



# ECT and Emerging Therapies

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# Objectives

- Identify the indications, contraindications, procedures, efficacy and side effects of ECT
- State the indications, rationale and techniques for new therapies emerging in psychiatry



# Historical Therapies

[http://www.youtube.com/watchv=1lzmyru5T\\_w&feature=related](http://www.youtube.com/watchv=1lzmyru5T_w&feature=related)

# UV Light Therapy

- <http://www.youtube.com/watch?v=WjfV9Yn0330&feature=related>

ECT

# One Flew Over....

<http://www.youtube.com/watch?v=DCUmINGae44&feature=related>



# Modern Day ECT

<http://www.youtube.com/watch?v=EGZv2wbYV7U>

# ECT -- Indications

- Mood Disorders
- Medication Refractory Depression
- High Suicide Risk
- Pregnancy
- Psychotic Depression
- Medication Refractory Mania
- Acute Schizophrenia
- Has been used in other psychiatric illness (less evidence)

# ECT -- Contraindications

- Absolute
  - Tumors and Space Occupying Lesions
  - Increased intracranial pressure
- Relative
  - Heart Conditions

# ECT – Procedure

- Baseline medical screening
- Outpatient vs. Inpatient
- Morning Administration – NPO
- Anesthesia
  - Short acting anesthesia
  - Muscle Relaxants
  - Atropine/Glycopyrrolate to prevent secretions
- Electrical Current (6-12 treatments over 2-3 weeks)
  - Bilateral: More Effective
  - Unilateral: Fewer Side Effects

# ECT – Side Effects

- Cardiac
- Fractures (historical)
- Prolonged Seizure
- Memory Loss
  - Short-Term – anterograde (resolves quickly)
  - Long-Term -- retrograde

# Emerging Therapies

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- Vagal Nerve Stimulation (VNS)
- Deep Brain Stimulation
- Transcranial Magnetic Stimulation (TMS)

# VNS

- Partial Onset Epilepsy (FDA)
- Medication Resistant Depression (FDA)
- Anxiety and Alzheimer's (Experimental)
- <http://www.youtube.com/watch?v=1-4ESzwHzfc>



# Deep Brain Stimulation

- Parkinson's Dz, Essential Tremor, Dystonia (FDA)
- Depression, OCD, Tourette's (Experimental)
- <http://www.youtube.com/watch?v=WW-SWAnphFU>

# TMS

- Depression (experimental)
- Aphasia, Tinnitus, Parkinson's Disease and negative symptoms of Schizophrenia (experimental)
- [http://www.youtube.com/watch?v=sC\\_vGdAHMpE&feature=related](http://www.youtube.com/watch?v=sC_vGdAHMpE&feature=related)