. This description serves as a basis for the discussions afterwards, which have led to the recommendations of the experts. These recommendations conclude each chapter. The relevant parts of Annex II of the Directive have been added as an Annex.

This report must not be seen as a conclusion of the study. Many issues have not yet been done or said and scientific proof to support the recommendations have not sufficiently been included. Further workshops will be needed to elaborate important items. This report is a preliminary summary of the work which has been done so far and it must be seen as a progress report.

I Group 1

This first part deals with the medical examination for driving licence applicants/holders in group 1. The first chapter describes the form and procedures of the (possible) medical check for driving licence applicants of Group 1 at first issue of the driving licence. The second chapter gives an overview of the contents of this examination. Chapter three deals with the periodicity of medical examinations for holders of a group 1 driving licence.

1. The form and the procedure of the medical examination of Group 1 at first issue of the driving licence

This first chapter deals with the form and procedures of the medical examination for group 1 driving licence applicants at first issue. First the following issues are described by country: does a declaration on the honour have to be filled out, how long does the possible medical examination take and how is it carried out. You will find a list of responsible authorities at the end of this report.

The presentation of the current situation in the different countries is followed by a description of the discussions. Each chapter concludes with the recommendations arrived at after the discussions.

1.1 Current situation

Austria

In Austria, an applicant for a group 1 driving licence must undergo a medical examination as well as a control of visual acuity. During the examination an applicant has to fill out a questionnaire in the presence of the doctor. The medical examination takes about 10 minutes. A candidate receives a certificate if the doctor confirms that he is healthy. If the doctor diagnoses a medical problem, he is referred to a police doctor, who re-examines him.

Belgium

In Belgium, an applicant for a group 1 driving licence must fill out a declaration on the honour. If he indicates on the declaration on the honour that he has a medical problem, which may influence his capacity to drive, he has to undergo a medical examination which takes 10 to 30 minutes. Every applicant for a group 1 driving licence must undergo a control of visual acuity, which is carried out at the theoretical test. For this control one must read a numberplate in Belgium.

France

An applicant for a group 1 driving licence must fill out a declaration on the honour as well as undergo a control of visual acuity. The applicant only has to undergo a medical examination if the examiner judges during the practical driving test that the candidate has a medical problem which may influence his capacity to drive or if the prefect of a department has been informed about such a problem.

Germany
In Germany, an applicant for a group 1 driving licence need not fill out a declaration on the honour nor undergo a medical examination. The only medical condition for obtaining a group 1 driving licence is a control of visual acuity. This eye-sight test is carried out by an eye specialist or a qualified optician by means of a special instrument (DIN apparatus).

Great Britain
An applicant for a group 1 driving licence must fill in a declaration on the honour as well as undergo a control of visual acuity. The eye sight test consists of reading a numberplate. A candidate only has to undergo a medical examination if he has indicated on the declaration on the honour that he has one or more medical problems.

The Netherlands
An applicant for a group 1 driving licence must fill in a declaration on the honour as well as undergo a control of visual acuity. The eye sight test consists of reading a numberplate prior to the practical test. A candidate only has to undergo a medical examination if he has indicated on the declaration on the honour that he has one or more medical problems.

Spain
An applicant for a group 1 driving licence must undergo a medical examination, which takes approximately 30 minutes. This medical examination is carried out by a general practitioner, an eye specialist and a psychologist.

Sweden
An applicant for a group 1 driving licence must fill in a declaration on the honour as well as undergo a control of visual acuity. This eye sight test must be carried out by a person who received specific training for this at a driving school or by a qualified optician. A candidate has to hand over a doctor's certificate if he has indicated on the declaration on the honour that he has a medical problem which may affect his capacity to drive. This certificate is then judged by a doctor from the 'County Administration Board'.

1.2 Discussion
Most of the medical experts who participated to the workshops agreed that a medical declaration at first issue of a driving licence does not suffice. Some countries represented by them (Austria and Spain) even impose a medical examination. The German and Belgian experts were in favour of introducing such a medical examination. However, experts from France, Great Britain, the Netherlands and Sweden were of the opinion that a cost effectiveness analysis would turn out to be negative.

From scientific side it is confirmed that a declaration on the honour does not suffice. Many diabetes and epilepsy patients don't fill in the declaration on the honour truthfully when there is a risk of not getting a driving licence or not getting it renewed.[1]
As a simple medical declaration would not suffice and a medical examination is considered to be too expensive as well as entails too many administrative problems, a compromise solution was suggested: a candidate fills out a medical declaration which then should be signed by a doctor. This solution is easy to carry out and does not entail big financial consequences. In countries where the authorities nevertheless wish to carry through a medical examination, the doctor can examine his patient before he signs the medical declaration. This recommendation is supported by scientific literature.[2]

All the experts which participated to the workshops were of the opinion that at first issue of the driving licence a control of the visual acuity should be carried out next to filling out a medical declaration. At present this control is carried out in many different ways, varying from reading a number plate before the t practical test in Belgium, Great Britain and the Netherlands to a professional control with a specially designed instrument (DIN apparatus) by a qualified optician or eye specialist in Germany. Because of this large variety, the experts did not wish to make any recommendations on the way of performing an eye test without any further study.

1.3 Recommendations
A medical declaration is too uncertain proof of the actual health of a candidate. Scientific studies have pointed out that a relatively high percentage of all candidates does not fill out this declaration completely faithfully. The introduction of a medical examination for each candidate who applies for a group 1 driving licence was considered too expensive by most countries. Besides this would lead to too many administrative problems. Considering these two facts, the experts proposed the following recommendation: for the issue of his first driving licence a candidate for a group 1 driving licence must fill out a medical declaration, which must then be co-signed by a doctor. It is left to the doctor to carry through a medical examination or not. However, every applicant for a group 1 driving licence must undergo a control of visual acuity. How this control should be carried out, has not been laid down. Further study is needed to answer this question.

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[1]F.N.M. Langens et al., Diabetici: geen gevaar op de weg. In:Nederlands Tijdschrift voor Geneeskunde 1992, 35, 1712-1716, 1716; M.C. Salinsky et. al., Epilepsy, driving laws and patient disclosure to Physicians. In: Epilepsia 1992, 33 (3), 469-472, 470

[2]Langens et al., Diabetici: geen gevaar op de weg, 1716

2. Contents of the medical examination / medical declaration for a group 1 driving licence applicant

This second chapter describes which items are examined at the medical examination resp. the medical declaration for a group 1 driving licence applicant. This description is followed by the discussions between the participants to the workshops. These first two paragraphs form the basis of the experts' recommendations. This chapter frequently refers to Annex III of Directive 91/439/EEC on the driving licence. The relevant parts of this Directive have been added to this report as annex.

2.1 Current situation

Austria
A group 1 driving licence applicant must undergo a medical examination, which consists of the following items: eye sight, hearing, dizzy turns, attacks of unconsciousness, neurological diseases, cardiovascular diseases, mental disorders, locomotor disability and night blindness.

Belgium
A group 1 driving licence applicant must fill out a medical declaration, which includes questions on the following items: epilepsy, cardiovascular diseases, eye sight diseases, neurological diseases, locomotor disability, diabetes mellitus, mental disorders, alcohol consumption, drugs and medicine dependance, renal disorders and liver diseases. Moreover the visual acuity of candidates is checked.

France
A group 1 driving licence applicant must fill out a medical declaration, which includes questions on the following items: epilepsy, cardiovascular diseases, eye sight diseases, neurological diseases, locomotor disability, diabetes mellitus, ENT- diseases, renal disorders. Moreover the visual acuity of candidates is checked.

Germany
In Germany, a group 1 driving licence applicant only must undergo a control of visual acuity.

Great Britain
A group 1 driving licence applicant must fill out a medical declaration, which includes questions on the following items: epilepsy, cardiovascular diseases, eye sight diseases, neurological diseases, locomotor disability, diabetes mellitus, mental disorders, alcohol consumptiion, Parkinson's disease. Moreover the visual acuity of candidates is checked.

The Netherlands
A group 1 driving licence applicant must fill out a medical declaration, which includes questions on the following items: epilepsy, cardiovascular diseases, eye sight diseases, neurological diseases,

locomotor disability, diabetes mellitus, alcohol consumption, drugs and medicine dependance, renal disorders. Moreover the visual acuity of candidates is checked.

Spain
A group 1 driving licence applicant must undergo a medical examination, which consists of the following items: eye sight, hearing, cardiovascular diseases, neurological diseases, locomotor disability, diabetes mellitus, mental disorders, alcohol consumption, drugs and medicine dependance, renal disorders.

Sweden
A group 1 driving licence applicant must fill out a medical declaration, which includes questions on the following items: epilepsy, eye sight diseases, neurological diseases, locomotor disability, diabetes mellitus, mental disorders, use of glasses and contact lenses. Moreover the visual acuity of candidates is checked.

2.2 Discussion
The decision that a group 1 driving licence applicant should fill out a medical declaration co-signed by a doctor, led to a broad discussion on the contents of this medical declaration. In the end the participating doctors agreed on a list of items which they, as experts, wanted to be checked. They unanimously agreed that some items mentioned in Annex III of Directive 91/439/EEC are not necessary for a good judgement of a future car driver or motor rider. Therefore they did not take up hearing and renal disorders in the list.

According to the experts the medical declaration does not suffice at one point however: eye sight. Each candidate should undergo a control of visual acuity to gain a driving licence. How and by whom this control should be carried out and how high the criteria should be, could not be agreed upon. Further study is needed to answer these questions.

The health criteria for a group 1 driving licence applicant was also under discussion. In most cases, the requirements mentioned in Annex III of the Directive apply. However, discussion arose on other points, which led to proposals for change in some areas.

Eye sight[3]: according to the Dutch medical expert, fixing a visual acuity standard of 0.6 for one-eyed group 1 licence holders in comparison with 0.5 for two-eyed licence holders misses every scientific ground. The loss of visual acuity in the one eye cannot be compensated by fixing a higher value for the remaining eye. Instead, the field of vision should be intact. All participants agreed with this proposal.

To eye-sight an extra workshop was organized, during which some important conclusions were made. Six internationally renown ophthalmologists and experts held lectures, in which the correlation between impaired vision and accident rates was clearly proven. They delivered

[3]For further information on eye-sight in relation to accident rates see the CIECA report to this theme.

scientific proof for a stricter eye-sight control for drivers of motorized vehicles that should be carried out periodically.
In the discussion following the lectures the subject of the limits for visual acuity was again brought up. Directive 91/439/EEC prescribes a minimum binocular visual acuity for group 1 drivers of 0.5. The question was asked, if this is a good limit, or if the limit should be lower or higher. Two of the present ophthalmologists were able to show some pictures on this theme. The pictures showed what a person with a visual acuity of 0.5 and better visual acuities could see. There was a big difference between 1,0 and 0.5. In 0.5, contrasts were blurred and details became invisible, especially in bad weather conditions. Both doctors also showed pictures of 0.7 visual acuity. They stated that already a visual acuity of 0.7 meant an increased accident risk. The question then is, in how far the risk is acceptable. This question none of the present experts could answer.

The most important conclusion of the extra workshop on eye-sight was the preventive character of eye-sight controls. Many people don't know about their impaired vision. For instance, many persons can see much better with glasses. However, they often don't know they would need glasses. It should be aimed at a best possible view of every person, not only in traffic situations. According to the Austrian ophthalmologist, Prof. Grabner, it also is very important that an eye specialist detects eye diseases like cataract in an early stage, in order to be able to operate the patient before the visual acuity drops under the required level. The preventive function of eye sight controls can therefore not be stressed enough.

From statistics it becomes clear, that minor eye-sight problems concerning glare and twilight vision start between the age of 50 and 55, whereas major problems concerning visual acuity and glare (cataract) and visual field (glaucoma) start between the age of 60 and 65. Therefore, eye-sight controls should start at the age of 60 and thereafter take place periodically. According to the participating ophthalmologists and experts eye-sight controls in this range of age could prevent accidents.

To the way of testing eye-sight a further study is initiated by three university hospitals (Amsterdam, Salzburg and Tübingen).

Cardiovascular diseases: the Austrian participant remarked that point 9.4 of Annex III is too vague. People who suffer from an unstable angina pectoris should not be allowed to drive, because they endanger road safety. The other participants agreed with their Austrian colleague. The text of Annex III of the Directive should be formulated stricter and more specific on this point.
In most countries people with a cardiac defibrillator can only obtain a driving licence if the defibrillator has not gone off within a period of 6 to 12 months. The experts unanimously agreed that this should also be stipulated that way in the Directive. A group 1 driving licence applicant who has a cardiac defibrillator can only obtain a driving licence under these conditions. In this case strict restriction should apply, such as the examination by a heart specialist and a "probational" licence limited in time.

Neurological diseases: the conditions stipulated in point 12.1 of Annex III were not precise enough for the Austrian participant. He was of the opinion that a documented period of two years without seizures of epilepsy should be required for group 1 in Annex III and it should not just mentioned as an example, but that this period should be a compulsory minimum condition. However, other participants did not agree with this proposal. They were of the opinion that the wording could be more specific at this point. Therefore it was decided to change the text in such a way that the example would be defined more precisely.

2.3 Recommendations

During the workshops, the doctors from the participating countries agreed to a list of items which should be checked. The medical declaration should at least contain questions on the following items:

- visual acuity
- disturbance of consciousness
  (fits, seizures, faints, giddiness, dizziness, diabetes)
- perception - judgement
  (brain surgery, head injury, psychiatric diseases)
- use of limbs
- use of alcohol - drugs (licit or illicit)
- neurological diseases

The visual acuity must be checked separately; how

The participants to the workshops recommended that the other criteria stipulated in Annex III of the Directive should apply. The text should be changed resp. added the following points:
Point 6.2 (eye sight): an applicant who only can see with one eye, should have a visual acuity of 0.5. The field of vision should be tested.
Point 9.4 (cardiovascular diseases): people with an unstable angina pectoris should not be allowed to drive. People with a cardiac defibrillator should only be allowed to drive a group 1 vehicle under strict conditions and restrictions.
Point 12.1 (neurological diseases): a documented period of two years without seizures of epilepsy should be mentioned as an example, but should be defined more precisely.

3. Periodicity of the medical examination for group 1 driving licence holders

This third chapter describes the regular repetition of the medical examination for group 1 driving licence holders. On this point there are large differences between the various countries: some countries do not impose regular medical checks, others impose a medical examination every few years from a certain age. This age also varies a lot between the countries.
The first paragraph describes the current situation in the different countries which participated to the workshops, followed by the discussions which the experts had about this item. Each chapter lists the recommendations at the end.

3.1 Current situation

Austria
There is no regular medical check for group 1 licence holders. A group 1 driving licence has an unlimited validity after the medical examination at first issue. A licence holder is legally obliged to report the authorities on any change in his health that may affect his capacity to drive.

Belgium
Group 1 licence holders have to undergo regular medical checks. The driving licence has an unlimited validity. The licence holder is legally obliged to return his licence if he gets serious medical problems.

France
There are no regular medical checks for group 1 licence holders. A group 1 driving licence has an unlimited validity.

Germany
There are no regular medical checks for group 1 licence holders. A group 1 driving licence has an unlimited validity.

Great Britain
A group 1 licence holder must fill out a medical declaration at the age of 70. If he declares that he has a medical problem, he must undergo a medical examination. A family doctor can also oblige his patients to undergo a medical examination. A group 1 driving licence has an unlimited validity.

The Netherlands
There are regular medical checks for group 1 licence holders. A group 1 licence holder must undergo a medical examination at the age of 70 and thereafter every 5 years.

Spain
Until the age of 45, a group 1 licence holder must undergo a medical check every 10 years. From the age of 45 he has to undergo a medical check every 5 years and from the age of 70 every 2 years.

Sweden

There are no regular medical checks for group 1 licence holders. However a doctor is legally obliged to inform the authorities on any change in the health of his patient that may affect his capacity to drive. In this way medical checks are carried out.

3.2 Discussion

Even though no regular medical checks are carried out in most countries at present, the doctors who participated to the workshops were of the opinion that a medical check for group 1 licence holders is necessary from a certain age. They cam to this conclusion after several discussions. Initially, the Dutch, French and Swedish delegates did not judge a regular medical examination necessary for group 1. The Swedish delegate was of the opinion that it would be more useful to oblige doctors to report changes in the health of a patient to the authorities. This is already the case in Sweden. The Dutch participant agreed with his Swedish colleague: according to him a medical check is always too early or too late and periodical medical checks can give a false feeling of safety. However, the Belgian, German and Spanish delegates judged it necessary to impose a medical check for group 1 from a certain age. As the German doctor pointed out, the age of 45/50 is critical: many diseases start to appear from that age. Therefore, it would seem logical to impose a regular medical check from that age onwards. The British experts added that the preventive aspect of medical examinations is important and that in the end prevention is better and less expensive than curing.

The experts considered this point relevant: as many diseases start from a certain age, it would be useful to introduce a regular medical check as a preventive measure from that age.

On when the medical examination should be carried out, the opinions also were divided. The Austrian participant suggested a medical examination form the age of 45; the Belgian participant wished to introduce a medical examination every 10 years from the first issue of the licence to the age of 70 and thereafter every 3 years. The German doctor was of the opinion that every doctor should decide for himself if the validity of his patients' licence should be limited. Later, for example from the age of 65, there would have to be a medical check every 3 to 5 years.

In the end a compromise was found to which all participants could agree. Even though most diseases start in between the ages of 45 and 50, this age was generally considered too early to start the medical examinations. The age of 70 would be too late. The Dutch participant explained that a study on visual acuity on elderly drivers in The Netherlands has shown that a medical examination can have an important preventive function: with a majority of the examined persons the visual acuity was no longer as good as it should be. However, most drivers were not aware of this. Therefore it would be good to screen drivers regularly in order to detect diseases and diminishing eye sight in time. The other participants agreed on this point. Most problems can be prevented by medical checks from the age of sixty.

During the workshop on eye-sight this opinion was underlined by the present ophthalmologists. They showed that problems concerning glare and twilight vision start between the age of 50 and 55, whereas major problems concerning visual acuity and glare (cataract) and visual field (glaucoma) start between the age of 60 and 65. Therefore, eye-sight controls should start at the age of 60 and thereafter take place periodically. According to the participating ophthalmologists and experts eye-sight controls in this range of age could prevent accidents.

3.3 Recommendations

After lengthy discussions the experts from the participating countries agreed that the preventive aspect of regular medical checks is important and that therefore such regular medical checks should be introduced. Even though most diseases start at the age of 45 to 50, a medical examination would be premature at this stage. Therefore it was decided that group 1 licence holders must undergo a medical examination from the age of 60 and thereafter every 5 years. A cost effectiveness analysis would work out the most favourably with a medical check at this age. The questionnaire of the medical declaration which is used at first issue of the licence should serve as a basis for the contents of the regular medical check. In addition the blood pressure should be measured and a urine test should be taken. Furthermore, doctors should look for cognitive disturbances, because these occur more with older people.

II Group 2

This second part deals with the medical examination for group 2 licence applicants /- holders. Part two is structured similarly to part 1: first the form and the procedure of the medical examination at first issue is discussed, followed by an overview of the contents of this medical examination. The last chapter of this part deals with the periodicity of the medical examinations for group 2 licence holders.

4. The form and procedure of the medical examination for group 2 at first issue of the licence

This chapter describes the form and procedure of the medical examination for group 2 licence applicants / -holders. Directive 91/439/EEC stipulates that a medical examination is compulsory for group 2 licence applicants. How this examination is carried out, is left to the concerning countries themselves. This chapter only describes the procedure of the medical examination, i.e. how it is carried out in the different countries. The workshop did not aim at discussing this item and at making recommendations in this field, because all participating countries agreed with the Directive on this point.

Austria

The medical examination, which is compulsory for every group 2 licence applicant, takes approximately 15 minutes. An applicant must fill out the medical declaration in the presence of a doctor. No part of the medical examination is carried out by a specialist, unless the applicant has a health problem and visits a specialist. If the candidate is found healthy he receives a certificate, which must be forwarded to the responsible authorities. If he is not found healthy enough to drive a group 2 vehicle, he is referred to a police doctor who then examines him a second time.

Belgium

Every group 2 licence applicant must undergo a medical examination. This examination takes 20 minutes and is carried out by a doctor who is qualified by the authorities. The doctor then gives the medical certificate to the responsible authorities.

France

A group 2 licence applicant must undergo a medical examination, which takes approximately 15 minutes and is carried out by a general practitioner. The doctors who carry out such an examination, have to follow a 3-days training on traffic medicine. A specialist can be consulted upon request of such a doctor.

Germany

Every group 2 licence applicant must undergo a medical examination. This examination takes approximately 20 minutes and for category C it is carried out by a family doctor. A specially trained doctor from the Health Council or the medical-psychological research institute carries out the medical examination for taxi or bus licence applicants. From 1.1.1999 a group 2 licence applicant must undergo a visual check by an ophthalmologist as well.

Great Britain
Every group 2 licence applicant must undergo a medical examination. This examination takes approximately 30 minutes and is carried out by a general practitioner. No part of the medical examination is carried out by a specialist.

The Netherlands
Every group 2 licence applicant must undergo a medical examination. This examination takes approximately 10 minutes. The examination is carried out by a family doctor who hands it over to the responsible authorities (CBR). If further examination is necessary after the judgement of the CBR, a specialist can be consulted. The CBR organises voluntary courses on traffic medicine for family doctors.

Spain
The medical examination which every group 2 licence applicant must undergo, takes approximately 30 to 45 minutes. This examination is carried out by a general practitioner, a psychologist and an eye specialist. The Spanish authorities envisage to introduce a voluntary course on traffic medicine for general practitioners.

Sweden
Every group 2 licence applicant must undergo a medical examination, which takes approximately 5 to 15 minutes. This examination is normally performed by the candidate's family doctor. This doctor has followed a specific course in this respect. If a candidate suffers from one or more disabilities, he is examined by the County Administration Board. This authority also organises the courses for doctors. Swedish doctors are of the opinion that the candidate's family doctor is the right person to carry out a medical examination, because he knows the medical history of a candidate and can therefore predict certain diseases.

5. Contents of the medical examination for group 2 licence applicants

In Annex II of Directive 91/439/EEC, a list of items has been drawn up, which must be checked during the medical examination for group 2 licence applicants. The following points are mentioned: sight, hearing, persons with a locomotor disability, cardiovascular diseases, diabetes, neurological diseases, mental disorders, renal disorders, alcohol, drugs and medicine dependance and miscellaneous. (The various texts in the Annex III of the Directive have been added to this report as annex).
The first paragraph of this chapter describes the current situation by country. During the workshop each item was discussed and it was considered if this item should be part of the medical examination in order to check the health of candidate or not. The criteria of each item were also under discussion. These discussions formed the basis for the recommendations the experts of these workshops arrived at. The recommendations form the end of this chapter.

5.1 Current situation

Austria
The following items are checked at a medical examination: sight, hearing, locomotor disorders, cardiovascular diseases, neurological diseases, mental disorders and miscellaneous. Moreover, a candidate has to fill out a questionnaire in the presence of a doctor, declaring that he suffers from none of the following: dizzy turns, attacks of unconsciousness, neurological diseases, diabetes, alcohol consumption, use of drugs or medicine, loss of visual field and night blindness. A question on the use of contact lenses is also included.

Belgium
The medical examination for group 2 licence applicants consists of a regular medical check. All the points mentioned in the Directive are checked.

France
The medical examination for a group 2 licence applicant, which is carried out by a doctor other than the family doctor, comprises the following six items: heart, sight, neurological diseases, locomotor disorders, mental disturbances and diabetes. No alcohol test is taken, unless there is proof which indicates that the candidate has an alcohol problem.

Germany
The medical examination for group 2 licence applicants consists of a regular medical check. The measurement of the blood pressure, a urine test for glucoses, proteins, pH value and a blood test are not obligatory. If a doctor suspects the use of alcohol or drugs, this can be checked by an official TÜV doctor. Eye-sight is checked by an ophthalmologist.

Great Britain
During a medical examination a group 2 licence applicant is checked on the following items: Sight, neurological diseases, diabetes, psychological diseases, locomotor disorders, hearing and cardiovascular diseases.

The Netherlands
The medical examination for group 2 licence applicants consists of a regular medical check. A doctor has to fill out a form, which comprises questions on the general physical and mental condition of a candidate. Moreover, a doctor checks the use of limbs, the blood pressure and eye sight.

Spain
The medical examination for group 2 licence applicants consists of a regular medical check. All the points mentioned in Annex II of the Directive are checked and a psychologal test is also included.

Sweden
The medical examination for group 2 licence applicants consists of a regular medical check. Officially, all the points mentioned in the Directive should be checked, but in practice a doctor is familiar with his patient's medical history. Hearing is only tested in categories D, D+E and taxis.

5.2 Discussion

Eye-sight[4]
Eye sight was considered an important item by all the experts participating to the workshops and one which is easy to examine. All participating countries already check the visual acuity, but they differ in how and by which standards. Despite long discussions the participants decided not to make any recommendations on *how* to perform an eye test. They did reach agreement on the standards. Most participants were of the opinion that the criteria, which are stipulated in Annex III point 6.3 of the Directive, are too strict. According to the Dutch doctor, there is no need to require a visual acuity of 0,5 for the worst eye; a visual acuity of 0,1 or 0,2 is enough to safely stop the truck or bus if something should happen with the better eye. There is no need for the visual acuity standards without correction for group 2. The French and Swedish experts agreed with their Dutch colleague on this point. The Swedish expert suggested to fix the minimum binocular visual acuity on 0,8 instead of fixing a minimum visual acuity for each individual eye. Only the Spanish participant did not agree with this suggestion. He was of the opinion that the standards are not strict enough. The other participants agreed with the suggestion of the Swedish participant. For this reason it was decided to recommend a change of point 6.3 of Annex III of the Directive the following way: As long as the uncorrected visual acuity of both eyes is at least 0.05, a visual acuity of 0.8 when using both eyes together should be sufficient. The field of vision has to be normal.
This subject was also brought up in the discussion during the workshop on eye-sight. When asked about the usefulness of the prescription of Directive 91/439/EEC the answer of the ophthalmologists was a clear one. According to them, the most important point is not the visual acuity in the worse eye, but the binocular visual field of the person driving. If the binocular visual

[4]For further information to eye-sight in relation to accident rates please see the CIECA report to this subject.

field of the driver is intact, there is no reason to not let him drive.[5] In this case, the binocular visual field of the driver should count, not his visual acuity. A recommendation in this sense should be given.

Another discussion related to this issue arose on obtaining and holding a group 2 driving licence for people who only have a visual acuity in one eye. According ro the Austrian expert it is not necessary to ban one-eyed drivers from group 2. However, the British doctor remarked that it is very tiring for a one-eyed driver to drive a truck or a bus. Fatigue frequently is a cause of accidents and therefore it would not be very wise to give such a person a group 2 driving licence. The Belgian participants answered that there was hardly any material to prove this and that he would like to learn more about it. The participants then agreed that the problem of one-eyed drivers should be further studied in the near future.

A short discussion also arose on night blindness. The Belgian participant was of the opinion that contrast is more important than visual acuity. The Austrian participant answered that it would be impossible to check night blindness. However, the Dutch medical expert indicated that a distinction should be made between glare because of cataract and a reduced ability of the eye to adapt to darkness. This last phenomenon can well be measured. The experts agreed not to make any recommendations for the moment. CIECA should discuss this subject further.
The experts agreed not to make any recommendations on this subject, but that CIECA could look into this subject for further discussion.

Hearing
Despite the fact that this point is mentioned in Annex III of the Directive and most countries do check this item, most participants did not find this an important part of the medical examination. The Belgian and Dutch considered hearing an item that could be left out as a mandatory part of the examination. Only the Spanish expert was against this: he considers hearing to be an item which is indispensable. However, because a majority of experts agreed with the Dutch and Belgian participants, is was decided that hearing would be remove hearing from the list of check points.

Locomotor disability
This part of the medical examination is compulsory is all countries. There was no discussion on this item. All experts agreed that a professional driver with a locomotor disability should be able to drive in an adapted vehicle of group 2. The responsible authorities should consider the possible risks before the issue of a group 2 licence. The text of Annex III of the Directive need not be changed.

Cardiovascular diseases
All participating countries check this item during the medical examination of group 2 licence applicants. However, on the suggestion of the Austrian participants, the Directive should be

[5]This was not supported by the Austrian Ophthalmologist, Prof. Grabner.

supplemented with one sentence on this point: persons with an unstable angina pectoris should not be allowed to drive a group 2 motor vehicle, because they endanger road safety. The same goes for people with a cardiac defibrillator.

Diabetes Mellitus

This point of Annex II of the Directive caused a broad discussion. First of all the method of checking diabetes was discussed. For all participants to the workshops it was clear that diabetes forms an important part of the medical examination. The opinions on *how* it should be checked varied a lot. The Belgian and German participants were of the opinion that a urine test would be the best way of checking it. The Swedish expert indicated that according to him, a urine test for undiagnosed diabetes would not be necessary. People who have diabetes to such an extend that it would affect their ability to drive, would write this on the declaration on the honour. It only occurs seldom that a driving licence applicant suffers from diabetes without realising it. The Austrian participant did not agree. He replied to the remark of his Swedish colleague that he was in favour of checking young driving licence applicants on diabetes, because this would enable doctors to detect the disease at an early stage. The Spanish participant suggested a sample control as an alternative to a urine test, because it would enable doctors to detect the use of drugs as well. Not all drugs can be detected by means of a urine test. Most experts preferred a urine test as a way to detect diabetes.

During the third workshop the discussion focussed on whether diabetes patients should have be allowed to become professional drivers. Point 10.1 of Annex II of Directive 91/439/EEC stipulates that persons suffering from diabetes who are insulin treated should only be allowed to become professional drivers in exceptional cases. The Dutch experts on diabetes are of the opinion that an insulin treated diabetic may be allowed to become a group 2 licence holder as long as this person is under strict medical control. The Netherlands therefore asked the European Commission to have more flexibility. The Austrian expert was also of the opinion that persons suffering from juvenile diabetes (type 1), who are able to control their own use of insulin, should be allowed to drive a group 2 vehicle. The Belgian participant agreed with this opinion and added that the text of the Directive is outdated on this point.
The British experts were against allowing diabetes patients to drive group 2 vehicles. They explained that drivers may loose their consciousness suddenly without a warning in case of hypoglycaemia. These still can be overcome by regular medical control. However, at a certain moment, even a stabilized insulin treated diabetic may suddenly black out during driving because he/she does not feel the hypoglycaemia coming up. His/her warning system will not work appropriately any more. This risk increases with age and can even be doubled. In comparison with epilepsy for instance, this risk is without control, whereas for epilepsy medical experts know that the risk is 1,5% that a driver gets an attack at the wheel. This relative risk can be calculated and a decision on issuing or renewing a driving licence can be taken on that basis. This is not the case for diabetes. Moreover, professional drivers will find it difficult to have regular meals, regular rest, etc. because of the economic pressure. For all these reasons, the medical expert from Great Britain was of the opinion that no driving licence should be issued or renewed to a group 2 driver.

The wording "only in exceptional cases" should be left out of article 10.2 of Annex III of Directive 91/439/EEC.
The experts agreed that there is an extra high risk for diabetes patients. Therefore they recommend further study on the relative, uncontrolled risk of diabetics and the relationship with road safety.

In scientific literature the opinions to this subject are also very different. In general the scientists agree that hypoglycaemia is a risk factor. It should be controlled well and often. A driver should take care that he feeds himself regularly.[6] On top of that, good prevention and education is necessary.[7] When controls are good and often carried out, there is no reason to refuse a driving licence to diabetes patients.[8]
However, the results of a poll carried out by Veneman, give reason to concerns. A very large percentage of the persons questioned says to drive, even though they don't feel good. They know that this bears risks to road safety.[9]

Neurological diseases
There was hardly any discussion on this subject. All participants agreed that serious neurological diseases, are a danger to road safety and that group 2 licence applicants who suffer from such a disease should not be allowed to drive. Opinions differed as to how these diseases should be checked. The Belgian participant recommended a general clinical neurological examination for group 2. This went too far for most participants. In most participating countries this item is already dealt with in the questions on the declaration. This was finally recommended as a way of detecting neurological diseases.

Mental disorders
This item is checked in all participating countries. There also was hardly any discussion on this item. Only the Belgian participant wanted to recommend a minor change in the text of the Directive, which was that the text in point 11 of Annex III should refer to point 13 of this same Annex, in order to be more clear.

Alcohol
This item is only checked in a few countries. The French participant explained that in France no alcohol test is taken, except after for instance a liver test has pointed out that the candidate has an

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[6]Th.F. Veneman et al., Hypoglykemie en diabetes en verkeersincidenten. In: Nederlands Tijdschrift voor Diëtisten 1995, 8, 214-217, 215

[7]Th.F. Veneman, Diabetes Mellitus and Traffic Accidents. In: The Netherlands Journal of Medicine 1996, 48, 24-28, 26

[8]Langens et al. Diabetici: geen gevaar op de weg, 1716; M. Mawby, Time for law to catch up with life, In: Diabetes Care 1997, Vol. 20, Nr. 11, 1640-1641, 1641

[9]Veneman, Diabetes Mellitus and Traffic Accidents, 26

alcohol problem. Alcohol is the major cause for traffic accidents in France; 30 % of all traffic accidents are caused by excessive drinking. Therefore the French expert would recommend an alcohol test as a compulsory part of the medical examination. For Belgium similar figures are known as for France. The Swedish participant also suggested to add checking alcohol abuse to the medical examination.
In Austria, alcohol abuse is not tested at present. Driving licence applicants for both groups must fill out a questionnaire in the presence of a doctor, declaring that he is not addicted to alcohol. This solution was considered the best by all participants.

Drugs and medicinal products
All not countries which participated to the workshops check this item. In those countries where they do check drug dependance, this is dealt with the same way as with alcohol dependance. Several research projects have examined the connection between the use of drugs and the correlation with traffic accidents. A number of participating countries would be interested to cooperate on a common European research project and therefore recommend another workshop. Despite the fact that a few countries check this item at the medical examination for group 2, this was not considered to be an important part of the examination. No changes were recommended.

Miscellaneous provisions
There was no discussion on this item. No changes in the Directive were recommended on this point.

5.3 Recommendations
The doctors who participated to the workshops, agreed on a list of items which must be checked during the medical examination for group 2 licence applicants. The most important part of the examination is the general anamnesis (medical history of the candidate). Thereby the main medical problems already come to light. Moreover the blood pressure and the visual acuity should be measured, and a urine test and a control of the functioning of the limbs. The candidate should also fill out a medical declaration, which includes questions on cardiovascular diseases, epilepsy and alcohol and drugs dependance.

Further research is needed to study if diabetes patients should be allowed to drive in group 2 vehicles. The same goes for one-eyed applicants.

The following textual changes in Annex III of the Directive were recommended:

Point 6.2:	Instead of 0,8 for the best eye and 0,5 for the worst eye, the criteria for visual acuity should be changed into a binocular visual acuity of 0,8.
Point 9:	It should be added that both persons with angina pectoris and persons with a cardiac defibrillator should not be allowed to drive in group 2.
Point 11:	Point 11 should refer to point 13 of the same Annex (mental disorders) for explanation.
Point 7:	This point was not considered to be important and therefore could be removed from the Directive.

6. Periodicity of the medical examination of group 2

This chapter describes the regular medical checks for group 2 licence holders. Directive 91/439/EEC imposes a periodical medical examination for all categories in this group. Not all the countries which participating to the workshops carry out such a medical check for all categories of group 2. This chapter starts with a description of the current situation in the countries participating to the workshops. The second paragraph describes the discussion between the workshop participants. They form the basis for the recommendations the experts arrived at, which are given at the end of this chapter.

6.1. Current situation

Austria
In Austria, only category D licence-holders of group 2 have to be examined every 5 years.

Belgium
In Belgium, group 2 licence holders are examined every 5 years until the age of 50, after that age they are examined every 3 years.

France
In France, group 2 licence holders have to undergo a medical examination every 5 years until the age of 60. After that, the licence holder has to undergo a medical examination every 2 years until the age of 76 and thereafter every year.

Germany
In Germany, group 2 licence holders have to undergo a medical examination every 5 years from the age of 50 on, taxi drivers from the age of 60 on.

Great Britain
In Great Britain, group 2 licence holders have to undergo a medical examination every 5 years from the age of 45. From the age of 65 they have to undergo a medical examination every year.

The Netherlands
In The Netherlands, group 2 licence holders have to undergo a medical examination every 5 years from the age of 70. Until then there are no mandatory regular medical examinations; however, many professional drivers do have to undergo a medical check because these are imposed by collective labour agreements.

Spain
In Spain, group 2 licence holders have to undergo a medical examination every 5 years till the age of 50, then to 3 years till the age of 60 and thereafter every 2 years.

Sweden

In Sweden, a medical examination is not necessary because a doctor is legally obliged to report any change in the health of his patients that may affect their capacity to drive. Only from the age of 70 are group 2 licence holders obliged to undergo a medical examination.

6.2 Discussion

Most participating countries proposed a regular medical examination every 5 years. The discussion focused on two questions. First the participants asked themselves if a medical examination should be the same for all group 2 categories. The responsibility of a category C driver differs from a category D driver, as a bus driver is responsible for the carriage of his passengers. Furthermore the responsibility of category C1 and D1 drivers is less than for drivers in heavier categories. This would then justify a medical check a little less strict, that would not have to be carried out as regularly as for the drivers of larger vehicles. The French expert was even of the opinion that the responsibility of a bus driver lies so much higher as the responsibility of a truck driver that a bus driver should be examined every year. An annual examination was too often for the other participants. However, they agreed that there are large differences in the responsibility of group 2 drivers. This difference in responsibility should be expressed in the frequency of the medical examination. The Belgian delegation wished to rank the category for taxis under group 2 for the periodicity. The other countries agreed.

Secondly they discussed if a medical examination for group 2 licence holders should be imposed every 5 years after the first issue, or from a certain age. Certain diseases start to appear from a certain age, e.g. 45/50 years. However, for the reasons mentioned before, the experts decided that a medical examination until the age of 50 would not be necessary as often as after the age of 50.

The participants did not linger very long on the contents of the medical examination: it should be the same as at first issue. At regular medical examinations the doctor should look out more for cognitive disturbances, as these occur more often with elderly drivers and frequently cause accidents.

6.3 Recommendations

Group 2 drivers have a larger responsibility because of the size of their vehicles. In order to keep the health risk as low as possible a regular medical check is required. A distinction was made between category c and D drivers and category C1 and D1 drivers. Categories C and D drivers should undergo a medical examination every 10 years until the age of 50. As the risk for diseases increases significantly form this age onwards, the experts recommend a medical examination every 5 years from the age of 50. Category C1 and D1 drivers as well as taxi drivers should undergo a medical examination at the age of 50 and thereafter every 5 years.

The contents of the medical examination should be the same as at first issue of the driving licence. However, doctors should look out for cognitive disturbances in particular, as these occur more often with elderly persons.

Conclusions

This report described the results of three CIECA workshops on the procedures and periodicity of the medical examination, which were held in 1996 and 1997 in Amsterdam, The Netherlands and of one CIECA workshop to the subject of eye-sight, that took place in 1998 in Brussels, Belgium. The experts in this field, who participated to these workshops came to some conclusions and recommendations regarding the form, the procedure, the contents and the periodicity of the medical examination for driving licence applicants and holders in group 1 and 2. Furthermore, the experts suggested some changes to the text of Annex II of the Directive. These recommendations were the outcome of discussions between the participants and represent a best practice. It should be stated here that the opinions expressed in this report do not reflect the official policy of the participating countries, but rather the professional opinion of experts in the field. They came to the conclusion that these recommendations form a solution to resolve the problem of variety in the procedures and periodicity of the medical examination and to harmonize these. The most important recommendations are summarised one more time on the next page.

Recommendations

Group 1

Procedure

At first issue: a medical declaration, co-signed by a doctor.

Contents of the medical declaration

- visual acuity
- cognitive disturbances
  (fits, seizures, faints, giddiness, dizziness, diabetes)
- perception - judgement
  (brain surgery, head injury, psychiatric diseases)
- use of limbs
- use of alcohol - drugs
- neurological diseases (i.e. epilepsy)

The visual acuity must be checked separately.

Periodicity

A medical examination from the age of 60, thereafter every 5 years. The contents of this medical examination should comprise the same items as those asked for in the medical declaration at issue of the driving licence.

Textual changes in the Directive

Point 6.2 (eye sight): an applicant who only can see with one eye, should have a visual acuity of 0.5. The field of vision should be tested.
Point 9.4 (cardiovascular diseases): people with an unstable angina pectoris should not be allowed to drive. People with a cardiac defibrillator should only be allowed to drive a group 1 vehicle under strict conditions and restrictions.
Point 12.1 (neurological diseases): a documented period of two years without seizures of epilepsy should be mentioned as an example, but should be defined more precisely.

Group 2

Procedure

At first issue of the driving licence: a medical examination.

Contents of the medical examination at first issue of the driving licence

- short anamnesis (medical history of a candidate)
- blood pressure
- eye sight test
- urine test
- control of the functioning of the limbs

- a medical declaration:
  - cardiovascular diseases
  - epilepsy
  - drugs and alcohol dependance

Periodicity

Categories C and D: until the age of 50: every 10 years
from the age of 50: every 5 years

Categories C1, D1 and taxi: at the age of 50, thereafter every 5 years

Textual changes to the Directive

Point 6 of Annex III (eye-sight): instead of 0,8 for the best eye and 0,5 for the worse eye, the criteria for visual acuity should be changed into a binocular visual acuity of 0,8.
Point 7 of Annex III (hearing) can be deleted from the directive.
Point 9 of Annex III (cardiovascular diseases): it should be added that both person with angina pectoris and persons with a cardiac defibrillator should not be allowed to drive in group 2.
Point 11 of Annex III (neurological diseases): it should refer to point 13 (mental disorders).

Further research

Further research should be carried out in the following areas:
- one-eyed applicants for a group 2 driving licence
- with regard to road safety: diabetes patients who wish to obtain a group 2 driving licence

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Annex:

Annex III of Directive 91/439/EEC

Minimum standards of physical and mental fitness for driving a power-driven vehicle

Definitions

1. For the purpose of this Annex, drivers are classified in two groups:

1.1 Group1: Drivers of vehicles of categories A, B, and B+E and subcategory A1 and B1;

1.2 Group 2: Drivers of vehicles of categories C, C+E, D, D+E and of subcategory C1, C1+E, D1 and D1+E.

1.3 National legislation may provide for the provisions set out in this Annex for Group 2 drivers to apply to drivers of Category B vehicles using their driving licence for professional purposes (taxis, ambulances, etc.)

2. Similarly, applicants for a first driving licence or for the renewal of a driving licence are classified in the group to which they will belong once the licence has been issued or renewed.

Medical Examinations

3. *Group 1:*
Applicants shall be required to undergo a medical examination if it becomes apparent when the necessary formalities are being completed or during the tests which they have to undergo prior to obtaining a driving licence, that they have one or more of the medical disabilities mentioned in this Annex.

4. *Group 2:*
Applicants shall undergo a medical examination before a driving licence is first issued to them and thereafter drivers shall undergo periodic examinations as may be prescribed by national legislation.

5. The standards set by Member States for the issue or any subsequent renewal of driving licences may be stricter than those set out in this Annex.

Sight

6 All applicants for a driving licence shall undergo an appropriate investigation to ensure that they have adequate visual acuity for driving power-driven vehicles. Where there is reason to doubt that the applicant's vision is adequate, he shall be examined by a competent medical authority. At this examination attention shall be paid to the following in particular: visual acuity, field of vision, twilight vision and progressive eye diseases. For the purpose of this annex, intra-ocular lenses shall not be considered corrective lenses.

Group 1:

6.1 Applicants for a driving licence or for the renewal of such a licence shall have a binocular visual acuity, with corrective lenses if necessary, of at least 0,5 when using both eyes together. Driving licenses shall not be issued or renewed if, during the medical examination, it is shown that the horizontal field of vision is less than 120°, apart from exceptional cases duly justified by a favourable medical opinion and a positive practical test, or that the person concerned suffers from any other eye condition that would compromise safe driving. When a progressive eye disease is detected or declared, driving licences may be issued or renewed subject to the applicant undergoing regular examination by a competent medical authority.

6.2 Applicants for a driving licence, or for the renewal of such a licence, who have total functional loss of vision in one eye or who use only one eye (e.g. in the case of diplopia) must have a visual acuity of at least 0,6, with corrective lenses if necessary. The competent medical authority must certify that this condition of monocular vision has existed sufficiently long to allow adaption and that the field of vision in this eye is normal.

Group 2:

6.3 Applicants for a driving licence or for the renewal of such a licence must have a visual acuity, with corrective lenses if necessary of at least 0,8 in the better eye and 0,5 in their worst eye. If corrective lenses are used to attain the values of 0,8 and 0,5, the uncorrected acuity in each eye must reach 0,05, or else the minimum acuity (0,8 and 0,5) must be achieved either by correction by means of glasses with a power not exceeding plus or minus four dioptres or with the aid of contact lenses (uncorrected vision = 0,05). The correction must be well tolerated. Driving licences shall not be issued to or renewed for applicants or drivers without a normal binocular field of vision or suffering from diplopia.

Hearing

7 Driving licences may be issued to or renewed for applicants or drivers in group 2, subject of the opinion of the competent medical authorities; particular account will be taken in medical examinations of the scope for compensation.

Persons with a locomotor disability

8 Driving licences shall not be issued to or renewed for applicants or drivers suffering from complaints or abnormalities of the locomotor system which make it dangerous to drive a power-driven vehicle.

Group 1:

8.1 Driving licences may be subject to certain restrictions, if necessary, may be issued to physically handicapped applicants or drivers following the issuing of an opinion by a

competent medical authority. This opinion must be based on a medical assessment of the complaint or abnormality in question and, where necessary, on a practical test. It must also indicate what type of modification to the vehicle is required and whether the driver needs to be fitted with an orthopaedic device, insofar as the test of skills and behaviour demonstrates that with such a device driving would not be dangerous.

8.2 Driving licences may be issued to or renewed for any applicants suffering from a progressive complaint on the condition that the disabled person is regularly examined to check that the person is still capable of driving the vehicle completely safely. Where the handicap is static, driving licences may be issued or renewed without the applicant being subject to regular medical examination.

Group 2:

8.3 The competent medical authority shall give due consideration to the additional risks and dangers involved in the driving of vehicles covered by the definition of this group.

Cardiovascular diseases

9 Any disease capable of exposing an applicant for a first licence or a driver applying for renewal to a sudden failure of the cardiovascular system such that there is a sudden impairment of the cerebral functions, constitutes a danger to road safety.

Group 1:

9.1 Driving licences will not be issued to, or renewed for, applicants or drivers with serious arrhythmia.

9.2 Driving licences may be issued to, or renewed for, applicants or drivers wearing a pacemaker subject to authorized medical opinion and regular medical check-ups.

9.3 The question whether to issue or renew a licence for applicants or drivers suffering from abnormal arterial blood pressure, shall be assessed with reference to the other results of the examination.

9.4 Generally speaking, a driving licence shall not be issued to or renewed for applicants or drivers suffering from angina during rest or emotion. The issuing or renewal of a driving licence to any applicant or driver having suffered myocardial infarction shall be subject to authorized medical opinion and, if necessary, regular medical check-up.

Group 2:

9.5 The competent medical authority shall give due consideration to the additional risks and dangers involved in the driving of vehicles covered by the definition of this group.

Diabetes mellitus

10 Driving licences may be issued to, or renewed for, applicants or drivers suffering from diabetes mellitus, subject to authorized medical opinion and regular medical check-ups appropriate to each case.

Group 2:

10.1 Only in exceptional cases may driving licences be issued or renewed for, applicants or drivers in this group suffering from diabetes mellitus and requiring insulin treatment , and then only where duly justified by authorized medical opinion and subject to regular medical check-ups.

Neurological diseases

11 Driving licences shall not be issued to, or renewed for, applicants or drivers suffering from a serious neurological disease, unless the application is supported by authorized medical opinion. Neurological disturbances associated with diseases or surgical intervention affecting the central or peripheral nervous system, which lead to sensory or motor deficiencies and affect balance and coordination, must accordingly be taken into account in relation to their functional effects and the risks of progression. In such cases, the issue or renewal of the licence may be subject to periodic assessment in the event of risk of deterioration.

12 Epileptic seizures or other sudden disturbances of the state of consciousness constitute a serious danger to road safety, if they occur in a person driving a power-driven vehicle.

Group 1:

12.1 A licence may be issued or renewed subject to an examination by a competent medical authority and to regular medical check-ups. The authority shall decide on the state of the epilepsy or other disturbances of consciousness, its clinical form and progress (no seizure in two years, for example), the treatment received and the results thereof.

Group 2:

12.2 Driving licences shall not be issued to or renewed for applicants or drivers suffering or liable to suffer from epileptic seizures or other sudden disturbances of the state of consciousness.

Mental disorders

Group 1:

13.1 Driving licences shall not be issued, or renewed for, applicants or drivers who suffer from:
- severe mental disturbance, whether congenital or due to disease, trauma or neurosurgical operations,
- severe mental retardation,
- severe behavioural problems due to ageing; or personality defects leading to seriously impaired judgment, behaviour or adaptability, unless their application is supported by authorized medical opinion and, if necessary, subject to regular medical check-ups.

Group 2:

13.2 The competent medical authority shall give due consideration to the additional risks and dangers involved in the driving of vehicles covered by the definition of this group.

Alcohol

14 Alcohol consumption constitutes a major danger to road safety. In view of the scale of the problem, the medical profession must be very vigilant.

Group 1:

14.1 Driving licences shall not be issued to, or renewed for, applicants or drivers who are dependent on alcohol or unable to refrain from drinking and driving. After a proven period of abstinence and subject to authorized medical opinion and regular medical check-ups, driving licences may be issued to, or renewed for applicants or drivers who in the past have been dependent on alcohol.

Group 2:

14.2 The competent medical authority shall give due consideration to the additional risks and dangers involved in the driving of vehicles covered by the definition of this group.

Drugs and medicinal products

15 Driving licences shall not be issued to, or renewed for, applicants or drivers who are dependent on psychotropic substances or who are not dependent on such substances, but regularly abuse them, whatever category of licence is requested.

Regular use:

Group 1:

15.1 Driving licences shall not be issued to, or renewed for, applicants or drivers who are dependent on psychotropic substances, in whatever form, which can hamper the ability to

drive safely where the quantities absorbed are such as to have an adverse effect on driving. This shall apply to all other medicinal products or combinations of medicinal products which affect the ability to drive.

Group 2:

15.2 The competent medical authority shall give due consideration to the additional risks and dangers involved in the driving of vehicles covered by the definition of this group.

Renal disorders

Group 1

16.1 Driving licences may be issued to, or renewed for, applicants or drivers suffering from serious renal insufficiency subject to authorized medical opinion and regular medical check-ups.

Group 2:

16.2 Save in exceptional cases duly justified by authorized medical opinion and subject to regular medical check-ups, driving licences shall not be issued to or renewed for applicants or drivers suffering from serious and irreversible renal deficiency.

Miscellaneous provisions

Group 1

17.1 Subject to authorized medical opinion and, if necessary, regular medical check-ups, driving licences may be issued to or renewed for applicants or drivers who have had an organ transplant or an artificial implant which affects the ability to drive.

Group 2:

17.2 The competent medical authority shall give due consideration to the additional risk and dangers involved in the driving of vehicles covered by the definition of this group.

18 As a general rule, where applicants or drivers suffer from any disorder which is not mentioned in the preceding paragraph, but is liable to be, or to result in, a functional incapacity affecting safety at the wheel, driving licences shall not be issued or renewed unless the application is supported by authorized medical opinion and, if necessary, subject to regular medical check-ups.