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Cognitive Assessment During a Course of Electroconvulsive Therapy

Current Practice in Aotearoa

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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

![Temporal gradient diagram](image)

(Luther, 2012)
How long does the cognitive impairment last?
Benefits of Cognitive Assessment during ECT

- Practical
  - Detecting impairment → modify ECT administration

- Ethical
  - Less chance of longstanding impairment

- Legal
  - Evidence cognitive dysfunction taken seriously in case of litigation
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’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%)
MADRS
BDI-II
GDS
HDRS
HADS
Mood Measure
Per cent age of As sessments
75.3
13.33
6.66
6.67
6.67
Who are conducting the Assessments?

- 43.75
- 18.75
- 18.75
- 12.25
- 6.25
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

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

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