



Kanjana Unnwongse, MD Neurology Department Prasat Neurological Institute

What is it?



Real AKA bedside EEG monitoring (BEM).

Some BEM is for nonurgent >> for immobile cases.

Why do we need BEM?

Some clinical signs is hardly interpreted (e.g., seizure VS psychogenic NES).

- Seizures could continue without accompanying signs (e.g., subtle SE/non convulsive seizure).
- Some critical treatments (several AEDs/ anesthetic agents; ANES) need to be adjusted meticulously.

Why do we need BEM?



Purposes > for diagnosis
 > for follow up course
 > for estimate suitable treatment

Very clear and only few indication for getting BEM but problems occur at all time >> not employ BEM appropriately (right place and time).

For diagnosis

- Seizure is clinical sign or symptom and is diagnosed, using visual inspection and recognition patterns.
- No any other test needed, especially if clinical sign/ symptom is so typical for seizure: tonic, clonic etc.

*** Examples of atypical one: Behavioral events >> screaming, tossing, Abnormal movements like>> tremors, chorea etc.



For diagnosis

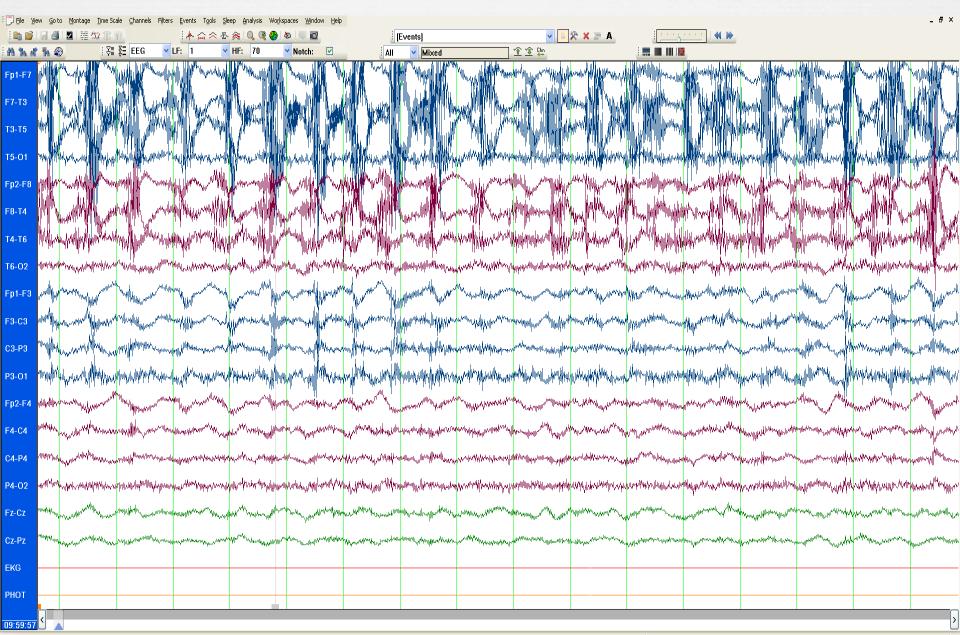
*** Some equivocal one : hypermotor, gelastic etc.

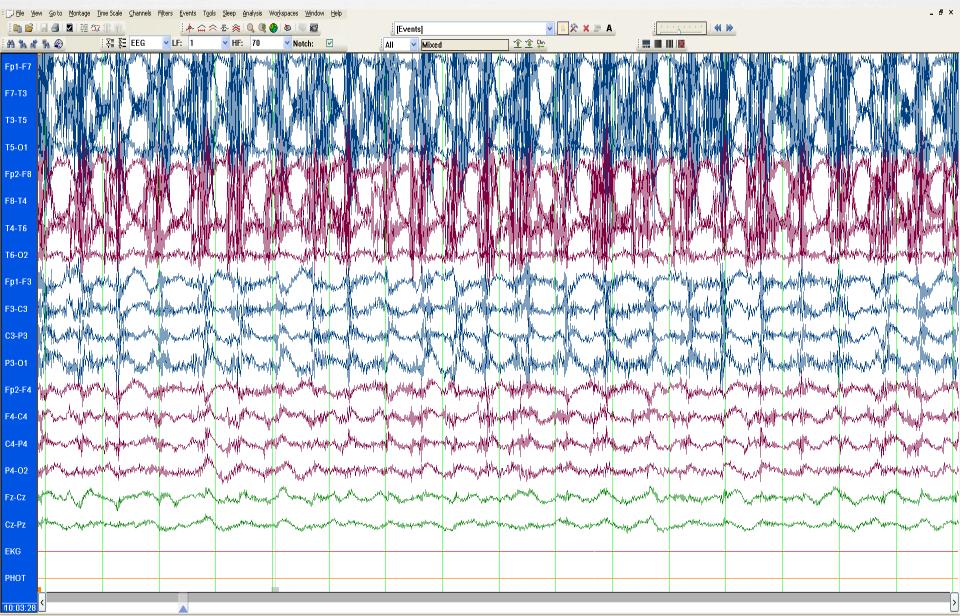
- Definite diagnosis can be made when EEG is done during event. Otherwise relative evidences eg focal slow, focal sharp wave may be useful.
- After diagnosis is made, no need to continue on BEM except additional subclinical seizures is detected.

 ∞

VIDEO

J Eile	<u>V</u> iew <u>G</u>	oto <u>M</u> o	ontage <u>T</u> ime Scale	Channels	Filters Ev	vents T <u>o</u> ols	s <u>S</u> leep į	<u>A</u> nalysis V	/orkspaces	Window Help													- 8 X
		3 2	₩ \$\$ \$\$ \$\$ • \\$= \\$=	550		* 🗠 *	× 2- 🙈	Q 🔮 🤅	👌 💩 🔍			[Ever		^		è X ⊒ A							
	<i>i</i> a		; ₹≣ ₹Ξ				HF:		Y No		Late du		Mixed		1 Chn	- A			. Itari	HILL HALL AL		to to childrad	. I to a de a
p1-F7	7 JANAN	WWW	WWWWWWWW	*WYNW	hing and a straight a	NAMA ANALAN	the the providence of the second s	hilmandill	A ADY White	WARMAN	(Phile All parties)	will when	and alongor and along the	New Manager and Manager	he when the standing of the st	and we wanted the start	White where persons	MARKA AND AND AND AND AND AND AND AND AND AN	adamped and a property	A A A A A A A A A A A A A A A A A A A			MAN AND A MAN
-7-T3	YMW	Mary	AND	*WWWW	hallmappaph	AMAMATIN'	di d	WWW	MANA ANA	white white	Mar Mary	MAR AND	n have been a start of the star	and the second	ner 1941 Alexandrona and an	work where where where the state of the stat	Walanawa		www.		Manage Mark		W MM MAN
F3-T5	mhyy	-	"All physical property	1444/4444	han the state of t	WANNA	MANN MANN	MANAMA	And a second	Manarally	himmen him	helippinghal	Minimum	non-mailtennationspect	personal dependence of the second	annaphon Marcharanall	han the provident	hille the term	man all provident		J.M. WAR	e Marine and	NY MANA
[5-01	₩/W	havillywy	www.watherwaller.com	WWWWWW	Kalena Alexandale	Mananana	sanan Manhala	NAMANA	While	pppeddianelwyd	MAYWAM	HHMMMMMMMMM	when the state of the second	erwyet when with	"mallanterholin	Managathanninaany	Wheellow with the	Alabapa Marthanan	property and the second	al distance with a star	Halfer Helin Hannes and Priville	ngunnahantartarta	rither which which
Fp2-Ft	; 1941	MAMM	www.	WWW W	WANNY	1 Marthal	May Have been	Mr. wat		MANNA MARK	MANAMANAN	Munn	porthy Mullim	hangaraharan Marikanga	alin Water and the physical sector	ANA MARCHING MAR	MANY Kenner	www.	er MMMMikennen	Walk printer And the	and the second second		weining the second
₹8-T4	/hy	hippun	n v MMM programme	willing	unternation.	WANNA WAN	WWWW	MMM MM	MM Mark	ANN MANY MANY MANY	h MMMMM	MANAMAN	Wand have been and the stand	uning in an internet with the	North Manufactures	North Water Alexandre and	Whitepperspect	r/MANTINA A	NAME AND AND A DECEMPTOR		Numeral Marth	harnal Martin Martin and	MAN MAN AND
F4-T6	Kilipini	Winninth	NanyApphiluppennaar	mwww	MWWWW	WARWANNAM	WWWWWW	www.	WrWpphore	here where the second	etderypper ^{adell} e	myunany	whilehed and the of	urrubationality operated by	un yrabhthaitheadheadhean	WMMM KANAMANA	upper and many	HRAPHINAN	erently the second of the seco	Maning and Maning and	whend to work the property of	with all all and and	entition (for the second second
F6-O2	ik juliur	WMMM	ant de anna an anna anna anna anna anna ann	ylwanger	where the rate	and all your dual	polent of Wolfowland	wowwwww	Namphalpa	hullullandulmand.	Mar Mayned Mar	hyperphotoge	hadden and for the state of the	approximation and the second	www.www.	1. Marshalapor and a growth	hy www. Marker we	ANNAMARA	permunitionally	Wannahanaharah	ANN ANNA ANN ANN ANN ANN ANN ANN ANN AN	manandada.haanaana	thrown of the second
Fp1-F3	s Mary	ypertrans	Arrend Marin Marina Marina	utur hanna yak	p. M. M. M. Marian	another	wellkilling	when when the	WWWWWWWWW	Whiteman	allen participation	MAR MAN	and the second	upon where the second	An war with a pay of	warmen water	well have many tell	He was a second was	an Mary Mary Mark	March Human March H	the way of the way of	hand the second second	Harry Martin Mary Mary
F3-C3	Nyum	April	- managed and the second	N. WALNUM	with which with the second sec	www.	WWWW M	Naprodya	nadantination	apply have we	un and a second	http://www.ht	an and and and and and and and and and a	manifilmentation	manun	mound want	www.	www.w	and the second product of the	not the many		n-waamuuddaalaanaa	heradayan Mirilana adalar
C3-P3		(audiocaericy)	all the second	un and an	hahar Maday	normation	why physically	www.www.	harrow where	mp with many the	nturnal water Malfal	un and a start	heren mertill the best of the second	noting work the market wanted	and the second state of th	work of which the service	www.www.www.	waterilly	where we wanted the state of th	when the when a share a	Warn war war war war	www.www.appender.com	United Barthal Marcant Martin
93-01	₩,MW/	hay Warny	No. Marked Harrison of the Marked Street	4 www.phalla	hiyay Malada	Marnater	www.	which which which	WARMAN	planned and when	,olimity,yyyytyyy	hy hallow or	-Marshellow Mandage Anger Ally	uningitetteten and when the	na nadional laborithmen	and an united the stand	Manhaharman	har MMarana	transport wind	A MANAMANA MANAMANA	Northern Marine Marine	And a support of the second	ident provident with
Fp2-F4	anala w	and well have a	aline and the second second	when she way the high	MANNA	wann	WWWWW	Marian	WWWWW MAN	with white war	n Judentento	Warman	and Mark Month and Marking	n will work while whi	and the second second	Marin Marine	WW WW WW WW WW WW	non whether wh	MM WWWWW	Mr. Wanner MM	Manuninger Makkahan		HAR WHINKING
⁼ 4-C4	MWW/	Walderman	proportional provides	^{ana} nshirathy	m WWW MAY MAN	Wanyahawahay	mapped and	handratest	the phone with the	Manufan Kanden	r-ryp ^{ang} high	M. WINN	and the Answer	the production of the producti	unum www.	and the and the	whenternayerout	nyhoron dalaharan dalah	MpphMMmmmm	nonther and and	water water	harden partition and	naanaan tana
C4-P4	1. 1. j	Winner	Улитеричений урадительной	utrourtabete	nr Van My All M	MANNAN	unant the state of	would	444pharan	manning	www.hertenapp	marine	www.www.www.www.www.www.www.	n Managara Managaran Ang Ma	was and the second	Market Berger and Market Market	Walter	an with the here	where the second and	an when we have a fear of the	he Ward and a second shaked the	na n	rander whap and the
94-02	anyalad	Manyayayay	nadren dadengen generen.	urvaamperte	MM WAR WAR	nannaha	www.www.	www.www.w	uhullutururu	Notwood a frank of the state of	at y warnes	www.www	-yal/Warahayahayaha	Marchall manager and	h when white have been been been been been been been be	nal many trades and the second	wanterterterter	An survey which	nonmental territering	al and the second of	My Minner Marine	www.walanahanahal	denninger generalistikk
₹z-Cz	mund	hhaililleanna	www.www.white	ny	www.wh	munut	And Marthan	hayyuhan	www	many	an a	and the second	Marria Marrian	Harley general and have a second	man man	and the second	walnum	a community of	Matherman	warman and a star warman was	have the man with the second	hunadhan na hunan na hunadh	the and the second s
Cz-Pz	-Mart	Waynaw	and an and the second of the	up contraction of the second	Karana ng Karaka ng K	meanswither	where where the	nd Madelin all W	manya	when we we have a fear of the second	www.www.www.	wayarahaad	www.www.www.ww	www.wallen.com	Margaren Marian	water and the second second	Notice and the second	AN MANNING MAN	wind warning why	an and a second and a second	when the second and the second	Windowski www.wido	norman and a second second
KG	-																						
чют																							
9:59:4																						÷	>

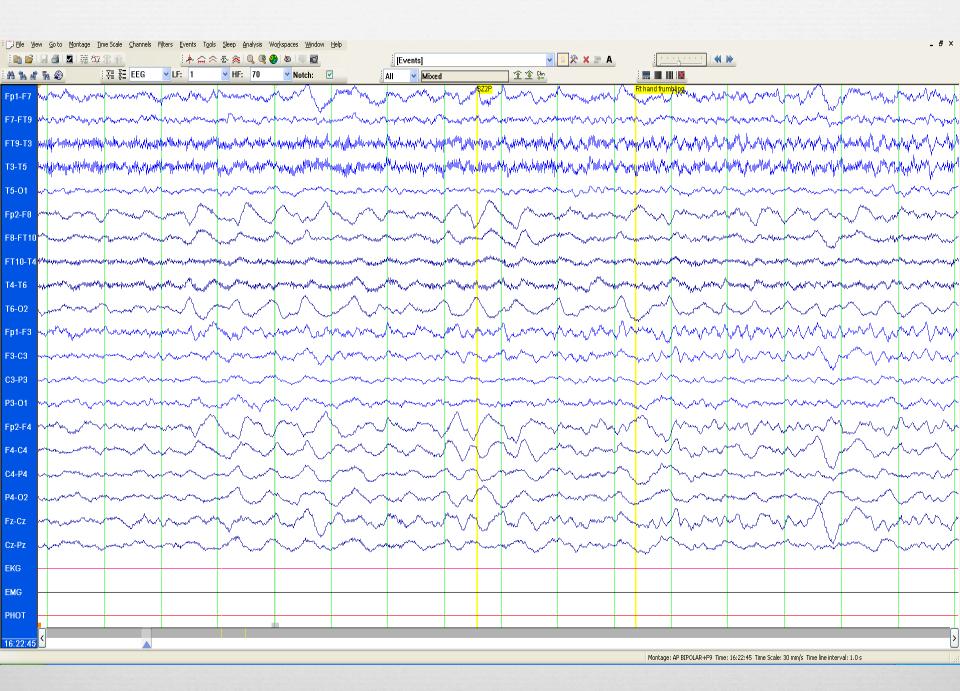


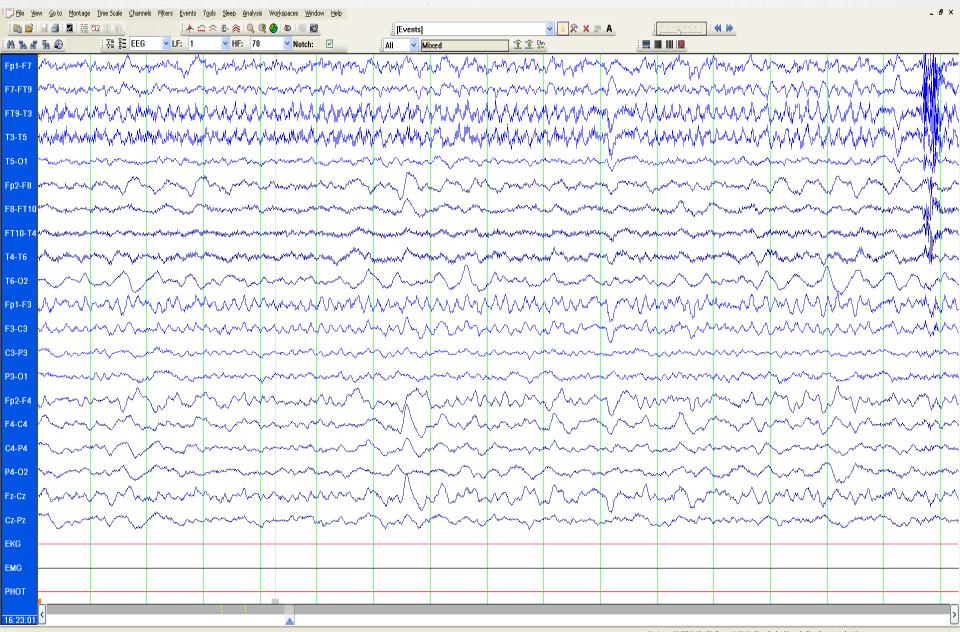


Montage: AP BIPOLAR18 Time: 10:03:28 Time Scale: 30 mm/s Time line interval: 1.0 s

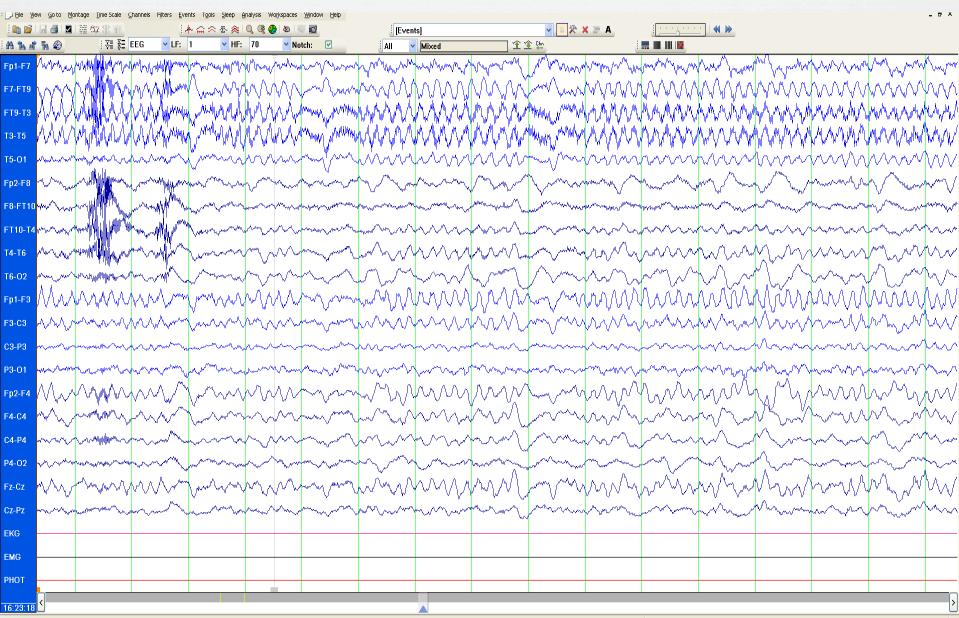
 ∞

VIDEO





Montage: AP BIPOLAR+F9 Time: 16:23:01 Time Scale: 30 mm/s Time line interval: 1.0 s



Montage: AP BIPOLAR+F9 Time: 16:23:18 Time Scale: 30 mm/s Time line interval: 1.0 s

For follow up course

- Quantitative and qualitative data of EEG seizures before and after treatment is of interests.
- Quantative parameter >> how many of their onsets, how often they come
- Qualitative parameter >> how far they go (spread to the other side), how long they stay

For follow up course

- CR Those data are essential for adjusting both specific and symptomatic (AEDs) treatments.
- How long to keep on (BEM)>> for at least 24-48 hours after treatment started or until we catch up their rhythms, then rehook time to time until seizures are subsided.
- Rehook urgently if worsening of clinical status or new clinical sign emerges.

🕅 File View Analysi	File View Analysis Window Tools Help File Notation List - LOGFILE.TFN ロ 回 File Notation List - LOGFILE.TFN ロ 回 File Notation List - LOGFILE.TFN ロ 回														
@ !!! *@ !]															
Fp1-F7 F7-T1 T1-T3 T3-T5 T5-O1 Fp2-F8 F8-T2 T2-T4 T4-T6 T6-O2 Fp1-F3 F3-C3 C3-P3 P3-O1 Fp2-F4 F4-C4 C4-P4						man and a second a				Anna		Select Notations Epoch Start Time 1 08:34:49.00 74 08:53:15.51 103 09:00:36.62 124 09:05:55.94 130 09:07:27.65 159 09:14:43.67 160 09:17:02:56 171 09:17:02:56 173 09:30:34.18 223 09:30:34.18 235 09:38:12:00 269 09:42:11.88 296 09:48:52.60 308 09:51:52:60 395 01:34:259 419 10:02:13.66 395 10:34:359 419 10:27:11.28 473 10:33:03.87 484 10:35:84 494 10:35:58.44 494 10:35:58.44 494 10:35:58.45 521 10:45:03.19 534 10:44:20.04 545 10:51:05.22 559 10:54:35.91 577 10:59:14.00	Event (Start Recording) SW FT10, in repetitive SZ1 Seizure End SZ2 EEG Onset Seizure End SZ3 MOVE SZ4 SZ5 SZ6 SZ7 SZ8 S29 S210 SZ11 SZ12 SZ13 SZ14 SZ15 SZ6 SZ7 SZ8 SZ9 SZ10 SZ11 SZ12 SZ13 SZ14 SZ15 SZ16 SZ17 SZ18 SZ19 SZ20 SZ21 SZ22		
[Photic-REF]													ts		
	< III											Selected 30	_elect All Clear All	Close	
Wed,Jul 01 2015A.D. 08:	35:15.025 (15 sec.) Montage T1 T2	В													

🔛 File View Anal	lysis Window To	ols Help	eren en dr. een de same										Motation List - LOGFILE.TFN
	🗎 💁 💽 🚺 😡	-• Ω 👯 👬	🖌 🕵 👭 🔯 🖙		🗸 🗽 🐝 🕅	🎄 📄 💡 🎽	1						Select Notations
Fp1-F7	-			many	warman		hand	and the second	- Punton	Sz33	monton	Suman	Epoch Start Time Event 547 15:57:47.64 sz 574 16:04:32.64 sz
F7-T1	an marine	man		mmm		- marine	mon	man	mound	man	warman and	apon processo	598 16:10:30.91 sz 613 16:14:28.91 sz 636 16:20:06.14 sz
T1-T3	part and the second sec	warman and a second	monto	~~~~	-	An and a second s	ant an	and a second	Marian Magnature and Mag	and a second second	nshqimpilikin milan qabalasinak	and the second	656 16:25:09.24 sz 691 16:33:54.73 sz 714 16:39:39.84 sz
T3-T5 T5-O1	har and the second		hanne	my and my	mmm	- and the and the second		man and a	por Warmen	man		m	788 16:58:07.14 sz 816 17:05:08.80 sz 840 17:11:09.77 sz
Fp2-F8	mary mary man	marin for the for	hand	www.mart	many	www.	han the	m m	v	~~~~	VVVV	Www.www.wr	875 17:19:54.94 sz 899 17:25:54.17 sz 921 17:31:24.97 sz 947 17:37:56.05 sz
F8-T2	man many	www.	many	mmmmmmm	~~~~		m www.www.	v. many	pin	-mm	Man	mpyn	947 17:37:30:05 SZ 965 17:42:25:57 sz 979 17:45:55.00 (Recording Resumed) 982 17:46:38.48 sz
T2-T4 T4-T6	And a	www.	how we	Mongon Ann	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	- and have	many Mar	- Amaria Amaria	. Manua	man d	manta .	man	1024 17:57:07.86 sz 1056 18:05:10.68 sz 1072 18:09:10.27 sz
T6-O2	Mar many M	man	man	man have	man	man	provent .	mmun	no Marka		MAN	March March	1091 18:13:55.72 sz 1108 18:18:09.50 sz 1122 18:21:40.78 sz 1144 18:27:09.51 sz
Fp1-F3	m	my more man	#2290	man and the second s	Mar Marine	m		man management	-	m	menun	and the second	1170 18:33:41.60 sz 1185 18:37:22.17 sz 1195 18:39:52.08 sz
F3-C3 C3-P3	anna.	-	for the start of t	man	man and	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Lim Mar	man man	m	~~~~		m	1211 18:43:54.61 sz 1229 18:48:23.86 sz 1249 18:53:26.29 sz
P3-O1	him	manne	man	mmmmm	man	man	mon mon	man man	mann		warmen war	nom	1263 18:56:54.09 sz 1281 19:01:25:78 sz 1305 19:07:28.16 sz 1320 19:11:10.28 sz
Fp2-F4	and many	www.www.www.ww	hand the second s	muman many	wynn	when have been from	www.www.www.	montenant	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	www		Marthanymanayar	1349 19:18:28.00 sz 1369 19:23:25.77 sz 1382 19:26:38.25 sz
F4-C4 C4-P4	I man	wwwwww	man	man	www	man and	man ma	Manna Marana	my m	www.w	www.www.	man	1393 19:29:25.98 sz 1401 19:31:23.39 sz 1428 19:38:07.36 sz 1446 19:38:07.36 sz
P4-O2	Marria Marrie Ma	hand	from the	www.	www.	- And a start of the start of t	Mr Mr Mary	man man man when a man when a man when a man when when when when when when when whe	mm	- Maria	www.www.	m mm	1446 19:42:39.72 sz 1461 19:46:24.94 sz 1477 19:50:24.96 sz 1488 19:53:09.13 sz
Fz-Cz	mon	monumen	mann	man	mm	man	mmmmmm	monum	mym	m	www.	mm	1501 19:56:24.43 sz 1514 19:59:39.36 sz 1527 20:02:57.78 Sz33
Cz-Pz	mmm	man May man	man hann	monthing	mon	mmm	- March	man marken my	non	mm	www.www	m	4219 07:15:51.00 Paused
[EKG1-EKG2] [Photic-REF]		+					//						B-
	4												Selected 57
Wed.Jul 01 2015A.D. 1	20:02:48 285 (15 se	c) Montage T1 T2		I.F.	0.5Hz Notch		tch Sens: 7uV/mm						

Wed,Jul 01 2015A.D. 20:02:48.285 (15 sec.) Montage T1 T2 B LF: 0.5Hz Notch HF: 70.0Hz Notch Sens: 7uV/mm

For estimate suitable treatment

- Generally use in refractory (subtle) status epilepticus, when trying to increase level of ANES to get rid of EEG seizures (MDZ, PPF) or to obtain burst suppression (TPT).
- Also when trying to withdraw ANES.

For estimate suitable treatment

- How long to keep on >> when patient is getting ANES (usually in first 24-48 hrs), especially when dose is increased.
- For ANES withdrawal, BEM could be hooked intermittently, depending on clinical status. However 24 hrs after tapering off, continuation of BEM is recommended.

Wichian Kuntikul te	20150649														
Fp1-F7	a particular and a particular particular	and the stand and a stand	manna	Manhare Margare Visioner	and a start and	man	Monorathy	nonman	and word have not the	munn	mmun	mound	monten	which	maport
F7-T1	mon	mon	mon	wwww	manymy	man	mm	mannym	mm	manna	man	www.	mmm	mmmmmm	www.
T1-T3	an a	amount van	man	www.www.	mann	her and the second second	the second second	human	manimum	and the second second	mant	the free and the second	vmatripeticity and should	and marked and the	magne
T3-T5	human	monor	moun	montomotion	m Manna	- www.	mandren	www.	www.	mmm	Munimum	Marin	howwww.	mound	mm
T5-O1	mm	mount	h	-v-m	m	m	m	m m	mm	h	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	man	mm	mm
Fp2-F8	where we have the second	whentownedgest	- MARNAN CONTRACT	manna	porpressionling	Marken Marken Marken	humantal	www.whiteman	www.huhuh	wananyahaan	Manaraly	and and a second	west an when the	have many	Monther
F8-T2	AMM	www.www	Minner	MWW WWWW	MAAM	MMM	MMM	NMMM	MMM	mannon	WWWW	MARCHI	han	hamana	www
T2-T4														Aturnes where the Aturn	
T4-T6	mumumm	North Contraction and the stand	all manuscriptions	44. aller for yorkey they the	Inder drighthan have	14 why and the stand ships	M. M. Mapir Labertania	A.A.Nor-MANA	want from a post of the second	MANNA WAY AND AND	white we we have a first a fir	heter warman war	WHERE HAVE NO WHERE HAVE	www.www.www.	White white the
T6-O2	Maria	hanna	Manna	wwwww	www.w	mm	MANN	MANA	Awing	n Arnam	nww	MMAN	mmm	www.	Marynow
Fp1-F3	- Www.	www.www.	min	Mann	www	www.www.	ported all wards	how when the way	man	wwwww	vwv	howand	wwwwwww	mandenale	- www.
F3-C3	AMMM	www	monor	when	mmm	mm	munhy	mhrin	man	mmmm	monor	Manyow	humber	mmmm	fromm
C3-P3			mmm											mon	mm
P3-O1	Mun	mm	MMM	mon	mm	mm	mmm	mm	MMM	mm	vrnm	Mm	mm	man	mm
Fp2-F4	WWW	many	mm	Mumum	www.	n m Maria	mon	munn	www.mww	Marin	mmm	mm	Amaria	monorman	www.
F4-C4	mound	MMMM	man	manna	MMM	$\sim \sim $	harry	hm	mon	MMrmm	mmm	Munyow	hand	www.w	man
C4-P4	mm	man	Man	mm	www	havi	Mam	Mann	mmyon	man	www.m.M.m	MANNA	mmm	www.	mm
P4-O2	Maria	Maria	MMM	mound	MAM	mon	Mulun	MM	mvhr	Marymon	www.w	www.	www	wwwww	WW
Fz-Cz	how	Mr how	Manna	www	MA	AMMAN	wwwww	WWW	moun	mmm	www.m	Man	hann	WWWW	man
Cz-Pz	mm	mound	man	mm	Month	month	nama	mound	man	moun	www.h	mm	hmm	mmm	mm
[EKG1-EKG2]	m	hand	m	formula	my	mymm	hours	my	h	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mp	hant	mp	man	mp.
[Photic-REF]	- <u> </u>	+	<u>├</u>	<u> </u>	ļ	+	· · · · · · · ·	¥	1	1	<u> </u>	<u>}</u>	ř		
	1														100uV
	<u>ار</u>			<u> </u>											

Wed,Jul 01 2015A.D. 09:06:40.000 (15 sec.) Montage T1 T2 B

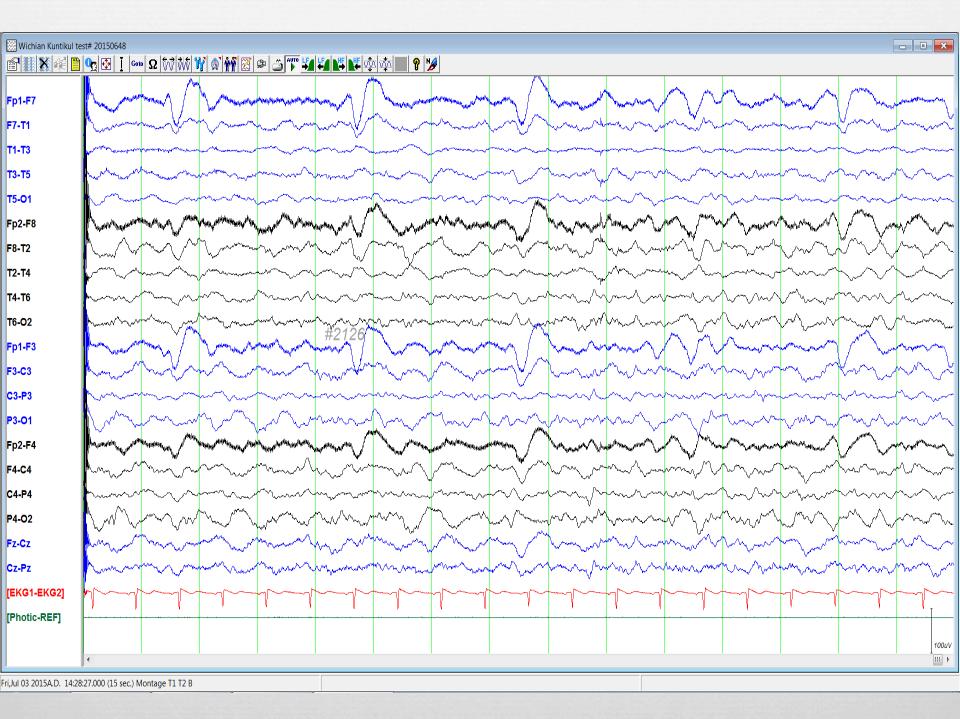
The tien maryon million room ricip

LF: 1.0Hz Notch HF: 70.0Hz Notch Sens: 7uV/mm

10000		a contrast the second second second	<u></u>								anne konstañ "	 and a second seco		
🔛 Wichian Kuntikul														- • ×
	🗎 🕂 🔂 🚺 Ι 🔂 🕅	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	🕸 🍊 🎌 🛂	₽₽₽₩₩	<u>م</u> المجريم الم	1								
					Charles a				~ ~ ~ ~	• ⁰	~~		a university	
Fp1-F7	Approximation and a second	and and a star and a start a	There are been been been a free to be a free	And a second reality of the second second	and the second states of	haadaan	have !	and the second s	and a second and have	and the second second second second	e - Marine and a second se	and the second	ayalana ana ana ana ana ana ana ana ana an	and the second second second second
F7-T1	man	man	June March		······			han	- marine and a second s	Long and the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mum		harrison
т1-т3											~~~~			
Т3-Т5	m	mm		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		mm	hanne	·····	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mm	m	m	m	mound
T 5 -O 1	m	man	hanne	m			y			m				m
Fp2-F8	Mul much man who was	manner	Manna Marana Man Baraka	and the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	min	mm	mymm	man	mar al mark	www.	mound	and a second state of the second s	1 marine proventing and
F8-T2	man	mon	mmm	mm	mm	handhar	man	him	munn	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	hand	mm	mm	non
T2-T4	mm	mun	mmm	m	mm	m	hundrenderen		man		$\sim\sim\sim\sim$			hurren
T4-T6	mmmm	mm	mm	mm	h	human	hanna	mun	man	mm	inn	mm	m	mm
T6-O2	mmmm	man	how	man	m	m	harring	hand	\sim	mm	hhm	m	mannan	n
Fp1-F3	mmmmmm	Contraction and the state of th	mann	m	+	#2097	hummen	m	muna	man	n m	mm	my many	and the second
F3-C3	mont man	mmmmm	mound	man	mon	mann	hora	-	m	m	mmm	ammon	hand	mmmm
C3-P3	m. mmmm	man	- man	un min	· · · · · · · · · · · · · · · · · · ·			m. in		- hun	mon			hannon
P3-O1	man	n which share and	han	min .	min	. mm.		h. A. marke	- as an advade _ when	- mar	Min	~~~~	man	h man
	6		and an and an and			mu	Marian and a second	www.ww		when the bus				
Fp2-F4	March and the form and the second	HAL WARNAN WARNAN WARNAN WAR	high and a subsection of the second s	Marin Marine	AND	and a reduced	and the second s	her warden warden ward		monthe of the	www.	www.	an and survey and a second of the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
F4-C4	man Julyan	Mar	in many when	www.www.		monto	harrow	howww	-v~~l~~	www.www.w	Vwwwwwww	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\mathcal{P}
C4-P4	man Min	man	Ymm	Jul July mark	www.w	mm	hoursen	have		- land	Munhamm	- war	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	har
P4-O2	mun hum	Summermen	mahun	mon	mm	www.	mm	howhere	mum	mm	man	monormany	manutry	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Fz-Cz	man Man	hand	mound	man	man	maryan	manner	monum	mm	mann	manth	mound	mmmm	mm
Cz-Pz	manymy	mmmm	1 martin	my	monorman	mon	how	mount	manna	manny	numm	mann	mannen	Annonitien
[EKG1-EKG2]	-p-p-				-1	1			-1	port	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			hh
[Photic-REF]		<u></u>		 								<u> </u>		· · · · · · · · · · · · · · · · · · ·
														100uV
	•											III		L
build 02 2015A D 13	2-15-05 850 (15 sec.) Montage	o T1 T2 D		LE: 1.0Hz Note		atch Sons: 7u\//m	nm							

Thu,Jul 02 2015A.D. 13:15:05.850 (15 sec.) Montage T1 T2 B

LF: 1.0Hz Notch HF: 70.0Hz Notch Sens: 7uV/mm







Sun,Jul 05 2015A.D. 18:47:52.000 (15 sec.) Montage T1 T2 B

LF: 1.0Hz Notch HF: 70.0Hz Notch Sens: 7uV/mm

S File View Analy			-1 -1 - 1 - 1		1 4 4	1 . 1 1	1								- 5
9 X 2 🗈	🕂 🔂 🚺 🖓	• Ω 🕅 🕷 🎽	Y 🔍 👭 🔀	🖻 🛎 🖤 🛂	VI NI NI 🕸	s 🔹 🛚 🖁 🎽	2								
- 4 57		and the first solution is a		. the standard second second second		t - constantiation traditions			Miles and	and a state state of the state					tation of a standard second
p1-F7	for the second	and an	a aliku kacanta a anih	ANAN DI	a hundrik haran da kilanda da d	Unananan ku sanan ku sanan ku sa ku	Narahina ang pangang kanang kanang Narahing kanang kanan	n an	anan ang ang ang ang ang ang ang ang ang	and an	IJŊ₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩ ₩₩₩	999987878797987979797797979797979797979	nan mananan ana ang kanang	a ana manana da ana ana ana ana ana ana ana ana	New Section of the Se
7-T1	alandad analog an	terringlands and friends the second	al procession in the second second and the second	egenset ^{en d} eren gevennen der eine der ander eine der anderen der anderen der anderen der anderen der anderen der	aly Rootheaster Anno Anno Anno Anno Anno Anno Anno Ann	ale and set for the second second second second second	an the second	hayaan katalog	and the second	na an tha ann an Ann	eriaperanthiseteringeraneadis.sete	nalaman dagi seri yene yene ana pasara da ana da	and a second and a second s	ation the world advante	lan yang dipan dip ^{ilan ya} n di dipan dipilan yan yang dipan dipan dipilan yang dipan yang dipilan yang dipan yang dipilan yang
1-T3	pondetones alternational	Gerekanfanderer Marskander	alan tan tan tan tan tan tan tan tan tan t	Marine and an appropriate of the	alterio providense providense de la construcció de la construcció de la construcció de la construcció de la const	freedomental and the second second second	ndunder der der den den der	erhanzelananlanepennemben kering	n hat som a flore provider opp	an a	andreans democratic terrespondent	adustandustrendykonsigen algerendykonsigen and	hand berging agreement as been provided and per	and many more through	an a
[3-T 5	managenegative	a har a second and the second	- for an a star of the star	der an	ton and the second an	guardina de transfer Maria	an a	and a contract of the second o	Mayborn Marchart	an and the second s	many more thank maken	and manager and and and	enerty and a horal days and a read	and a man product of the second states	manutur for topological
r5 -0 1						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~						
p2-F8	arayarananananananan mining	ninininininininininininininininininini	******	in water and the second states of the second states	in particul for a particular as	and a subscription of the second s	ha ha far da sa far ba far	hanalaalaalaan ahayahahaykanaan kararaan	ndrandikakatan kata kata kata kata kata kata ka	namanytatitinasatatangit	n mananan manana manana ma	(Minimuskidinises ^{ski} nishidinises)	antinya mananana ayayaya taraki dalama	Notestan and a state of the second second	the set which the set of
-8-T2	and the second	and a star and the start and	********	1914-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		Jerson and the second second		a	water agendation and the ground alogo	ergelikayaktikang, rekonsurananganisa					
F2-T4	1 ⁴⁹ 001911-1111-1111-1111-1111-111-111-111-1	Manghanglini yanghiri Manafan gen			ungters group and a state of the state	lannanaturitationan argenautomagnat	Norway Manghanganganasa	ourstandardardardigenstaad	angenter Manageran jaar parahas	nghangaangan dinagadaa saasi noopay	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	********			
Г4-Т6	an a	and made was the second se	-	Annal and a start of the start	and for a second se				the Are not another and the dama spectration	-	agang gung gang gang gang gang gang gang	and a second		and the second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
r6-O2								and the second second							
		#32	79												
Fp1-F3	alasan kana kana kana kana kana kana kana	alalan di angan di Angan dan di Angan d Ngan di Angan	r renne der rennen steren son son son son son son son son son so	an a	in perministra antista antistica di perministra di perministra di perministra di perministra di perministra di Nationale di perministra di perministra di perministra di perministra di perministra di perministra di perminist	n de neu de lande en de lande de lande La de lande de lande de la de lande de la de lande de la de lande de la de l	an a	nen ander en	personal and the second se	an a	anan kanan kanan kanan kanan kanan kanan kana kana Kana kana kana kana kana kana kana kana	len har palen en de len de jeur de jeur de jeur de len de len Len har palen en de len de l	n der eine eine der standen der eine de	ALTA AND AND AND AND AND AND AND AND AND AN	an a
F3-C3		and the second	a the second	****	and the particular and the second diversion of the sec	and a second	and the second	and a second	Manada aya ya na na kata ya kat	and a second second and a second s	***********	ana kana sa	a an		an a
C3-P3			ware and the second second	and the second		an a	********		for the second s		man gran marken and	and a construction of the second second	a a a a a a a a a a a a a a a a a a a		
P3-O1									have a second						
p2-F4	Alanahahan manahan mana	typelwidiationalogiationshipelwidiation	n ^{anta} n kalan ka	an na na an a	สถางสาราชาวสาราชาวสาราชาวสาราชาวสาร		hannen	Manananan ang kalang kana kana kana kana kana kana kana k	nunang tang tang tang tang tang tang tang	n an	alan kanalar sa kanalar sa kanalar sa kanalar sa ka	lanalarianananananananananananananananan	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$	an Manalay ya Princi Manalay ku Manalay	
-4-C4			**************************************			**************************************		,						and the second second second	-
C4-P4			,			· ····			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		·····				·
P4-O 2				a mana and a mana		h	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Junara				-		
	and the second second second second	terretering and the second	anther the second s	na na sakasan na sakasa	Manual and Manufactures	a management	ans an ann an	6	Manufacture	- care with the structure of the second second		and a state of the	a alla dell'Allandon de successo de consta	alterna and alternation of	water and the second
															and the second
Sz-Pz	and the second														
EKG1-EKG2]	-			γ	$\parallel \sim \sim$	$p \rightarrow p$			-h	-1		-1	Yh-		
Photic-REF]											·····				
															1000
lon,Jul 06 2015A.D. 0] <		2			ch HF: 70.0Hz No)