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Reference: Flett, R; Thornton, A; Leathem, J. (2013). Monitoring cognitive function during ECT: Current New Zealand practice. New Zealand Psychological Society Annual Conference: Building bridges: Dialogues across Psychology. Whakatina: Ngā kōrero o te Mātai Hinengaro, Auckland, New Zealand, 06 Sep 2013 - 09 Sep 2013.

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# Cognitive Assessment During a Course of Electroconvulsive Therapy

Current Practice in Aotearoa

Anneke Thornton  
Janet Leathem  
Ross Flett

Retrograde Amnesia

Anterograde Amnesia

Encoding

Memory - public events

Everyday Memory

Visual Processing Speed

Psychomotor Speed

Subjective Memory complaints

Information Processing speed

Autobiographical Memory and retrieval

Verbal Learning and Memory

Semantic Memory

Global Cognitive Functioning

Cognitive Flexibility

Visual Learning and Memory

Executive Functioning

Attention

Working Memory

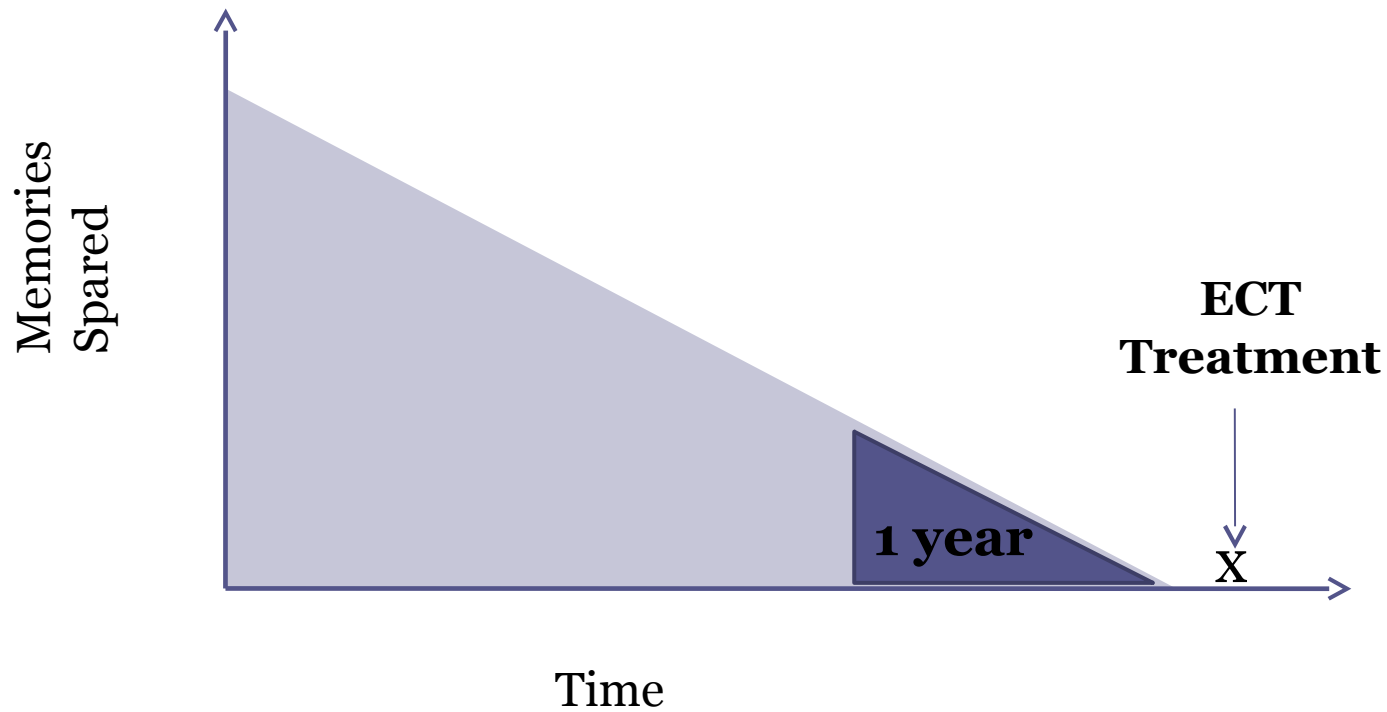
Language

(Luther, 2012)

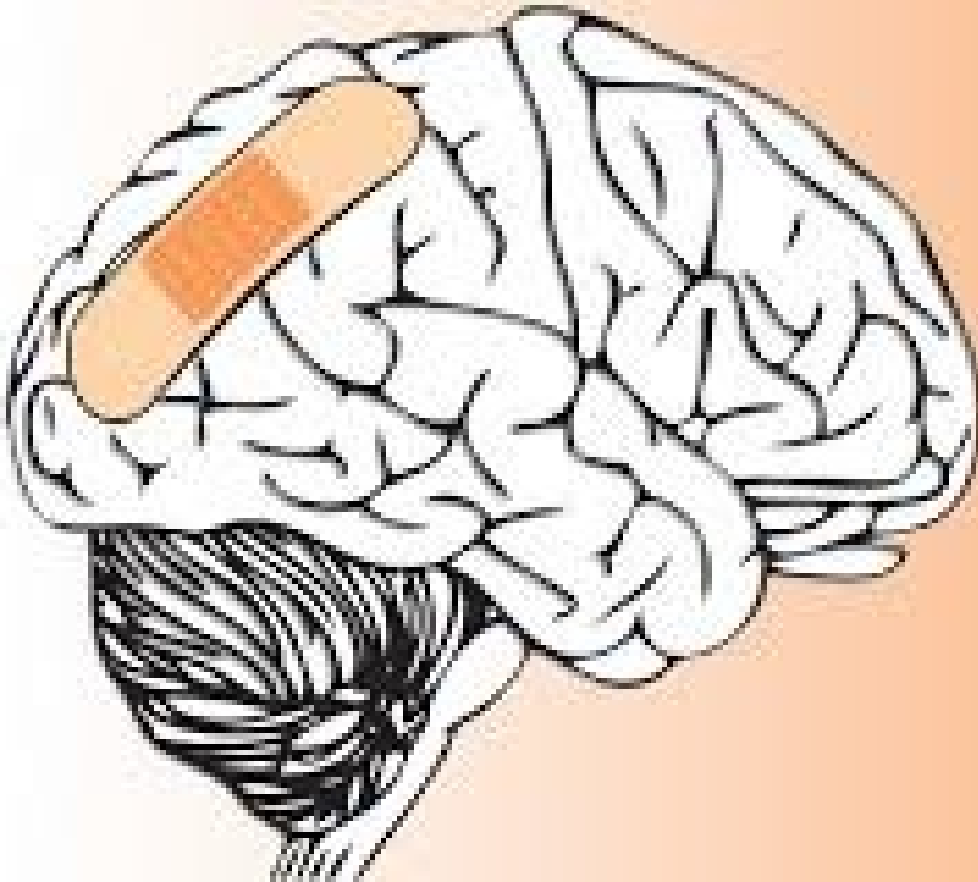


# Amnesia

## Temporal gradient



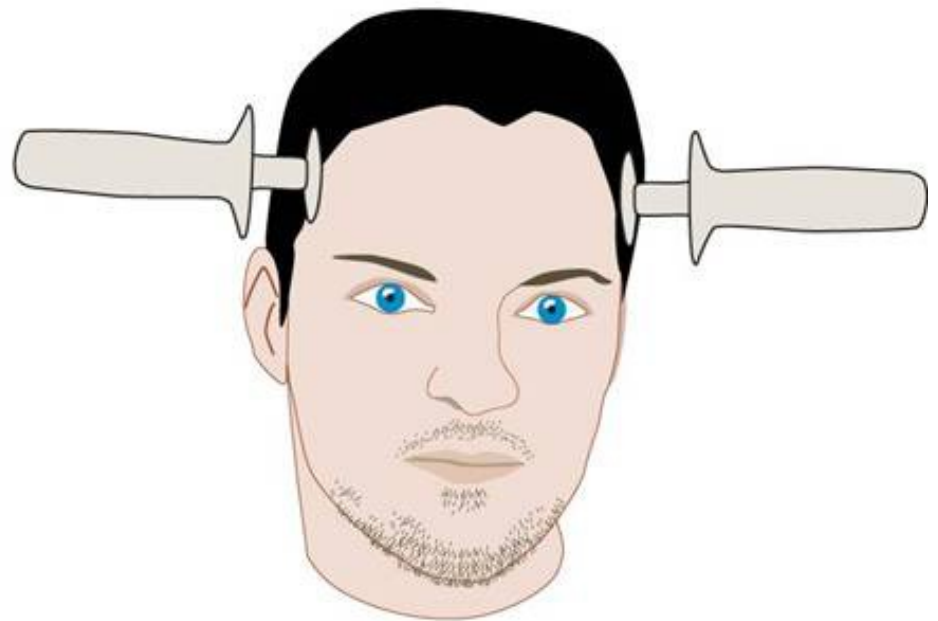
# How long does the cognitive impairment last?



# Benefits of Cognitive Assessment during ECT



Unilateral



Bilateral

# Guidelines

- **ECT Accreditation Service**
- **National Institute for Clinical Excellence Guidelines**
- **Royal Australian and New Zealand College of Psychiatrists**
- **American Psychiatric Association**

# Recommendations

- Assess cognition
- Baseline assessment
- MMSE
- Objective and Subjective Assessment
- Measure of clinical state
- ??? Who is responsible for assessing cognition?

# Best practice

- Assess cognition
- Baseline assessment
- MMSE
- Objective and Subjective Assessment
- Measure of clinical state
- **Reassess early on in treatment (after 3rd tx)**
- **Reassess after 6th treatment**
- **Conduct a follow up assessment**
- **Assess at least 48 hours post treatment**
- **Assess at a standard time post treatment**
- **Use tests which cover a broad domain of cognitive functions**
- **Use tests with alternate forms**
- **<one hour**

- Porter, R., Douglas, K., & Knight, R. (2008). Monitoring of cognitive effects during a course of electroconvulsive therapy: Recommendations for clinical practice. *Journal of ECT*, 24(1), 25-34. baseline assessment



- Porter's et al. (2008) recommendations
  - MMSE or 3MSE
  - Hopkins Verbal Learning Test
  - Autobiographical Memory Questionnaire- Short Form
  - Digit-symbol Substitution Task
  - MADRS for mood
- Visual memory?
- Cognitive assessment rare?

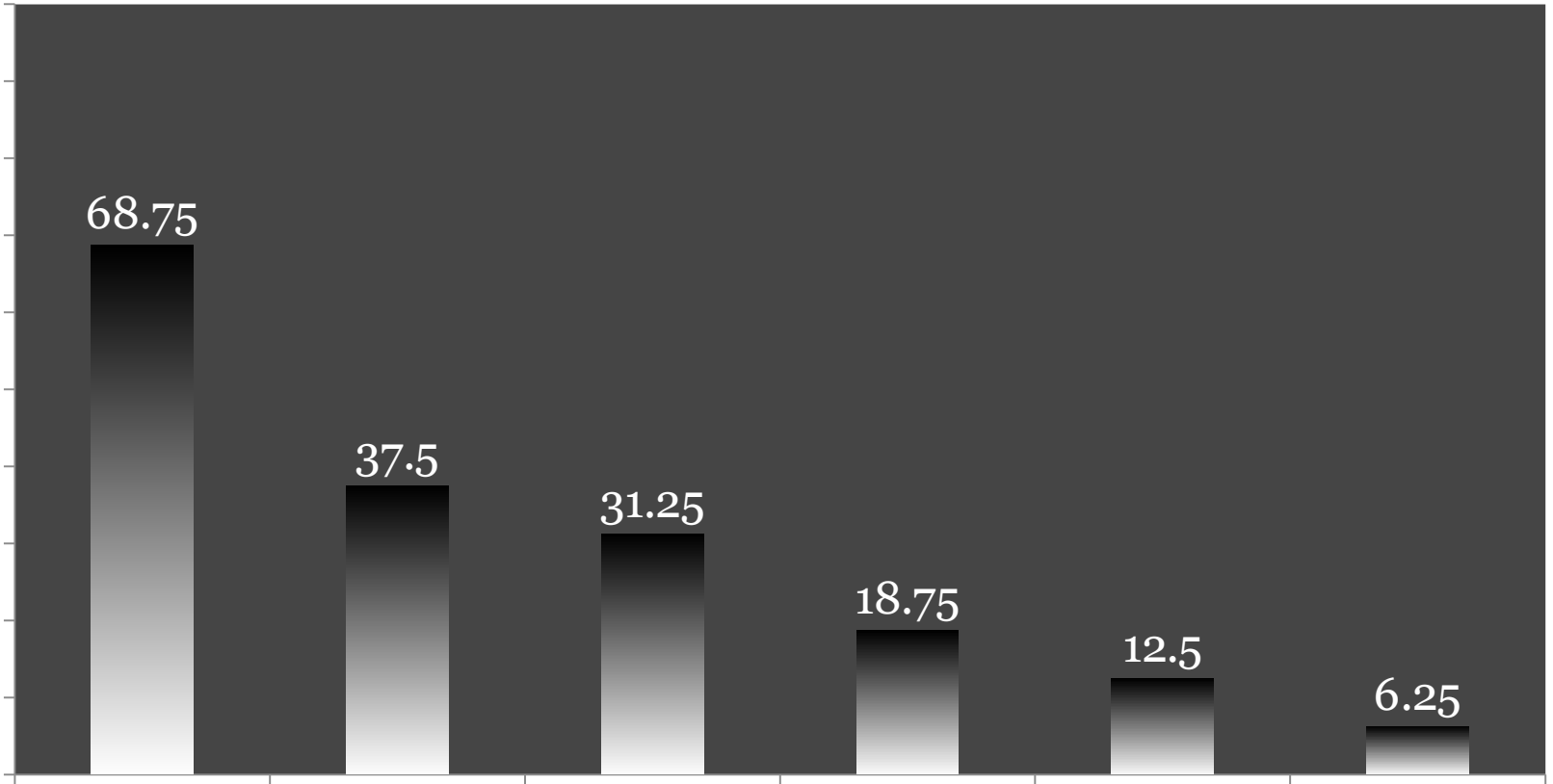
# Cognitive Assessment in NZ

## **Survey to all professionals involved in cognitive assessment**

- What is being done?
  - Which measures?
  - How often?
  - How long is spent doing assessments?
  - Who does the assessment?
- 
- 22 respondents, 14 DHBs
  - Psychiatrists, psychologists, nurses

# What is being done?

- 73% conduct cognitive assessments for ECT
- 50% conduct a baseline assessment
- 1/3 conduct baseline, during treatment and post-course assessment
- 5% will conduct an assessment only if patient reports memory complaints
- 10-20 minutes spent assessing cognition (80%)



100

12

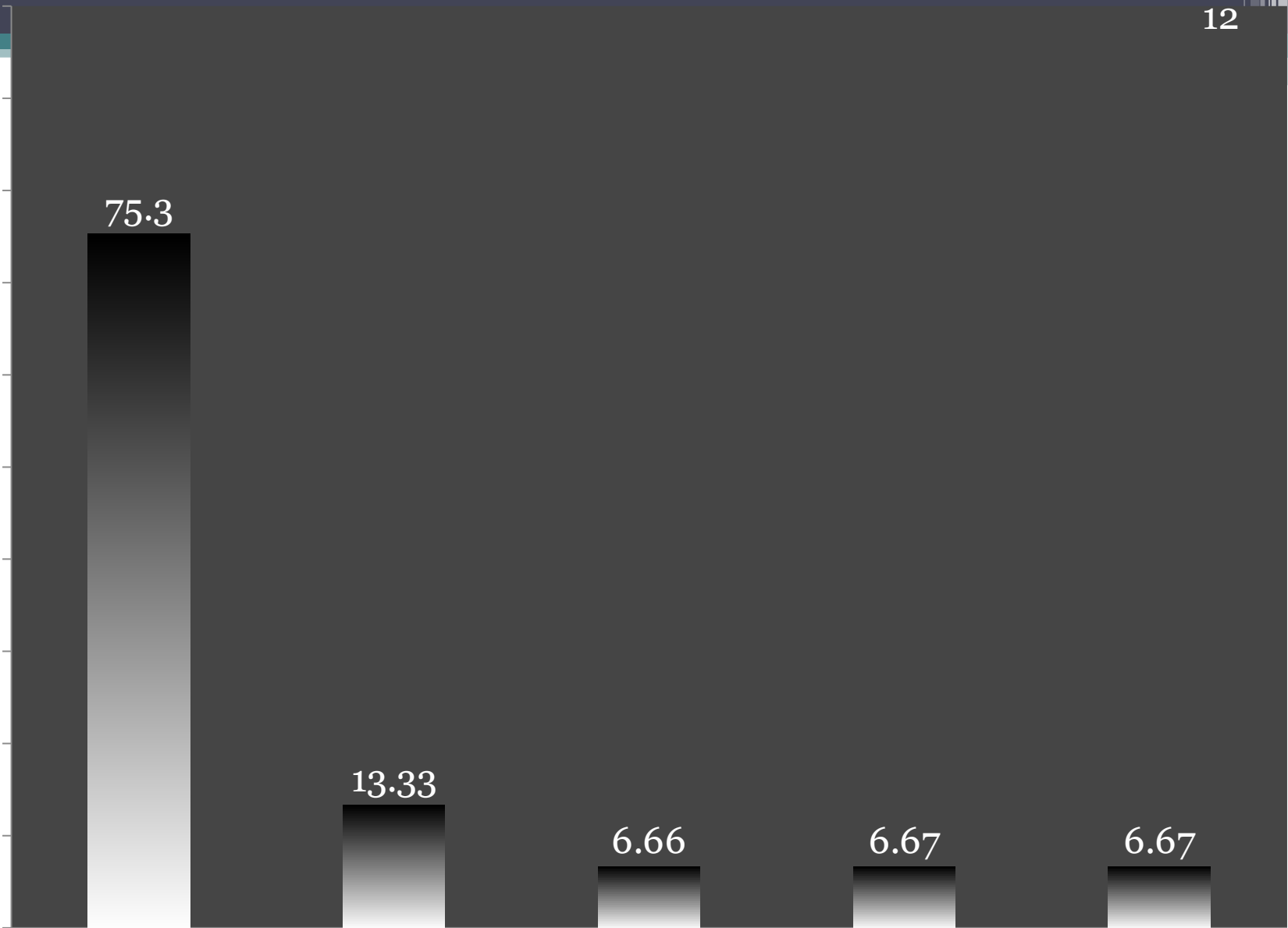
75.3

13.33

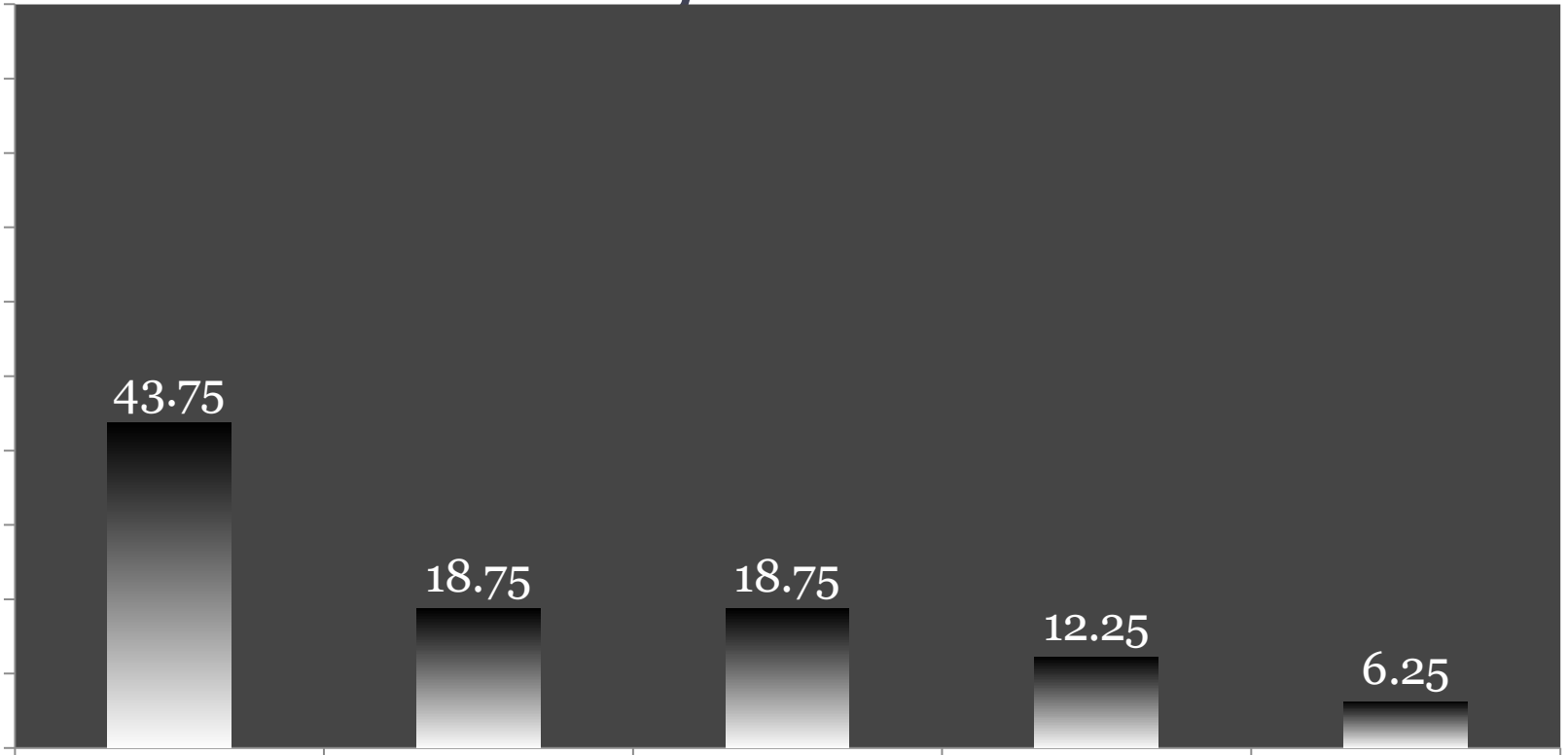
6.66

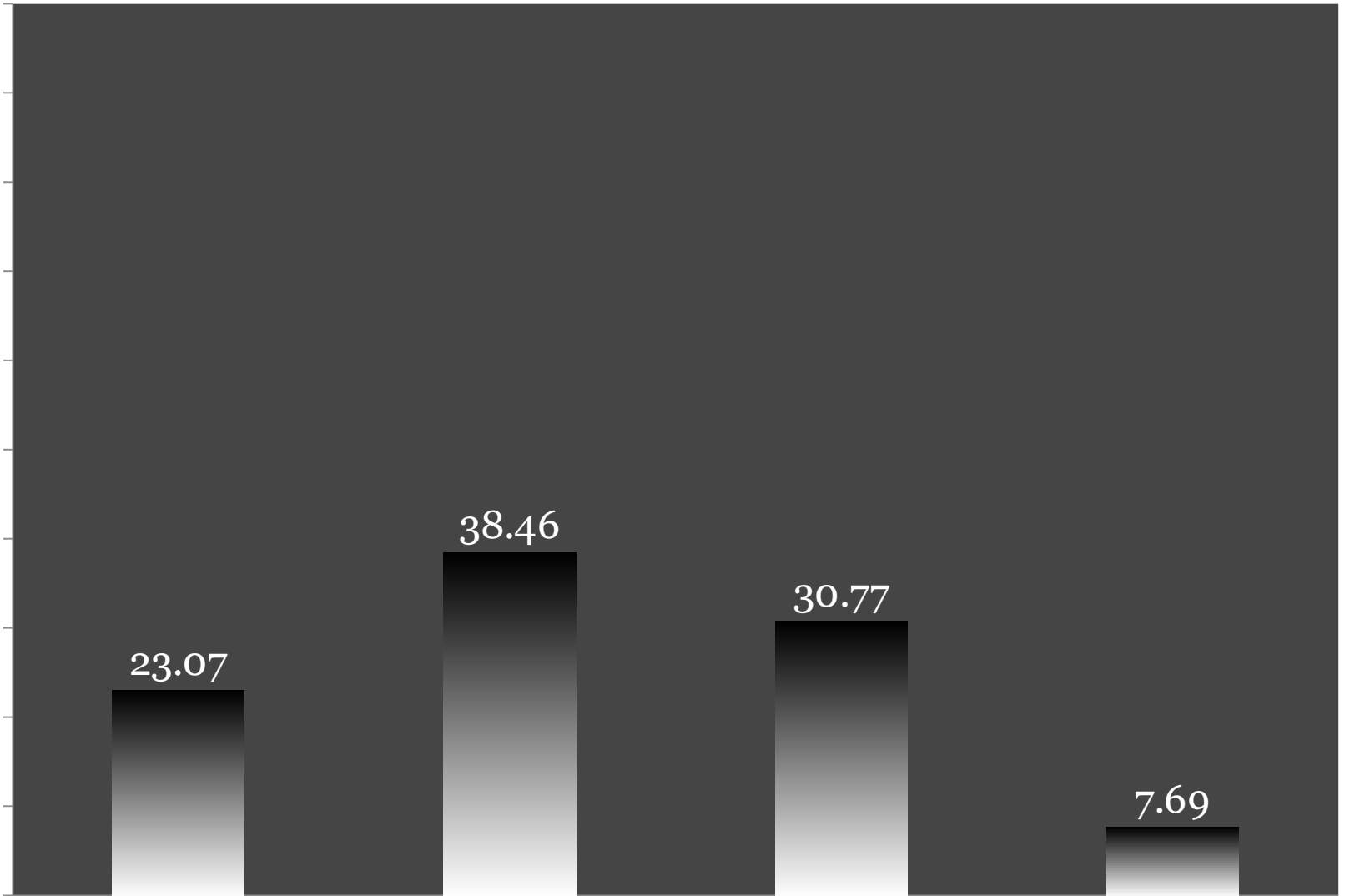
6.67

6.67



# Who are conducting the Assessments?





# 3/4 cognition is not assessed enough

- 92% time
- 46.2% lack of sensitive tests
- 38.5% lack of resources





# Limitations

- Small sample size
- Variability within a workplace? Or within a DHB?
- Response bias
- Now have an idea of common practice

# Implications

- Common practice in NZ to assess cognition
  - Variation across responses
- MMSE popular but problematic
- Need for a new screen
- 10-20 minutes

# Best practice

- Assess cognition – it is important!
  - Conduct a baseline assessment
  - Reassess early on in treatment (after 3rd tx)
  - Reassess again after 6th/7th ECT
  - Conduct a follow up assessment
  - Assess at least 48 hours post treatment
  - Assess at a standard time post treatment
  - Use tests which cover a broad domain of cognitive functions
  - Subjective report to augment objective assessment
  - Include a measure of mood
  - Use tests with alternate forms
  - <one hour
- Porter, R., Douglas, K., & Knight, R. (2008). Monitoring of cognitive effects during a course of electroconvulsive therapy: Recommendations for clinical practice. *Journal of ECT*, 24(1), 25-34. baseline assessment

# My suggestion

- **Complex figure** (Medical college of Georgia)
- **Montreal Cognitive Assessment** (free online!)
- **Coding Task** (RBANS/WAIS)
- **Coin rotation task**
- **Subjective Memory Interview**(SSMQ/ ask about cognitive change!)
- **Autobiographical Memory Interview** (ask about events/memories laid down around time of ECT)
- **Beck Depression Inventory**

Thank you



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# Monitoring cognitive function during ECT: Current New Zealand practice

Thornton, A

2013

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