

Supplemental Table 1. Proportion of subjects with electrographic seizures and electrographic status epilepticus. Electrographic seizures occurred in 740 of 2247 subjects (33%) who underwent continuous EEG monitoring.

	(Jette, Claassen, Emerson, et al. 2006)	(Saengpatratchai, et al. 2006)	(Abend, Topjian, Lichord, et al. 2009)	(Williams, Jarrar and Buchhalter 2011)	(McCoy, Sharma, Ochi, et al. 2011)	(Greiner, Holland, Leach, et al. 2012)	(Schreiber, Zelleke, Gaillard, et al. 2012)	(Shahwan, Bailey, Shekerdemian, et al. 2010)	(Gwer, et al. 2012)	(Kirkham, Wade, McElduff, et al. 2012)	(Arndt, Lerner, Matsumoto, et al. 2013)	(Piantino, Wainwright, Grimason, et al. 2013)	(Hasbani, et al. 2013)	(Topjian, Gutierrez-Colina, Sanchez, et al. 2013)	(Abend, Arndt, Carpenter, et al. 2013)	(Payne, Zhao, Frndova, et al. 2014)	(Gold, Crawford, Glaser, et al. 2014)
Total with Electrographic Seizures	51	23	9	47	39	12	28	7	28	74	37	4	12	84	162	93	30
Total in Study	117	141	19	122	121	57	94	100	82	204	87	19	21	200	550	259	54
Age Group	Peds + Neo	Peds	Peds	Peds + Neo	Peds + Neo	Peds	Peds	Peds	Peds	Peds + Neo	Peds	Peds	Peds	Peds	Peds	Peds	Peds
Subject Location	ICU	ICU	ICU	ICU	ICU	ICU + Other	ICU	ICU	ICU	ICU	ICU	ICU	ICU	ICU	ICU	ICU	ICU + Other
Notes			Cardiac arrest with therapeutic hypothermia			Used portion of data presented in Patient Distribution Table				2 Centers	Traumatic Brain Injury	ECMO	Abusive Traumatic Brain Injury		Multi-center study		Encephalitis Used data for portion with cEEG

Supplemental Table 2. Proportion of subjects with electrographic seizures identified in 1 hour, 24 hours, and 48 hours.

	Reference									SUM	Proportion of 268 subjects with electrographic seizures identified by each EEG monitoring duration
	(Jette, Claassen, Emerson, et al. 2006)	(Abend and Dlugos 2007)	(Abend, Gutierrez-Colina, Topjian, et al. 2011)	(Williams, Jarrar and Buchhalter 2011)	(McCoy, Sharma, Ochi, et al. 2011)	(Greiner, Holland, Leach, et al. 2012)	(Schreiber, Zelleke, Gaillard, et al. 2012)	(Shahwan, Bailey, Shekerdeman, et al. 2010)	(Piantino, Wainwright, Grimson, et al. 2013)		
Seizures Identified by 1 hour	26	16	24	29	11	25	12	3	2	148	0.55
Seizures Identified by 24 hours	41	19	43	41	28	26	20	7	4	229	0.85
Seizures Identified by 48 hours	45	20	45	43	28	26	20	7	4	238	0.89
Total with Seizures	51	20	46	47	39	26	28	7	4	268	
Notes				Estimated number at 48 hours from graph.	Timing only reported for subjects with non-convulsive-only seizures.		Reported 30 min (not 1 hour) which are used as 1 hour values.				

Supplemental Table 3. Pediatric Neurologist Costs

Level	Average Yearly Compensation*	Average Yearly Compensation plus Benefits**	Average Hourly Cost***
25%	\$166,500	\$216,450	\$112.73
Median	\$185,500	\$241,150	\$125.60
75%	\$209,000	\$271,700	\$142.00

*Average yearly salary crated by average of the instructor, assistant professor, associate professor, and professor salary levels.
 ** 30% benefits added to compensation.
 ***Hourly cost calculated based on 1920 hours per year (40 hours per week for 48 weeks).

Supplemental Table 4. EEG Technologist Costs

Level	Average Yearly Compensation	Average Yearly Compensation plus Benefits*	Average Hourly Cost **	Average Hourly Cost Converted to 2013 dollars
25%	\$42,853	\$55,708.90	\$29.02	\$28.42
Median	\$48,235	\$62,705.50	\$32.66	\$32.02
75%	\$53,799	\$69,938.70	\$36.43	\$35.68

** 30% benefits added to compensation.
 ***Hourly cost calculated based on 1920 hours per year (40 hours per week for 48 weeks).

Supplemental Table 5. Electrode Cost Strategies

Cost Strategy	Medium	Low	High
Electrode Cost	\$200	\$150	\$250
Uses (days)	365	548	183
Calculated Cost per Use	\$0.55	\$0.27	\$1.37

Supplemental Table 6. EEG Machine Cost Strategies

Cost Strategy	Medium	Low	High
EEG Machine Cost	\$40,000	\$30,000	\$50,000
Years Used	8	10	6
Days per Year Used	208	260	156
Calculated Cost per Continuous EEG Monitoring Day (24 or 48 hour strategies)	\$24.04	\$11.54	\$53.42
EEG Studies per Day *	6	8	4
Calculated Cost per EEG Study (1 hour strategy) *	\$4.01	\$1.80	\$10.02
*Included only for 1 hour EEG studies since a machine would often be used for multiple studies per day.			