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

THURSDAY, 21 SEPTEMBER 2017

Present:

Dr M Griffith	Chair
Dr L J Freeman	
Professor C Garratt	
Mr A Goodwin	
Dr D Fraser	
Dr S Lim	
Mr D Simpson	

Ex-officio:

Dr S Mitchell	Civil Aviation Authority
Dr S Bell	Chief Medical Officer, Maritime and Coastguard Agency
Dr W Parry	Senior Medical Doctor, DVLA
Dr A Kumar	Panel Secretary, DVLA
Dr C Fang	Medical Doctor, DVLA
Dr N Lewis	Medical Doctor, DVLA
Mr J Donovan	Medical Licensing Policy, DVLA
Miss N Davies	Head of Drivers Medical, DVLA
Mrs S Charles-Phillips	Business Support, DVLA
Mrs K Bevan	PA to Miss N Davies, DVLA
Mrs S Taylor	Medical Panel Support, DVLA

1. Apologies for absence

The Chair welcomed all attendees and introductions were made by all present. Apologies were received from: Dr R Henderson, Dr D Northridge, Mr M Gannon, Mr B Nimick, Dr E Keelan and Dr C Graham (Observer).

2. Chair's remarks

2.1 Meeting time: Chair emphasised the importance of starting the Panel meeting not earlier than 11.00 am to allow sufficient travel time for all attendees and to avoid delays in starting the meeting.

2.2 Chair announced that he will be resigning from his post of Panel Chair after this meeting. He made the Panel aware that he has informed DVLA's Senior Medical Doctor, and will be formally sending his resignation (with explanation of reasons) to Mr Chris Grayling, Secretary of State for Transport.

2.3 Minutes of the previous meeting (16 March 2017): the Chair made the Panel aware that following his initial approval (in April 2017) of the minutes from the meeting of 16 March 2017, the final version of the minutes was sent to him for approval a fortnight ago. Nadine Davies, Head of Drivers Medical, reassured that the appropriate process has been put in place to ensure that in future there would not be such significant delay in this process.

2.4 The Chair emphasised the need for the appointment of a cardiac imaging expert on to Panel as cardiac imaging is an important and significant part of Panel work. This appointment should be made as a priority as it would be difficult for the Panel to function without a cardiac imaging expert. He asked for the progress on the recruitment process. Nadine Davies advised that the revised 'Terms of Reference' for Panel membership and recruitment was awaiting ministerial approval. The recruitment process would be commenced once approval was received.

2.5 Jason Donovan advised that the recruitment to the medical panels has always looked to follow the spirit of the Code of Practice for Scientific Advisory Panels (COPSAC) guidance. However, moving forward we intend to more closely apply the principles set out in the Governance Code on Public Appointments. This will provide increased assurance and confidence in the robustness and validity of the panels' advice.

In future, vacancies would be widely advertised with Ministers having more visibility into the recruitment of panel members.

2.6 Nadine also mentioned that going ahead DVLA would, in collaboration with Panel chair, regularly review the composition of panels to ensure that each panel has the necessary expertise on the Panel.

2.7 The Chair mentioned that recruitment to the Cardiovascular Panel has never been a problem in the past, with significant number of applicants/interests in the post. As the new recruitment process is required to be a wide open advertisement, the Chair advised that care should be taken during the appointment process to ensure that the appropriate expertise and skills are taken into account rather than just an interest in Panel membership. Nadine Davies advised that the recruitment of the new Panel member should be in place by December 2017 and appointment to be made before the spring 2018 panel meeting.

2.8 The Chair queried about the nature of the advertisement which would comply with the above Scientific Advisory Committee codes. Suggestions made by Panel members were relevant journals and relevant specialist societies, for example, the British Medical Journal, correspondence to be sent to the SCTS (Society of Cardiothoracic Surgeons (UK)), British Cardiovascular Society etc. However, the Chair advised that individual societies are not always represented by all specialists, and that a Policy driven reason is not always a good reason to advertise for Panel chair or members.

2.9 Panel members expressed their views about the amount and significance of the time and commitment by doctors towards the DVLA Panel membership role, and the lack of recognition of this time by their respective NHS Trusts (time needed for attending meetings and preparing pre-meeting work). It was mentioned that most NHS Trusts do not remunerate the time taken towards the attendance at Panel meetings and members often have to take their personal annual leave to attend Panel

meetings. The Chair agreed with the Panel members' suggestion (which was also discussed at the annual Chairmen's meeting) that it would be greatly appreciated if a formal letter from the Secretary of State could be sent to the Panel members' respective hospital Trusts supporting their Panel meeting attendance, requesting for the Trust to allow for the time and commitment towards the attendance.

Nadine Davies mentioned that DVLA acknowledges and values the time and commitment from Panel members and agreed that a form of correspondence could be sent to the hospitals for the above purpose.

3. Minutes of the meeting of 16 March 2017 – Matters arising

3.1 Item 3: Matters arising from minutes of 22 September 2016

Congenital heart disease: Review of licence standards

The amendments suggested by Dr Freeman via e-mail to Panel secretary have been incorporated in the September 2016 minutes to accurately reflect the amendments.

Bicuspid aortopathy – the June 2017 'Assessing fitness to drive – a guide for medical professionals' edition has been updated and the section on bicuspid aortopathy has been moved back into the aortic aneurysm section as previously agreed.

However, the discrepancy in standards between Group 1 and Group 2 licensing has not yet been amended: whereas for a Group 1 licence, all conditions under the heading are expected to notify DVLA, for a Group 2 licence, individuals need to notify only certain situations. Page 57, AFTD, June edition, aortic aneurysm section needs to be amended to correct this discrepancy.

Congenital heart disease - following the June 2017 interim Cardiovascular Panel meeting for the EU Annex, a revised version of AFTD was circulated amongst all Panel members. Dr Robert Henderson pointed out that the Group 2 section on

congenital heart disease needed clarity on the following section of the criteria – 'successful repair of defects or relief of valvular problems, fistulae and so on'. There was Panel discussion on whether 'and so on' needs to be elaborated to list the conditions implied by the 'so on'. Dr Freeman elaborated on this list as follows:

Percutaneous cardiac or pulmonary device (for example, ASD closure device, VSD closure device, MAPCA'S – occluders, pulmonary AV fistula occlusion, pulmonary – systemic shunts, coarctation stents. She also added that the existing guidance on aortic stenosis (including the Appendix section) and the exercise tolerance test requirements extended to include sub-aortic stenosis, supravalvular stenosis, and RVOT obstruction. Discussion followed and Panel agreed that this list could be elaborated in the Best Practice Guide for DVLA doctors' referral purposes, but it was not needed to be elaborated in the AFTD.

The following phrase was proposed for the AFTD – 'successful cardiac or pulmonary intervention (percutaneous device or surgery)'. This should be included for both symptomatic and asymptomatic sections for the Group 2 standards in AFTD.

3.2 Item 5: Hypertrophic cardiomyopathy – review of Group 2 standards

The Group 2 standards for hypertrophic cardiomyopathy had been updated in the AFTD following the March 2017 meeting. Panel secretary advised that in the June 2017 edition the following section of the Group 2 standards is still present and needs to be removed as it would now be redundant –

"and at least 2 of the following 3 criteria are met:

1) *No first degree family history of…… non sustained ventricular tachycardia (NSVT).*

The above section needs to be removed.

Panel were happy for the intermediate and low risk groups to undergo the exercise tolerance test, and to retain the criteria of 25 mm Hg rise in systolic blood pressure during the exercise test.

4. Update of the annual Chair meeting, 14 July 2017

4.1 Nadine Davies provided an update on the Chair's meeting which was held in Swansea on 14 July 2017 to provide the opportunity for the Chairmen to familiarise themselves with the operational aspects of Drivers Medical at the DVLA, Swansea.

4.2 The key points from the DVLA internal review of Panels were fed back to the Panel Chairmen –

DVLA asked for panel chair support in ensuring that the minutes from each panel meeting clearly explain how medical licensing standards are set.

The recruitment exercise for panel members and chairs will be based on a new 'Terms of Reference' which have been submitted to the minister for approval (secretary note: these were approved by the Minister shortly after this meeting).

DVLA needs to be transparent in how the Medical Advisory Panels set the medical licensing standards. The recruitment process is going to be based on the new 'Terms of Reference' which are awaiting ministerial approval.

4.3 The Panel Chairs had expressed an interest to know more about any appeals that DVLA lose in court, to determine whether the medical standards need to be reviewed in view of the court's decision. The Chair mentioned that the quality of the cardiovascular standards are based on robust discussion, review of relevant medical literature and evidence available, and constant review of standards are undertaken to ensure that any vulnerability in the standards are addressed as and when needed.

4.4 The Chair mentioned that the syncope standards are currently not under the cardiovascular section of AFTD. He advised, as previously, that there needs to be a joint Cardiovascular and Neurological Panel meeting with relevant experts from both Panels and a syncope expert as the current standards need reviewing.

4.5 Regarding the new 'Terms of Reference' for Panel recruitment, the Chair clarified the maximum number of years in a term of a Panel Chair. Nadine Davies clarified that the maximum term of service as Panel member would be 10 years regardless of their role as member or additional role as Chair. The Chair stressed the importance of Panel work experience for a Chair's role and hence need to be borne in mind in the appointment process. He advised that it would be a mistake to appoint a Chair with no previous Panel experience.

4.6 Jason Donovan advised that the 'Terms of Reference' were in accordance with COPSAC, and although the stated term of reference is maximum 10 years of service, in exceptional circumstances this can be reviewed (extended or shortened) with ministerial approval.

4.7 The SMA mentioned that one of the other issues discussed at the Chairs meeting was the unique needs of the older drivers group, and need for assessment of this group which were not fully addressed by the current set up and the possibility of having a working group with relevant Panel expertise to address the issues of multiple co-morbidities and frailty (which is now a recognised medical condition). The Chairs agreed that this group do not fit in one specific Panel and will need expertise from different Panels in the formation of a working group.

4.8 The Chair mentioned that co-morbidities and vascular risk factors were reviewed a few years ago at a vascular risk group meeting and it was felt that this is a difficult issue especially from a policy point of view and to balance the need for driving in the older individual as they are more dependent upon driving for their transportation. The CAA Medical Adviser, Dr Mitchell, advised that a cut-off age for pilots was 65 years

5. Update on the Annex III EC Directive

5.1 The Annex III amendment to the Directive 2006/126/EC of the European Parliament and of the Council on Driving Licences needs to be implemented by all EU Member States from 1 January 2018. This issue has been discussed at previous Panel meetings and it was agreed that to comply with the minimum EU Annex standards, most of the current UK cardiovascular licensing standards do not need changing. However, there might be need for minor adjustments in the wording of the AFTD, and certain new standards to be formulated and introduced in line with the new directive for those conditions which are not currently listed in the UK standards.

5.2 An exceptional meeting was arranged by DVLA on 15 June 2017 to review and amend AFTD as appropriate. The Panel was represented by Dr M Griffith (Chair), Dr R Henderson, Dr D Fraser and Mr M Gannon. DVLA was represented by Dr W Parry, Dr A Kumar, Mr M Davies, Mrs S Charles-Phillips and Mrs S Taylor. Post meeting, the changes as agreed at the meeting were incorporated into the AFTD guide and circulated to all attendees. A revised AFTD version with comments and suggestions incorporated was further circulated and agreed by all present. This final version was being considered by the Department to ensure that it complies with the directive.

5.3 Main proposed changes in the AFTD:

1. Hypertension

Group 1: may drive and need not notify the DVLA. Must not drive if diagnosed with malignant hypertension until the condition has been effectively treated or controlled but need not notify DVLA (malignant hypertension: elevation in systolic blood pressure $\geq$ 180 mm Hg or diastolic blood pressure $\geq$ 110 mm Hg, associated with evidence of progressive organ damage).

Group 2: may drive and need not notify the DVLA ,except, must not drive and must notify the DVLA if resting blood pressure is consistently: 180 mm Hg or higher systolic and/or 100 mm Hg or more diastolic or if diagnosed with malignant hypertension. Licence will be revoked/refused.

Maybe relicensed/licensed after blood pressure is controlled provided there are no side effects from treatment that effect or likely to affect safe driving.

2. Heart failure standards:

AFTD updated to take into account the NYHA classification of heart failure as in the EU Annex. Panel content with the proposed standards as enclosed in the bundle. Panel also agreed to rename the left ventricular assist device section to 'cardiac assist device' in accordance with the EU Annex wording. Panel agreed to have the NYHA classification of heart failure to be included in the heart failure section of the AFTD for referral purposes.

3. Heart valve disease:

The EU Annex makes reference to 'mitral stenosis and severe pulmonary hypertension' in Section 9.2(f), Group 2 licence standards for valvular heart disease. As per the EU Annex standards: Group 2 licence shall not be issued or renewed for applicants or drivers with mitral stenosis and severe pulmonary hypertension. In the current UK standards all the heart valve diseases except aortic stenosis are dealt with under a common heart valve disease section. Panel discussed in detail the implications of having separate section on mitral stenosis and severe pulmonary hypertension in light of the EU Annex. After much discussion it was agreed that the current UK Group 2 standards would cover this aspect, as an individual with mitral stenosis and severe pulmonary hypertension is highly likely to be symptomatic and hence would be covered under the symptomatic section of the Group 2 standards. Mr Donovan advised that where possible it was important to follow the exact wording of the EU Annex, however, if the current UK standard covers what is implied by the actual wording in the Annex there is no need to change the wording

and an explanation can be provided to the Commission of how our standards meet the EU Annex standards.

4. Long QT syndrome:

Agreed standards – all cases of long QT syndrome must notify DVLA.

Group 1: must not drive if history of syncope or Torsades de Pointes or *QTc > 500 ms and must notify DVLA. Licence will be refused/revoked. Relicensing will be considered upon appropriate specialist cardiological assessment and standards of syncope met. (*QTc - corrected QT interval).

Group 2: must not drive if symptomatic or history of syncope or Torsades de Pointes or QTc > 500 ms and must notify the DVLA. Licence will be refused/revoked. Relicensing may be considered once asymptomatic and upon appropriate specialist cardiological assessment.

Brugada syndrome – proposed standards

Agreed standards – all cases of Brugada syndrome must notify DVLA.

Group 1: must not drive if history of syncope possibly associated with Brugada syndrome or history of sudden aborted cardiac death and must notify DVLA. Licence will be refused/revoked. Relicensing will be considered upon appropriate specialist assessment.

Group 2: must not drive if symptomatic or history of syncope possibly associated with Brugada syndrome or history of sudden aborted cardiac death and must notify DVLA. Licence will be refused/revoked permanently if history of syncope possibly associated to Brugada syndrome or history of sudden aborted cardiac death. Otherwise, relicensing will be considered upon appropriate specialist cardiological assessment.

Discussion points:

Hypertension standards - as the EU cut-off for the blood pressure is 180/110 mm Hg for Group 2 licence standards, Dr Lewis queried whether there was evidence to defend the UK higher cut-off level of 180/100 mm Hg. It was acknowledged that the directive provides for minimum standards for driving, which allows for each member state to introduce higher standards if required. It was agreed that the current standards for group drivers would continue. However, panel would continue to review these standards at subsequent meetings.

Heart failure – Dr Lim pointed out that the Group 2 standards for heart failure require individuals to undertake exercise or other functional test if ischaemic heart disease is the likely cause of the heart failure. He mentioned that the Bruce protocol is quite a strict protocol and likely that patients with heart failure will not be able to meet the full nine minutes of the Bruce protocol. Panel secretary clarified that for Group 2 licensing purposes, individuals in NYHA class 3 and 4 would be revoked, so in practical terms only individuals in NYHA class 1 and 2 will need to undergo exercise tolerance testing/alternative functional test if underlying ischaemic aetiology. Dr Lim pointed out that as per current standards patients with heart failure in class 1 and 2 will only need ETT if underlying ischaemic aetiology, and if they fail the ETT they would be revoked, however, there may be individuals in class 1 or 2 with non ischaemic heart failure who also may not be able to meet the Bruce protocol ETT but as for licensing purpose they are not being assessed by DVLA with ETT, they may be licensed if they meet the minimum ejection fraction criteria. This seemed to be an inconsistent approach if DVLA is looking at the cardiac functional capacity.

This raised the question of whether the non ischaemic group of heart failure patients, for example, those with dilated cardiomyopathy, have a similar risk profile or not as compared to the ischaemic group in terms of prognosis and future risk of a sudden disabling event. The Chair explained that the aim of ETT/functional test in Group 2 individuals with ischaemic heart disease is to look for significant myocardial

ischaemia and hence the future risk of sudden disabling events. Hence, up until now Panel have not considered assessment of non ischaemic heart failure patients. He mentioned that the ischaemic group are a higher risk group in relation to future sudden disabling events.

It was mentioned that ETT is not particularly a predictor of high risk events in the non ischaemic group but although they could be also a high risk group, currently they are not being assessed. Individuals in this group may be unable to complete the full 9 minutes but would be licensed if they met the 40% LVEF criteria. The Chair said it would be beneficial if Dr Lim could look into the relevant literature available into the risk assessment of heart failure patients with non ischaemic aetiology, and to present it at a future Panel meeting.

Discussion points: Heart valve disease

It is well known that mitral stenosis patients with severe pulmonary hypertension are likely to be symptomatic with a higher rate of syncope in this group. There was discussion whether the different valvular heart diseases should have separate Group 2 standards as there is a difference in significance of left ventricular ejection fraction with varying degrees of severity in the various valvular diseases. Following discussion it was agreed to have no change in the current standards and it was also agreed that there is no need to separate mitral stenosis with severe pulmonary hypertension, as it would be covered under the symptomatic heart valve disease section, and if needed explanation could be provided to the EU Driving Licence Committee. Pulmonary hypertension, especially pulmonary arterial hypertension does merit discussion on its own, subsequently discussed in the meeting, however this discussion is not imminent for the European Union standards.

Long QT and Brugada syndrome

Dr Lewis raised the question about the scenario when a Group 2 driver notifies DVLA of long QT syndrome, there is a relevant history of syncope, Torsades de Pointes or QTc greater than 500 ms and also encloses information from a specialist cardiological assessment to support that his current risk of sudden disabling event is less than 2% per annum – would it still be reasonable to revoke or refuse a Group 2 licence as per the wording of the proposed standards. The Chair explained that this difficulty has arisen due to the change in the format and wording in the AFTD to have 'must not drive' or 'may drive' for each condition. Previously, Panel have always advised the wording as 'relicensing will be permitted upon specialist assessment'.

It was agreed that if a licence holder or applicant has a long QT syndrome with syncope or Torsades de Pointes or QTc greater than 500 ms, they should notify DVLA and not drive until the DVLA has assessed the case. If upon notification, information from a specialist cardiological assessment is already available, and if the information is favourable, licence can be issued. However, if such information is not available then the licence would be revoked, and only renewed once a specialist cardiological assessment report is available. It is important to put 'appropriate specialist cardiological assessment' to get an accurate/specific risk assessment in this group of patients.

6. Bicycle protocol for exercise tolerance testing: Group 2 licence standards

Panel secretary had recently received correspondence from a consultant anaesthetist that the current DVLA protocol for exercise tolerance testing has clearly defined protocol for a treadmill test, however an equivalent protocol for bicycle is not clearly defined. It was mentioned that the current protocol which requires cycling for 10 minutes with 20 watt per minute increments to a total of 200 watts is not a suitable protocol and hence a review of the protocol was requested. The e-mail

correspondence from the relevant doctor was enclosed, which detailed a proposed bicycle protocol for exercise tolerance testing. After much discussion Panel queried whether there was a need for exercise tolerance testing using a bicycle, as most hospitals would have a treadmill available to undertake an ETT using Bruce protocol treadmill testing. Panel agreed that it would be useful to collect data over the next few months of the total number of bicycle protocol exercise test requests, and the reasons for using bicycle instead of a treadmill.

Discussion point:

Panel discussed the need for having a bicycle test for exercise tolerance testing instead of a treadmill as most centres would have a treadmill in their department. It would be very unusual for an individual who would not able to walk but would be able to undertake a bicycle test. Treadmill protocol takes into account an individual's body weight, as the heavier an individual the more calories would be burnt. In contrast, however, the bicycle protocol does not take into account an individual's body weight therefore individuals need to be assessed in terms of V02.

Although the protocol for bicycle testing suggested (in the doctor's email) with the assessment of V02 max seemed reasonable, the Panel could not come to a conclusion whether the target V02 as a minimum of 18 or 20 ml / minute / kg was a consistent approach or not. There needs to be clarity regarding the interpretation of V02 max in relation to the treadmill test. It was suggested that age-related maximum predicted heart rate is a better predictor of prognosis and should be used instead of V02. ETT with bicycle protocol and measurement of V02 is less widely used in hospitals than treadmill testing.

If the DVLA is paying for a test then the hospital should ideally have a treadmill to undertake the agreed exercise tolerance test. V02 is available for cardio-pulmonary function assessment but usually undertaken by anaesthetists for a pre-op assessment, also used by congenital heart disease specialists and thoracic surgeons for prior

assessment. It was also discussed whether the DVLA ETT protocol should clearly mention that the test should be carried out on a treadmill unless there is a specific reason why it cannot be undertaken on a treadmill.

7. Pulmonary hypertension

Panel agreed that this is a population group with significant risk of syncope, hence needs to be discussed in detail to see if separate licensing standards are needed for pulmonary hypertension. Panel agreed to invite an expert to present to the Panel at the next meeting and names of national experts were suggested by Panel.

Discussion points:

Distinction between pulmonary hypertension and pulmonary arterial hypertension is important. Pulmonary hypertension could be idiopathic or due to connective tissue disorders, related to congenital heart disease with shunt, these conditions are usually associated with syncope, and likely to be 2% or more per annum but not likely to be greater than 20% per annum. Hence, they are more relevant for Group 2 standards.

8. DVLA appeals (statistics)

Nadine Davies presented appeal statistics from April to June 2017 which was broken down to different Panel categories. This showed that the number of appeals in Drivers Medical at DVLA has increased over the last two year period.

Over the past year, there were four cases where the court decided against DVLA. Out of these, two were related to medical standards. These cases will be reviewed by the relevant panel.

The SMA advised that often it is not the actual medical standards that are challenged but the interpretation and application of the standards to individual cases. This could reflect why there are very few appeals on cardiovascular cases as the standards are

based on objective assessment/measurements. The Chair mentioned that the quality of the cardiovascular standards, are based on robust discussion and constant review of standards.

Nadine Davies updated the Panel on the volume of cases dealt with at Drivers Medical. Two years ago there were 640,000 medical investigations undertaken at Drivers Medical, the forecast for this financial year is over 700,000. She mentioned that the increase in volumes could be attributed to greater notification of cases due to greater awareness among the healthcare professionals, also due to the increasing need to renew a licence with increasing age.

9. Any other business

9.1 Syncope: The Chair advised the Panel that Professor Cruickshank (Neurology Panel Chair) and the Chair had discussed syncope standards and agreed that there needs to be a joint Cardiovascular and Neurology Panel meeting with relevant experts from both Panels present and a syncope expert. The chair expressed his opinion that they syncope standards may be better placed in the cardiology section except for those conditions which are relevant to epilepsy/seizure. He also recommended a review of the syncope guidelines.

However, the SMA advised that he has had a meeting with an expert in syncope from the 'Falls and Syncope Service Clinic' in Newcastle who thought the current syncope guidelines were of good standard but that does not exclude the proposal of reviewing the guidelines.

The Chair's advice was to invite Dr S Parry (syncope expert, Newcastle) who had done a presentation of syncope with relevance to driving to the Cardiovascular Panel in September 2014.

9.2 The panel discussed the possibility of issuing driving licences that were valid for 5 years for Group 2 applicants who have met the Group 2 exercise tolerance test standards.

Panel's advice was that treatment and secondary prevention of coronary artery disease has improved over the years providing better prognosis in individuals with coronary artery disease. However, it was important to bear in mind that the negative predictive value of an exercise tolerance test for a sudden disabling event was only valid for 3 years. Panel was not aware of any data available to support the extension of this 3-year warranty period of exercise tolerance tests. There would be a need to look at the long term prognostic value of ETT in relation to sudden disabling events.

The CAA Medical Adviser mentioned that the ETT is repeated on an annual basis for pilots.

Dr Lewis queried whether there is any benefit in doing an internal data collection at DVLA to look at the number of individuals who meet the ETT Group 2 standards at each renewal and considering an extension of licence in that group. The Chair advised that this should be looked at with caution as the individuals who meet the standards and renew every 3 years are by nature a self selected population so they are not a true reflection of the entire population with coronary artery disease. However, he said that it might be useful to collect and analyse such data and review it in the light of any current literature evidence which would support the recommendation of extending the licence period. There would be a need to look at the long term prognostic value of ETT in relation to sudden disabling events.

10. Dr L Freeman and Dr A Kumar thanked the Chair, Dr Griffith, on behalf of the Panel and the DVLA acknowledging his contribution to the Panel over a number of years and an efficient role of Chair over the past few years.

11. Date and time of next meeting

Thursday, 15 March 2018 was the proposed and agreed date by all, with the meeting to start to no earlier than 11.00 am.

Original Draft Minutes prepared by: **Dr A Kumar MBBS MRCGP**
Panel Secretary

Date: 12th October 2017

Final Minutes signed off by: **Dr Mike Griffith**
Chair

Date: 2nd January 2018