

Is it in the Head?

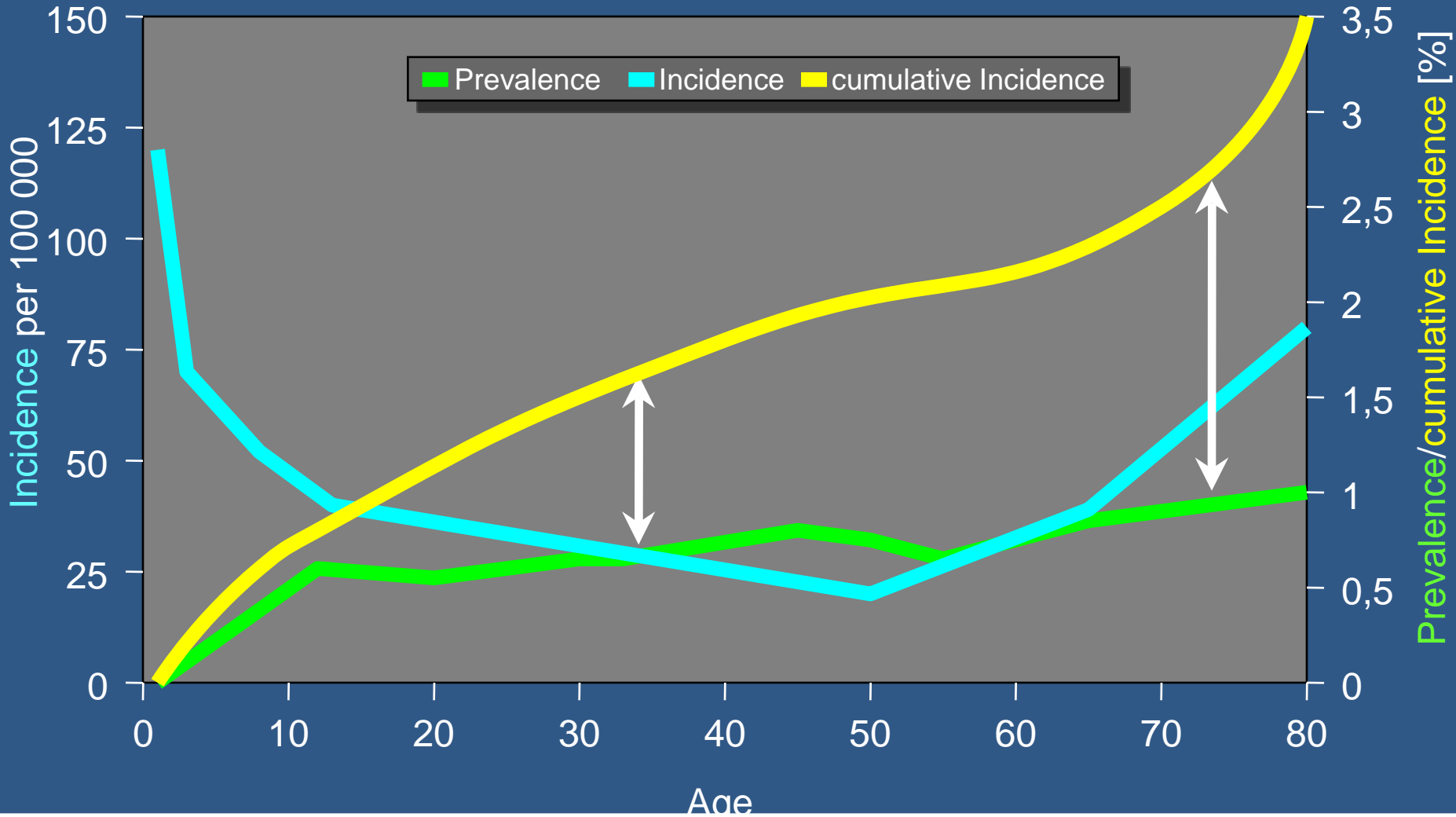
The view from Neurology

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First Fit

- Isolated (provoked) seizure
–1 out of 20 (10?)
- New onset epilepsy
–1 out of 125
- First Fit clinics
–30-50% seizures

Incidence and Prevalence of Epilepsy



Diagnosis:

- All adults with a recent suspected seizure should be seen urgently* by a specialist⁺. This is to ensure precise and early diagnosis and initiation of therapy as appropriate to their needs.
- The seizure type(s) and epilepsy syndrome, aetiology and co-morbidity should be determined.

* GDG considered that 'urgently' meant within 2 weeks.

⁺ For adults, a specialist is defined throughout as medical practitioner with training and expertise in the epilepsies.

Clinical Guideline 20
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Developed by the National Collaborating Centre for
Primary Care

Fits, faints and funny turns

- ILAE Classification of Epilepsy (1989) -

1. Localisation related Epilepsy (focal, partial):

- Idiopathic (age related)
- Symptomatic (e.g. AHS, stroke, encephalitis)
- Cryptogenic

2. Generalized Epilepsy

- Idiopathic (e.g. absence, JME, GM at awaking)
- Cryptogenic or symptomatic (age related)
- Symptomatic
- Unspecific
- Specific (e.g. hereditary diseases with seizures)

Fits, faints and funny turns

- ILAE Classification of Epilepsy (1989) -

3. Epilepsies undetermined whether focal or generalized:

- With both focal and generalized seizures (e.g. neonatal)
- Without unequivocal generalized or focal features

4. Special syndromes

- Situation related seizures
 - Febrile convulsions
 - Isolated seizures or status epilepticus
 - Provoked seizures (e.g. by acute metabolic/ toxic event due to e.g. alcohol, drugs, eclampsia, etc.)

Clinical signs for epileptic seizures

Primary clinical pointers:

- aura: present or absent (epigastric, déjà vu, jamais vu, gustatory, acoustic, unspecific, ...)
- ictal: Awareness: normal/altered/LOC, stereotyped behaviour, eyes open (staring/rolled back), alteration of tone, convulsions
- postictal: confusion, disorientation, Todd's paresis

Secondary clinical pointers:

- tongue bite, incontinence
- amnesia (>5min)
- postictal confusion/disorient., headache, exhaustion
- muscle ache (following days)

Differential diagnosis of epileptic seizures

1. Syncope
2. Non-epileptic pseudo seizures (NEPS)
3. Parasomnia
4. Panic attacks
5. TIA
6. Drop attacks
7. Movement disorders (e.g. focal dystonia)
8. Narcolepsy
9. Others (Tics, TGA, migraine, non-epileptic myocloni, ...)

A close-up photograph of a chameleon perched on a branch with green leaves. The chameleon is light green with a textured, bumpy skin. Its large, prominent eye is visible, and it is looking towards the left. The background is a soft, out-of-focus brownish-green.

**The Chameleon of transient
loss of consciousness**

Fits, faints and funny turns

- 25 y old ♂ -

① Non-epileptic pseudo seizure (NEPS)

② Epileptic seizure („abortive“ GM)

③ **Syncope**

④ Dystonia

Fits, faints and funny turns

- 37 y old ♂ -

① Non-epileptic pseudo seizure (NEPS)

② Epileptic seizure

③ Syncope

④ Startle disease

Fits, faints and funny turns

- 6 y old boy -

① Non-epileptic pseudo seizure (NEPS)

② Epileptic seizure

③ Syncope

④ Behavioural abnormality

Fits, faints and funny turns

- 24 y old ♀ -

① Non-epileptic pseudo seizure (NEPS)

② Epileptic seizure

③ Syncope

④ Spasm due to MS

Fits, faints and funny turns

- 32 y old ♂ -

① Non-epileptic pseudo seizure (NEPS)

② **Epileptic seizure (secondary generalized)**

③ Tic

④ Behavioural abnormality

Fits, faints and funny turns

- 28 y old ♀ -

① Non-epileptic pseudo seizure (NEPS)

② Epileptic seizure (temporal)

③ Syncope

④ Behavioural abnormality

Syncope and Seizure

| | Syncope | GTCS |
|-----------------------|---|--|
| Precip. event | ~50% | None |
| Falls | Flacid / stiff | Stiff |
| Convulsions | ~80%, <30s, arrhythmic, multifocal or generalized | Always 1-2 min, rhythmic generalized |
| Eyes | Open, Transient upward or lat deviation | Open, often sustained deviation |
| Hallucinations | Late in attack | If, in aura |
| Incontinence | Common | Common |
| Tongue bite | Rare | Common |
| Postict. Conf. | <30 s | 2-10 min |
| Prolactin, CK | Normal | Possibly elevated |

Syncope or Seizures?

- Calgary Scale -

| Question | Yes |
|---|-----|
| Cut tongue afterwards? | 2 |
| Déjà vu or jamais vu before? | 1 |
| Emotional stress associated? | 1 |
| Head turning during your spell? | 1 |
| Unresponsive, unusual posturing or jerking limbs during spells or no memory afterwards? | 1 |
| Postictal confusion? | 1 |
| Lightheaded spells? | -2 |
| Sweat before your spells? | -2 |
| Prolonged sitting or standing? | -2 |

- N=539 patients
 - 50 CPS, 52 GTCS
 - 267 vasov. syncope
 - 90 VT
 - 80 other card sync.

- Seizures
 - Sensitivity: 94%
 - Specificity: 94%

- Syncope
 - Accuracy: 86%

Point score: Seizure ≥ 1 ; Syncope < 1

Is it in the Head?

- Conclusions -

- Yes
- Syncopes
 - include myoclonic jerks
 - Subcortical hypoxic mechanism ?brainstem
 - Present very similar to seizures
 - Fall, open eyes, incontinence, injuries
 - Differentiation
 - Provocation, Postural, Preceding symptoms (incl. retina hypoxia)
- Seizures
 - Cortical tonic/tonic-clonic convulsions
 - Postictal confusion
- If in doubt, consider video(-EEG monitoring)

Thank you

Atkinson Morley Epilepsy Group

