

# Alcohol Related Long Term Conditions Team

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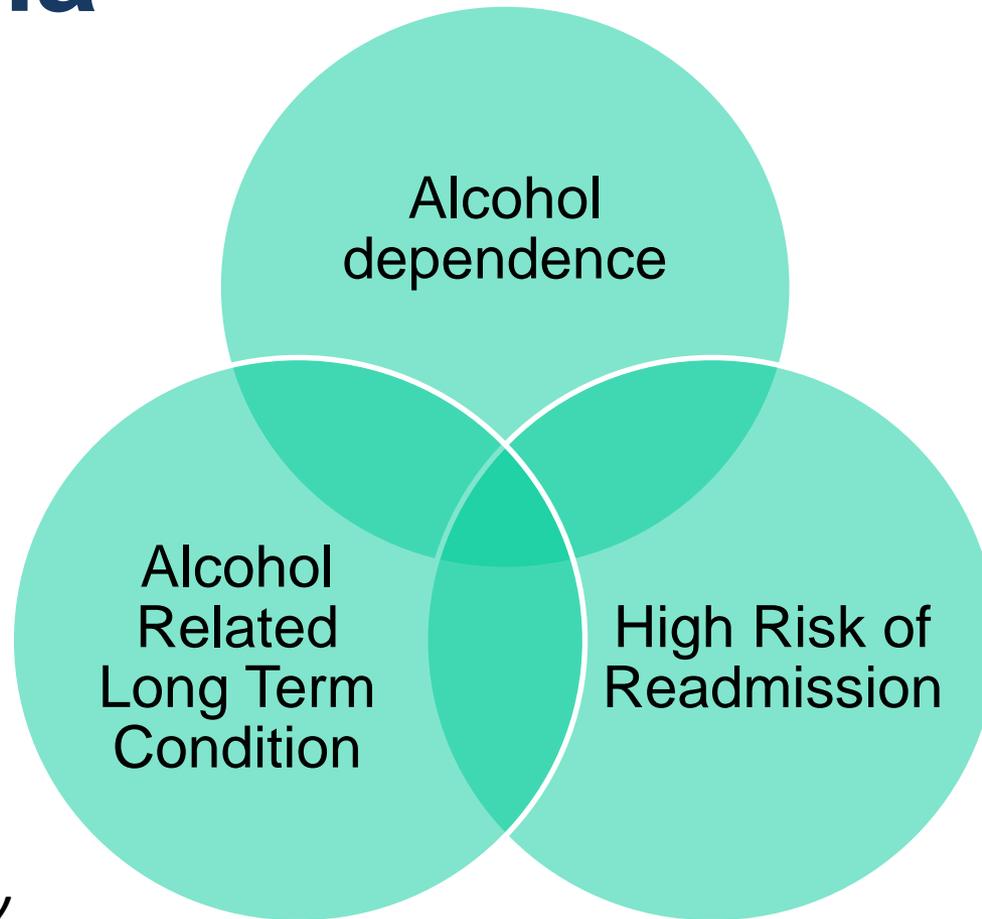
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**"FRED'S A DEAD LOSS ON HOLIDAY—JUST IN AND OUT,  
AND HE FALLS FAST ASLEEP!"**





# Criteria



- *Cirrhosis*
- *Alcohol Related Brain Disease (or suspected)*
- *Pancreatitis*
- *Cancers*
- *Peripheral neuropathy*



# Key to approach

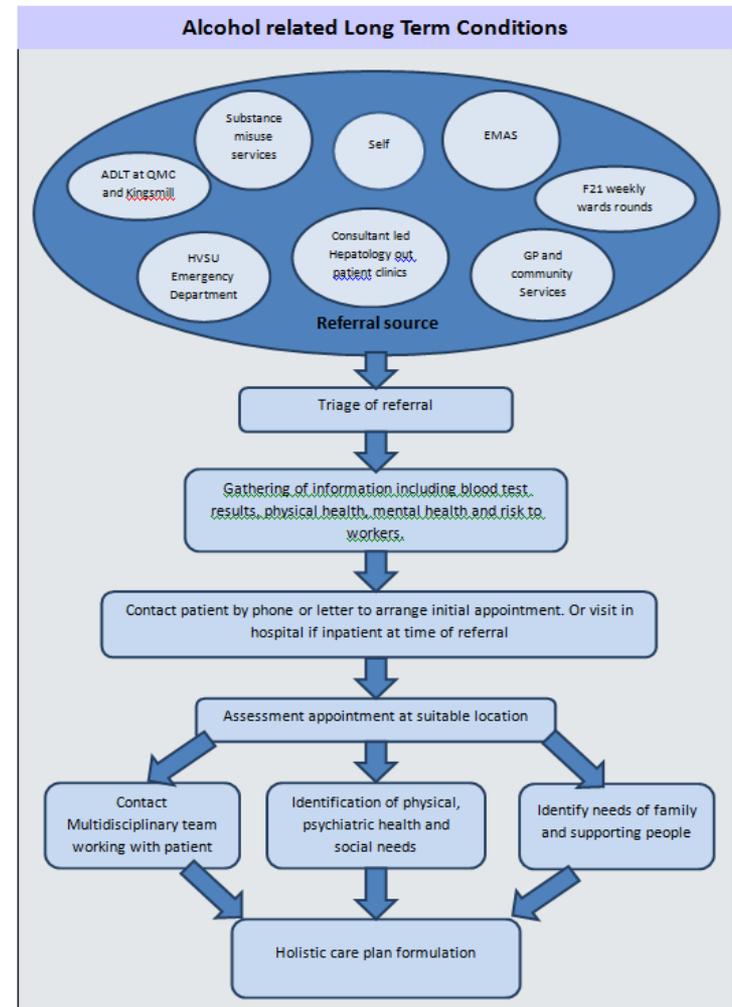
- Part of a 'Blue Light system'.
- **Blue Light Meeting-**
  - 2 monthly. Chaired by LTC team, East Midlands Ambulance Service (EMAS), ED Nurse Specialist in HVSU, Hospital Liaison, Fire service and Police discuss their high risk clients with alcohol misuse problems.
  - We also know each other well so speak frequently outside meetings!
- **Community Nurses**
  - Our nurses have embedded within the district nursing teams attending meetings and MDT's. This is demonstrated by the largest portion of referrals being received from the nurses
- **Hepatology**
  - Hepatology ward round :discuss discharge planning with consultants, wards sisters and alcohol liaison.
  - Medical daycase unit for urgent paracentesis drains
  - Hepatologists mobile numbers
- Cost savings
  - One patient alone has cost at least £137,000 in a 12 month period (Alcohol Concern, 2015)



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## Community “Alcohol Care Team”

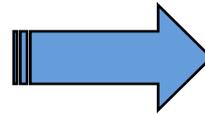
- Identification
- Permission for contact
- Building of therapeutic relationship
- Service user (and carer) perception of problems
- Multiagency meeting was arranged to coordinate the care
- A consistent care plan was agreed
- Each agency had a better understanding of each of their roles
- Regular follow up meetings
- Co ordination of timely information
- FLO
- Carer support
- End of life care
- Outpatient appointments



## Greg (with permission)



- 2004
- Skilled Cabinet maker
- 'Social drinker'
- Marriage break up 2005
- Dad died 2007
- 2013 Best friend suicide
- Domestic Violence victim
- Became homeless
- 'Written off' by treatment services



**2004**

**2015**

**Presentation**

- End Stage Liver Disease
- "sofa surfing"
- Referred Jan 2014
- Multiple admissions to hospital
- Huge GI bleed resuscitated twice
- "a worst case scenario"

**Our Interventions**

- 3 months to build rapport
- Simple things "they made me feel valued"
- EoLC :Gold Standards Framework
- Weekly ascites drains as outpatient

**Result**

- 24 months abstinent
- New Girlfriend
- Job seeking
- Housed



Service User Report (Alcohol Concern, 2016)

- *“Treating me as an individual. I am a 4th generation alcoholic. You don’t know what else to do. You think drink is the only way. It is like being re-born.”*
- *“The worker is very caring and very lovely.”*
- *“They are not just doing their job. Vocation, passion, they do care, it is a job but it is something they want to do”*
- *“They are compassionate without being patronising. A strong belief in their job and it comes through. It is about respect. That’s the key word.”*



# Alcohol Related Brain Damage: The problems

- Why ARBD? Bumps and lumps, fits, withdrawal and vitamin deficiency
- *“If they were hit by the bottle and that caused the brain damage then there is lots of support. However, this group have been hit by the contents and get little.”*
- Not alcohol treatment seeking = ?service
- ?organic brain injury= ?Psychiatry
- Fluctuating presentation plus confabulation
- Lack of awareness
- Funds and pathways for nutritional support
- Lack of Training: specialists and generalists
- *“Lifestyle choice”?*
- Who funds? Health or social care
- We haven't got a Prof Ken Wilson (Mental Capacity Act/ compassion/ hero!)

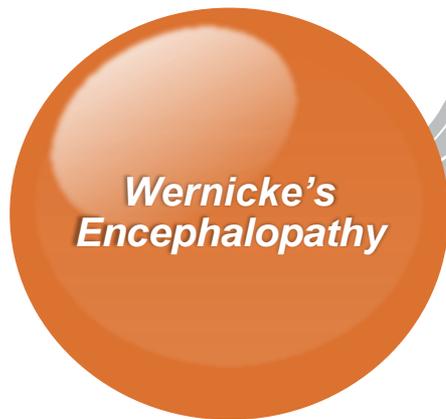


# Why highlight ARBD?

- Glasgow (Gilchrist, Morrison, 2005) 266 homeless hostel dwellers.
- 21% alcohol related brain damage (ARBD)
- 82% had cognitive impairment
- 78% Drinking hazardously (61% had a lifetime diagnosis of alcohol dependence )Post Mortem studies
- General population 0.8% (Oslo) - 2.8 % (Australia) population (40,000 PMs)
- 15% Psychiatric inpatients
- 24 % homeless men
- ARBD is not a degenerative condition, and up to 75% of patients will recover to some degree with abstinence and appropriate rehabilitative support (Emmerson ,Smith 2015)
- Alcohol-related brain damage may contribute to between 10% and 24% of all cases of dementia



# Wernicke's Encephalopathy



**Wernicke's Encephalopathy (WE) is an acute psychiatric disorder of the brain caused by thiamine deficiency<sup>1</sup>**

**95% of WE cases in developed countries are due to chronic alcohol misuse<sup>2</sup>**

**Post-mortem studies have shown that approximately 13% of people known to be chronic alcohol misusers had WE<sup>3</sup>**

**80% of patients are diagnosed with Wernicke-Korsakoff syndrome at post-mortem<sup>4</sup>**

**WE is a deterioration of brain tissue and should be treated as a medical emergency<sup>5</sup>**

1. Thomson AD, Marshall EJ. Alcohol Alcohol 2006; 41: 151–158. 2. Thomson AD. Alcohol Alcohol 2000; 35 Suppl 1: 2–7. 3. Torvik A, et al. J Neurol Sci 1982; 56: 233–248.  
4. Harper CG, Giles M, Finlay-Jones R, et al. Clinical signs in the Wernicke-Korsakoff complex: a retrospective analysis of 131 cases diagnosed at necropsy. J Neurol Neurosurg Psychiatry 1986; 49: 341–345.  
5. Alcohol Concern ARBD Factsheet. Available at: <http://www.alcoholconcern.org.uk/wp-content/uploads/2016/04/ARBD-Signs-Symptoms.pdf> Last accessed June 2016.



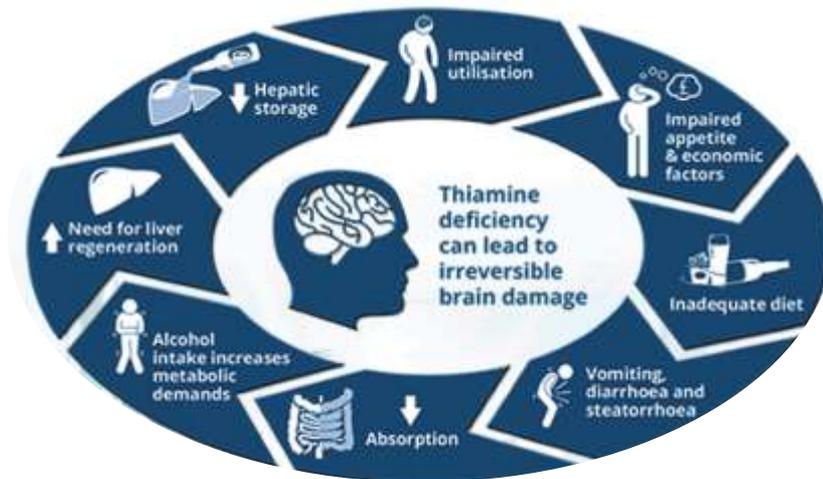
# History

- Carl Wernicke (1848-1904) 1881
  - Persistent vomiting patient after drinking sulphuric acid, & 2 alcoholics
    - Confusion, ataxia, stupor & death
    - “polioencephalitis haemorrhagica superioris”
- Sergei Korsakoff (1853-1900) 1887
  - Alcoholics
    - Memory disturbance, often with polyneuropathy
    - “Alcoholic Psychosis polyneuritica”





# B-vitamin Deficiency in Alcohol Misuse



***Vitamin B<sub>1</sub> (thiamine) is required by all tissues including the brain<sup>2</sup>***

***The body cannot synthesise thiamine and therefore it must be obtained from the diet<sup>2</sup>***

***In developed countries, 30-80% of alcohol misusers have reduced circulating thiamine levels<sup>3,4</sup>***

1. Thompsn AD, et al. *Pract Gastroenterol* 2009; 33(6): 21-30. 2. Martin PR, et al. *Alcohol Res Health* 2003; 27; 134-142. 3. Thomson AD. *Alcohol Alcohol* 2000; 35 Suppl 1: 2-7. 4. Manari AP, et al. *Addict Biol* 2003; 8: 201-210.



# Korsakoff's Psychosis

**Potentially irreversible brain damage resulting in severe memory loss<sup>1-3</sup>**

- Impaired recall of old information (retrograde amnesia)
- Poor acquisition of new information (anterograde amnesia)
- Poor recognition of familiar people
- False recollections/fictions: "confabulation"

**However patients may appear lucid<sup>3</sup>**

**Does not always manifest following a clear-cut episode of WE<sup>3</sup>**

- Some patients may be semi-conscious or comatose
- May be complicated by recent head injury or concurrent chest infection

**One-quarter of patients with KP will require long-term residential care<sup>1</sup>**

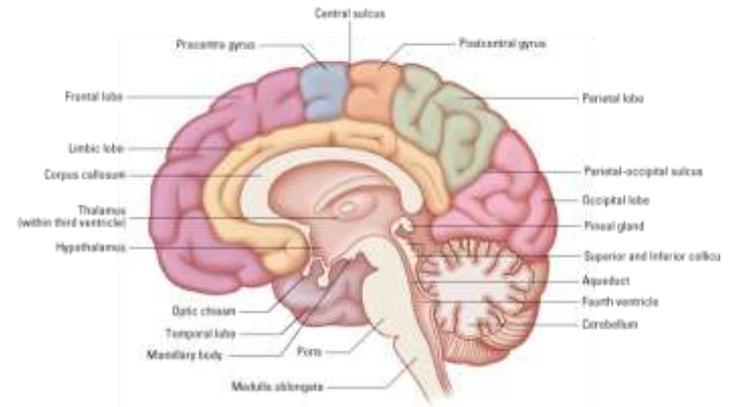
1. Thomson AD, Marshall EJ. Alcohol Alcohol 2006; 41: 151-158. 2. Martin PR, et al. Alcohol Res Health 2003; 27: 134-142.  
3. Kopelman MD, et al. Alcohol Alcohol 2009; 44: 148-154.



# Key Brain Regions Affected by Chronic Alcohol Misuse

Post-mortem studies have shown that in people with WE there is evidence of damage or atrophy to the:<sup>1-3</sup>

- Frontal lobe
- Thalamus, hypothalamus and mammillary bodies
- 3<sup>rd</sup> and 4<sup>th</sup> ventricles (fluid-filled spaces within the brain)
- Temporal lobes
- Cerebellum



1. Sechi G, Serra A. Wernicke's encephalopathy: new clinical settings and recent advances in diagnosis and management. *Lancet Neurol* 2007; 6:442-455. 2. Torvik A, Lindboe CF, Rogde S. Brain lesions in alcoholics. A neuropathological study with clinical correlations. *J Neurol Sci* 1982; 56: 233-248. 3. Kril JJ, Halliday GM, Svoboda MD, Cartwright H. The cerebral cortex is damaged in chronic alcoholics. *Neuroscience* 1997; 79: 983-998.



# Pathology

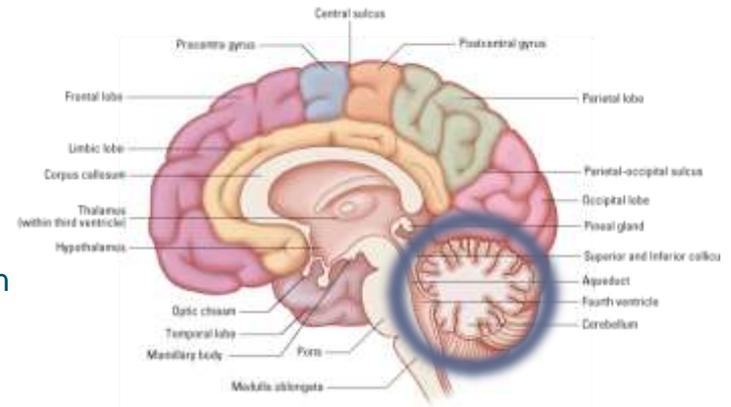


*Micro, then macro,  
haemorrhages in  
mamillary bodies, thalamic  
nuclei, periventricular grey  
matter*



# Cerebellar Atrophy

- The cerebellum is particularly sensitive to thiamine deficiency<sup>1</sup>
- Cerebellar degeneration typically develops after ~10 years of heavy alcohol consumption<sup>2</sup>
  - Characterised by difficulties in movement coordination (especially gait), and involuntary eye movements, e.g. nystagmus<sup>1</sup>

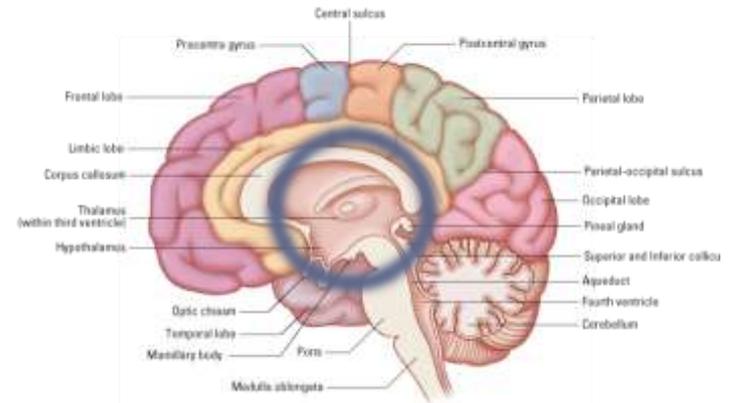


1. Martin PR, et al. *Alcohol Res Health* 2003; 27: 134–142.  
2. Charness ME. *Alcohol Clin Exp Res* 1993; 17: 2–11.



# Importance of the Thalamus

- Plays a key role in controlling the flow of all sensory information (except smell), such as visual, auditory and somatosensory, to and from the cerebral cortex, to the motor centres of the brain<sup>1</sup>
- Therefore can affect multiple functions, including:<sup>1, 2</sup>
  - Arousal, alertness and attention
  - Pain
  - Sleep and wakefulness
  - Vision and eye movements
  - Hearing
  - Movement
  - Emotions
  - Learning
  - Autonomic functions
- Decreased volume in chronic alcohol misusers<sup>3</sup>

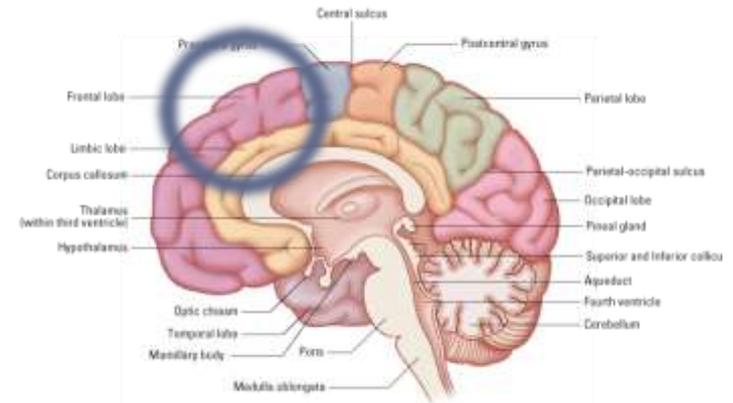


1. Basso MA, et al. *Neuron* 2005; 45: 485–488. 2. Swenson RS. *Review of Clinical and Functional Neuroscience*, 2006. Chapter 10: Thalamic organization. 3. Kril JJ, et al. *Neuroscience* 1997; 79: 983–998



# Changes in the Frontal Lobe

- Neuronal loss in frontal association cortex<sup>1</sup>
- Decreased frontal lobe white matter<sup>1,2</sup>
- Associated with:<sup>1, 2</sup>
  - Impaired working memory
  - Impulsive behaviour
  - Impaired response inhibition
  - Inability to maintain sobriety



1. Kril JJ, et al. *Neuroscience* 1997; 79: 983–998.

2. Brawn Fortier C, et al. *Alcohol Clin Exp Res* 2014; 38: 2925–2933



## The Myth of the Classic Triad of Symptoms<sup>1</sup>

Diagnosis of Wernicke's is often based on the 'classic triad' of clinical symptoms  
i.e. **mental signs, eye signs and ataxia.**

However:

- 5 out of 6 Wernicke's patients do not present with the classic 'triad of symptoms'
- 56% of Wernicke's patients present only one sign or NO signs from the classic 'triad of symptoms'
- **Patients could be missed when perceived as drunk**



Adapted from Harper et al, 1986

1. Harper CG, Giles M, Finlay-Jones R, et al. Clinical signs in the Wernicke-Korsakoff complex: a retrospective analysis of 131 cases diagnosed at necropsy. *J Neurol Neurosurg Psychiatry* 1986; 49: 341-345.



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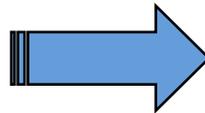
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## Finally!

- Rewarding but “*what a bizarre job*”
- All about partnership and a highly skilled workforce
- Challenges the idea of the “unmotivated” or “precovery” !
- Cost saving: £360,000 run rate return
- Raises the question of how many people we could have supported
- We have a choice:



**2004**



**2015**

*Looks even better  
now!*