Driver & Vehicle Licensing Agency

MINUTES OF THE SECRETARY OF STATE FOR TRANSPORT'S HONORARY MEDICAL ADVISORY PANEL ON DRIVING AND DISORDERS OF THE CARDIOVASCULAR SYSTEM

Meeting held on Thursday 12th March 2020 11:00am

Present:

Panel Members:

Dr A Kelion (Panel Chair)
Dr L J Freeman
Mr. A Goodwin
Dr R Henderson
Dr S Aziz
Mr A Vara (Lay Member)

OBSERVERS:

Dr S Bell	Chief Medical Officer, Maritime and Coastguard Agency
Dr E Hutchinson	Civil Aviation Authority

EX-OFFICIO:

Dr N Jenkins	Senior Doctor, DVLA
Mrs S Abbott	Operational Delivery and Support Drivers Medical, DVLA
Mr. M Thomas	Panel Coordinator Drivers Medical, DVLA
Miss K Nicholas	Driver Licensing Policy, DVLA
Mrs H Harris	Driver Licensing Policy, DVLA
Mrs S Taylor	DVLA Note-taker

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SECTION A: INTRODUCTION

1. Apologies for Absence

Apologies were received from;

Professor C Garratt	Panel Member
Dr D Fraser	Panel Member
Dr S Lim	Panel Member
Dr K Rajappan	Pane Member
Dr A Kumar	Panel Secretary, DVLA Doctor
Mrs S Richards	Drivers Services Management, DVLA
Dr C Graham	Occupational Health Service, Northern Ireland
Dr E Keelan	National Programme Office for Traffic Medicine, Ireland
Dr E Hutchinson	Civil Aviation Authority

2. CHAIR'S REMARKS

The Chair welcomed panel members. The Chair discussed with attendees the confidentiality statement and the parameters around it. The Chair advised the panel that this was officially his last meeting as Panel Chair. The Chair acknowledged that the role of the panel had changed over the years, particularly the way in which panel advice is now assessed and prioritised before it is delivered. The chair expressed his appreciation of the panel members for their continued wisdom and support and thanked them for their enormous contribution to road safety.

3. ACTIONS FROM PREVIOUS MEETING

DVLA gave an update on the status of the actions that came out of the previous panel meeting.

3a Pulmonary Hypertension

DVLA advised that the PH1 and PH2 medical questionnaires for Pulmonary Hypertension have been developed and were currently being piloted. Dr Freeman requested that the forms be circulated to Panel members for their comments.

3b. Marfan's Syndrome

DVLA noted that the current AFTD provides guidance for Group 2 licensing following surgical treatment of aortic aneurysm associated with Marfan's Syndrome, but that there is currently no such guidance for Group 1 licensing.

Panel advised that for Group 1 licensing driving could resume upon recovery from successful surgical repair, whether that surgery was undertaken electively or as an emergency procedure.

SECTION B: TOPICS FOR DISCUSSION

4. Syncope: Dr Kim Rajappan to provide presentation

Apologies were received from Dr Rajappan who was unable to deliver his presentation on syncope. It will however be included as an agenda item in the Autumn 2020 meeting.

5. Review of standards for Hypertrophic Cardiomyopathy Standards: Dr Robert Henderson

Dr Henderson kindly delivered a presentation discussing the available scientific evidence supporting the use of the exercise tolerance test as well as the risk categorisation process using the current ESC HCM-SCD risk calculator.

Current standards for group 2 licensing require asymptomatic patients with HCM at Low Risk and Intermediate Risk (based on the ESC HCM SCD-risk score) to satisfy the exercise tolerance test requirements and demonstrate an increase in systolic blood pressure of at least 25mmHg. In contrast to those with coronary artery disease, patients with HCM unable to complete 9 minutes of the Bruce protocol for non-cardiac reasons may continue to drive group 2 vehicles provided there are no other reasons for disqualification.

The blood pressure response to exercise (BPRE) is not included in the ESC HCM Risk-SCD calculator, and the continued value of BPRE as part of the standards has been questioned. Further, the requirement for 9 minutes exercise duration is unclear.

The ESC HCM SCD-Risk score was developed using variables that have been associated with an increased risk of sudden death in at least one published multivariable analysis. The score was introduced into routine practice in 2014 and has been externally validated in two separate patient cohorts. These studies confirm that the HCM SCD risk score stratifies individuals with HCM into low, intermediate and high risk groups with reasonable accuracy.

By contrast, evidence that BPRE is associated with risk of sudden cardiac death is very limited and based mainly on small studies published over 20 years ago. Several more recent studies suggest that abnormal BPRE in HCM is not an independent determinant of sudden cardiac death (SCD).

Several studies of cardiopulmonary exercise testing in HCM provide compelling evidence that exercise tolerance, assessed as peak oxygen consumption (VO_2 max), is an independent determinant of death and sudden cardiac death.

There is growing evidence that the extent of late gadolinium enhancement on cardiac magnetic resonance imaging is also strongly associated with prognosis. Two studies suggest that patients with gadolinium enhancement in less than 15% of the ventricular myocardium have a favourable prognosis (<1% risk of sudden cardiac death per annum).

Dr Henderson concluded that in individuals with HCM:

- The ESC HCM SCD-Risk score identifies low and intermediate risk patients with reasonable accuracy
- Evidence that abnormal BPRE is an independent determinant of SCD is poor
- Exercise capacity (assessed as peak oxygen consumption) is an independent prognostic determinant

The Panel discussed Group 2 licensing in HCM addressing the following:

- The role of the ESC HCM SCD-risk score
- The role of exercise treadmill testing
- The requirement for a 25mmHg rise in systolic BP during exercise
- The role of bicycle ergometry and cardiac magnetic resonance imaging to support licencing decisions in individuals who cannot complete 9 minutes of the Bruce treadmill protocol for non-cardiac reasons

Panel agreed that individuals should continue to be assessed using the ESC HCM Risk-SCD calculator.

- Those individuals in the High Risk group should be refused/revoked
- Those individuals in the Low Risk and Intermediate Risk groups should undergo exercise testing

Exercise testing should be undertaken with the individual taking their normal medication.

The default test should be a treadmill test using the standard Bruce protocol (or its energy equivalent using a bicycle ergometer)

The test duration should be 9 minutes (or bicycle equivalent)

ECG changes during exercise would not be a consideration in the setting of an abnormal resting ECG

For those individuals unable to satisfy the exercise criteria for non-cardiac reasons, DVLA would consider the absence of significant late gadolinium enhancement on cardiac MR scanning (CMR) as an alternative.

6. Provoked Seizures:

a. Group 2 standards
b. Reflex Anoxic Seizures (RAS) nomenclature

Group 2 Standards

The Chair advised that in May 2019 a period of five years driving cessation had originally been agreed by the Neurology Panel as the standard for Group 2 drivers following a provoked seizure.

Concerns were expressed that the research data provided at the time was limited and did not take sufficient account of the circumstances of seizures provoked by other conditions, for this reason a period of five years seemed excessive. Seizures provoked by hypoglycemia and seizures related to primary cardiovascular syncope were highlighted in discussion in particular.

The Neurology Panel acknowledged those concerns and sought clarification of the data underlying a published study from Australia. At the October 2019 meeting, the Neurology Panel recommended that:

- For seizures provoked by systemic or metabolic derangement, group 2 driving should be allowed to resume two years after the provoked seizure.

- For seizures provoked by an acute central nervous system lesion, the current standard of five years would remain for group 2 drivers.

- Exceptions to this would be provoked seizures at the moment of impact of head injury, those associated with eclampsia, and those occurring during electroconvulsive therapy. In these circumstances the seizure would attract no time off driving.

The DVLA Senior Doctor advised that a consistent, clear standard was needed and the two year period was proposed as a fair and workable compromise. The standard will be incorporated into the DVLA's internal guidance. The DVLA Senior doctor acknowledged that the Cardiovascular Panel may feel that a two-year period off driving is too stringent following some non-central nervous system provoked seizures, but would be happy to consider any supporting evidence the Panel could provide in circumstances where they believe that there is a strong case for a shorter time off driving.

Panel discussed and accepted that 2 years is a reasonable time off driving following a seizure provoked by primary cardiovascular syncope until further evidence is identified which would allow for a shorter period off driving.

Reflex Anoxic Seizures

The Chair updated the panel on the standards on provoked seizure as proposed by the Neurology Panel in May 2019. The Chair advised that there were concerns expressed by the Neurology Panel regarding the understanding of Reflex Anoxic Seizures (RAS) nomenclature. The Neurology Panel were of the understanding that the term RAS was coined to refer to a severe form of breath holding in infants, and were unconvinced that it is a genuine distinct entity in adults, and really any such episodes should be described as Convulsive syncope.

The Cardiovascular Panel were in agreement about the inappropriateness of the term RAS. The Cardiovascular panel are specifically focused on seizures provoked by some form of cardiovascular syncope whether arrhythmic or vasovagal.

Panel Discussed and agreed that the term RAS will be changed to "provoked seizure secondary to cardiac cause of syncope" in the guidance.

7. Type 2 Myocardial Infarction: Dr Nick Jenkins

Type 2 myocardial infarction was introduced into AFTD following advice provided by the panel in November 2018.

DVLA asked panel if this condition should continue to be included as part of the Acute Coronary Syndrome section, due to conflicting information provided by cardiologists in a social media poll. Panel discussed the standards currently in place and agreed that as Type 2 myocardial infarction was by definition myocardial injury associated with evidence of ischaemia, it was appropriate to consider it an acute coronary syndrome. Panel noted that a Troponin rise without evidence of ischaemia is indicative of myocardial injury but would not constitute an acute coronary syndrome, and that it was possible that this was the source of some clinicians' confusion.

Panel concluded that it is appropriate to consider type 2 myocardial infarction within the Acute Coronary Syndrome section of AFTD and that no change is necessary.

SECTION C: ONGOING AGENDA ITEMS

8. Cases for Discussion

There were no cases for discussion.

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9. Tests, Horizon Scanning, Research and Literature

Panel were aware of their obligation as members to consider tests, literature and anything new on the horizon, they however, agreed that there was nothing of relevance to discuss currently.

10. AOB

- The panel Chair commented positively on the new panel bundles. Being able to click on links that take you directly to the attachments was considered a huge improvement. The panel Chair thanked all involved in pulling this information together.

- The Senior DVLA Doctor informed the panel about the changes to the role of the panel secretariat. Panel noted the changes and agreed with the new arrangements.

11. Date and Time of Next Meeting

Thursday 1st October 2020

Original draft minutes prepared by:	**Sian Taylor** **Note Taker** **Date:13/03/2020**
Final minutes signed off by:	**Dr A Kelion** **Panel Chair** **Date: 14/04/2020**

THE DVLA WILL CONSIDER THE ADVICE PROVIDED BY THE PANEL AND NO CHANGES TO STANDARDS WILL TAKE EFFECT UNTIL THE IMPACT ON INDIVIDUALS AND ROAD SAFETY IS FULLY ASSESSED.