

Grúpa Ospidéal  
Oirthear na hÉireann



# **"BRAIN, NEW APPROACH TO BRAIN DISEASES" WORKSHOP**

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# Why bother with the Brain and Mind?

Vision

Smell/taste

Touch

Hearing - Music

Memory

Language and speech

Imagination - Art

- How we see, touch, taste smell or hear the world – how we live is through our brain and mind- use Diving Bell and the Butterfly quote



# Brain disorders are common

- 1 in 5 medical admission from A&E are neurological
- 1 in 7 GP assessments are for neurological disorders
- These are common disabling expensive conditions
  1. Stroke
  2. Epilepsy
  3. Parkinson's disease
  4. Multiple Sclerosis
  5. Headache including migraine
  6. Dementia e.g., Alzheimer's disease
  7. TBI, spinal injury etc

# So what?

- Because many neurological disorders are treatable or can be delayed or prevented
  1. TPA/thrombectomy in stroke
  2. Brain surgery in intractable epilepsy
  3. Stereotactic Deep Brain stimulation in Parkinson
  4. Immune treatments in Multiple sclerosis
  5. MAB and botulinum toxin therapy in migraine
  6. New precision approaches - Gene therapy SMA

# & the cost of Brain Disorders!

- The economic cost of brain disorders in Europe - European Journal of Neurology 2012, J Olesen et al.

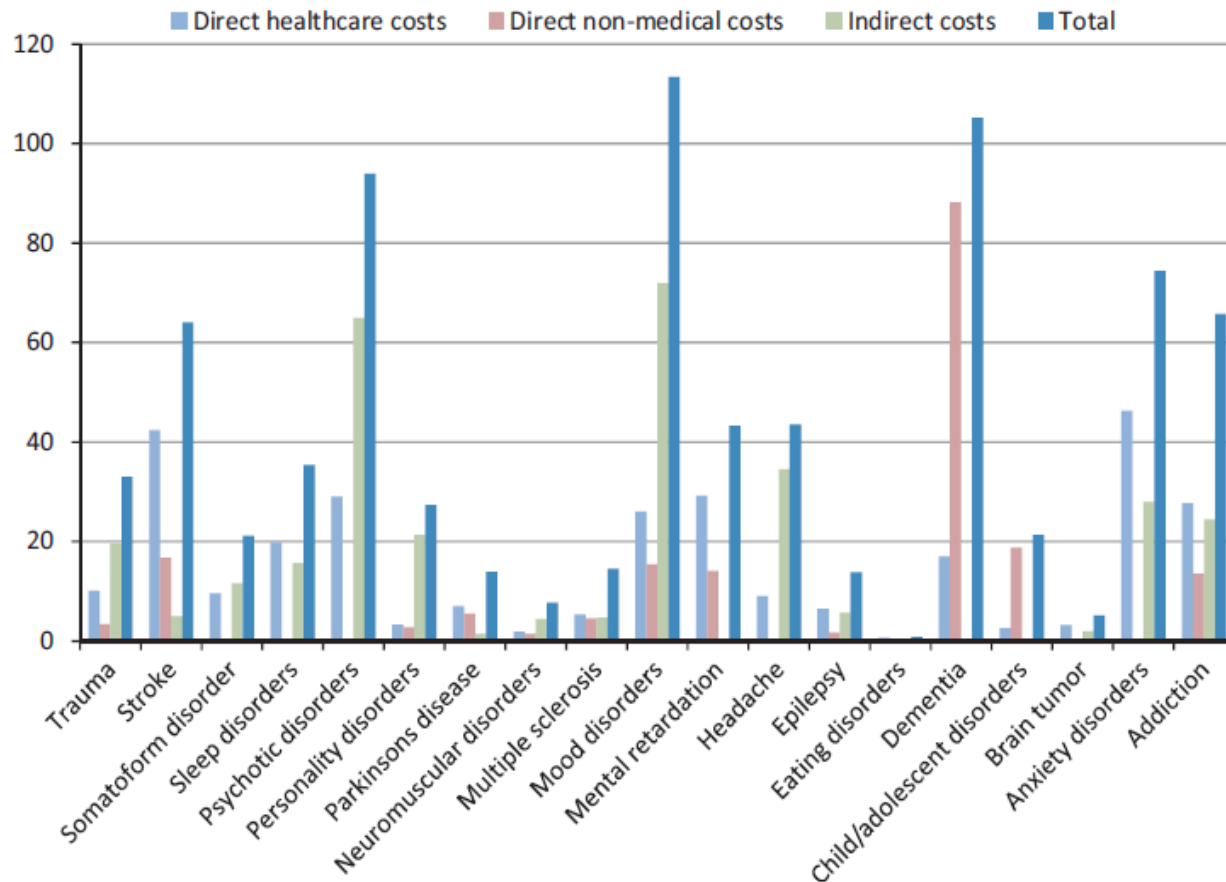


Fig.1. Absolute cost and type of cost of 19 brain disorders in Europe (billion €PPP 2010).

# Neurology can be difficult

- 35 yo 7 weeks pregnant
- Behavioural Change
- 6/52 headaches, nausea, dizziness, strange dreams with insomnia,
- psychosis - hallucinations ("dead aunt on ceiling, people going to take my baby and do experiments")
- Acute urinary retention/constipation

# What is the diagnosis?

## What test(s) would you do?

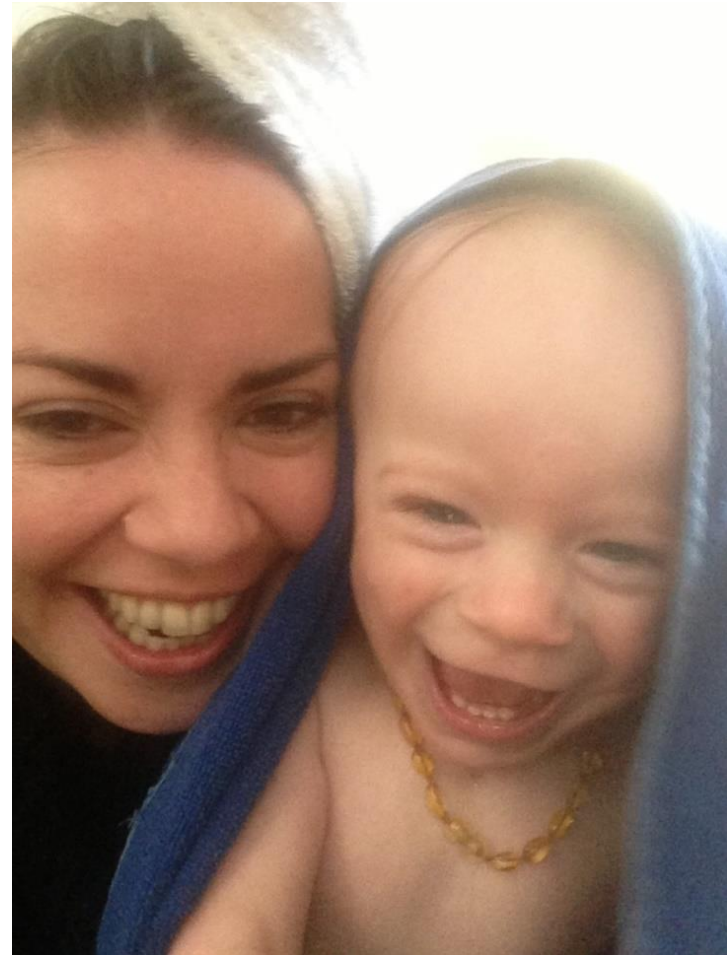
Autoimmune/paraneoplastic  
Anti NMDA-R encephalitis



# How would you treat this young pregnant woman?

- Initially with olanzapine, lorazepam and haloperidol prn
- IV Methyl Prednisolone 5 days
- Plasmaphoresis x5
- Anti epileptic drugs...
- Intravenous Immunoglobulin 5 days
- Return to plasmaphoresis and NMDA titre monitored and commenced on Azathioprine (**18<sup>th</sup> & final exchange**)

# Disease course



# An Increasing problem and demand increases

- Ageing population – increased number of people with neurodegenerative disease or stroke e.g., 40% get Alzheimer's disease by age 85
- New treatment options
- New patient demands

# So what should we do?

- Increase awareness of the brain - education
  1. School – teachers & children should understand memory, attention, consciousness, movement control, emotions, speech & language
  2. Doctors/nurses/services allied to medicine – increase knowledge of brain and mind disorders
- Increase research and innovation
  1. Resulting in new treatments and preventative therapies to improve quality of life and offset cost longterm

# How to prevent/slow brain and mind disorders

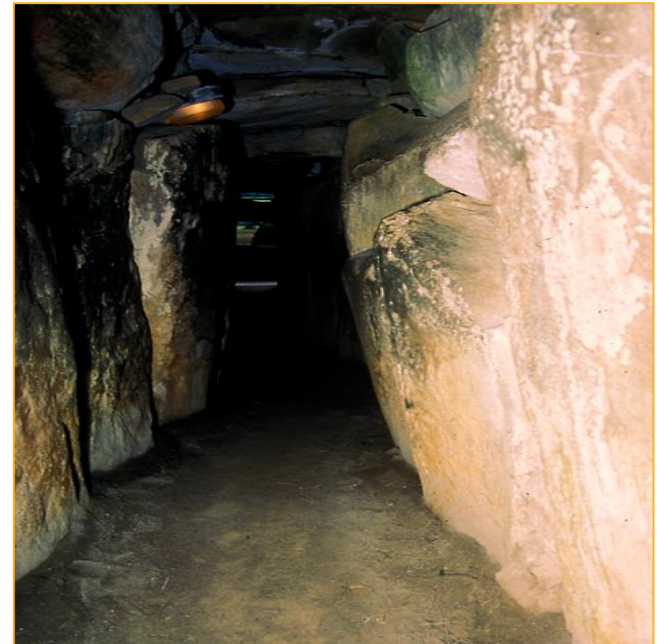
- A Healthy brain
  1. Physical Exercise
  2. Intellectual exercise/activity and novelty
  3. Good sleep
  4. Diet – the right food at the right time
  5. Laughter

# New developments

- Consciousness
- Movement control and thinking – Think fast think slow
- Precision medicine –
- Brain imaging
- 2<sup>nd</sup> renaissance? – rapid spread of information and knowledge via social media, internet and development of AI and robotics



# Newgrange, Boyne Valley, Co Meath



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# THANK YOU

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