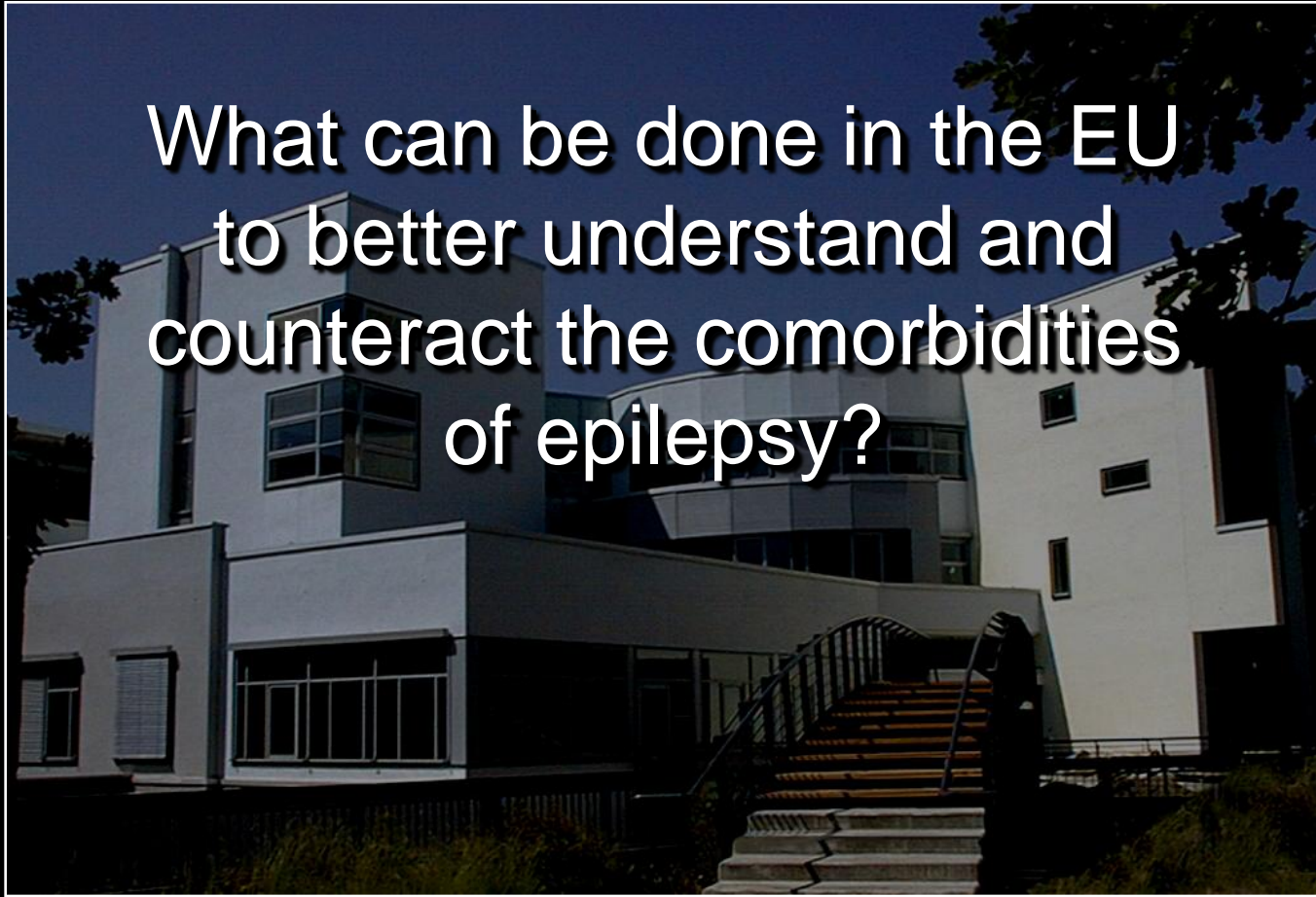


What can be done in the EU
to better understand and
counteract the comorbidities
of epilepsy?



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Epilepsy is more than having seizures

- High risk of behavioral co-morbidities in epilepsy -

- Cognition related: up to 80% in chronic epilepsies
- Behavior related: up to 60% in chronic epilepsies

- Co-morbidities in epilepsy are ...
 - ➔ often underdiagnosed and undertreated
 - ➔ occur dependent on etiology, type of epilepsy, & treatment
 - ➔ pose higher individual burden than seizures in chronic epilepsy

- Co-morbidities in epilepsy cause considerable health costs
 - ➔ Est. health costs for treatment related co-morbidities only average to ~20.000€ pat/year [AED treatment 5-13.000 €]

Psychiatric co-morbidities

- Symptoms, syndromes, phenotypes -

- Psychiatric co-morbidities show parallels and differences to what is seen in brain lesions or psychiatric illness without epilepsy.
- Necessary approaches require
 - ➔ investigation of sensitive and specific behavioral assessments
 - ➔ use of new methods on imaging, neuro-/electrophysiology
 - ➔ strengthening basic research into etiologies and treatments
 - ➔ definition of subgroups at risk, syndromes, phenotypes
 - ➔ evaluation of treatment response (pharmacological, behavioral, surgery, brain stimulation), identify/predict responders

Cognitive co-morbidities

- Developmental hindrance and mental decline -

- Behavioral co-morbidities of epilepsy can be the direct expression of pathological brain maturation and mental decline with ageing but may as well result from epilepsy or its treatment.
- Future steps should aim at ...
 - ➔ investigations into the nature of developmental hindrance in the young and accelerated cognitive decline in the old
 - ➔ evaluation of interventions which enable unimpaired brain maturation and prevent accelerated mental decline

Bi-directionality of epilepsy and its co-morbidities

- Cause or consequence -

- Behavioral Co-morbidities can result from epilepsy and/or treatment, but very often they are already present at epilepsy onset or before!
- Recommendations include

 - ➔ change of research focus from chronic to new onset epilepsy!
 - ➔ evaluation of the evolution of co-morbidities and the potentially common basis of epilepsy and co-morbidities
 - ➔ evaluate cost savings when increasing diagnostic and treatment efforts in new onset epilepsy!

Behavioral co-morbidities in epilepsy

- Research perspectives and needs for funding -

- Prospective multicenter and longitudinal studies into the evolution, bi-directionality, and maybe common pathology of epilepsy and its co-morbidities
- Collect accumulated evidence from chronic epilepsy, go to epilepsy onset, identify patients at risk, intervene early, and prevent chronification, developmental hindrance, mental decline!
- Multi-modal & multi-method approach (neuro-/electrophysiology, imaging, behavioral assessment, genetics, basic research, etc.)
- Invest into specialized new onset seizure clinics and into the evaluation of the related socio-economic health cost savings.



Thank
You!