Expert Consensus Statement

Assessing cardiac patients for fitness to drive motor vehicles:
Expert consensus statement of the Czech Society of Cardiology—2012 update

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ABSTRACT
In this expert consensus statement of the Czech Society of Cardiology official guidelines are given on how to assess cardiovascular patients’ fitness to drive motor vehicles properly. The document also summarizes common legal framework on this topic in the Czech Republic, e.g. the Act no. 297/2011 Coll. (so called Road Traffic Act) and the Decree no. 277/2004 Coll. on assessing medical fitness to drive motor vehicles and draws attention to some of the existing controversies.

1. Introduction
On 26 April, 2004, the Ministry of Health of the Czech Republic issued Decree no. 277 on assessing medical fitness to drive motor vehicles, medical fitness to drive motor vehicles only if a prerequisite is met, and formalities of physician’s note certifying non-use of seat belt while riding/driving a motor vehicle [1], in short, the Decree on Medical Fitness to Drive Motor Vehicles. The decree came into effect on 1 June, 2004. The purpose thereof was to harmonize Czech laws with the law of the European Union.

Pursuant to Section 6 of the Decree, an assessing physician (usually the General Practitioner the person assessed is registered with) may request an expert examination. The

Abbreviations: AP, angina pectoris; AVA, aortic valve area; CABG, coronary artery bypass grafting; CNS, central nervous system; ICD, implantable cardioverter/defibrillator; IHD, ischemic heart disease; IVS, interventricular septum; LAH, left anterior hemiblock; LBBB, left bundle branch block; LPH, left posterior hemiblock; LVEF, left ventricular ejection fraction; LVOT, left ventricular outflow tract; MI, myocardial infarction; NSTEMI, non-ST elevation myocardial infarction; NYHA, New York Heart Association; VF, ventricular fibrillation; VT, ventricular tachycardia; PCI, percutaneous coronary intervention; RBBB, right bundle branch block; STEMI, ST-elevation myocardial infarction; UA, unstable angina

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assessing physician has to request an expert examination whenever the person assessed is under constant care of a specialist treating conditions that disqualify a person from driving motor vehicles or restrict one’s medical fitness thereto. The expert examination has to conclude by assessing medical fitness of the person assessed to drive motor vehicles in relation to the scope of the expert examination carried out and specifying a prerequisite under which a person is allowed to drive motor vehicles, if applicable. Should the suggested prerequisite consist in undergoing a reassessment, the expert examination has to conclude by specifying a date by which the person assessed is to undergo such reassessment. The physician carrying out the expert examination shall record conclusions based on his/her findings and examinations or expert opinions in their entirety in the medical records that he/she keeps. The expert report on medical fitness to drive motor vehicles has to be unambiguous and must not provide any disease diagnosis, and the assessing physician has to attach his/her signature, his/her name stamp, the stamp of the health care provider and the date of the issue thereof. For an expert report form see Annex no. 1 to Decree no. 277 [1].

Annex no. 3 to the Decree lists diseases, defects and conditions disqualifying a person from driving motor vehicles or restricting one’s medical fitness to do so only if a prerequisite is met. Part IV lists diseases, defects and conditions of the circulatory system disqualifying a person from driving motor vehicles or restricting one’s medical fitness to do so only if a prerequisite is met. The list of diseases, defects and conditions specified in Annex 3 to the Decree is rather general, indefinite and contains no quantitative parameters; it is even confusing in some parts. There are diseases and conditions such as severe forms of chronic obstructive pulmonary disease with global respiratory insufficiency, cerebrovascular diseases and subsequent disorders, conditions following cerebrovascular accidents with serious limitation of bodily and/or mental functions and transient ischemic attacks included in the list of circulatory diseases despite the fact that these are not treated by cardiologists. It also shows nonsense in terms of medical accuracy, such as the ban on driving motor vehicles imposed on commercial drivers with a permanent pacemaker implant [1].

The Czech Society of Cardiology (ČKS) responded to the issue of the Decree by issuing its own recommendation concerning the assessment of cardiac patients for fitness to drive motor vehicles [2], which was also published as a pocket-sized book [3]. The Recommendation was based on experience from abroad, following the example of the Canadian Cardiovascular Society (CCS), in particular, since CCS has been issuing such directives since 1992 [4–6].

2. Legislative changes in 2012

Some of the provisions of Act no. 297/2011 Coll., amending Act no. 361/2000 Coll., on Operation of Vehicles on Roadways (or the Road Traffic Act), came into effect on 1 January, 2012. Newly added Section 89a coming into effect on 1 January, 2012, is the key provision concerning physicians, stipulating the following: “Any physician who ascertains that a person applying for a driving licence or a driving licence holder is medically fit to drive motor vehicles only if a prerequisite is met, or that he/she is medically unfit to drive motor vehicles, shall be obliged to report this fact to a locally competent municipal authority or a municipality with extended competence depending on the habitual residence or place of studies of the person applying for driving licence or the driving licence holder without delay.” [7].

The Ministry of Transport of the Czech Republic was the sponsor of the bill. According to information provided by this ministry, there is no prescribed manner in which to report changes in patient’s medical condition and no corresponding blank form has been issued either. It is therefore sufficient to report to the competent municipal authority of a municipality with extended competence by way of a letter containing the identification of the patient and the conclusion of physician’s expert report stating that, according to the physician’s expert findings, the patient is unfit to drive motor vehicles, or he/she is fit to do so only if a prerequisite is met, specifying such prerequisite. Subsequently, the specialist should inform the General Practitioner the patient is registered with of the medical reasons in a medical report. A copy of the letter should be filed in the patient’s medical records for future reference proving that the physician performed his duty. The new duty to report under Section 89a of the Act applies to physicians of all specializations as soon as they ascertain relevant changes in patient’s medical condition. Based on the report provided by a physician, a municipal authority shall initiate administrative proceedings ex officio, which may result in suspending a driving licence temporarily or taking it away permanently. At the same time, the municipal authority as an administrative body shall order the driver to undergo a reassessment of his/her medical fitness to drive motor vehicles within a set deadline. The driver shall file his/her application for the reassessment of his/her medical condition with the General Practitioner he/she is registered with, or his/her corporate preventative care physician, or any other General Practitioner if he/she is not registered with any (Section 84, paragraph 4 of the Act). The reassessment shall either claim that, despite the findings, the patient did not lose his/her fitness to drive, or, on the other hand, that patient’s fitness to drive is restricted or he/she is disqualified from driving in his/her current medical condition. Pursuant to Section 86 of the Act, the General Practitioner shall report this fact to the municipal authority of a municipality with extended competence in the way he/she has been doing in the case of expert reports [8].

Before the amendment came into effect, an assessing physician has had a duty to report under Section 86 of the Act all along. The assessing physician was either a General Practitioner the patient was registered with, or a corporate preventative care physician, or any other General Practitioner if a person was not registered with any. As a consequence, a cardiologist or an internist running cardiology practice had no direct duty to report in relation to authorities. It was the assessing physicians who would report to authorities one’s unfitness to drive motor vehicles or their fitness to do so only if a prerequisite is met. Pursuant to Section 10 of Decree no. 277/2004 Coll., a specialist has had a duty, however, to inform the driver and the assessing physician, if he/she was known to him/her, of a driver’s unfitness to drive motor vehicles in writing [1]. The addition of Section 89a in the amendment of Act no. 361/2000 Coll., the Road Traffic Act, resulted in imposing the duty to report on all physicians of all medical specialties.
Discussions sparked by the amendment of the act above raised a number of issues, as well as legal interpretations concerning the amendment, such as what exactly is an applying person's habitual residence (place of studies) in terms of the locally competent authority, or how exactly is a physician supposed to learn that his/her patient is a driving licence holder if the patient does not inform him/her accordingly. Reporting to a competent authority without delay poses another problem. Some medical reasons resulting in one's unfit ness to drive motor vehicles or in one's restricted fitness to do so only if a prerequisite is met, are temporary (of temporary nature) only. ČKS's Recommendation has expressed such temporariness by introducing a Waiting Period [2,3]. In some cases, the waiting period is very short, e.g. 1 week in the case of private drivers after PCI for acute coronary syndrome, or, similarly, after the insertion of a permanent pacemaker. In such a short period of time, hardly can a competent authority receive a report, let alone respond accordingly. Even if the authority does respond, it usually occurs when the physician report is no longer substantiated since the waiting period has elapsed. The fact that a patient/ driver is not entitled to file an application for any remedial measure against the report made to a municipal authority without delay pursuant to Section 89a of the Road Traffic Act raises another serious issue. An obligatory formality of an expert report on patient's medical condition consists in the advice on appeal, i.e. advising the patient (to whom an expert report has to be delivered) in which cases he/she is entitled to appeal against the expert report, or his/her right to lodge an appeal for the review of the expert report in question within 15 days of the delivery thereof to the patient. Thus the duty to report without delay pursuant to Section 89a of the Act and patient's right to be informed and his/her right to appeal against an expert report on his/her medical condition conflict with each other.

No amendment has been made to Decree no. 277/2004 Coll. on Assessing Medical Fitness to Drive Motor Vehicles whatsoever, and Annex 3 thereto – Diseases, defects or conditions disqualifying from driving motor vehicles or restricting medical fitness to do so only if a prerequisite is met – has been updated only imperceptibly in parts concerning sight, diabetes mellitus and epilepsy up to now. Part IV of the Annex listing disqualifying cardiovascular diseases has not been amended at all. As mentioned above, the definitions of such disqualifying cardiovascular diseases and conditions contained in Annex no. 3 to the Decree are extremely vague and general. In some cases, Annex no. 3 to the Decree [1] and ČKS's 2006 Recommendation [2,3] conflict with each other. Specifically, this concerns permanent cardiostimulation, which, according to the Annex to the Decree, disqualifies commercial drivers from driving! Sadly, despite a clear nonsense in terms of medical accuracy, it is the Decree of the Ministry of Health that is binding, not a procedure recommended by a professional society.

3. Cardiology development calling for professional changes

Ventricular arrhythmias, a significant group of cardiovascular diseases, pose a threat to a patient/potential driver, since he/she may lose consciousness or die suddenly. That is why the American Heart Association issued and published an all-embracing scientific statement on private and public safety issues related to possible loss of consciousness in arrhythmia as early as 1996 [9]. This statement also contains recommendation concerning the driving of motor vehicles by patients who survived a life-threatening arrhythmia – a permanent ventricular tachycardia (PVT) or a ventricular fibrillation (VF) – and who had an implantable cardioverter defibrillator (ICD) implanted on the secondary prophylaxis level. Since then, several randomized clinical studies have proved the importance of ICD for the prophylaxis of a sudden heart death and the reduction of the risk of life-threatening ventricular arrhythmias also on the primary prophylaxis level. Based on the results of these studies, the percentage of patients who had ICD implanted on the primary prophylaxis level (i.e. patients with high risk of occurrence of a life-threatening arrhythmia who had, however, experienced no PVT or VF yet) has been increasing rapidly. The original American recommendation took into consideration patients with ICD implanted on the secondary prophylaxis level only, just as a similar 1997 recommendation of a responsible working group of the European Society of Cardiology did [10]. Based on these statements and recommendations, rather strict restrictions for driving motor vehicles were applied in all patients with implanted ICD, regardless of the fact whether the implantation was carried out on the secondary or primary prophylaxis level. For that matter, ČKS's 2006 Recommendation has not taken into consideration the reasons for an ICD implantation.

Patients with ICD have a higher risk of sudden indisposition, sudden impairment of consciousness or even sudden cardiac death and they may pose a threat to themselves, as well as the others while driving. It has to be emphasized, however, that it is the primary cardiovascular disease that presents such a risk, not the ICD itself. Previous recommendations, be it the Czech [1], American [9] or European [10] ones, are still appropriate in patients with ICD implanted on the secondary prophylaxis level following an episode of PVT or VF and there is no need to change the recommendations concerning these patients. Nevertheless, these previous recommendations are not appropriate in patients with ICD implanted on the primary prophylaxis level (prophylactic implant). The previous American [11] and European [12] recommendations have been updated accordingly; there is no question of the need to amend ČKS's Recommendation in this sense as well.

4. ČKS's activities

Well aware of considerable difficulties brought on cardiologists by the legislative changes, i.e. the amendment of Act no. 361/2000 Coll. (the newly added Section 89a) specifically, as well as Annex no. 3 to Decree of the Ministry of Health no. 277/2004 Coll., both unsatisfactory in terms of medical accuracy, ČKS's Board nominated a working group that was charged with the task of updating ČKS's expert consensus statement concerning the assessment of cardiac patients for fitness to drive motor vehicles and, in cooperation with the Board,
trying to press such legislative changes that would eliminate the existing contradictions and opacities.

We took the opportunity of a joint meeting of ČKS’s representatives with Mr. Leos Heger, MD., CSc., MBA, the Minister of Health of the Czech Republic, and some of his co-workers held on 21 May, 2012, to promote the legislative changes in question. The legislative changes concerning the assessment for fitness to drive motor vehicles were one of the points on the agenda that we managed to push through in the meeting. Mr. Ferdinand Polak, MD., PhD., the Deputy Minister of Health Care, agreed to assist in updating Decree no. 277/2004 Coll., which is in competence of the Ministry of Health. Consequently, Deputy Minister Polak informed us in his letter dated 13 June, 2012, that “as to Section 89a, our ministry shall demand that the Ministry of Transport change it or delete it entirely”. He also thanked for the offer made by ČKS to cooperate in the updating of Decree no. 277/2004 Coll., or, more specifically, of Annex no. 3 thereto, Part IV listing diseases, defects or conditions of the circulatory system disqualifying a person from driving motor vehicles or restricting one’s medical fitness to do so only if a prerequisite is met, which he accepted.

In this ČKS expert consensus statement, we submit guidelines on how to assess patients’ fitness to drive motor vehicles properly. This scientific statement will also provide basis for our negotiations with the competent department of the Ministry of Health of the Czech Republic over the amendment to Decree no. 277/2004 Coll., specifically, Part IV of Annex no. 3 thereto.

5. Definitions of terms

For the purpose of this document, the definition of a private driver shall correspond to the definition of a person applying for and a holder of driving licence—group 1 pursuant to Annex no. 3 to Decree no. 277, and the definition of a commercial driver shall correspond to the definition of a person applying for and a holder of driving licence—group 2 pursuant to Annex no. 3 to Decree no. 277 [1].

Private driver: a driver driving a motor vehicle for his/her individual needs, the weight of the motor vehicle not exceeding 10 t. Pursuant to Decree of the Ministry of Health of the Czech Republic no. 277 Coll., this shall include persons applying for and holders of driving licence—groups A, B, B+E, AM, and subgroups A1 and B1.

Commercial driver: any driver who does not fulfill the definition of a private driver. Pursuant to Decree of the Ministry of Health of the Czech Republic no. 277 Coll., this shall include the following:

(a) drivers driving a motor vehicle in employment relation,
(b) drivers using a special warning blue light when driving,
(c) drivers in whom driving of a motor vehicle constitutes the object of their independent gainful activity,
(d) persons applying for and holders of a certificate for driving instructors for training in the driving of motor vehicles, and
(e) persons applying for and holders of driving licence—groups C, C+E, D, D+E, T, and subgroups C1, C1+E, D1, D1+E.

Waiting period: a time interval following the onset (diagnosis) of a limiting or disqualifying cardiovascular disease or condition, or the initiation of treatment or the performance of a therapeutic procedure, during which a driver is disqualified from driving a motor vehicle for medical reasons or is able to do so only if a prerequisite is met.

Recurrence of a disqualifying cardiovascular disease or condition resets the waiting period. Should several waiting periods apply when assessing an applicant or driver, the longest waiting period shall be used.

NYHA functional classification:

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class I</td>
<td>No functional limitation. A patient is able to achieve seven METs without showing signs (shortness of breath, fatigue, chest pain) or objective symptoms of heart dysfunction.</td>
</tr>
<tr>
<td>Class II</td>
<td>Mild functional limitation, working capacity 5–7 METs.</td>
</tr>
<tr>
<td>Class III</td>
<td>Marked functional limitation, working capacity 2–4 METs.</td>
</tr>
<tr>
<td>Class IV</td>
<td>Severe functional limitation, symptoms of heart dysfunction at rest or at minimal physical activity, working capacity not exceeding 2 METs.</td>
</tr>
</tbody>
</table>

Functional classification may be made on the basis of a clinical assessment; however, a classification of the working capacity based on a stress test is more accurate.

The Metabolic Equivalent of Task (MET): one MET is the resting oxygen consumption in the seated position and is equivalent to 3.5 mL/kg/min.

Stress test: bicycle ergometry, treadmill ergometry, exercise and pharmacologic stress echocardiography, thallium stress test.

Symptoms of CNS hypoperfusion: transient quantitative or qualitative impairment of consciousness, sight disorder, loss of muscular tonus or other neurological symptoms of decreased blood flow in CNS.
6. Assessment tables

Should the fitness to drive a motor vehicle be subject to various prerequisites, all of these have to be met.

<table>
<thead>
<tr>
<th>I. Arterial hypertension</th>
<th>Private driver</th>
<th>Commercial driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Uncomplicated hypertension, controlled by treatment</td>
<td>No restrictions</td>
<td></td>
</tr>
</tbody>
</table>
| (b) Malignant hypertension, hypertension with organ alterations resulting in organ failure | • NYHA Functional Class I-III  
• Annual reassessment | Disqualified |

<table>
<thead>
<tr>
<th>II. Ischemic heart disease (IHD)</th>
<th>Private driver</th>
<th>Commercial driver</th>
</tr>
</thead>
</table>
| 1. General prerequisites | Applicable waiting period (see below) | • Applicable waiting period  
• Functional class I-II  
• LVEF≥0.40 |

<table>
<thead>
<tr>
<th>2. Specific prerequisites</th>
<th>Private driver</th>
<th>Commercial driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Asymptomatic IHD</td>
<td>No restrictions</td>
<td></td>
</tr>
<tr>
<td>(b) Stable angina pectoris (AP)</td>
<td>No restrictions</td>
<td></td>
</tr>
</tbody>
</table>
| (c) Acute coronary syndromes (MI, UA), untreated by PCI or STEMI treated by primary PCI or thrombolysis | Waiting period 1 month | • Waiting period 3 months  
• Reassessment with stress test in 6 months |
| (d) UA and NSTEMI treated by PCI | Waiting period 1 week | • Waiting period 1 month  
• Reassessment with stress test in 6 months |
| (e) Coronary artery bypass graft surgery (CABG) | Waiting period 1 month | Waiting period 3 months |

<table>
<thead>
<tr>
<th>III. Heart failure, dilated cardiomyopathy</th>
<th>Private driver</th>
<th>Commercial driver</th>
</tr>
</thead>
</table>
| NYHA functional class I-II | No restrictions | • LVEF≥0.40  
• No ventricular tachycardia on Holter monitoring (both sustained and non-sustained)  
• Annual reassessment |
| NYHA functional class III | • No restrictions  
• Annual reassessment | Disqualified |
| NYHA functional class IV | Disqualified | |

<table>
<thead>
<tr>
<th>IV. Arrhythmias</th>
<th>Private driver</th>
<th>Commercial driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ventricular arrhythmias</td>
<td></td>
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<tr>
<td>General prerequisite: Arrhythmia examination in a Complex Cardiovascular Centre (pursuant to the Journal of the Ministry of Health of the Czech Republic) with a standard arrhythmia management (clinical examination, non-invasive diagnostics, electrophysiology study, ICD implant, catheter ablation, surgical treatment of the substrate, etc.).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific prerequisites:</td>
<td></td>
<td>Disqualified</td>
</tr>
</tbody>
</table>
| (a) Condition following ventricular fibrillation or hemodynamically significant ventricular tachycardia, excluding transitory causes’ | • Provision of ICD  
• Waiting period 3 months | |
(b) Non-sustained ventricular tachycardia in patients with LVEF < 0.35
- Provision of ICD
- Waiting period 3 months
- Disqualified

(c) Documented sustained ventricular tachycardia, hemodynamically tolerated, in patients with LVEF ≥ 0.40
- Catheter ablation or antiarrhythmic therapy
- Repeated ECG check on Holter monitoring
- Waiting period 3 months
- If the treatment shows ineffective, provision of ICD plus waiting period 3 months
- Catheter ablation or antiarrhythmic therapy
- Repeated ECG check on Holter monitoring
- Waiting period 6 months
- If the treatment is shown to be ineffective, provision of ICD plus ban on driving

(d) Non-sustained ventricular tachycardia in patients with LVEF ≥ 0.40
- No restrictions
- Examination once a year

Examples of reversible cause of ventricular fibrillation: within 24 h of the onset of myocardial infarction, in the course of coronary angiography, in electrical injuries, secondary to drug toxicity, etc.

2. Supraventricular arrhythmias
(a) Paroxysmal supraventricular tachycardia, atrial fibrillation and flutter with symptoms of CNS ischemia
- Successful catheter ablation plus corresponding waiting period (see Part IV (6)) or successful pharmacotherapy plus waiting period 3 months without the recurrence of arrhythmia

(b) Paroxysmal supraventricular tachycardia, atrial fibrillation and flutter without symptoms of CNS ischemia
- No restrictions
- In paroxysmal atrial fibrillation/flutter chronic anticoagulation clinically indicated

(c) Persistent or permanent atrial fibrillation and flutter with adequate ventricular rate control and without symptoms of CNS ischemia
- No restrictions.
- Chronic anticoagulation clinically indicated

3. Conduction abnormalities
(a) Isolated first-degree AV block
- No restrictions

Isolated right bundle branch block (RBBB)
Isolated fascicular block - left anterior hemiblock (LAH) or left posterior hemiblock (LPH)

(b) Left bundle branch block (LBBB)
Bifascicular block
Second-degree AV block (Mobitz I)
- No restrictions
- Annual reassessment plus Holter monitoring

(c) Higher-degree AV block without the provision of permanent cardiostimulation
- Disqualified

4. Permanent pacemaker
Applicable to all patients following the implantation
- Waiting period 1 week
- Normal function of the pacemaker
- Regular check-ups in a device clinic, at least once a year, or in combination with remote monitoring.
- Waiting period 1 month
- Normal function of the pacemaker
- Regular check-ups in a device clinic, at least once a year, or in combination with remote monitoring.

5. Implantable cardioverter-defibrillator (ICD)
General prerequisites
- Applicable waiting period—see below
- Regular check-ups in a device clinic
- Disqualified
Secondary prophylaxis
Primary prophylaxis
Following ICD appropriate electrical shock
Following ICD inappropriate electrical shock
Following ICD replacement
Following a replacement of the system of electrodes

6. Catheter ablation

V. Syncope
(a) Single episode of typical vasovagal syncope
(b) Recurrent (within 12 months) vasovagal syncope or single episode of unexplained syncope
(c) Recurrent (within 12 months) episode of unexplained syncope
(d) Syncope—diagnosed and successfully treated cause (e.g. permanent pacemaker implant for bradyarrhythmia)
(e) Situational syncope of avoidable trigger (e.g. micturition syncope, defecation syncope)
(f) Syncope—reversible cause (e.g. hemorrhage or dehydration)
(g) Syncope due to documented tachyarrhythmia or inducible tachyarrhythmia at an electrophysiology study

VI. Valvular heart disease
(a) Aortic valve stenosis
(b) Aortic insufficiency or Mitral valve stenosis or Mitral insufficiency

(at least once a year), or in combination with remote monitoring of ICD
• Proper functioning of ICD system
• NYHA Functional classification I–III

Secondary prophylaxis
Waiting period 3 months
Primary prophylaxis
Waiting period 1 month
Following ICD appropriate electrical shock
Waiting period 3 months
Following ICD inappropriate electrical shock
Waiting period until the cause of the inappropriate electrical shock is dealt with
Following ICD replacement
Waiting period 1 week
Following a replacement of the system of electrodes
Waiting period 1 month

6. Catheter ablation
Waiting period 1 week

V. Syncope
No restrictions
Waiting period 1 month Waiting period 1 year
Waiting period 1 year
Waiting period 1 week Waiting period 1 month
Waiting period 1 week
Successful treatment of the cause
See Part IV (2) (a)

VI. Valvular heart disease
• NYHA Functional Class I–II
• Without symptoms of CNS hypoperfusion
• Annual reassessment

(a) Aortic valve stenosis
• NYHA Functional Class I–II
• Without symptoms of CNS hypoperfusion
• LVEF ≥ 0.55
• AAVA ≥ 1.0 sq cm/sq m
• No ventricular tachycardia on Holter monitoring
• Annual reassessment

(b) Aortic insufficiency or Mitral valve stenosis or Mitral insufficiency
• NYHA functional classes I–II
• Without symptoms of CNS hypoperfusion
• Annual reassessment
• NYHA functional classes I–II
• Without symptoms of CNS hypoperfusion
• LVEF ≥ 0.55
• No ventricular tachycardia on Holter monitoring
• Annual reassessment
**Valvular prostheses (mechanical and bioprostheses)**

- NYHA Functional classes I-II
- Waiting period 3 months
- Anticoagulation therapy in mechanical prostheses
- No thromboembolic complications
- Annual reassessment

- Waiting period 6 months
- Anticoagulation therapy in mechanical prostheses
- No thromboembolic complications
- NYHA Functional Class I-II
- LVEF ≥ 0.55
- No ventricular tachycardia on Holter monitoring
- Annual reassessment

**VII. Hypertrophic cardiomyopathy**

Applicable to all patients

- Without symptoms of CNS hypoperfusion
- No ventricular tachycardia on Holter monitoring
- Reassessment in 2 years

- Without symptoms of CNS hypoperfusion (no history of symptoms of CNS hypoperfusion either)
- No family history of sudden death at a younger age
- No ventricular tachycardia on Holter monitoring
- No blood pressure decrease with exercise
- LV wall and/or IVS thickness < 20 mm
- No LVOT obstruction
- Annual reassessment

**VIII. Heart transplant**

Applicable to all patients

- Waiting period 3 months
- NYHA Functional Class I-II
- Annual reassessment

- Waiting period 1 year
- NYHA Functional Class I
- LVEF ≥ 0.40
- Annual reassessment including coronaryography

### References

1. Ministerstvo zdravotnictví ČR. Vyhláška č. 277 o stanovení zdravotní způsobilosti k řízení motorových vozidel, zdravotní způsobilosti k řízení motorových vozidel s podmínkou a nálezem lékařského potvrzení osvědčujícího zdravotní stavu, pro něž se za jízdy nelze na sedadle motorového vozidla pět a měsíce (vyhláška o zdravotní způsobilosti k řízení motorových vozidel) ze dne 20. dubna, 2004 (in Czech).


