The efficacy and safety of long term EEG monitoring in the outpatient setting:
a national service evaluation

M.Ray, N. Sinopoulos, L.Chandra, C.Pang

Literature Review

- Despite major advances in neuroimaging in the last 2 decades, EEG remains critical in the evaluation of patients with paroxysmal events mainly seizures
- Long-term Electroencephalography
  - 1961: Holter
  - 1970: first miniature head amplifiers- multichannel portable EEG
  - 1982: 16 channel ambulatory EEG
  - 1983: a cassette tape system was developed with off head amplifiers and continuous eight channel recording.

Longterm Electroencephalography

- Over the last 20y with technological (digital) progress EEG has evolved in 2 major ways:
  - Ability to record for prolonged periods
  - Simultaneous capacity to record videos
- Terminology has also evolved and many terms are used interchangeably.

Variables in EEG recording

- Inpatient versus outpatient versus home
- Prolonged versus short 2,6,24, 48,72h and so on
- With video versus without
- With provocation/ activation versus without
- Long-term outpatient EEG monitoring:
  - **Ambulatory EEG** : defined as ambulatory recording of electrical activity of the brain for a minimum of at least 24h where patients can maintain their regular activities of daily living at home or at work.
  - **Home video ambulatory EEG**: above + time locked video analysis.

Ambulatory EEG

How good is it ?

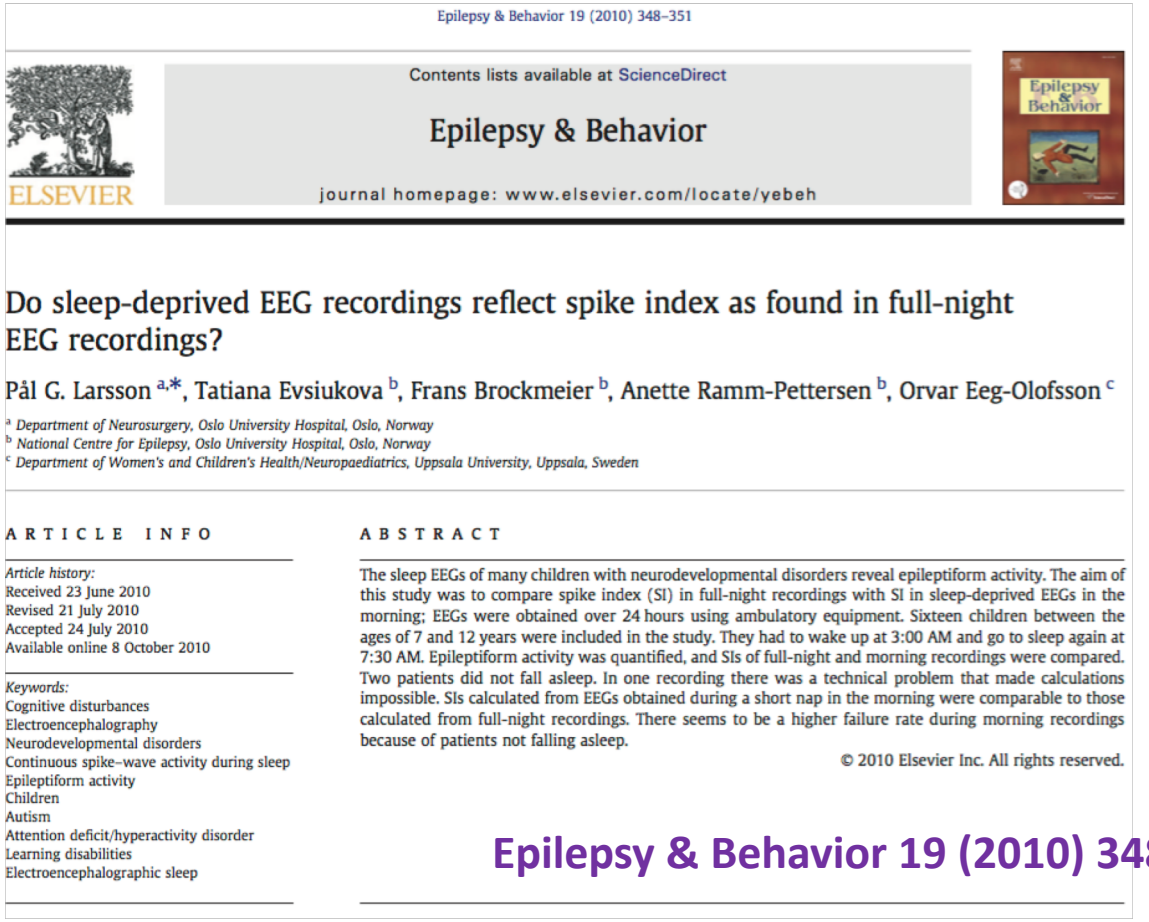
The diagnostic accuracy of Prolonged ambulatory versus routine EEG

- 72 patients

- rEEG=30min+ PS+HVT paEEG median =22.5h
- The sensitivity of paEEG was 2.23 times greater than rEEG
- The specificity was similar
- paEEG has 26% more chances of recording episodes
- Thus this study supports the role of paEEG relative to rEEG in the diagnosis and characterization of epilepsy

Clin EEG Neurosci 2016; 47(2):157-161

Sleep deprived EEG vs. aEEG



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Do sleep-deprived EEG recordings reflect spike index as found in full-night EEG recordings?

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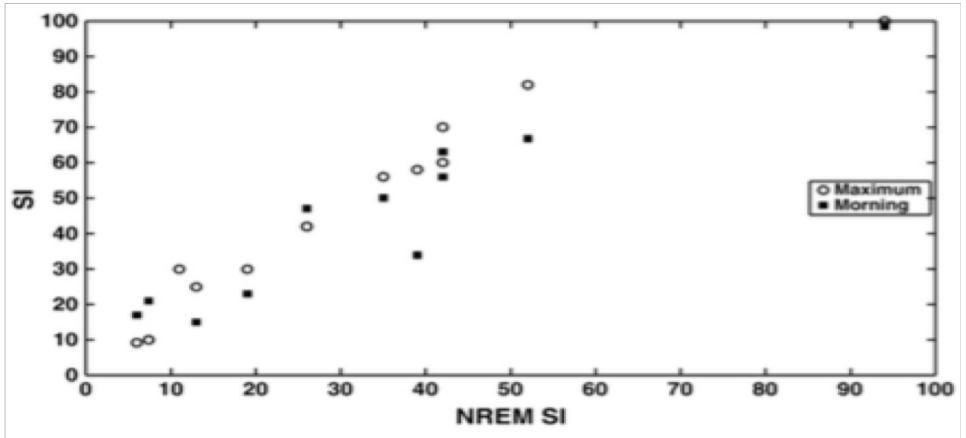
ABSTRACT

The sleep EEGs of many children with neurodevelopmental disorders reveal epileptiform activity. The aim of this study was to compare spike index (SI) in full-night recordings with SI in sleep-deprived EEGs in the morning; EEGs were obtained over 24 hours using ambulatory equipment. Sixteen children between the ages of 7 and 12 years were included in the study. They had to wake up at 3:00 AM and go to sleep again at 7:30 AM. Epileptiform activity was quantified, and SIs of full-night and morning recordings were compared. Two patients did not fall asleep. In one recording there was a technical problem that made calculations impossible. SIs calculated from EEGs obtained during a short nap in the morning were comparable to those calculated from full-night recordings. There seems to be a higher failure rate during morning recordings because of patients not falling asleep.

Epilepsy & Behavior 19 (2010) 348–351



Conclusions

Sleep EEGs recording in the mornings after sleep deprivation provide acceptable results for clinical use, but full night recordings are better and should be obtained whenever possible.

- Many children failed to fall asleep during a SD EEG
- In routine SD recordings the time set for sleep is short ,and hence spike index estimation is uncertain.
- Full night recordings with assessment of amount of epileptiform activity will automatically return information on sleep architecture unlike SD EEG
- More resources were used for SD recordings than aEEG
- Subjective experience of patients and parents showed negatively towards full night recording although this was not statistically significant

Comparison of ambulatory and inpatient 24hEEG: a value analysis

- A study conducted in US where at national level the charge for 24h vEEG monitoring was 75% higher than aEEG
- Retrospective chart review of 67 adults between 1.1.16-9.2.17
- **24 aEEG non inferior to 24h EMU in fact it is of higher value as EEG fee and hospital costs are less.**

	24h IP EEG	aEEG	P Value
IED detection vs rEEG	38.8% vs. 28.4%	50% vs. 18.2%	0.06
Captured seizures			0.5
Captured non-epileptic spells	15%	13.6%	>0.05
Changed treatment	22.4%	34.1%	0.10

Clin Neurophys 2018; 129:e66-e141.

Ambulatory EEG: a cost-effective alternative to inpatient video EEG in adult patients.

- High diagnostic yield of 72%
- Careful patient selection is the most important factor for diagnostic yield
- The main use is for characterization of NEAD and quantification of spikes and seizures to improve medical management.
- Cost effective solution.

Epileptic Disord 2012;14:290-297.

Detecting interictal discharges in first seizure patients: ambulatory EEG or EEG after sleep deprivation?

- Diagnostic accuracies of aEEG and SD EEG are similar
- Most IEDs are present in sleep stage II
- Sensitivity 63% vs. 45% although specificity was similar (91% vs 95%)
- Both aEEG and SD EEG can be considered in patients with a first seizure and a normal routine EEG to determine recurrence risk.

Seizure 2017 Oct;51:52-54.

Idiopathic generalized epilepsies : When to stop therapy? Role of aEEG

- Longitudinal clinical FU and aEEG of 24 adolescents with IGE
- t0 (before pharmacological treatment withdrawal)
- t1- half dosage of therapy
- t2-1m after withdrawal
- t3-1y later
- Conclusion:
  - the presence or the appearance of generalized abnormalities resulted as a positive predictive factor for epilepsy relapse unlike focal abnormalities during withdrawal
  - aEEG was found to be a useful diagnostic tool to predict epilepsy relapse during pharmacological treatment withdrawal

Eur J Ped Neurol2017; 21: e96-e108

The characteristics and related influencing factors of ambulatoryEEGs in patients seizure-free for 3-5 years. Epilepsy Res 2012;98:116.

Correlation between the changes in ambulatory electroencephalography findings and epilepsy recurrence after medication withdrawal among the population in southern China. Neurol Med Chir (Tokyo) 2013; 53:12-6.

- aEEG remained abnormal in 41.1% even after being seizure free for 3-5y
- A longer time period before the disappearance of epileptic abnormalities >3y on the aEEG was correlated with a higher seizure recurrence rate.
- No study comparing assessment of recurrence risk of aEEG vs. rEEG.

Can aEEG be used for pre-surgical evaluation?

- Retrospective with small sample size
- Restricted to patients with temporal lobe epilepsy and with high seizure frequency
- There should be high congruence between radiological findings and aEEG data
- No physician's evaluation is possible when a patient has a seizure- a serious drawback
- Therefore for presurgical monitoring IPVT remains gold standard investigation

Epilepsy Behav Case Rep 2013;1:39-41
J Clin Neurophysiol 1999;16:116-129.

The value of home video with ambulatory EEG : a prospective service review

- aEEG + hand held camcorder was used
- Only 35% accepted the camcorder
- Of these patients 76% had episodes of which only 50% were captured.
- Reasons for failure: too brief attacks and difficulties in use of camcorder
- Home video facilities aided interpretation of aEEG recording in approximately 1/3 of patients.

Seizure 2014; 23:480-482

Development, evaluation and implementation of video-EEG telemetry at home.

- Diagnostic HVT for seizure classification and polysomnographies can be safely conducted at patients' home.
- No security risks for staff.
- Can be effectively integrated into an existing tertiary care service.
- Encouraged other clinical neurophysiology departments to adopt and implement HVT for nationwide coverage.

Seizure 2014;23:338-343.

Video-ambulatory EEG in a secondary care center: a retrospective evaluation of utility in the diagnosis of epileptic and nonepileptic seizures

- Retrospective review of VaEEG data of consecutive 88 patients
- Typical episodes recorded in 55(62.5%)
- ½ of cases at least 1 event was clearly seen on video lead to confident diagnosis
- In those where video capture failed a diagnosis could be offered in 55%
- Overall diagnostic utility 67%

Epilepsy Behav 2016;57:137-140.

Video ambulatory EEG: A good alternative to inpatient video telemetry?

- Diagnostic questions were answered by 73% V-aEEG and IPVTs.
- Quality of EEG and video recording was found to be similar
- Only 4 out of 61patients had difficulty in recording events
- Patients preferred home based evaluation.
- No significant additional technician time was required in setting up VaEEG
- Hence VaEEG is an economical , convenient alternative to IPVT

Seizure 2017; 47:66-70.

Impact of video-ambulatory electroencephalography on the medical management of epilepsy

- 55.9% of 171 patients studied had events captured.
- Diagnostic yield was more for patients who had an earlier diagnosis of epilepsy
- 24.3% of patients had alteration of medical treatment following VaEEG by either introducing or increasing dose of AEDs.
- Therefore VaEEG is useful in influencing clinical attitudes towards longstanding history of epilepsy.

J Neurol Sci 2016;365:139-142.

Home video telemetry in children: A comparison to inpatient video telemetry.

- The diagnostic efficacy and study quality of HVT and IVT are similar
- Procedure is acceptable to most patients
- User error may compromise certain studies but it did not impact diagnostic utility largely
- Accessible, economical alternative to IVT.

Seizure 2018; 61:209-213.

Ambulatory EEG

Who is it suitable for?

The role of outpatient ambulatory electroencephalography in the diagnosis and management of adults with epilepsy or nonepileptic attack disorder: A systematic literature review

- aEEG is routinely used in adults with epilepsy or nonepileptic attack disorder.
- It is a useful diagnostic tool in patients with equivocal findings on rEEG.
- It is more likely to capture clinical events than sleep-deprived EEG.
- This is often able to record subclinical episodes unrecognized by patients suggestive improved diagnosis on review of entire data rather than those marked
- Further research on the combined use of aEEG and home-video is

Epilepsy and Behavior 2015;53:26-30

Study	Aim(s)	Population	*n*	Ambulatory EEG	Duration	Comparator	Diagnostic yield (%)	Frequency (%) of captured events (epileptic)	Other key findings
Brunnhuber et al. [24]	To describe the development and implementation of video-EEG telemetry in the patient's home	N/A	5	Xltex Connex video-EEG system, continuous recording	3 days (average)	IVT (in a test–retest design)	80.0	80.0 (80.0)	All patients preferred AEEG to IVT.
Chang et al. [25]	To determine whether AEEG provides reliable localization to guide surgical resection in TLE	Age range: 22 to 43 years; 1 male	7 AEEG 14 IVT	16 channels, continuous recording	5 to 21 days	IVT (in a separate control group)	N/A	100.0 (100.0)	Surgical outcome similar in both groups
Dash et al. [21]	To determine usefulness of AEEG, reasons for failure and patient satisfaction	Age range: 13 to 60 years (mean: 36.6 years); 45 males	101	32-channel XItec EEG system, continuous recording	24 to 72 h	Previously undergone routine EEG in most patients (98%)	71.3	40.6 (9.9)	High levels of patient satisfaction
Faulkner et al. [26]	To characterize usefulness of AEEG in investigating paroxysmal events	Age range: 12 to 79 years (mean: 39 years); 132 males	324	32-channel ProFusion EEG system, continuous recording	72 to 96 h	Previously undergone routine EEG in most patients (data not available)	67.6	51.5 (15.7)	87% of events captured in first 72 h; no significant difference between latency of epileptic events and latency of nonepileptic events
Koepp et al. [27]	To determine feasibility and the prognostic value of AEEG in predicting outcome following AED withdrawal in patients with learning difficulties	Age range: 22 to 85 years (median: 65 years); 12 males	18 (3 dropouts)	16-channel Oxford Instruments system, continuous recording	19 to 24.5 h	Previously undergone 20-minute EEG with photic stimulation and hyperventilation	N/A	0.0 (0.0)	Detection of IEDs predicted seizure recurrence following medication withdrawal in all cases.
Liporace et al. [28]	To determine whether sleep-deprived EEG or AEEG is diagnostically more useful in patients with a normal routine EEG	N/A	46	16-channel computer-assisted DigiTrace system, noncontinuous recording	24 h	Previously undergone sleep-deprived EEG with photic stimulation and hyperventilation	32.6	15.2 (15.2)	Management affected in 15.2% (all cases in which seizures were detected)
Morris et al. [29]	To assess the clinical usefulness of AEEG	Age range: 6 months to 69 years	344	16-channel computer-assisted DigiTrace system, noncontinuous recording	32 h (average)	Previously undergone routine EEG (normal in 191 patients)	67.5	74.4 (N/A)	The 67.5% of recordings rated as useful consisted of 25.1% showing EEG abnormalities and 42.4% showing no changes from background EEG during clinical events.
Morris et al. [30]	To assess the clinical usefulness of AEEG via survey of referring clinicians	Age range: 6 months to 69 years	145 (24 surveys not returned)	16-channel computer-assisted DigiTrace system, noncontinuous recording	32 h (average)	Previously undergone routine EEG	N/A	N/A	80.2% of patients benefitted from undergoing AEEG, with seizure freedom/ reduction in 84% of the follow-up sample.
Zarkou et al. [31]	To determine the diagnostic yield of repeat EMU admission versus AEEG in patients with a previous nondiagnostic EMU stay	N/A	19 AEEG 13 IVT	N/A	N/A	IVT	5.3	N/A (N/A)	Repeat EMU admission more likely to secure diagnosis than AEEG

The clinical utility of ambulatory EEG in childhood

- aEEG was useful in almost 2/3 of the cases. (28-90%)
- Majority of recordings were done for 24h, and longer recordings were felt unnecessary
- Commonest cause of unsuccessful investigation was failure to record events in 55.6%
- In cases where frequency of attacks was <3/wk the utility of test was 31%
- In cases where frequency of attacks was >3/wk the utility of test was 47.4%
- Telephone checks 7d prior to testing reduces false negatives.
- Technical issues were at fault only in 9.7%
- ESES was the indication for the test in 38.6% and informative in 97.5%

Seizure 2019; 64:45
J Pediatr Neurosci 2013;8:188

Diagnostic yield of ambulatory EEG in elderly

- In 156 cases >60y , 58 (37%) showed significant diagnostic findings
- In 21% cases this lead to changes in management
- Focal slowing in rEEG predicts epileptiform abnormalities in aEEG
- aEEG duration correlates with capture of typical non-epileptic events.
- Duration of study 24h only as in 96% IEDs were detected by that time
- Skin breakdown is a concern with extended EEG monitoring in the elderly

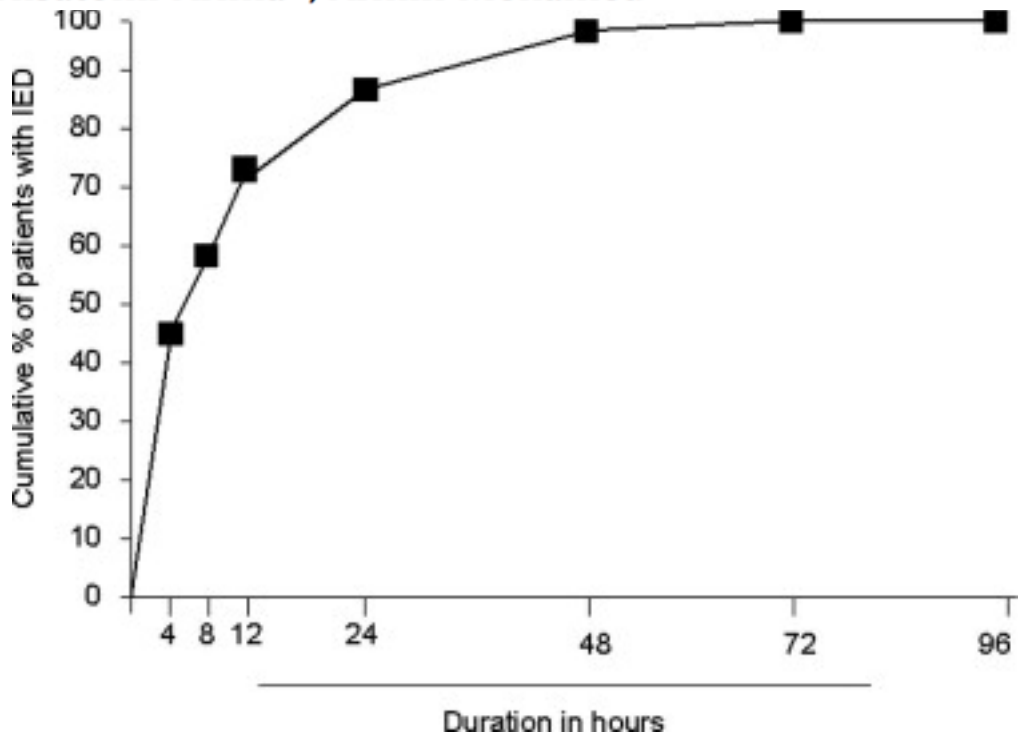
Clin Neurophysiol 2017; 128; 1350-1353

Duration of aEEG

Determination of Interictal Epileptiform discharges (IED)

Latency to first interictal epileptiform discharge in epilepsy with outpatient ambulatory EEG

Howard J. Faulkner [a,b,*], Hisatomi Arima [c], Armin Mohamed [a]

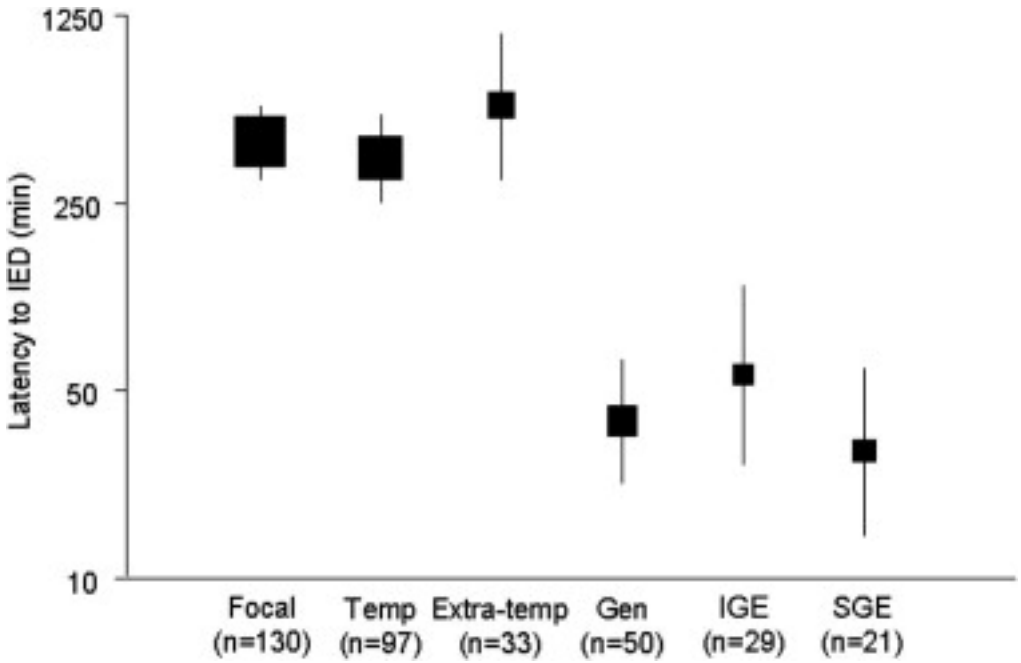


Clin Neurophysiol, 123 (2012), pp. 1732-1735

Determinants of latency to first IED

	Univariate analysis			Multivariate analysis		
	SE	beta	p Value	SE	beta	p Value
Age (per 10 years)	0.027	0.009	**0.003**	−0.009	0.011	0.40
Sex (female vs male)	−0.253	0.276	0.36	0.187	0.269	0.49
Log of epilepsy duration (per 1)	0.637	0.145	**<0.0001**	0.334	0.158	**0.04**
Reported frequency (vs 0 per 28 days)						
0.4 per 28 days	0.578	0.630	0.36	0.734	0.577	0.21
1 per 28 days	0.035	0.532	0.95	0.211	0.530	0.69
4 per 28 days	−0.124	0.535	0.82	0.220	0.536	0.68
10 per 28 days	0.149	0.746	0.84	0.923	0.705	0.19
28 per 28 days	−1.053	0.524	**0.05**	0.088	0.563	0.88
Event during recording (yes vs no)	−0.569	0.273	**0.04**	−0.474	0.294	0.11
Epilepsy classification (generalized vs focal)	−2.338	0.254	**<0.0001**	−2.389	0.336	**<0.0001**
Antiepileptic drug (yes vs no)	−0.559	0.327	0.09	−0.512	0.332	0.13
Lesion on MRI (yes vs no)	0.418	0.300	0.17	−0.143	0.300	0.63

Latency to IED according to epilepsy classification

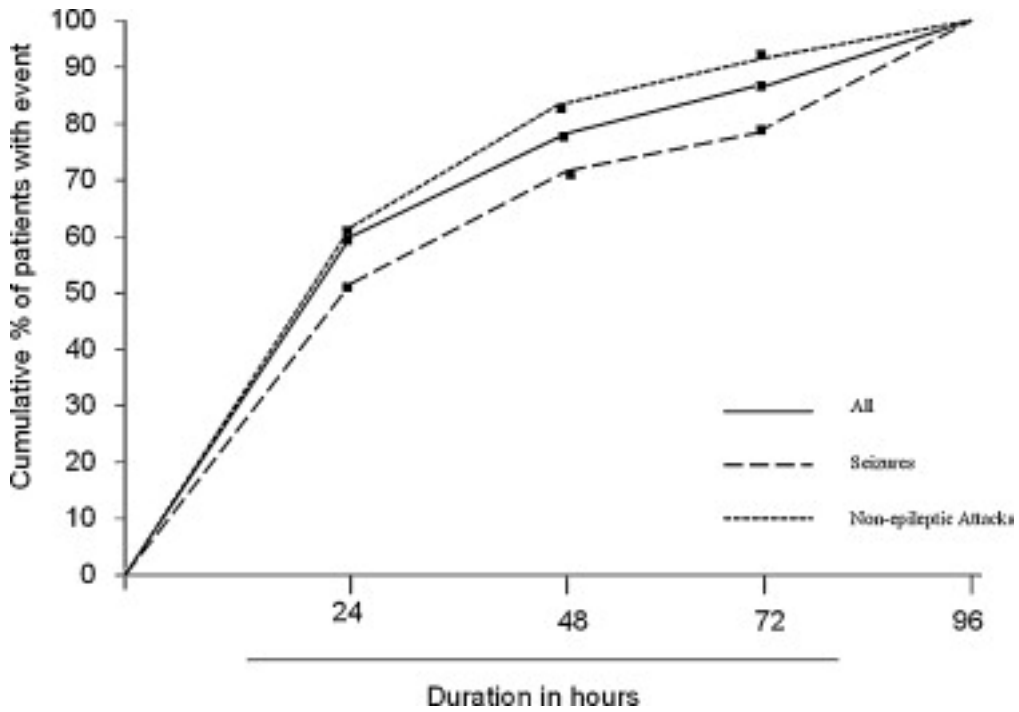


Duration of aEEG

Determination of first recorded episodes

The utility of prolonged outpatient ambulatory EEG

Howard J. Faulkner [a,b,*], Hisatomi Arima [c], Armin Mohamed [a]



Seizure 2012; 21:491-495

Optimal recording duration of ambulatory EEG

- Retrospective review of aEEG procedure notes at the Stanford Comprehensive Epilepsy Center
- 358 adult aEEG from 2010 to 2017 found IED or epileptic seizures in 101 of the readings (28%).
- The detection rates for 20-30 hours, 30-50 hours, and 50-76 hours of recording yielded little difference.
- Epileptic seizures were observed in 11%, 7%, and 10% respectively for the 3 duration periods.
- An analysis of the IEDs revealed no significant differences in detection rates for the 3 duration periods.
- Among aEEGs ordered to characterize suspected events, however, 72 hours was the best option
- Conclusion: aEEGs rarely yield useful information beyond 24 hours duration.

Epilepsy Res. 2019;149:9-12

No Further Yield of Ambulatory EEG for Epileptiform Discharges Beyond 13 Hours

Total duration: 24 hours			
30 mins	23.5 hours		
E-EEG*	Extended EEG		
	SI	SII	SIII
Initial 30 minutes	31st min to 8th hour	9th hour to 16th hour	17th hour to 24th hour

*Early EEG

FIG. 1. Ambulatory EEG segments.

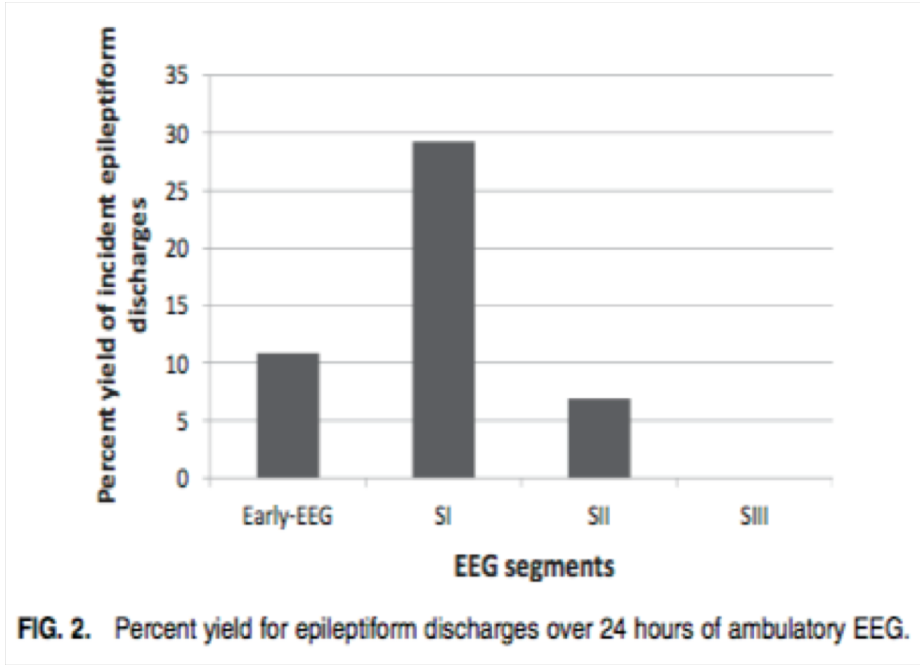


FIG. 2. Percent yield for epileptiform discharges over 24 hours of ambulatory EEG.

Neurodiagn J 2017; 57: 211–223.

Conclusion

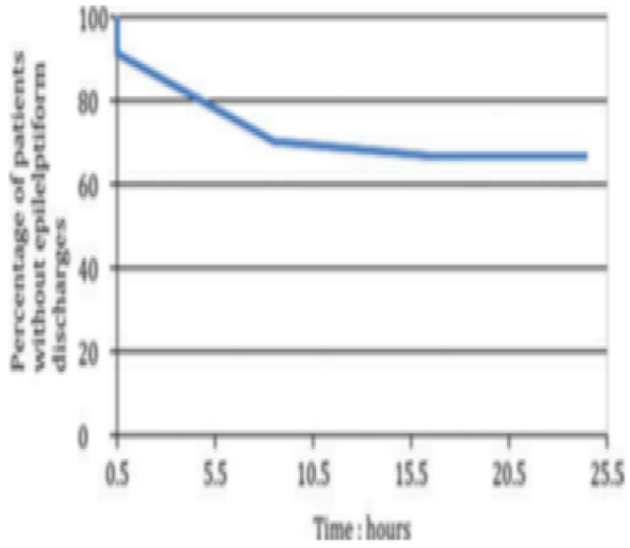


FIG. 3. Kaplan-Meier survival curve showing patients without epileptiform discharges over 24 hours of ambulatory EEG.

- The probability of capturing IEDs is probably negligible if the clinical history does not clearly support the diagnosis of seizure or epilepsy
- The yield of a 13-hr aEEG to capture IEDs is equal to a 24h recording
- Patients younger than 35y with generalized epilepsy and those with cortical lesions on brain MRI may require shorter duration.

Neurodiagn J 2017; 57: 211–223.

- Seizures often occur in clusters. Spikes and sharp waves in EEGs tend to do the same.
- As a result, it is not necessarily the best clinical tactic to extend the EEG time linearly to longer studies.
- Sometimes a few shorter studies may give the right answer with less recording time.
- But which is more cost effective?
- An ambulatory study needs to be hooked up and taken down only once, so an ambulatory study may cost less than three routine awake and asleep EEGs.
- This is a ground for future direct comparison study, especially in these days of pressure to obtain the best information with the least health care expenditure.
- This also depends on whether the routine EEGs are performed after sleep deprivation, a factor known to increase the yield of pathological findings; and whether the routine EEGs were performed for 30–40 min so as to obtain good sleep as opposed to stopping after just 20 min.

(Nuwer MR, 2012,Faulkner et al., 2012 Marsan and Zivin, 1970; Doppelbauer et al., 1993)

- As ambulatory EEG becomes more readily available to the clinical community, these studies are of increasing value to the clinician.
- Which patients are the best candidates?
- How long the recordings should last?
- What is the safety profile?

Reasons for project

- Long-Term EEG Monitoring (LTM) correlating electro-clinical features is useful
  - in determining the seizure classification
  - clarification of nonepileptic attacks.
- Outpatient LTM is routinely achieved with ambulatory EEG monitoring, however time locked video may now be incorporated

Purpose of study

1. To assess the efficacy of long-term EEG monitoring in detecting epileptiform abnormalities, both interictal as well as ictal
2. To study the contribution of incorporated video along with the time locked ambulatory EEG recording
3. To estimate risks and safety data while conducting this procedure.

Aims and objectives

- To formulate national guidelines for:

- 1. Optimising the use of long-term outpatient EEG recording for the diagnosis of paroxysmal and sleep related events
- 2. Generating national data to provide patients with information on risks and safety issues while undergoing this diagnostic procedure

Methodology

Prospective data collected of consecutive patients over 3m starting on 9/4/18

- The questionnaire was designed to obtain information on departmental protocols and the incidence of paroxysmal events and adverse events.
  - Data was anonymised and a unique identifier was allocated consisting of the post code of the centre and consecutive numerical codes.
  - Data entry and analysis was performed centrally using MS Excel
  - E mail and post was used for communication but included no patient identifiable information, to comply with Caldicott guidelines for data collection.

BSCN Founded as the EEG Society in 1942

Joint National Audit Project

ASSOCIATION OF ANS ANS

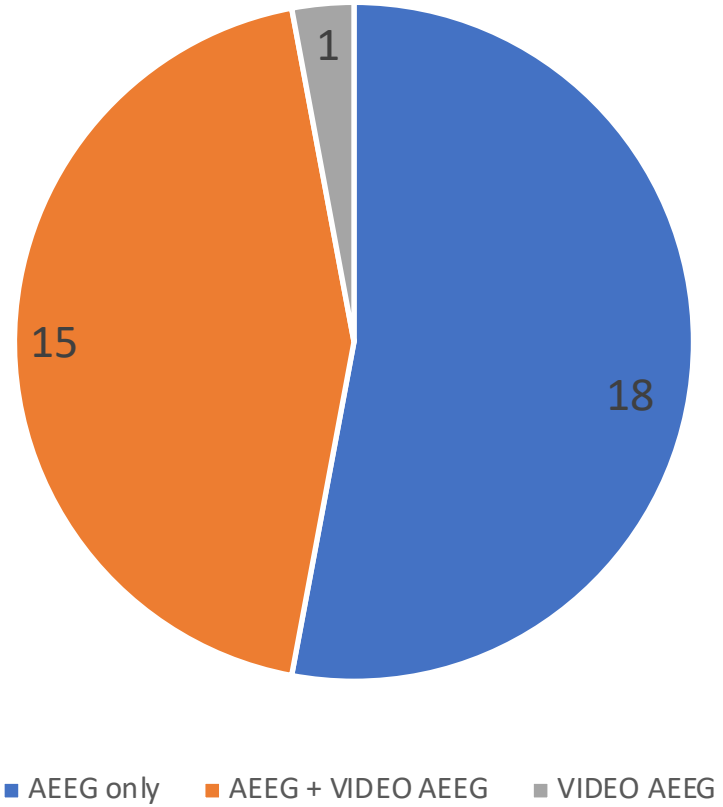
FORM A: Pease complete once only for each department:

Survey of UK departments: Long Term EEG Monitoring in the Outpatient Setting

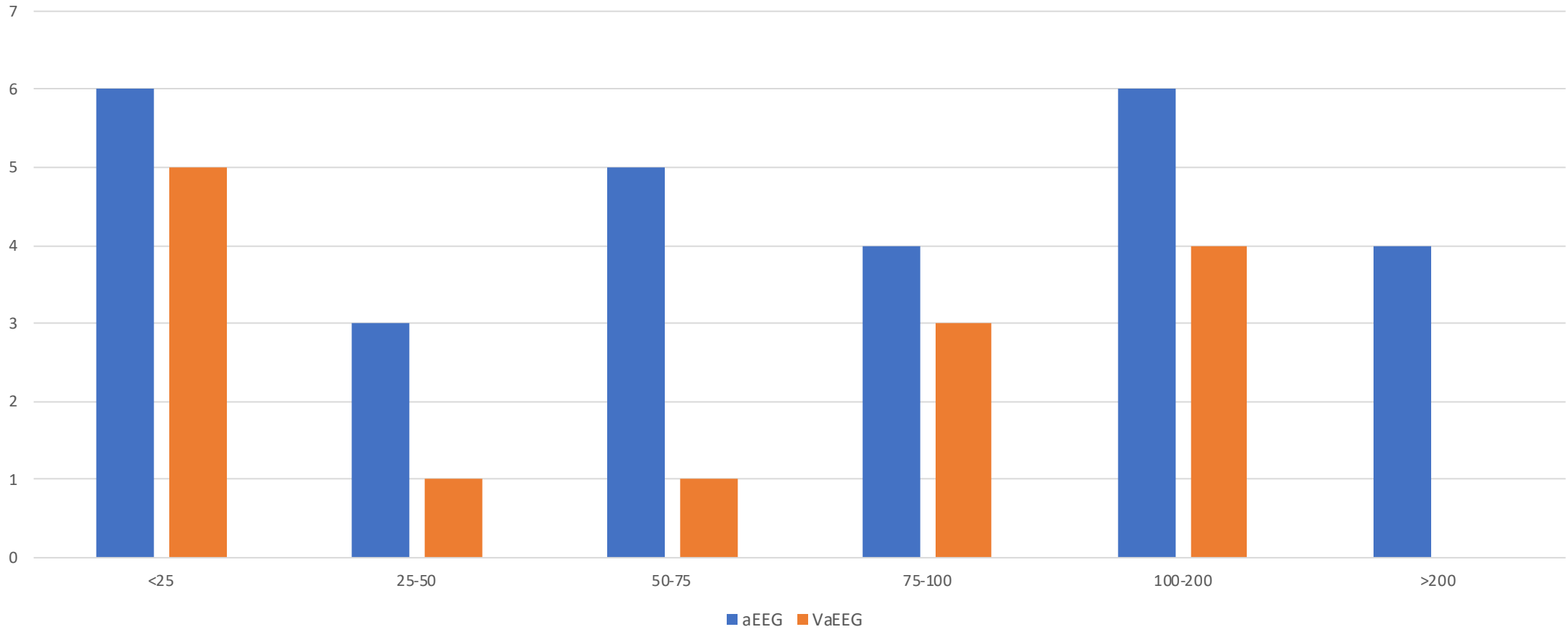
Postcode of Centre (please complete)	

1.	Which EEG Long Term Monitoring (LTM) procedures are provided by your department in the Out-Patient setting? (Please circle all that apply)	None Ambulatory EEG Ambulatory EEG with time locked video Other (please state)
2.	What number of tests are performed by your department per year?	Ambulatory EEG _____ Ambulatory EEG with video _____ Other (please state)
3.	Do you use published guidelines for performing Long Term EEG Monitoring in the Out-Patient setting?	Yes / No
4.	If Yes, please give reference	
5.	Do you use local protocols for performing Long Term EEG Monitoring in the Out-Patient setting?	Yes / No
6.	If so please attach copy/copies.	Attached/ Not applicable
7.	What is the maximum duration of Long Term Monitoring in the OP setting by your dept? (days)	
8.	Have you performed a local or regional audit on Long Term EEG Monitoring?	Yes / No
9.	If so, please provide a summary and main recommendation	
10.	Can you remember any adverse events (patient or equipment related) regarding patient safety that occurred during Outpatient EEG LTM, regardless of how long ago they may have occurred?	Yes / No
11.	If yes, please give details and whether there has been a change in clinical practice as a result?	
12.	Please give details of significant technical problems with data acquisition/data storage that have occurred and how they have been addressed.	

Long-term outpatient EEG monitoring performed by various centres



Distribution of number of Long-term outpatient EEGs performed



No. of aEEGs performed over a year

- Total no. of tests performed in 30 centres:3443
- Max: 300
- Min:4
- Mean : 111
- Median:77.5

No. of video aEEGs performed over a year

- Total number of tests performed in 14 centres:1057
- Max: 200
- Min:5
- Mean : 75.5
- Median:57

Do you use published guidelines for performing Long Term monitoring in the outpatient setting

- 3/34 centres
- *Journal of Clinical Neurophysiology* • Volume 25, Number 3, June 2008
- Guidelines for Long-Term Monitoring for Epilepsy

Do you use local protocol for performing Long Term EEG monitoring in the outpatient setting?

- 29/34
- Variable
- Pretest checks
- Referral criteria for selection –frequency of events
- Consent procedure
- rEEG tests prior to study?
- Provocative tests ?

- How electrodes are attached- glue/ colloidon/ paste
- Duration of recording
- Technical set up and monitoring
- Data storage /acquisition
- Safety profile
- Turn around time with result

What is the maximum duration of Long term monitoring in the out patient setting by your department?

- Max duration: 7days
- Minimum duration: 1 day
- Mean duration of longest monitoring: 3days
- Median duration of longest monitoring: 3 days

Have you performed a local or a regional audit on Long Term EEG outpatient monitoring?

- 17/34
- Local and regional audits
- Comparing aEEG with IPVT as well as VaEEG
- Optimizing duration of study
- Patient selection for better diagnostic yield
- Waiting time for aEEG
- Adverse skin reactions

Adverse event

- 47% of centres
- 62.5% - skin irritation
- 12.5%- hair issues
- Entanglement and Near miss event:12.5%
- Non return of equipment: 2 centres

Technical problems

- 24/34
- Equipment failure:16
- Data related problems (corruption/ storage/ both):12
- Videos related problems (synchronising error, switching off cameras, out of focus during events, not switching on night vision cameras):7

Interventions

- Written protocol
- Patient information prior and during the test
- Pretest planning meeting
- Relook with the company representative
- Batteries alteration
- Bring into focus about skin and hair related issues
- Warning about police procedures

Conclusions

- Good diagnostic yield of both tests
- Video contributes significantly in classification of events
- Variable duration of recording
- Adverse events on most instances are minimal but can be grave as near miss events
- Technical problems encountered during the recording particularly with videos, data acquisition and storage and battery issues

Guideline recommendations

- Dissemination of information of aEEG and VaEEG to professionals requesting these investigations
- Information on the referral forms should be comprehensive in terms of indication, episode frequency and neurobehavioural issues.
- Routine or SD EEG prior to prolonged monitoring
- Designing patient leaflet so that patients are appropriately consented and prepared for the test
- Pretest telephone check
- Safety profile assessment

Guideline recommendations

- Patient selection criteria for designing duration of study
  - Interictal study: ≤24 h
  - Interictal + ictal= 24-48h
- Provocative tests at onset of procedure ??
- Use of alert buttons and event log must be encouraged
- Use of polygraphy particularly monitoring ECG

Guideline recommendations

- Designing and encouraging use of event log particularly in cases of aEEG alone
  - Maintained by
  - Timing of events
  - Description of events
  - State of patient particularly sleep times
- Video should be available when ongoing clinical doubt regarding event semiology or artefact identification exists.
- Appropriate video guidelines particularly set up and use of night camera switches

Guideline recommendations

- Ensure safety checks and guidelines:
  - Care of having wires safely secure on back to avoid catastrophic consequences
  - Ensuring appropriate glue removal at discharge
  - No acetone at discharge to be taken alongwith
  - Equipment security
- Technical issues with headbox, batteries and data storage, type of camera and server capacity should always be considered.
- Although aEEG has a good diagnostic yield a VaEEG service in addition is desirable.

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Thank
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