

# An evaluation of current UK practice for Evoked Potentials - BSAEP

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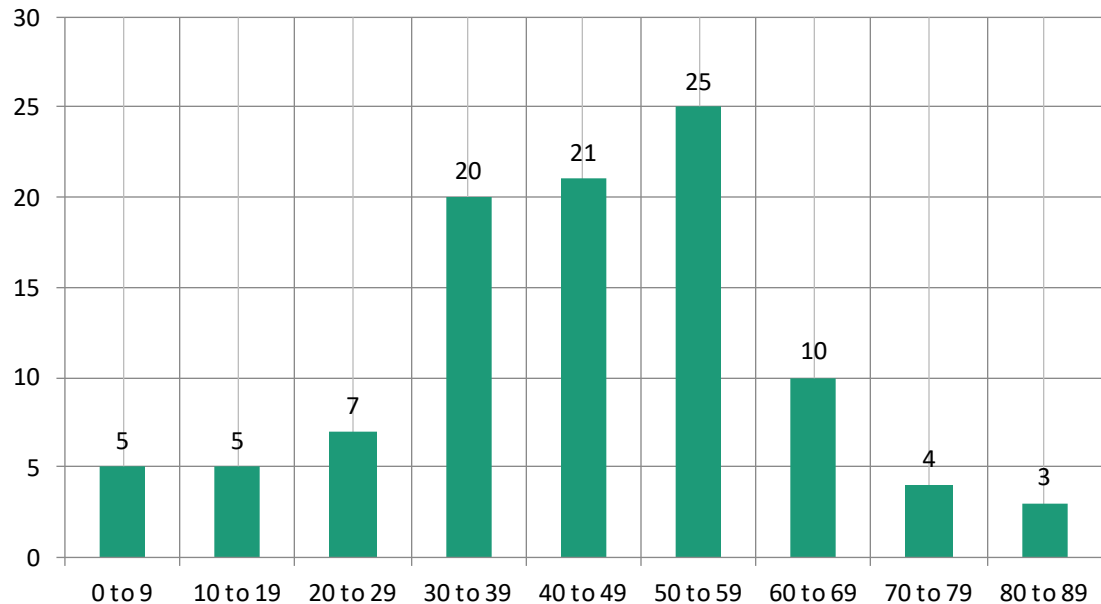
## The Studied cohort

### Question 1

**What is the age range of the studied cohort?**

81 studies (N=81)

The average age was 44 years old. The range of studied patients was 1 to 85 years old.

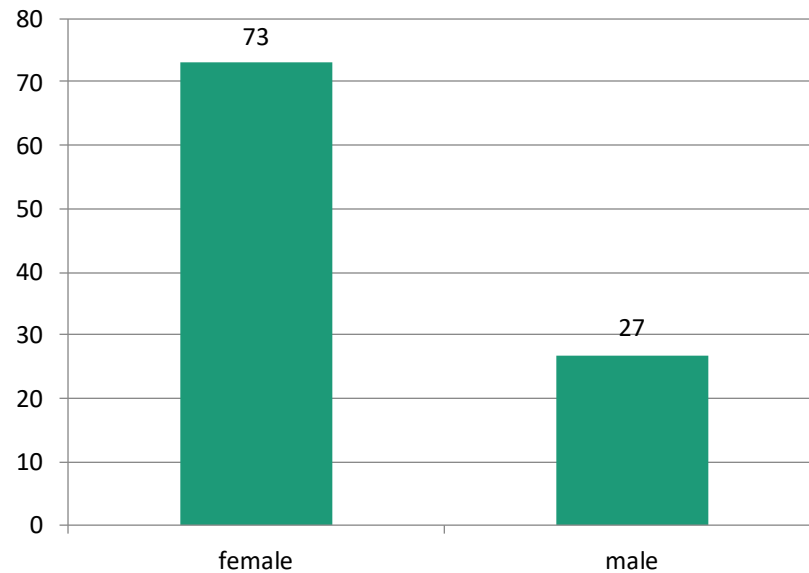


## Question 2

What percentage of the cohort were male or female?.

81 studies (N=81)

More female (73%) than male (27%)

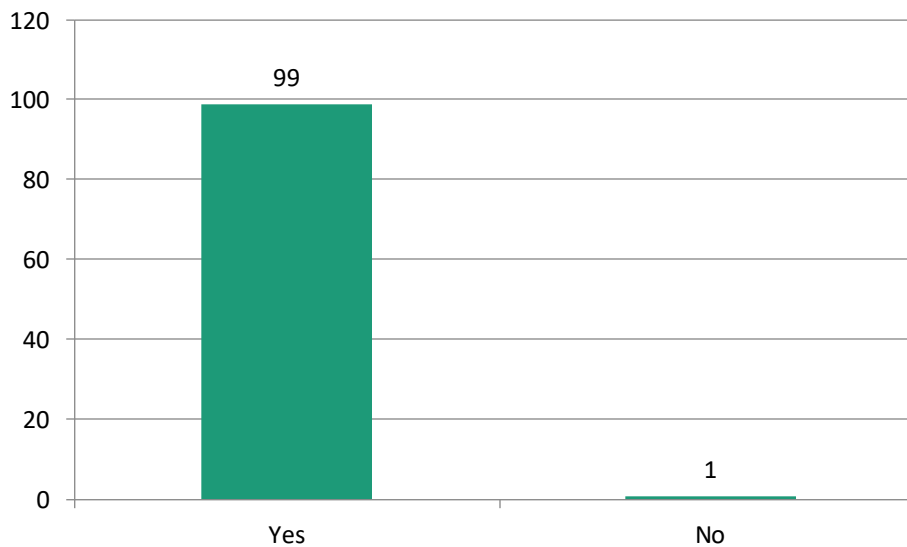


### Question 3

**What percentage of the cohort were identified, using personalised demographic data, before testing? .**

81 studies (N=81)

YES(99%) were confirmed as the person to be tested  
and only NO(1%) once.



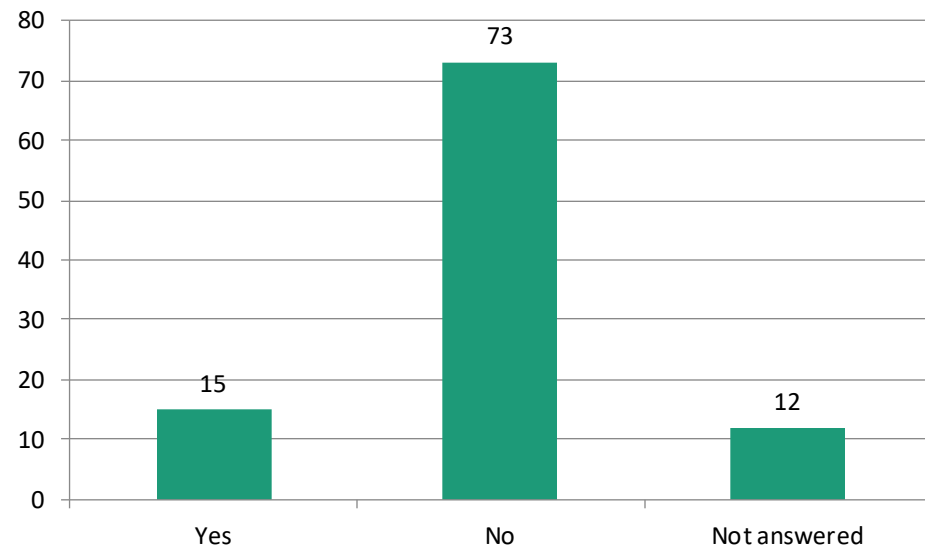
## The investigation Report - BSAEP

### Question 4

#### Were the recorded BSAEP results Abnormal?

81 studies (N=81)

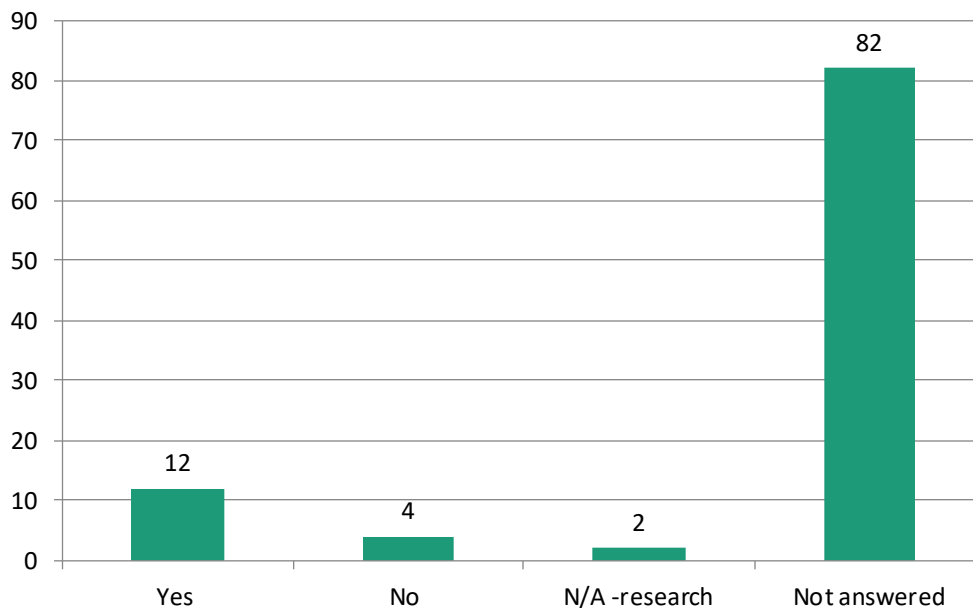
YES(15%) were confirmed as abnormal responses but most of those recorded were Normal (73%).



## Question 5

### Was a statement of abnormality produced?

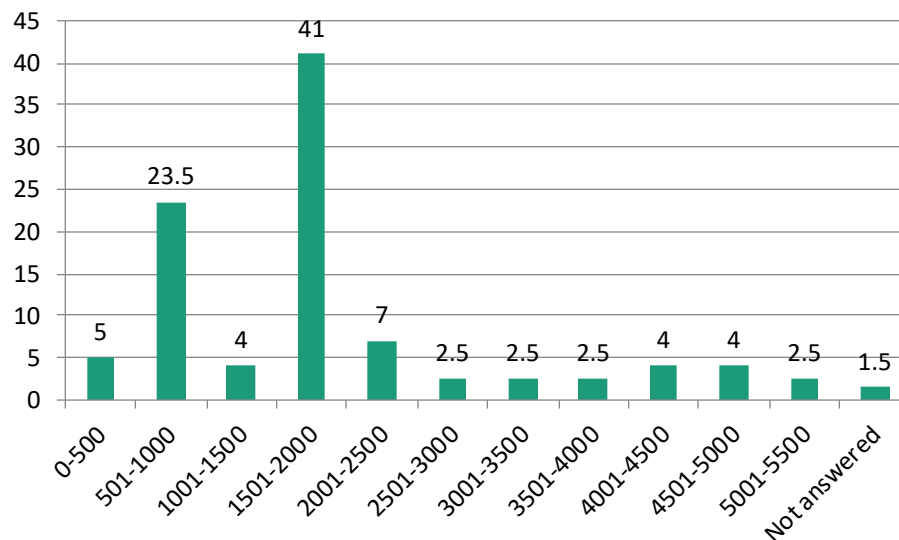
Of the identified abnormal results YES (12%) were confirmed with a statement of abnormality but this may have been much higher (not answered 82%)



## Question 6

**How many averages were used to generate the final waveform?**

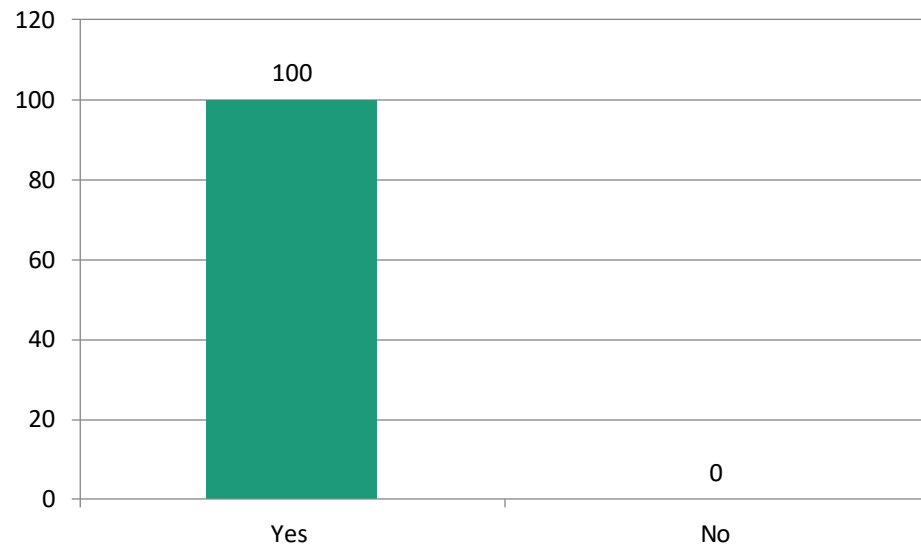
Averages ranged from 100 to 5157. The majority (41%) of waveforms were generated using between 1501 – 2000 averages with 2000 being the usual presentation.



## Question 7

How often were the traces replicated?

All of the time! (100%)

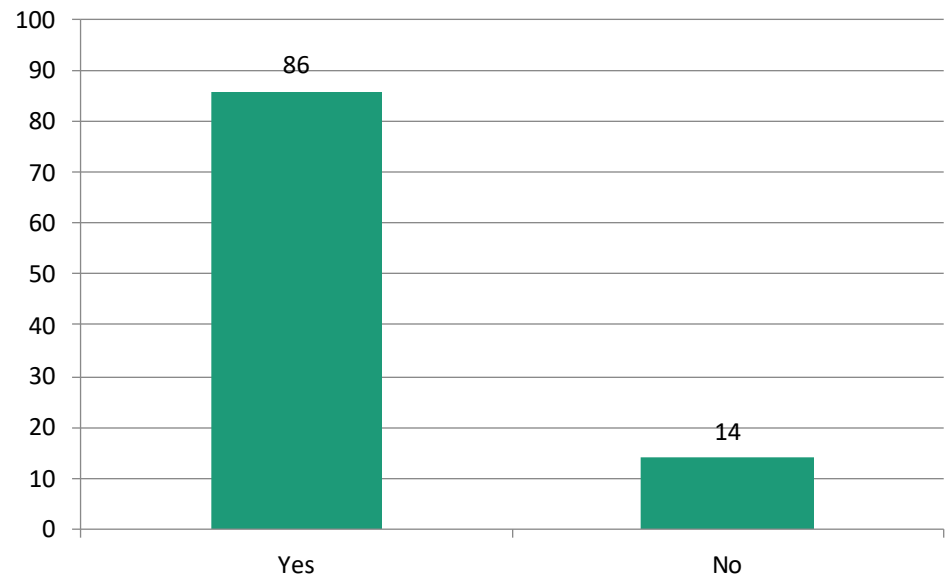




## Question 8

**How often were the traces superimposed to test reproducibility?**

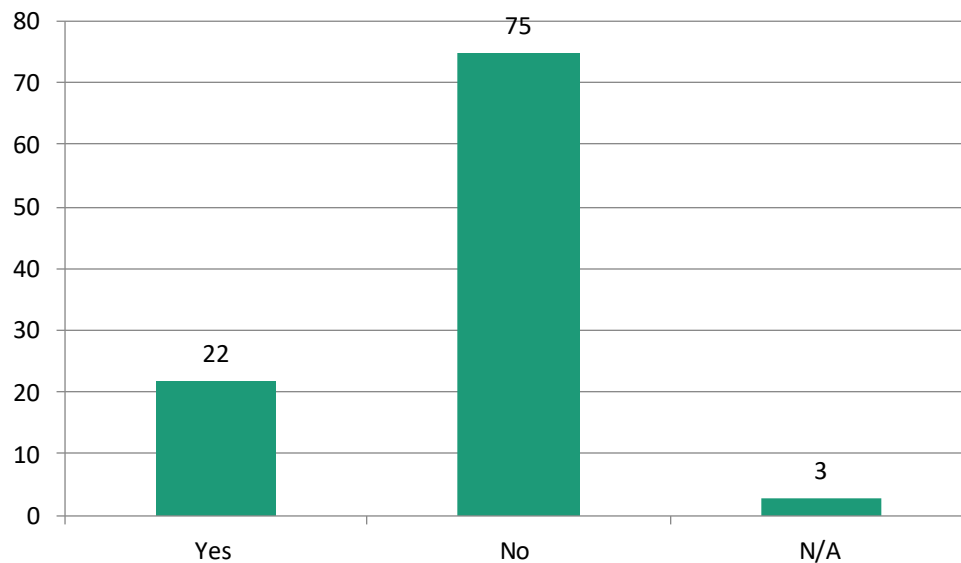
Nearly all of the time (86%).



## Question 9

**How often were the recorded waveforms found in the generated reports?**

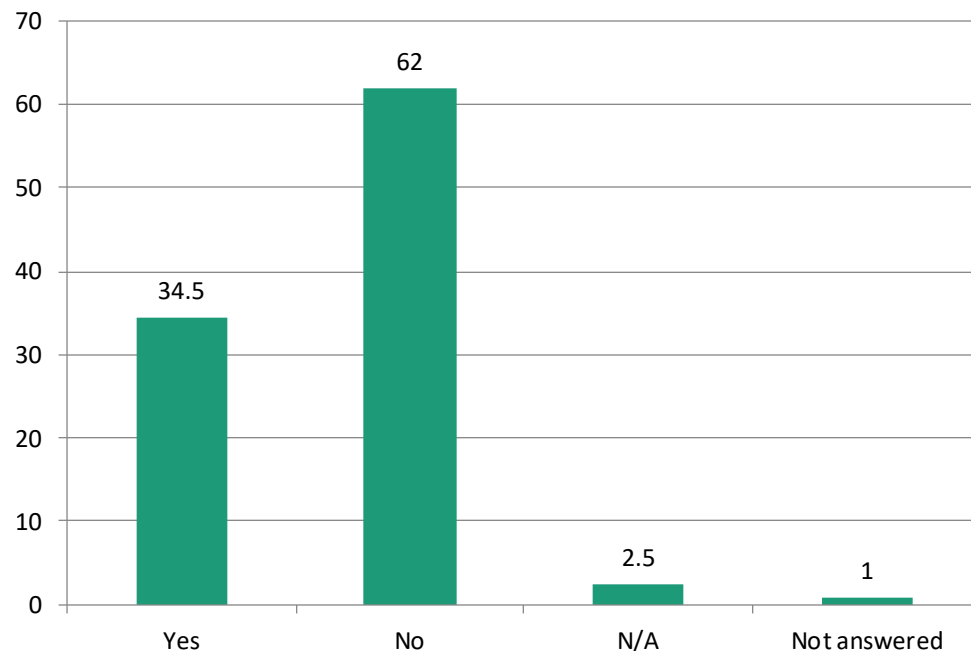
The waveforms are not routinely found in the report (75%). 1/5 reports do contain the waveforms but these reports are specific to certain sites.



## Question 11

**Did the report state the professional status of the investigator recording the waveforms?**

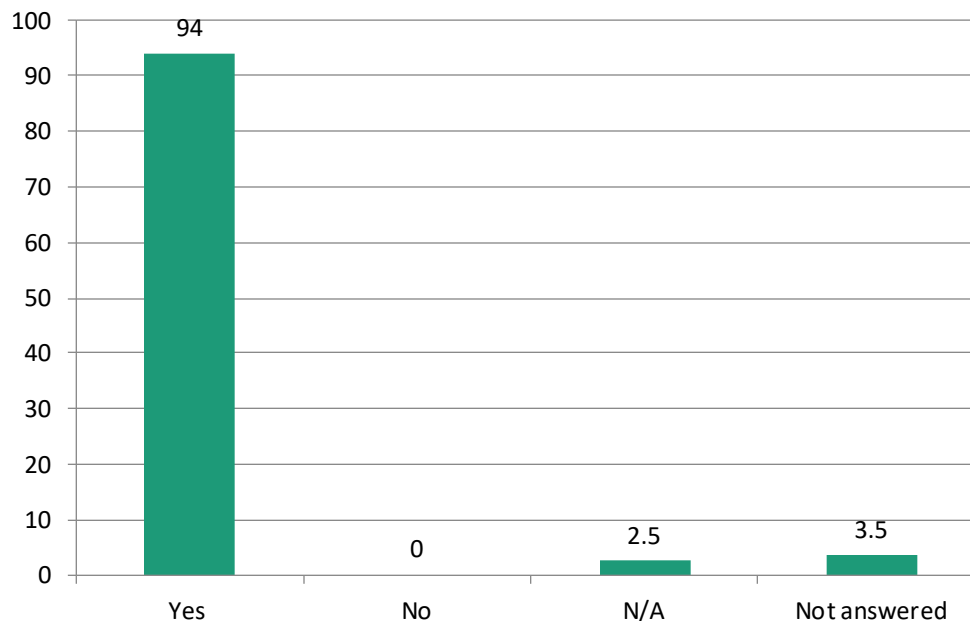
Reports did not routinely contain the status of the person recording the waveforms (62%) although 1/3 of reports did (34.5% - specific sites)



## Question 12

**How often did the generated report state the status of the person reporting?**

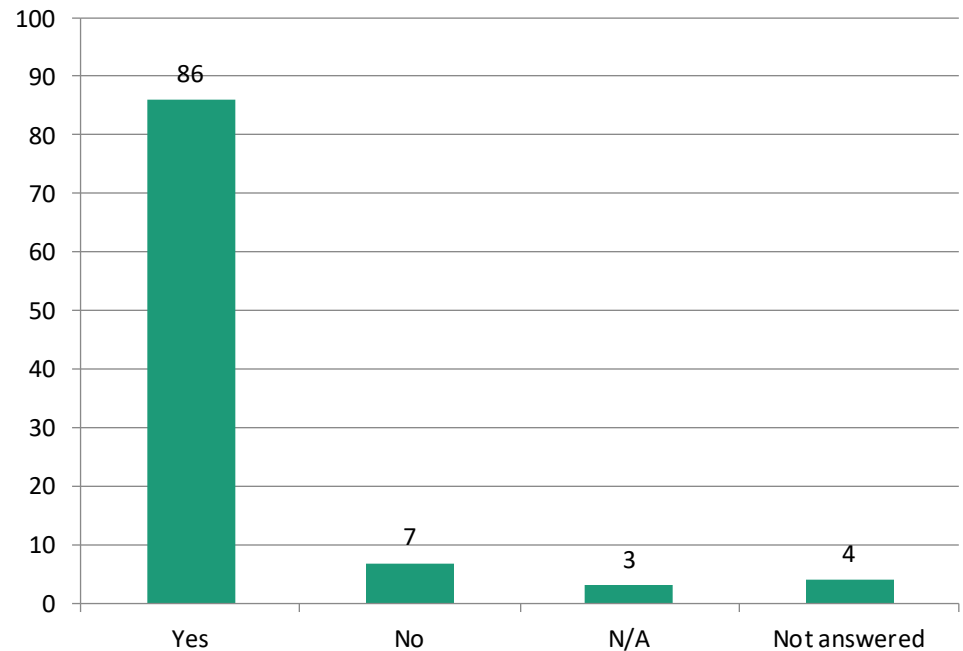
Reports did routinely identify the status of the person reporting the investigation (94%). This may have infact been 100% (N/A or Not answered results =6%)



### Question 13

#### How often are generated reports signed?

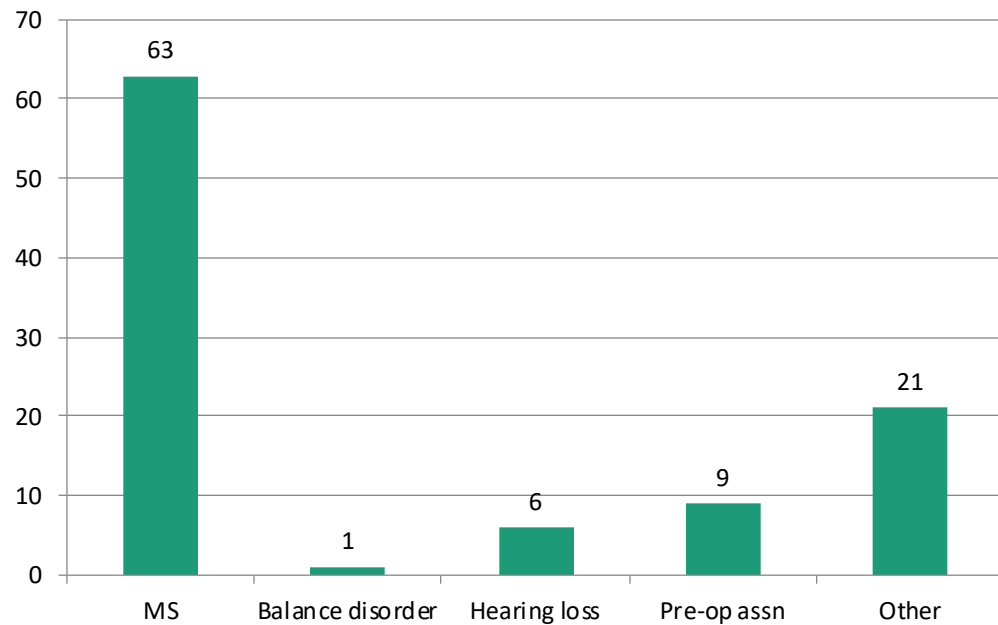
Reports did routinely contain the reporters signature in the majority of cases (86%) but on 7% the report was absent of a signature.



## Question 14

**What is the provisional diagnosis offered on the referral for BSAEP?**

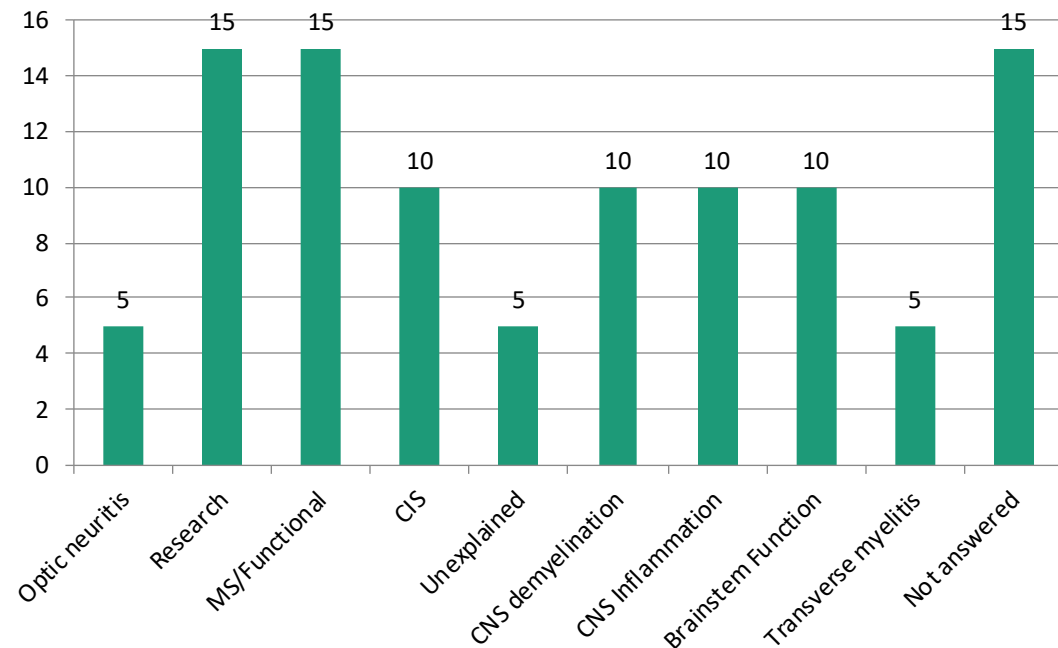
The provisional diagnosis is in most cases for MS (63%).



## Question 14a

**What other provisional diagnosis resulted in a request for a BSAEP?**

Quite a range of alternative provisional diagnosis resulted in a BSAEP being recorded.

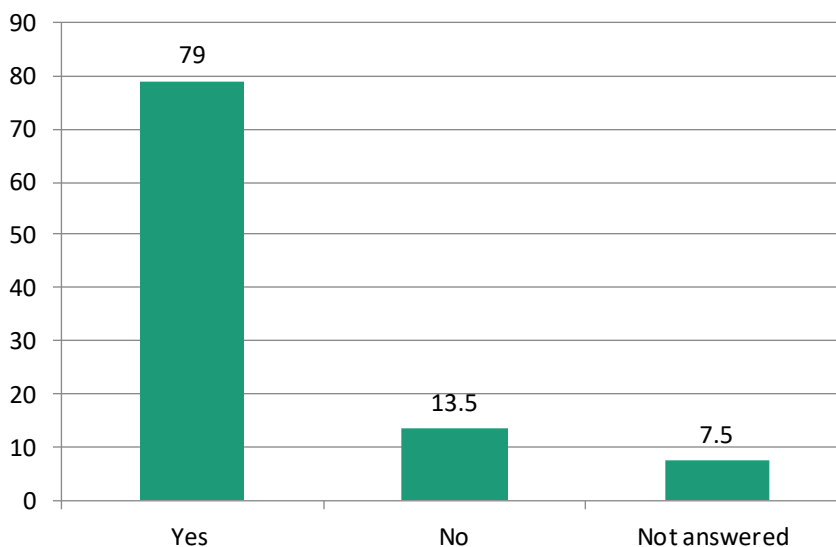


**Other Evoked potentials recorded, with the BSAEP, as part of the investigation.**

**Question 15**

**Was the LSSEP recorded on the same visit with the BSAEP?**

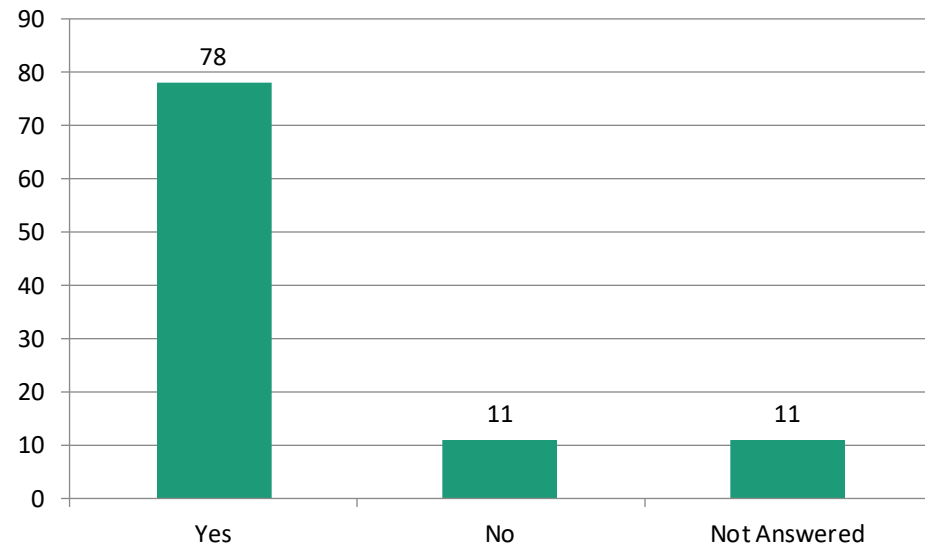
In the majority of cases the LSSEP was recorded (79%).





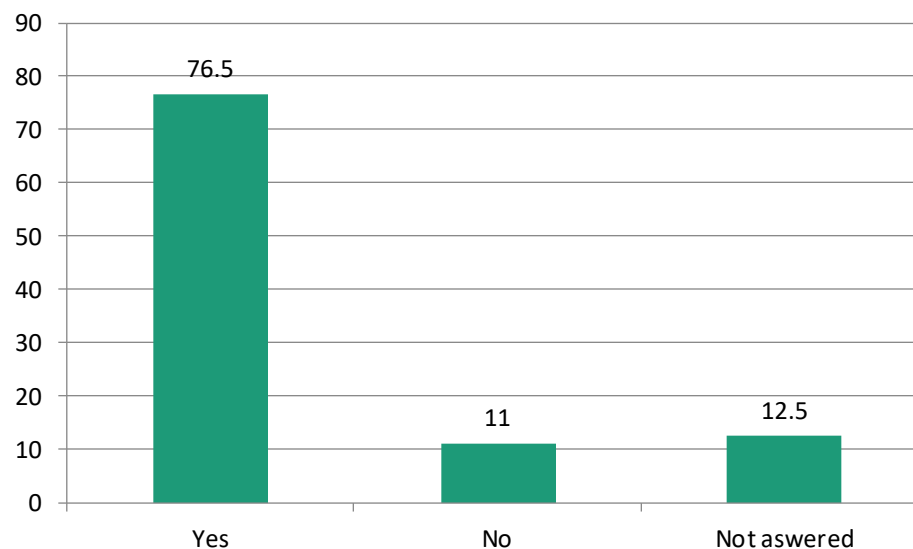
## Was the Upper limb SSEP recorded on the same visit with the BSAEP?

In the majority of cases the Upper limb was also recorded (78%).



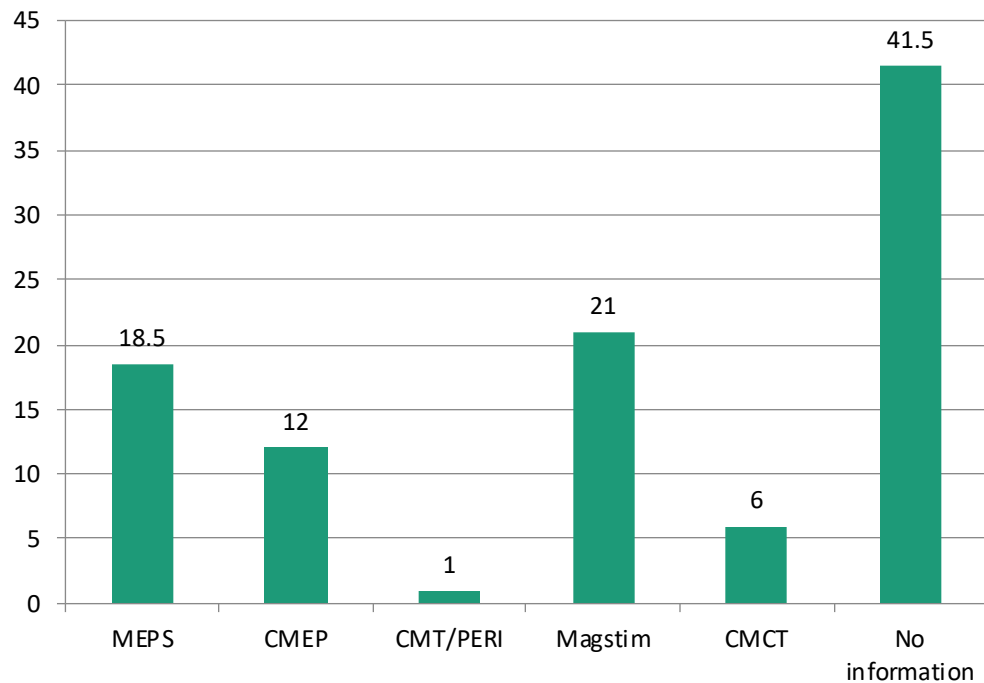
## Was the VEP recorded on the same visit with the BSAEP?

In the majority of cases the VEP was recorded during the same visit as the BSAEP(76.5%).



## What else was recorded with the BSAEP, during the same visit?

A range of other investigations were recorded including MEPs and Magstim! Unfortunately no information was given for 41.5% of other recorded waveforms.

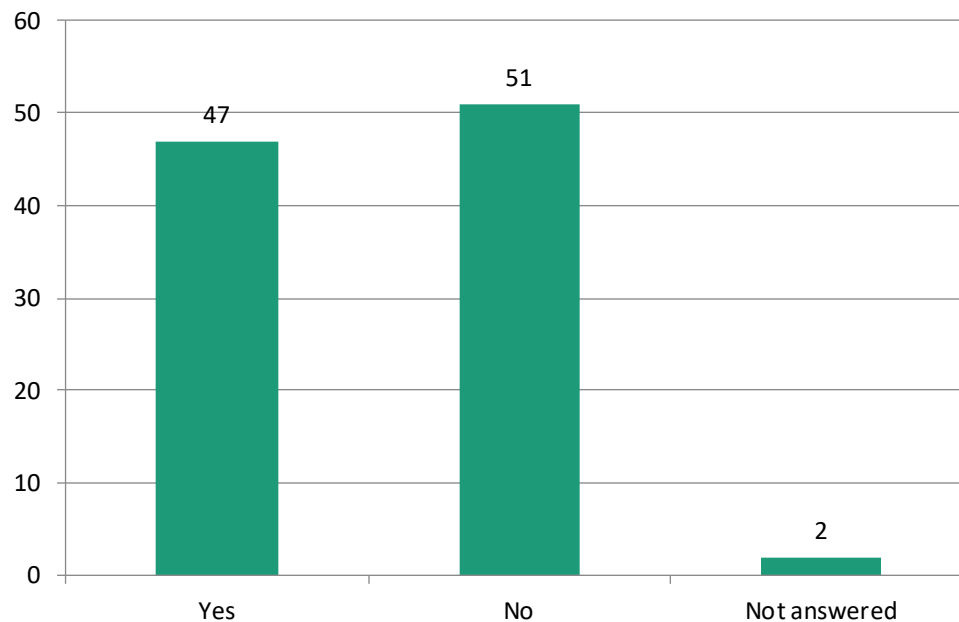


## Technical BSAEP!

### Question 16

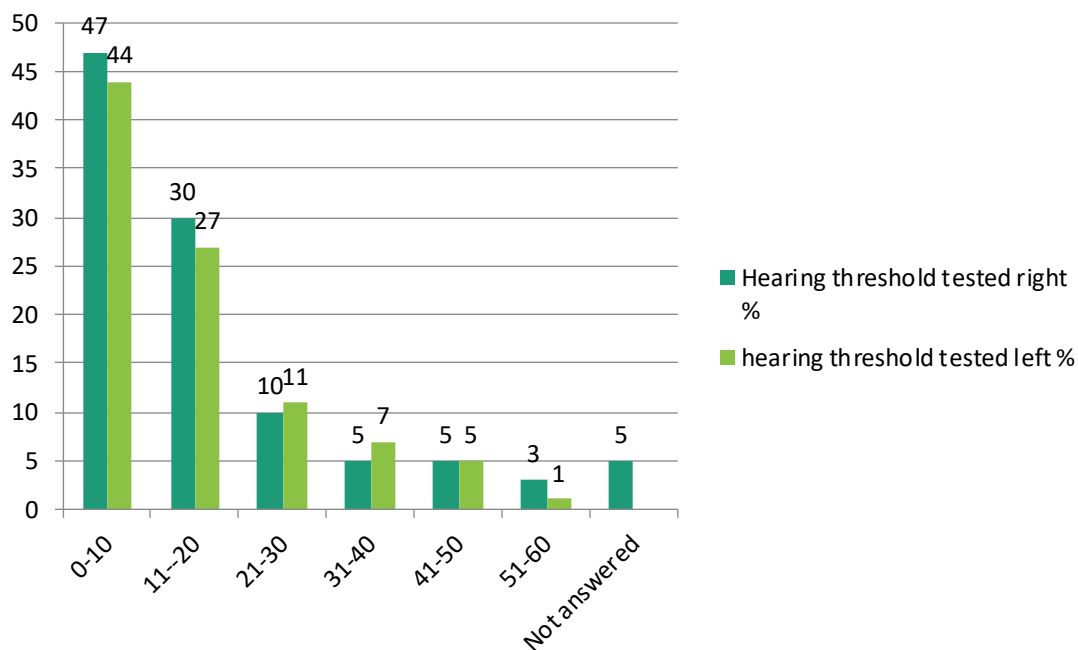
**Was the hearing threshold assessed?**

Yes (47%) but No on (51%) of occasions.



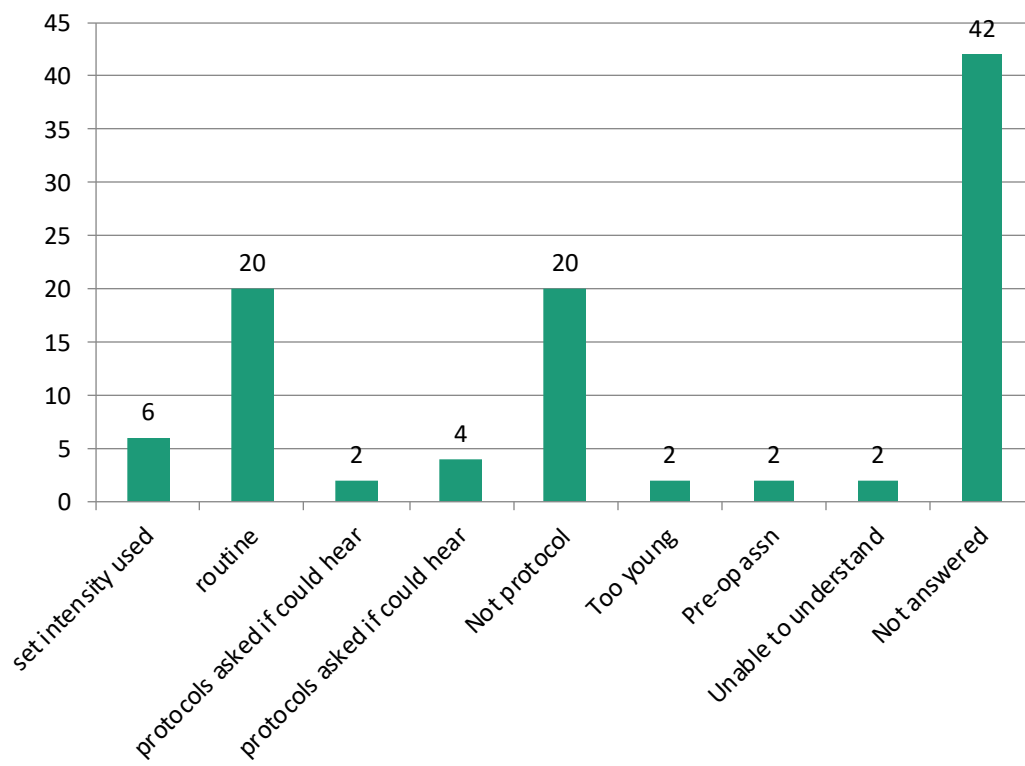
## Question 17

Of those occasions (47% of all BSAEP recorded) that the threshold was tested how did they compare to each other (side to side comparison in dB). In the majority of cases the testing was equal between sides.



## Question 18

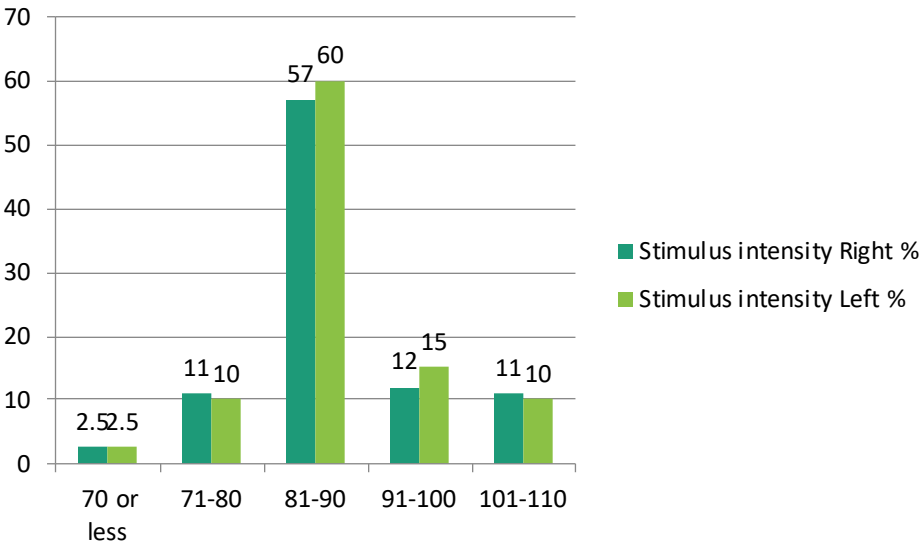
The reasons why hearing thresholds were not recorded.



# Question 19

**What stimulus intensities were used (dB).**

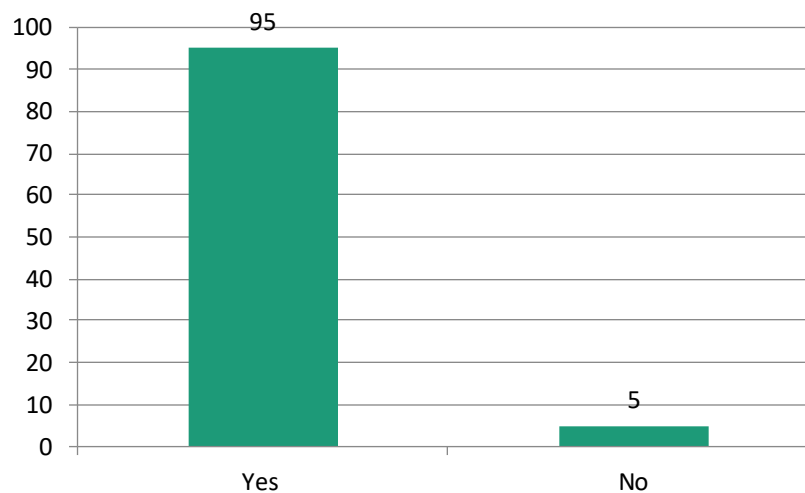
The stimulus intensities were usually matched with the main intensities being in the range of 81-90dB .



## Question 20

### Is Masking used during the recording of a BSAEP?

Masking of one ear is used in the majority of investigations (95%).

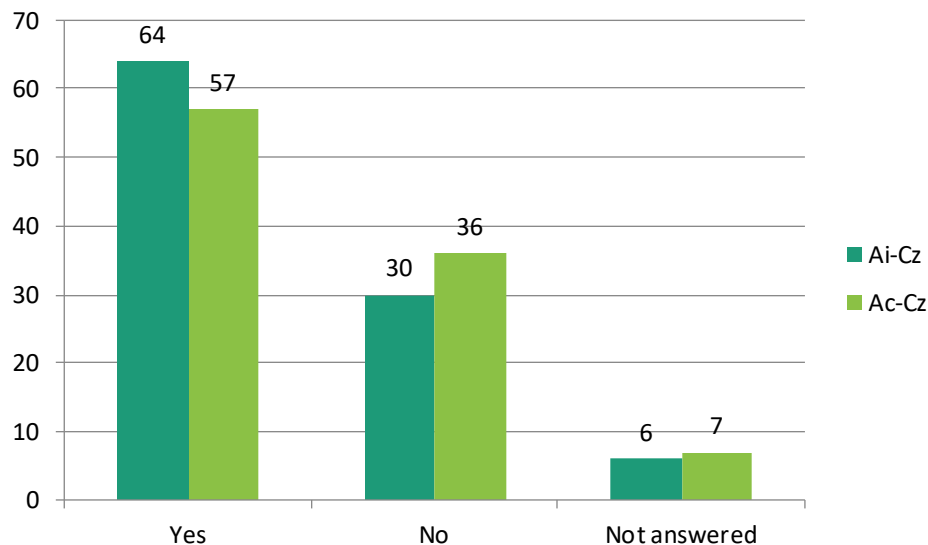




## Question 21

**Are the Ai-Cz/Ac-Cz Recording channels routinely used to record the BSAEP?**

Ai-Cz/Ac-Cz are used in the majority (57-64%) of occasions but other channels are also used. A1-Fz Ac-Fz right earlobe / left earlobe , A1-AC/ Cv-Cz



## **Reports.**

### **Recommendation 1.**

Before starting testing the patient is identified and the clinical information verified.

### **Recommendation 2.**

The report of the investigation contains the numerical data

### **Recommendation 3.**

The report makes a statement on any abnormality detected.

### **Recommendation 4.**

The professional status of the clinician performing the investigation and report is identified.

### **Recommendation 5.**

The report is signed by the clinician taking medico-legal responsibility for it.

## Technical

### **Recommendation 6.**

The recorded traces should be replicated to ensure reproducibility and validity.

### **Recommendation 7.**

The recorded traces should be superimposed to test reproducibility.

### **Recommendation 8.**

Masking should be used in the recording of the BSAEP

### **Recommendation 9.**

The number of averages to be no less than 1500 but preferably 2000.

Thankyou for participating and hope you  
find this all instructive and helpful.