Update in Clinical Guidelines in Epilepsy

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Why We Need Clinical Guidelines?

Clinician needs advice!

Table 2: Percentage of types of physicians responsible for epilepsy patients per hospital category

	Center hospitals (n=12)	General hospitals (n=57)	Community hospitals (n=467)	University hospitals (n=7)	Hospitals under Department of Medical service (n=9)	Hospitals under Department of Mental Health (n=3)	Others* (n=4)
General Practitioners	9.7	35.1	91.5	8.7	27.3	40.7	0.0
Internists	25.8	29.8	3.7	17.4	27.3	0.0	50.0
Epileptologists	6.5	5.7	0.0	13.0	9.1	10.4	33.3
Neurologists	32.2	0.4	0.0	21.9	9.1	20.0	16.7
Pediatricians	16.1	23.7	2.0	17.4	13.6	0.0	0.0
Neurosurgeons	9.7	3.5	0.0	13.0	13.6	0.0	0.0
Psychiatrists	0.0	1.8	1.6	4.3	0.0	28.9	0.0
Others	0.0	0.0	1.2	4.3	0.0	0.0	0.0

*Hospitals affiliated with Bangkok Metropolitan, the Military, the Police, and State Enterprises.

Tiamkao S, Neurology Asia2013

Why We Need Clinical Guidelines?

Clinician needs advice!

Table 7: Number and types of physicians that providing care for persons with epilepsy in Thailand and other countries

	Number (persons)				
	Thailand	Laos[6]	Mongolia[8]	Angola[9]	Zambia[9]
Populations, million*	69.5	6.3	2.8	19.6	13.5
Neurologists	305[13]	1	200	3	2
Neurosurgeons	252[14]	1	NA	3	–
Psychiatrists	546[15]	NA	NA	2	10

*Populations based on report of 2011 (Source: http://www.worldbank.org/);
NA = Not available

Tu Luong Mac, Lancet Neurol 2007

Why We Need Clinical Guidelines?

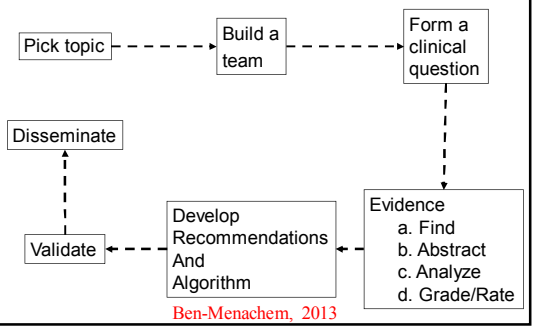
Clinician needs advice!

Table 9: Percentages of hospitals with specific antiepileptic drugs available in Thailand and other countries

AEDs	Percentage (%)		
	Thailand	Mongolia[8]	India[16]
Phenytoin	96.0	-	49
Carbarmazepine	97.9	86.2	67.6
Valproic acid	88.8	4.3	-
Phenobarbital	99.9	3.3	-
Topiramate	63.9	0.5	-
Gabapentin	77.6	-	8.7
Lamotrigine	45.7	-	-
Levetiracetam	46.0	-	-
Vigabatin	14.5	-	-
Pregabalin	33.6	-	-
Oxacarbazepine	14.3	-	-

Tu Luong Mac, Lancet Neurol 2007

Guideline Development



Ben-Menachem, 2013

What are the major Treatment Guidelines for Epilepsy?

- ***ILAE** = International League Against Epilepsy (www.ilae.org)*
- NICE = www.nice.org.uk- National Institute for Clinical Excellence (England and Wales)
- SIGN = www.sign.ac.uk- Scottish Intercollegiate Guidelines Network (Scotland). (Revision 2014)
- AAN = www.aan.com-American Academy of Neurology (USA) 2004

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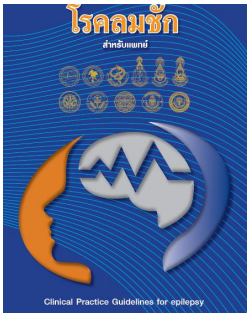
Clinical Practice Guidelines for epilepsy



Epilepsia, 47(7):1094–1120, 2006
Blackwell Publishing, Inc.

Original Research

ILAE Treatment Guidelines: Evidence-based Analysis of Antiepileptic Drug Efficacy and Effectiveness as Initial Monotherapy for Epileptic Seizures and Syndromes

*Tracy Glauser, †Elinor Ben-Menachem, ‡Blaise Bourgeois, §Avital Cnaan, ‖David Chadwick, ¶Carlos Guerreiro, **Reetta Kalviainen, ††Richard Mattson, ‡‡Emilio Perucca, and §§Torbjorn Tomson

Based on the best evidence available, which AEDs have the best documentation for use as initial monotherapy for patients with newly diagnosed or untreated epilepsy (2006)?

Epilepsia, **(*):1–13, 2013
doi: 10.1111/epi.12074

SPECIAL REPORT

Updated ILAE evidence review of antiepileptic drug efficacy and effectiveness as initial monotherapy for epileptic seizures and syndromes

*Tracy Glauser, †Elinor Ben-Menachem, ‡Blaise Bourgeois, §Avital Cnaan, ¶Carlos Guerreiro, #Reetta Kälviäinen, **Richard Mattson, ††Jacqueline A. French, ‡‡Emilio Perucca, §§Torbjorn Tomson for the ILAE subcommission of AED Guidelines

-Since July 2005, 3 class I and 2 class II RCT have been published
-Total 64 RCT (7 class I, 2 class II, 11 meta-analyses)

ILAE Evidence Review

- *For patients with newly diagnosed or untreated epilepsy, which AEDs have the best evidence for long term efficacy or effectiveness as initial monotherapy?*
- ***Situations:***
  1. Partial onset seizure- *Adults*
  2. Partial onset seizure- *Children*
  3. Partial onset seizure- *Elderly*
  4. GTC seizure- *Adults*
  5. GTC seizure- *Children*
  6. Absence seizure- *Children*
  7. BECTS
  8. JME

Searching the Evidences for the ILAE Review 2013

- The authors evaluated available evidence found through a structured literature review including Medline, Current Contents and The Cochrane Library for all aplicable articles from 1940 until July 2005 – 31 March 2012
- **Question:** best evidence to evaluate efficacy and effectiveness of AEDs in recently diagnosed patients.

Selection Criteria for Study Evaluation

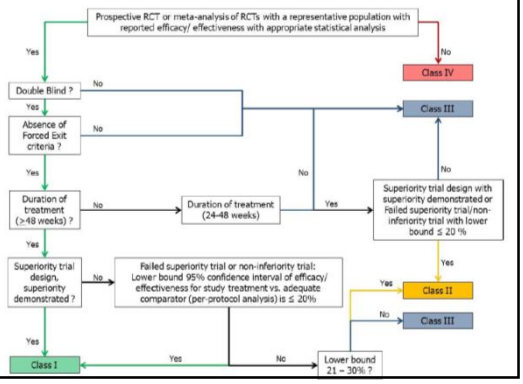
Table 1. Updated classification criteria for article evaluation

Criteria	Required	Comment/Example
Primary outcome variable	Clearly defined Either effectiveness (patient retention) or efficacy (seizure freedom)	Ideal: Assessment of retention after a minimum of 48-week treatment for all seizure types Ideal: Assessment of efficacy based on a minimum of 24-week seizure freedom for all seizure types
Minimal duration of treatment	Appropriate for assessing the primary outcome variable for the seizure type or epilepsy syndrome under consideration	Ideal: The minimal duration of treatment for seizure and epilepsy types addressed is 48 weeks
Potential for bias	Enrollment or treatment bias minimized by double blinding and description of treatment groups baseline characteristics	Ideal: Double-blind clinical trial design
For superiority trials:	A positive superiority trial is acceptable OR A superiority trial failing to identify a difference between treatments ("failed superiority trial") will be reanalyzed using the study's per-protocol study population (for age/seizure type subgroups). The study treatment's efficacy/effectiveness lower limit (95% confidence interval) will be compared to a lower boundary of efficacy/effectiveness relative to the adequate comparator's point estimate of efficacy/effectiveness	superiority trial where the study treatment's efficacy lower limit (95% confidence interval) is above a lower cutoff relative to the adequate comparator's point estimate of efficacy/effectiveness. The cutoff uses a per-protocol study population (for age/seizure type subgroups) and is calculated by a 20% relative reduction from an adequate comparator efficacy/effectiveness point estimate. In a noninferiority analysis, the lower boundary for an adequate comparator's efficacy/effectiveness will never be <40%.
For noninferiority trials:	Noninferiority trials will be analyzed using the study's per-protocol study population (for age/seizure type subgroups). The study treatment's efficacy/effectiveness lower limit (95% confidence interval) will be compared to a lower boundary of efficacy/effectiveness relative to the adequate comparator's point estimate of efficacy/effectiveness	Ideal: A noninferiority trial where the study treatment's efficacy/effectiveness lower limit (95% confidence interval) is above a 20% lower boundary relative to the adequate comparator's point estimate of efficacy/effectiveness using a per-protocol study population (for age/seizure type subgroups). In this noninferiority analysis, the lower boundary for an adequate comparator's efficacy/effectiveness will never be <40%.
Statistical analysis	Appropriate statistical analysis presented or data presented allowing for statistical analysis	

Epilepsy Guidelines:

- **ClassesRating 4**
  - **Class I:** A masked RCT, meeting all key variable criteria
  - **Class II:** A masked prospective matched-group cohort study in a representative population that meets all key variable criteria OR an RCT in a representative population that lacks one of the key variable criteria
  - **Class III:** All other controlled trials in a representative population, where outcome assessment is independent of patient treatment
  - **Class IV:** Evidence from uncontrolled studies, case series, case reports or expert opinion

French JA, Epilepsia 2004, 45(5):401-409 and 410-423



Guideline Methodology:

Grading the evidence for each AED

- *Recommendations – 6 Levels*
  - ***Level A:*** *≥ 1 Class I RCTs **OR** ≥ 2 Class II RCTs*
  - ***Level B:*** *1 Class II RCTs **OR** ≥ 3 Class III RCTs*
  - ***Level C:*** *2 Class III RCTs*
  - ***Level D:*** *Class III, or IV RCTs **OR** expert opinions*
  - ***Level E:*** *Absence of clinical evidence*
  - ***Level F:*** *Positive evidence of lack of efficacy **OR** Significant risk of seizure aggravation*

Relationship Between Clinical Trial Rating, Level of Evidence and Conclusions

Combination(s) of Clinical Trials Ratings	Level of Evidence	Conclusions	Recomendation (Based on efficacy and effectiviness data only)
≥ 1 Class I studies or meta-analysis meeting Class I criteria sources OR ≥ 2 Class II studies	A	AED established as efficacious or effective as initial monotherapy	AED should be considered for initial monotherapy-First
1 Class II study or meta-analysis meeting Class II criteria	B	AED probably efficacious or effective as initial monotherapy	
≥ 2 Class III double blind or openlabel studies	C	AED possibly efficacious or effective as initial monotherapy	AED may be considered for initial monotherapy
1 Class III double blind or open label study OR ≥ 1 Class IV clinical studies OR Data from expert committee reports, opinions from experienced clinicians	D	AED potentially efficacious or effective as initial monotherapy	Weak efficacy
Absence of directly applicable clinical evidence upon which to base a recommendation	E	No data available to assess if AED is effective as initial monotherapy	Either no data
Positive evidence of lack of efficacy or effectiveness based on Class I to IV studies OR Significant risk of seizure aggravation based on Class I to IV studies	F	AED established as ineffective or significant risk of seizure aggravation	AED should not be

Partial Seizures: Adults

Available Evidence

- *A total of **33 (+6)**randomized clinical trials (RCTs) and **5 (+4)** meta-analyses examined initial monotherapy of adults with partial-onset seizures*
- *Division of trials*
  - *Class I **(n=2+2=4)***
  - *Class II (n=1)*
  - *Class III **(n=30+4=34)***

Partial Seizures in Adults

Listing of Class I-III Double-Blind RCTs

Class I

Mattson (1985) CBZ, PB, PHT, PRM

Chadwick (99) CBZ, VGB

Brodie (2007) LEV/CBZ, Baulac (2012) ZNS/ CBZ

Class II

Mattson (92) CBZ, VPA

Class III *(Because of low power (DNIB) or forced exit)*

Brodie (95)	*CBZ, LTG*	*Chadwick (98)*	*GBP*
Brodie (02)	*GBP, LTG*	*Sachdeo (00)*	*TPM*
Christe (97)	*OXC, VPA*	*Gilliam (03)*	*TPM*
Bill (97)	*OXC, PHT*	*Privitera (03)*	*CBZ,TPM,VPA*
Dam (89)	*CBZ,OXC*	*Arroyo (05)*	*TPM*
Brodie (02)	*CBZ, REM*	*Steiner (99)*	*PHT, LTG*
Ramsay (83)	*CBZ, PHT*	*Gibberd (82)*	*PHT, PNT*
Mikkelsen (81)	*CBZ, CLP*		

Partial Seizures: Adults
Recommendations

Level A: CBZ(n=23), PHT(n=12), LEV(n=1), ZNS(n=1)
Level B: VPA (n=11)
Level C: GBP, LTG, OXC, PB, TPM, VGB
Level D: CZP, PRM
Level E: Others
Level F: None

Partial Seizures: Children
Available Evidence

- *A total of **25(+2)** RCTs and **1(+4)** meta-analysis examined initial monotherapy of children with partial-onset seizures*
- *Division of trials*
  - *Class I (n=1)*
  - *Class II (n=0)*
  - *Class III (n=17+2)*

Partial Seizures: Children
Recommendations

***Level A: OXC** (no new AEDs)*
Level B: None
*Level C: CBZ, PB, PHT, TPM, VPA, **VGB***
*Level D: LTG, **CLB, CLZ, ZNS***
Level E: Others
Level F: None

Partial Seizures: Elderly
Available Evidence

- *A total of **30(+1)** RCTS with elderly participants included which examined initial monotherapy for partial-onset seizures*
- *Division of trials*
  - *Class I (n=1)*
  - *Class II (n=1)*
  - *Class III (n=2+1)*

Partial Seizures: Elderly
Recommendations

***Level A: GBP, LTG** (no new AED)*
Level B: None
Level C: CBZ
Level D: TPM, VPA
Level E: Others
Level F: None

Generalized Tonic Clonic Seizures: Adults
Available Evidence

- *A total of **23 (+4)** RCTs and **5 (+4)** meta-analyses examined initial monotherapy of adults with generalized-onset tonic clonic seizures*
- *Division of trials*
  - *Class I (n=0)*
  - *Class II (n=0)*
  - *Class III (**n=10+4**):CBZ, GBP, LTG, OXC, PB, PHT, TPM, VPA*

Generalized Tonic Clonic Seizures: Adults
Recommendations

Level A: None

Level B: None

Level C: CBZ,LTG,OXC*,PB, PHT*,TPM,VPA*

Level D: GBP,VGB

Level E: Others

Level F: None

- **=may aggravate tonic clonic seizures and more commonly other generalized seizure types, should be used with caution*

Generalized Tonic Clonic Seizures: Children
Available Evidence

- *A total of **20 (+0)** RCTs examined initial monotherapy of children with generalized onset tonic clonic seizures*
- *Division of trials*
  - *Class I (n=0)*
  - *Class II (n=0)*
  - *Class III (n=14): CBZ, CLB, OXC, PB, PHT, TPM, VPA*

Generalized Tonic Clonic Seizures: Children
Recommendations

Level A: None

Level B: None

Level C: CBZ,PB, PHT*,TPM,VPA*

*Level D: OXC**

Level E: Others

Level F: None

**may aggravate tonic clonic seizures and more commonly other generalized seizure types, should be used with caution*

Childhood Absence Epilepsy:
Available Evidence

- *A total of **6 (+2)** RCTs examined initial monotherapy of children with Childhood Absence Epilepsy*
- *Division of trials*
  - ***Class I** **(n=0+1)***
  - *Class II (n=0)*
  - *Class III **(n=6+1)** -3 Double Blinded*

    ETX, LTG, VPA

Childhood Absence Epilepsy:
Recommendations

Level A: ~~None~~ (ESM, VPA)

Level B: None

Level C: LTG

Level D: None

Level E: Others

*Level F: CBZ, **GBP,** OXC, PB, PHT,TGB,VGB*

BECTS:
Available Evidence

- *A total of **3 (+1)**RCTs examined initial monotherapy of children with BECTS, 2 were DB*
- *Division of trials*
  - *Class I (n=0)*
  - *Class II (n=0)*
  - *Class III **(n=2+1)***

BECTS:
Recommendations

Level A: None

Level B: None

Level C:CBZ, VPA

*Level D: GBP,STM, **LEV, OXC***

Level E: Others

Level F: None

Juvenile Myoclonic Epilepsy:
Available Evidence

- *A total of **0 (+1)** RCTs examined initial monotherapy of children with Juvenile Myoclonic Epilepsy*
- *Division of trials*
  - *Class I (n=0)*
  - *Class II (n=0)*
  - *Class IIII **(n=0+1)***

Juvenile Myoclonic Epilepsy :
Recommendations

Level A: None

Level B: None

Level C: None

Level D: TPM, VPA

Level E: Others

Level F: CBZ*, GBP, OXC*, PHT*, TGB, VGB

**may aggravate myoclonic seizure types, should be used with caution*

Juvenile myoclonic epilepsy

- *Drugs to be avoided*
- *Clinical evidence has been provided that PHT, CBZ, OXC, VGB, TGB, GBP (PRE?) may aggravate absence and myoclonic seizures*
- *LTG has been shown to aggravate severe myoclonic epilepsies in infancy and in JME*

Level of Evidence III-IV,

Recommendation C

Table 4. Summary of studies and level of evidence for each seizure type and epilepsy syndrome

Seizure type or epilepsy syndrome	Class I studies	Class II studies	Class III studies	Level of efficacy and effectiveness evidence (in alphabetical order)
Adults with partial-onset seizures	4	1	34	Level A: CBZ, LEV, PHT, ZNS Level B: VPA Level C: GBP, LTG, OXC, PB, TPM, VGB Level D: CZP, PRM
Children with partial-onset seizures	1	0	19	Level A: OXC Level B: None Level C: CBZ, PB, PHT, TPM, VPA, VGB Level D: CLB, CZP, LTG, ZNS
Elderly adults with partial-onset seizures	1	1	3	Level A: GBP, LTG Level B: None Level C: CBZ Level D: TPM, VPA
Adults with generalized onset tonic–clonic seizures	0	0	27	Level A: None Level B: None Level C: CBZ, LTG, OXC, PB, PHT, TPM, VPA Level D: GBP, LEV, VGB
Children with generalized-onset tonic–clonic seizures	0	0	14	Level A: None Level B: None Level C: CBZ, PB, PHT, TPM, VPA Level D: OXC
Children with absence seizures	1	0	7	Level A: ESM, VPA Level B: None Level C: LTG Level D: None
Benign epilepsy with centrotemporal spikes (BECTS)	0	0	3	Level A: None Level B: None Level C: CBZ, VPA Level D: GBP, LEV, OXC, STM
Juvenile myoclonic epilepsy (JME)	0	0	1	Level A: None Level B: None Level C: None Level D: TPM, VPA

Summary of Evidence for Focal Onset Seizures

Seizure type or epilepsy syndrome	Class I	Class II	Class III	Level of efficacy and effectiveness evidence (alphabetic order)
POS: Adults	2 (+2)	1	30 (+4)	Level A: CBZ, PHT, LEV, ZNS Level B: VPA Level C: GBP, LTG, OXC, PB, TPM, VGB Level D: CZP, PRM
POS: Children	1	0	17 (+2)	Level A: OXC Level B: None Level C: CBZ, PHT, TPM, VPA Level D: CLB, CZP, LTG, ZNS
POS: Elderly	1	1	2 (+1)	Level A: GBP, LTG Level B: None Level C: CBZ Level D: TPM, VPA

Update 2013

Summary of Evidence for Generalized Onset Seizures

Seizure type or epilepsy syndrome	Class I	Class II	Class III	Level of efficacy and effectiveness evidence (alphabetic order)
TCGS: Adults	0	0	23+ 4	Level A: None Level B: None Level C: CBZ, LTG, OXC, PB, PHT, TPM, VPA Level D: GBP, LEV, VGB
TCGs: Children	0	0	14	Level A: None Level B: None Level C: CBZ, PB, PHT, TPM, VPA Level D: OXC
Absence seizure	1	0	6+ 1	Level A: VPA, ESM Level B: None Level C: LTG Level D: None

Variables that affect initial AED selection

AED-specific variables	Patient-specific variables	Nation-specific variables
Seizure type or epilepsy syndrome specific efficacy or effectiveness - Dose-dependent adverse effects - Idiosyncratic reactions - Chronic toxicities - Teratogenicity - Carcinogenicity - Pharmacokinetics - Interaction potential - Formulations	- Genetic background - Age - Gender - Comedications - Comorbidities - Insurance coverage - Ability to swallow pills/tablets	- AED availability - AED cost - Insurance coverage

AEDs in use/ Available in Thailand

- **Older Drugs**
  - *Phenobarbital*
  - *Phenytoin*
  - *Valproate*
  - *Carbamazepine*
  - *Benzodiazepine*
- **Newest Drugs**
  - *Lacosamide*
  - *Perampanel*
- **Newer Drugs**
  - *Vigabatrin*
  - *Lamotrigine*
  - *Oxcarbazepine*
  - *Zonisamide*
  - *Levetiracetam*
  - *Topiramate*
  - *Gabapentin*
  - *Pregabalin*

AEDs in use/ Available in Thailand

Table 5: Percentage of hospitals having standard antiepileptic drugs available classified by hospital types

	Center hospitals (n=12)	General hospitals (n=57)	Community hospitals (n=467)	University hospitals (n=7)	Hospitals under Department of Medical Service (n=9)	Hospitals under Department of Mental Health (n=3)	Others* (n=4)
Phenobarbital	100.0	100.0	99.1	100.0	100.0	100.0	100.0
Phenytoin	100.0	94.5	88.5	100.0	88.9	100.0	100.0
Carbamazepine	100.0	98.2	86.9	100.0	100.0	100.0	100.0
Valproic acid	100.0	89.1	45.1	100.0	87.5	100.0	100.0

*Hospitals affiliated with Bangkok Metropolitan, the Military, the Police, and State Enterprises.

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AEDs in use/ Available in Thailand

Table 6: Percentage of hospitals having new antiepileptic drugs available classified by hospital types

	Center hospitals (n=12)	General hospitals (n=57)	Community hospitals (n=467)	University hospitals (n=7)	Hospitals under Department of Medical Service (n=9)	Hospitals under Department of Mental Health (n=3)	Others* (n=4)
Topiramate	83.3	13.7	0.3	100.0	50.0	100.0	100.0
Gabapentin	83.7	66.0	6.3	100.0	87.5	100.0	100.0
Lamotrigine	36.4	5.9	0.0	85.7	25.0	100.0	66.7
Vigabatrin	0.0	0.0	0.0	42.9	25.0	0.0	33.3
Levetiracetam	25.0	2.0	0.3	57.1	37.5	100.0	100.0
Pregabalin	36.4	7.7	1.1	85.7	37.5	0.0	66.7
Oxcarbazepine	0.0	0.0	0.0	100.0	0.0	0.0	0.0

*Hospitals affiliated with Bangkok Metropolitan, the Military, the Police, and State Enterprises.

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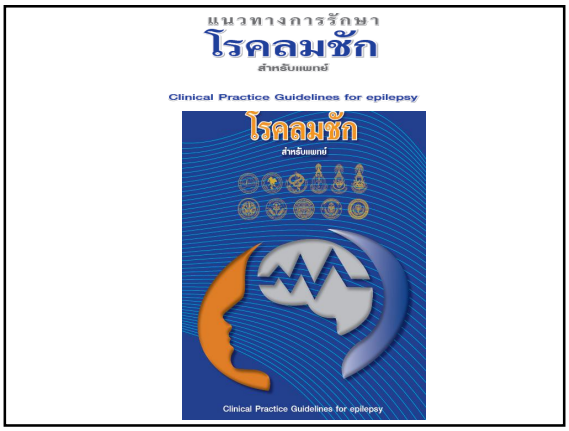
Investigation Tools for Epilepsy

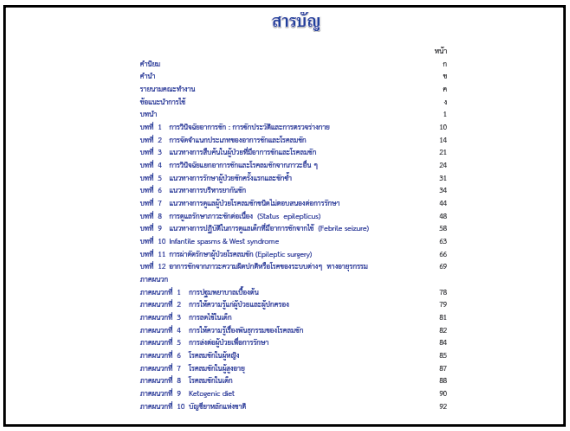
Table 3: Percentages hospitals with equipment for diagnosing epilepsy available in different hospital categories

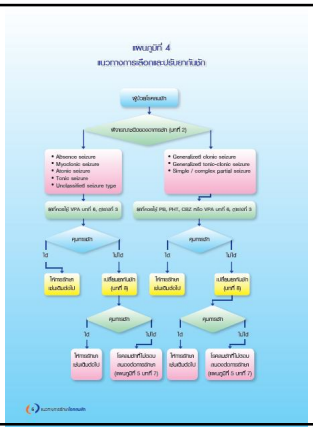
	Center hospitals (N=12)	General hospitals (N=57)	Community hospitals (n=467)	University hospitals (n=7)	Hospitals under Department of Medical service (n=9)	Hospitals under Department of Mental Health (n=3)	Others* (n=4)
EEG	63.6	5.4	3.6	85.7	55.6	100.0	75.0
CT Scan	100.0	35.1	1.3	85.7	55.6	66.7	75.0
MRI	0.0	0.0	0.0	57.1	11.1	0.0	25.0

*Hospitals affiliated with Bangkok Metropolitan, the Military, the Police, and State Enterprises.

Tiamkao S, Neurology Asia2013







ILAE Reports & Guidelines

- ***Antiepileptic Drugs***
- Antiepileptic drugs and suicidality: an expert consensus statement *(2013)*
- Updated ILAE evidence review of antiepileptic drug efficacy and effectiveness as initial monotherapy for epileptic seizures and syndromes. *(2013)*
- Antiepileptic drug selection for people with HIV/AIDS: Evidence-based guidelines from the ILAE and AAN *(2012)*
- Antiepileptic drugs – Best practice guidelines for therapeutic drug monitoring: *(2008)*
- ILAE Treatment Guidelines *(2006)*
  - Treatment Guidelines Excel spreadsheet
  - Guidelines PPT Presentation

ILAE Reports & Guidelines

- ***Antiepileptic Drugs (Pediatric)***
- Diagnostic test utilization in evaluation for resective epilepsy surgery in children - *Report from The Task Force for Paediatric Epilepsy Surgery, Commission for Paediatrics, and the Diagnostic Commission (2014)*
- Guidelines for imaging infants and children with recent-onset epilepsy *(2009)*
- Guidelines on Neonatal Seizures *(WHO, ILAE) (2011)*

ILAE Reports & Guidelines

- ***Other ILAE Guidelines***
- Cavernoma-related epilepsy: Review and recommendations for management *(2013)*
- Minimum requirements for the diagnosis of psychogenic nonepileptic seizures: A staged approach*(2013)*
- Identification of new epilepsy treatments: issues in preclinical methodology *(2012)*
- Epilepsy imaging study guideline criteria: Commentary on diagnostic testing study guidelines and practice parameters *(2011)*

ILAE Reports & Guidelines

- ***Other ILAE Guidelines***
- *Standards for epidemiologic studies and surveillance of epilepsy (2011)*
- *Genetic testing in the epilepsies: Report of the ILAE Genetics Commission (2010)*
- *Recommendation for a definition of acute symptomatic seizure: Report from the ILAE Commission on Epidemiology (2009)*
- *Definition of drug resistant epilepsy: Consensus proposal by the ad hoc task force of the ILAE Commission on Therapeutic Strategies (2009)*

ILAE Reports & Guidelines

- ***Other ILAE Guidelines***
- *Guidelines for Neuroimaging Evaluation of Patients with Uncontrolled Epilepsy Considered for Surgery. Commission on Neuroimaging of the ILAE (1998)*
- *Recommendations for Neuroimaging of Patients with Epilepsy; ILAE Commission on Neuroimaging (1997)*

Conclusion about Guidelines

– When selecting a patient`s AED, all relevant variables and not just efficacy and effectivenes should be considered.

– Guidelines or evidence reviews can be seen as additional tool, not the only tool in the clinical decision.

– Most guidelines actually not guidelines but more recommendations based largely by "expert opinion" and common practice

_Totally pointless if not circulated, read, and widely available

Conclusion about Guidelines

– It must ultimately remain for the individual physician to use his judgement aqnd expertise when deciding on the most appropriate drugs for the specific patients ***(ILAE)***

Thank You Very Much