

# Psychiatry Clerkship Orientation 2019-2020

Dr. Chelsea Carson, Clerkship Director

Dr. Sameera Azeem, Associate Clerkship Director

# Clerkship Orientation Overview

- Important Psychiatry Clerkship Components
  - Psychiatric Interview
    - Suicide Risk Assessment
  - Mental Status Exam
  - Psychopharmacology Overview
  - Mental Status Exam D2L Assignment

# Clerkship Leadership



**Clerkship Director:  
Chelsea Carson, M.D.**

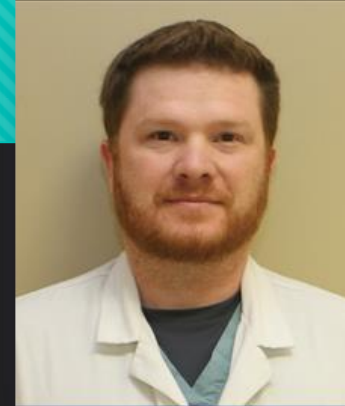


**Associate Clerkship Director:  
Sameera Azeem, M.D.**

# Clerkship Site Directors



**SW Campus: Joe Morgan,  
M.D.**



**NE/Athens Campus: David Paulk,  
D.O.**



**NW/Rome Campus: Joe Seal,  
M.D.**



**SE Campus: Mike Mobley,  
M.D.**

# Your Job During the Clerkship

- Enjoy every day! People will tell you amazing life stories in the next month.
- This may be your only experience with psychiatry during your clinical years.....however...
- No matter what specialty you pursue, you will not be able to avoid psychiatry!

# If you do choose to pursue psychiatry as your specialty, there are so many areas to work in!

- Adult/General Psych
- Child & Adolescent Psych
- Geriatric Psych
- Inpatient/Outpatient/Residential/Day Treatment
- Forensic Psych
- Consult-Liaison/Psychosomatic
- Addictions
- ECT/TMS
- Sleep Medicine
- Pain Medicine
- Brain Injury
- Emergency Psych
- Reproductive Psych
- Research



# Your Job During the Clerkship

- **Review Phase 3 policies** (esp. retake and grade appeal policies)
- **Study from day 1:** Departmental and NBME exam are difficult and do not examine purely psychiatric knowledge
- Respect and learn from your team! → **IPE experience**
  - SW, psychologists, counselors and other therapists, occupational therapists, peer support specialists, nurses, pharmacists, PAs/NPs, other health professional students
- Report any problems EARLY to your attending, clerkship director, and/or coordinator so we can address and/or fix something.
  - Supervision adequacy by faculty
  - Mistreatment
  - Duty hours concerns

# Psychiatry Clerkship Do's & Don'ts

## Do's:

- Ask for contact numbers for attending/residents
- Arrive early to wards/clinics
- Ask questions
- Ask for feedback on your interviews and write-ups
- Offer to present cases or short (5 min) literature reviews weekly
- Respect and advocate for your patients
- Send short/part-time evals to residents and faculty
- Evaluate your sites, preceptors and residents
- Submit** your D2L assignments (not just save!)
- Always carry your clerkship survival guide!**

## Don'ts:

- Be overly familiar with patients and staff (watch out for self-disclosure)
- Break confidentiality barriers
- Contact your site preceptor for appeals
- Miss mandatory didactics/clinical activities (professionalism)
- Miss D2L deadlines for quizzes/assignments: Sundays 10pm



# A Note on Professionalism

- **Professional attire:**
  - **WHEN IN DOUBT, ASK! And if you're in doubt, just go with no...**
- **Cell phone use:** Always ask if you want to have it out or let your preceptor know if you are looking up information. Otherwise keep it out of sight during clinical work/rounds.
  - Be mindful of generational gaps in expectations about technology use during clinical work
- Timeliness and attendance at all clinical activities → Unexcused absence will affect your final professionalism grade
- Notification of any absences to your team and clerkship leadership
- Check and respond to clerkship-related emails
- Interprofessional communication

# Student and Patient Safety

- This is not to scare or intimidate you.
- Our patients are acutely and often severely psychiatrically ill when you will be working with them in an emergency or inpatient setting.
- They may have more impulsive behavior and may say things they normally wouldn't, and some things they may say can come across as offensive (this is different from purposeful offensive statements which is not acceptable).
- We want you to be aware, prepared, and understand our patients and their illnesses.

# Student and Patient Safety

- **TODAY:** Ask your resident and/or faculty about any site-specific safety protocols and/or recommendations
  - I.e. Panic buttons, keys, etc.
- Do **NOT** interview patients in their bedrooms
  - Utilize common areas, interview rooms, or other areas where staff are present but confidentiality can be maintained
- Monitor both your and patient's personal boundaries; keep a safe distance
  - What's comfortable for you may not be for an acutely ill patient; **LEAVE EXTRA SPACE**
- If you feel uncomfortable, take a break from the interview and let your resident/attending know; ask them to assist your interview or return to patient later when patient is calm
  - Watch for signs of anger/frustration/agitation, substance abuse, paranoia/other psychosis
- Stay between patient and door when possible
- Know where patients and staff are at all times and in which direction your back is facing

# Outpatient Clinic Experiences:

- These may not be like other clerkship clinic experiences due to the structure and function of most mental health clinics.
- There may be more observation occurring than in other outpatient experiences.
- When possible, utilizes objective questionnaires/measures related to your patients' diagnoses to facilitate more interactive experiences
  - These can be found in D2L under each topic category in your weekly checklists
  - Can be done when a patient checks in to clinic and is waiting to be seen by attending, etc. and then presented to attending
- Try to utilize time between patients etc. to discuss cases with your resident/attending.
- Ask questions!



## The Free Mental Health Clinic

- Providing psychiatric evaluations and medication management services to the uninsured and under-insured community who are at or below 200% of the federal poverty line.
- 18 years old and above.
- No controlled substance will be prescribed.

### When:

- Last Thursday of Every Month
- 6 – 8 pm
- Starting April 2019
- Walk-ins welcome!

### Where:

997 Saint Sebastian Way  
Augusta, GA 30912

### Contact us:

[freementalhealthclinic19@gmail.com](mailto:freementalhealthclinic19@gmail.com)

Facebook: @freeMHC

**For info on  
volunteering as a  
medical student,  
contact Norah  
Essali, MD  
(Psychiatry  
Resident)  
nessali@augusta.e  
du**

# EQUALITY CLINIC

*of Augusta*



**What is the Equality Clinic?** The Equality Clinic is a free, student-run clinic that promises an LGBTQ-friendly environment for primary care services by culturally competent providers. **Who does the clinic serve?**

Underinsured and uninsured individuals who fall within 200% of the federal poverty level

## **Where is the clinic?**

987 Saint Sebastian Way on the AU Health Sciences Campus See map on the back for details.

## **When can I come to the clinic?**

We operate on the second and fourth Wednesdays of each month, starting at 5pm. Contact us to schedule an appointment.

## **Services offered:**

- Primary care
- Gender-affirming care and support
- Mental health screenings and support
- Free rapid HIV screening
- PrEP
- Oral health screenings

More information at  
[www.equalityclnicaugusta.com](http://www.equalityclnicaugusta.com)

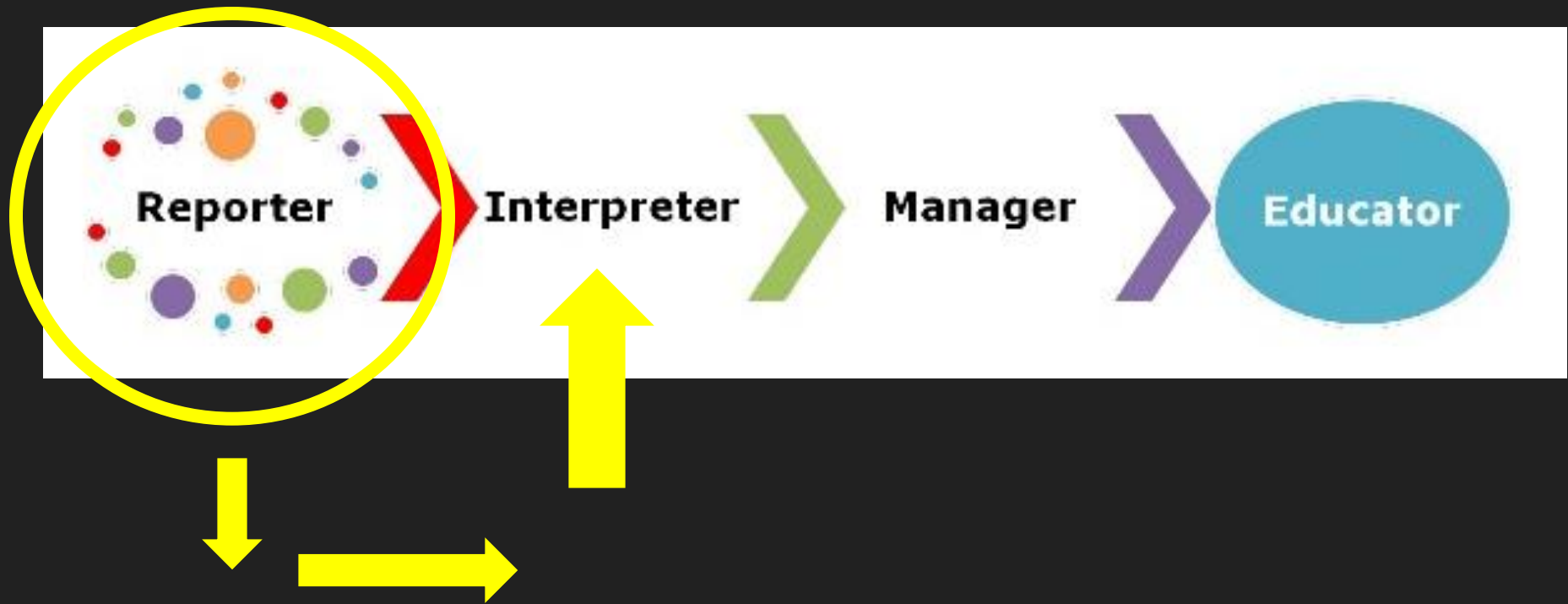


Or contact us at  
[equalityclnicaugusta@gmail.com](mailto:equalityclnicaugusta@gmail.com) or (762) 218-2226

**Contact Dr. Lara  
Stepleman for  
volunteering info:  
[lsteplem@augusta.edu](mailto:lsteplem@augusta.edu)**



# Your Role in the 3<sup>rd</sup> Year



BE STRONG AND WRONG!!

# The Psychiatric Interview

# Psychiatric Interview

- It takes skill!
- Skill to encourage disclosure of personal information for a professional purpose
- Empathy → rapport → therapeutic alliance

# Content vs. Process

- **What** information we get vs..
- **How** we get it ....

## Diagnostic vs. Dynamic

- **Diagnostic**: Happens early
- **Dynamic** interview = Extended process; elicits bio-psycho-social and cultural aspects of the illness

# Verbal Interventions

**Affirmation:** “I see”

**Advice/praise:** “I’m so proud of you that you stopped smoking!”

**Empathic validation:** “It hurts to be treated that way”

**Encouragement to elaborate:** “Tell me more about your mother”

**Clarification:** Pull together patient’s verbalizations in a more coherent way

**Confrontation:** Address something patient does not want to accept. Reflects back to patient a denied or suppressed feeling.

**Interpretation:** One of most expressive forms of treatment; therapist’s decision-making; makes something conscious that was previously unconscious.

# Psychiatric interview

## ○ Chief complaint: Patient's own words

- What brought the patient in?
- Why now and not 6 months ago? Past week? Past 24hrs?

## ○ HPI: How do you obtain this information?



# Psychiatric Interview

- **Chief complaint:**  
Patient's own words
  - What brought the patient in?
  - Why now and not 6 months ago? Past week? Past 24hrs?
- **HPI:** Same as other specialties
  - Onset
  - Location
  - Duration
  - Character
  - Aggravating/alleviating factors
  - Region/radiation
  - Timing
  - Severity

# Psychiatric interview

- Psychiatric History: What are the components?

# Psychiatric Interview

- **Psychiatric History**: Course/treatment
  - Onset of initial treatment?
    - When?
    - Who initiated it?
      - Patient? Family? School? Legal system? Military?  
Social services?
  - Current and previous psych diagnoses
  - Treatment settings: Outpatient (including PHP, IOP) vs. inpatient/hospital setting
  - Treatment: Medication, psychotherapies, group therapies, somatic treatments, substance abuse treatment

# Psychiatric History Continued

- Suicidality: Previous suicide attempts, self-harm, suicidal ideation (SI)
- History of aggressive behavior and homicidal ideation (HI):
  - Toward other people, property, animals

# Suicide Risk Assessment

- If current SI is present:
  - Obtain information as you would for any HPI (OLDCARTS)
  - Active vs. Passive
  - Plan
  - Intent
  - Access to means
  - Triggers/stressors
  - **PREPARATORY BEHAVIOR**: Did this include anything beyond verbalizing a thought? For example collecting pills, getting a gun, giving away valuables or writing a suicide note?

# Suicide Risk Assessment Continued

- Additional Terminology
  - An **interrupted** attempt: Stopped by someone else: for example, pt holding pills in their hand, someone grabs them by the hand; noose round neck but has not started to hang and is stopped; pointed gun toward self, someone else takes the gun
  - An **aborted** attempt is stopped by the person after they took steps toward making an attempt



# Suicide Risk

- **Mood disorders:** 15-20%
  - Bipolar mixed=highest risk
  - Delusional depression
- **Schizophrenia:** 5-10% (young male, insight, high IQ, command hallucinations)
  - 3 wks - 3 mo. from hospitalization
- **Substance abuse:**
  - Young male, multiple substances, recent loss, comorbidities, previous OD
- **WHAT WORKS TO DECREASE RISK: LI, CLOZAPINE, ECT, psychotherapy!!**

# Columbia Suicide Severity Rating Scale

## COLUMBIA-SUICIDE SEVERITY RATING SCALE

Screen Version

SUICIDE IDEATION DEFINITIONS AND PROMPTS	Past month	
	YES	NO
<b>Ask questions that are bolded and <u>underlined</u>.</b>		
<b>Ask Questions 1 and 2</b>		
<b>1) Wish to be Dead:</b> Person endorses thoughts about a wish to be dead or not alive anymore, or wish to fall asleep and not wake up. <b><u>Have you wished you were dead or wished you could go to sleep and not wake up?</u></b>		
<b>2) Suicidal Thoughts:</b> General non-specific thoughts of wanting to end one's life/commit suicide, "I've thought about killing myself" without general thoughts of ways to kill oneself/associated methods, intent, or plan. <b><u>Have you actually had any thoughts of killing yourself?</u></b>		
<b>If YES to 2, ask questions 3, 4, 5, and 6. If NO to 2, go directly to question 6.</b>		
<b>3) Suicidal Thoughts with Method (without Specific Plan or Intent to Act):</b> Person endorses thoughts of suicide and has thought of a least one method during the assessment period. This is different than a specific plan with time, place or method details worked out. "I thought about taking an overdose but I never made a specific plan as to when where or how I would actually do it....and I would never go through with it." <b><u>Have you been thinking about how you might kill yourself?</u></b>		
<b>4) Suicidal Intent (without Specific Plan):</b> Active suicidal thoughts of killing oneself and patient reports having <u>some intent to act on such thoughts</u> , as opposed to "I have the thoughts but I definitely will not do anything about them." <b><u>Have you had these thoughts and had some intention of acting on them?</u></b>		
<b>5) Suicide Intent with Specific Plan:</b> Thoughts of killing oneself with details of plan fully or partially worked out and person has some intent to carry it out. <b><u>Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?</u></b>		
<b>6) Suicide Behavior Question:</b> <b><u>Have you ever done anything, started to do anything, or prepared to do anything to end your life?</u></b> Examples: Collected pills, obtained a gun, gave away valuables, wrote a will or suicide note, took out pills but didn't swallow any, held a gun but changed your mind or it was grabbed from your hand, went to the roof but didn't jump; or actually took pills, tried to shoot yourself, cut yourself, tried to hang yourself, etc. <b>If YES, ask: <u>How long ago did you do any of these?</u></b> · Over a year ago? · Between three months and a year ago? · Within the last three months?		

For inquiries and training information contact: Kelly Posner, Ph.D.

New York State Psychiatric Institute, 1051 Riverside Drive, New York, New York, 10032; posnerk@nyspi.columbia.edu

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# Suicide Risk Assessment: SAD PERSONS

**Table 4. SAD PERSONS Scale.**

Factor	Points
S = Sex (male)	1
A = Age (<19 or >45 years)	1
D = Depression	1
P = Previous suicide attempt	1
E = Ethanol abuse	1
R = Rational thinking loss	1
S = Social supports lacking	1
O = Organized plan	1
N = No spouse	1
S = Sickness (chronic debilitating disease)	1

Score less than 2:  
discharge with outpatient psychiatric evaluation

Score of 3-6:  
consider for hospitalization or at least very close follow-up

Score of 7 or greater:  
hospitalization

Source: Patterson WM, Dohn HH, Bird J, et al. Evaluation of suicidal patients: the SAD PERSONS scale. *Psychosomatics* 1983 Apr;24(4):343-345, 348-349.

# Assessment of Homicidal Ideation

- If current HI is present:
  - Obtain information as you would for any HPI (OLDCARTS)
  - Active vs. Passive
  - Specific target or general
  - Plan
  - Intent
  - Access to means
  - Access to target
- Mandated reporting
- History of aggressive behavior

# Psychiatric Review of Systems

- Symptom inventory, sequence, and duration
  - Depressive or bipolar
  - Psychosis
  - Anxiety, obsessive-compulsive, and trauma-related disorders
  - Substance & alcohol use
  - Neurocognitive disorders
  - Other disorders: neurodevelopmental, somatic symptom, factitious, impulse control, dissociative, sexual dysfunctions, feeding and eating, sleep-wake, disruptive, impulse control and conduct disorders
  - Personality disorders
- Explore temporal relationships: Cause vs. Co-morbidity

# Psychiatric Interview: Other History Components

- **Medical History:** Allergies, medical problems, surgeries
- **Family Medical & Psychiatric History**
  - Psychiatric illness, substance abuse, legal history, suicide
- **Social History:**
  - Living situation
  - Marital status/sexual history/relationship history
  - Occupational history
  - Educational history
- **Abuse/Trauma History:** Physical, sexual, emotional/psychological, neglect, other traumatic events
- **Substance Use History:**
  - Type (name them for patient)
  - Age of first and last use
  - Quantity/frequency
  - Longest period of sobriety
  - Withdrawal symptoms
  - Any treatment
- Legal history
- Religious affiliation
- Cultural identification



# Psychiatric Interview: Other History Components

## ○ Developmental:

- In utero exposures to medications, drugs
- Pregnancy and/or delivery complications
- Full-term vs. premature
- NICU/Early illnesses requiring hospitalization
- Delays in meeting developmental milestones?
- Family structure
- DFCS or other involvement

# Ask About Strengths

- What did you use to enjoy before you became ill?
- What are you good at?
- How has your illness and its treatment affected your
  - Physical activities
  - Relationships with family and friends
  - Job and hobbies
  - Feelings about yourself
  - Spiritual/religious beliefs
- What is the most difficult thing about your illness and its treatment?
- Any positive experience with your illness/treatment?
- **Doing this will help in formulating an effective treatment plan!!**

# Objective/Physical Examination

- Vital signs
- Mental status exam
- +/- Cognitive exam (for example MOCA, MMSE) in the last 5 minutes
  
- Labs/Imaging

# Differential Diagnosis/ Formulation & Treatment Plan

- **Differential diagnosis**: Most likely 2-3 (likely more to start) and why? Specific examples and factors for and against
- **Formulation**:
  - Biologic: Genetic d/o / substance / medical
  - Psychologic: Relate childhood / development to current conflicts
  - Social-cultural:
    - +Prognosis: Function at work, hobbies, stable relationships, faith, volunteer: reflect ego strength
    - Prognosis: Poor relationships, impulsivity, bad work history, non-adherence
- **Treatment Plan**:
  - State goals of each of the following (include patient's goals) for each problem/diagnoses:
    - Medication: Why / side-effects / complications / compliance problems.
    - Therapy: Individual / group
      - Supportive / insight: behavioral / cognitive / psychodynamic

# How to Present a Patient Case: New Patient

- Patient is a [age] [ethnicity] [sex] with a hx of [diagnoses] who presents for [cc].
  - HPI
  - Psych ROS
- All additional histories w/ pertinent positives and negatives
- Objective:
  - VS
  - MSE
  - Any labs/imaging
- Differential dx/Biopsychosocial formulation
- Treatment Plan

# How to Present a Patient Case: Follow-up Patient

- Patient is a [age] [ethnicity] [sex] with [diagnoses] who was admitted for/is following up for [cc/dx].
- Yesterday/At last visit [what was done/med changes/etc.]
- Since then [updated status]
- Objective:
  - VS
  - MSE
  - Any new labs/imaging
- Current medication regiment
- Updated diagnoses/formulation
- Treatment Plan

# Mental Status Exam

# Mental Status Exam (MSE)

- The objective portion of your psychiatric H&P and daily “SOAP”/progress notes
- Provide a description of your patient that your resident/attending can visualize prior to actually seeing your patient
- Objective snapshot in time
- Helps build your differential diagnosis
- Describe, describe, describe if you're not sure what to call something!



# MSE Components

- ID/appearance/  
behavior
- Orientation
- Psychomotor  
behavior
- Speech
- Mood
- Affect
- Thought process
- Thought content
- Perception
- Insight
- Judgment
- Memory/  
concentration/  
attention
- MMSE/MOCA

# ID/Appearance/Behavior

- ID: age, sex, ethnicity
- Appearance:
  - Apparent age
  - Body habitus
  - Clothing
  - Grooming
  - Odor
  - Scars
  - Tattoos/piercings
- Behavior:
  - Toward interviewer
  - Eye contact
  - Attentiveness
  - Level of consciousness

# Orientation

- Person
- Place
- Time
- Situation

“A&Ox\_\_/4” (ID what is incorrect; what patient says)

# Psychomotor Behavior

- Retarded vs. accelerated/agitated
- Involuntary movements
  - Organic vs. Medication-induced?

# Speech

- Spontaneous/  
Nonspontaneous
- Volume
- Rate
- Tone
- Articulation
- Speech latency
- Paucity of  
speech content
- Pressured

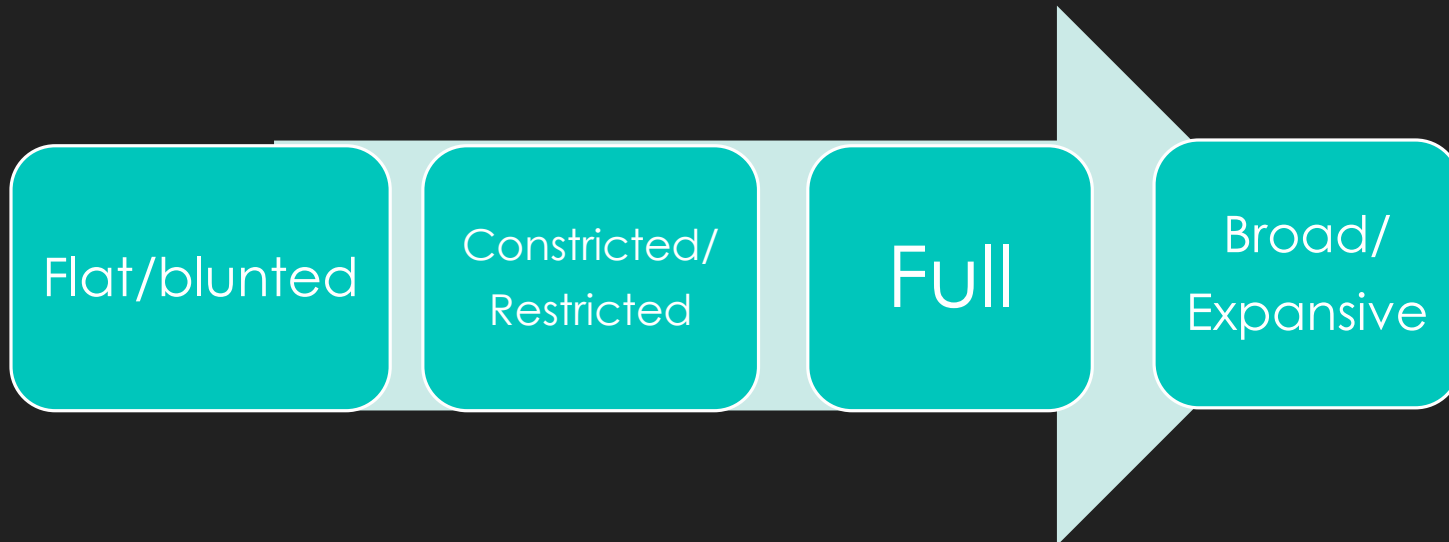
# Mood

- Subjective
- Elicited from the patient themselves
- Depressed, sad, dysphoric, euphoric, anxious, angry, irritable, happy, hostile...

“Quote the patient” when possible

# Affect

- Objective – patient's expression of mood



- Congruent/incongruent with mood
- Appropriate/inappropriate
- Labile/stable

# Thought Process



- Incoherent/word salad
- Clang associations
- Neologisms
- Perseveration
- Echolalia
- Thought blocking



# Thought Content

- Preoccupations
- Obsessions
- Phobias
- Overvalued ideas
- Suicidality
- Homicidality
- Delusions
  - Grandiose, persecutory, somatic, nihilistic, religious, jealousy, erotomanic, culture-bound, control (thought broadcasting or insertion)
  - Mood congruent/incongruent
  - Specify if bizarre

# Perception (or Thought Content)

- Hallucinations and illusions
  - Sensory system: auditory, visual (hypnogogic, hypnopompic), tactile, olfactory
  - Depersonalization/derealization = detachment (symptoms of dissociation)
- Nightmares

# Insight & Judgment

- Insight
  - Patient's understanding of their illness
- Judgment
  - Examples of harmful behaviors
  - Test an imaginary situation
    - Stamped addressed envelope
  - Abstraction
    - Proverb

# Memory/Attention/Concentration

- Serial 7's
- World → dlrow
- Immediate and delayed recall
  
- If not doing a complete MMSE/MOCA

# MINI-MENTAL STATUS EXAM (Folstein, 1975 – proprietary)

## **Orientation**

- What is the (year) (season) (date) (day) (month)?
- Where are we: (state) (county) (town) (hospital) (floor)?

## **Registration** *Temporal*

- Name 3 objects: one second to say each. Ask the patient all three after you have said them. Give 1 point for each correct answer. Then repeat them until he/she learns all three. Count trials and record:

## **ATTENTION AND CALCULATION** *Frontal*

- Serial 7's. One point for each correct. Stop after five answers. Alternatively spell "world" backwards.

## **Recall** *Temporal*

Ask for the three objects repeated above. Give one point for each correct.

## **Language** *Fronto-temporal*

- Repeat the following "no ifs, ands or buts." (1 pt.) Follow a 3-stage command: "take a paper in your right hand, fold it in half, and put it on the floor" (3 pts.)
- Name a pencil, and watch (2 pts.) *Occipital*
- Read and obey the following: close your eyes (1 pt.) Write a sentence (1 pt.) Copy design (1 pt.) *Parietal*

## **Consciousness** *RAS*

Alert; drowsy; stupor ; coma.

<http://enotes.tripod.com/MMSE.pdf>

# Executive Function - Frontal

= Ability to think abstractly, plan, initiate and sequence, monitor and stop complex behavior; insight, judgment

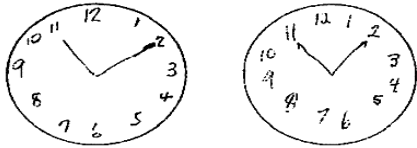
## *Bedside measures*

- **Luria motor test:** Alternate hand movements; fist, cut; slap.
- **Word fluency test:** “Tell me 5 words starting with the letter “a”
- **Similarities:** Ability to apply abstract concepts.
- **Proverb interpretation:** Conceptual thinking ability
- **Clock drawing:** “This circle represents a clock face. Please put the numbers, so that it looks like a clock and then set the time to 10 minutes past 11” (parietal and frontal lobes involved)

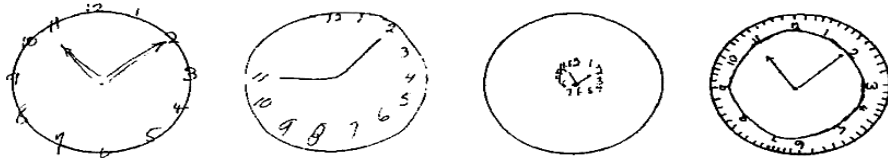
## Severity Scores from 5 to 0

Score

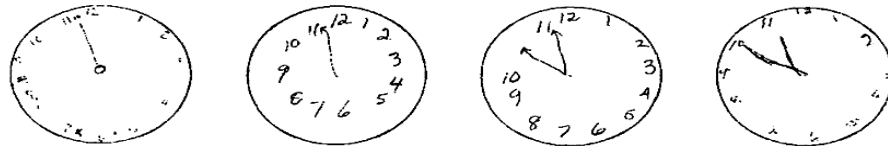
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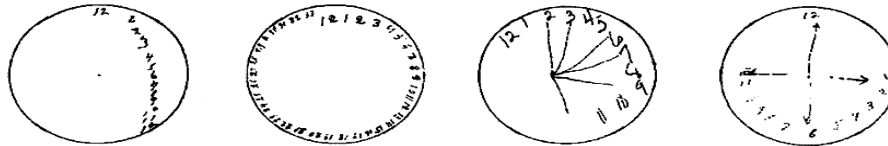
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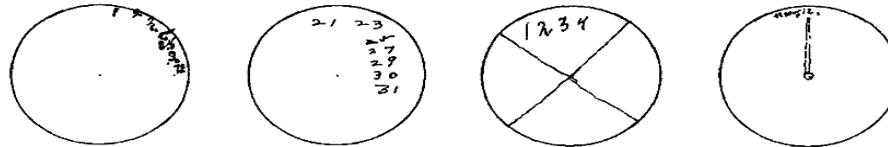
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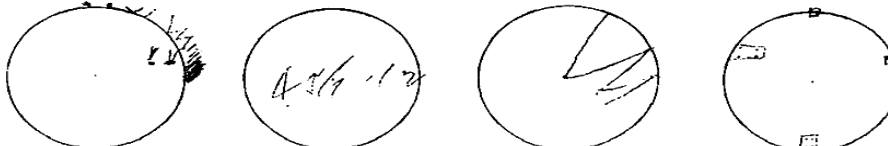
2



1



0



5 point scale (Shulman):

5 points: Perfect clock

4: Minor visual-spatial errors

3: Inaccurate representation of 10 past 11 with good visual-spatial representation

2: Moderate visual-spatial disorganization, such as accurate representation of 10 past 11 is impossible

1: Severe visual-spatial disorganization

0: No reasonable representation of a clock

Fig. 1. Severity scores from 5 to 0



# MOCA: Montreal Cognitive Assessment

## MONTREAL COGNITIVE ASSESSMENT (MOCA) Version 7.1 Original Version

NAME :

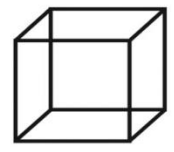
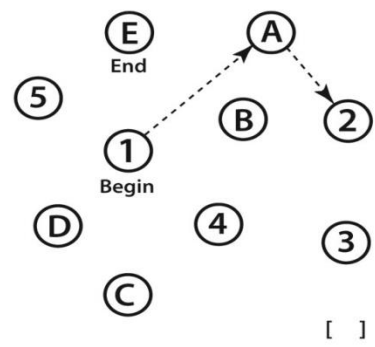
Education :

Sex :

Date of birth :

DATE :

### VISUOSPATIAL / EXECUTIVE



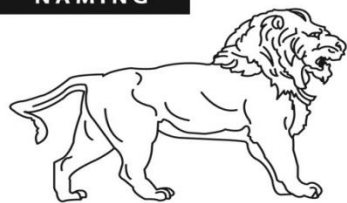
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Draw CLOCK (Ten past eleven)  
(3 points)

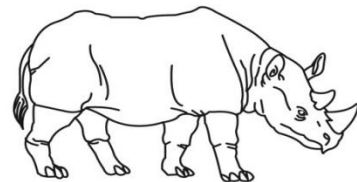
POINTS  
\_\_\_/5

[ ] Contour [ ] Numbers [ ] Hands

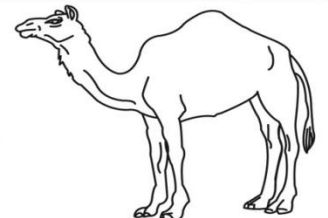
### NAMING



[ ]



[ ]



[ ]

\_\_\_/3

### MEMORY

Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.

	FACE	VELVET	CHURCH	DAISY	RED
1st trial					
2nd trial					

No points

### ATTENTION

Read list of digits (1 digit/ sec.).

Subject has to repeat them in the forward order [ ] 2 1 8 5 4  
Subject has to repeat them in the backward order [ ] 7 4 2

\_\_\_/2

### ATTENTION

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors  
[ ] FBACMNAAJKLBAFAKDEAAAJAMOFABB

\_\_\_/1

### ATTENTION

Serial 7 subtraction starting at 100 [ ] 93 [ ] 86 [ ] 79 [ ] 72 [ ] 65  
4 or 5 correct subtractions: **3 pts**, 2 or 3 correct: **2 pts**, 1 correct: **1 pt**, 0 correct: **0 pt**

\_\_\_/3

### LANGUAGE

Repeat : I only know that John is the one to help today. [ ]  
The cat always hid under the couch when dogs were in the room. [ ]

\_\_\_/2

### LANGUAGE

Fluency / Name maximum number of words in one minute that begin with the letter F [ ] \_\_\_\_ (N ≥ 11 words)

\_\_\_/1

### ABSTRACTION

Similarity between e.g. banana - orange = fruit [ ] train - bicycle [ ] watch - ruler [ ]

\_\_\_/2

### DELAYED RECALL

Has to recall words WITH NO CUE	FACE	VELVET	CHURCH	DAISY	RED	Points for UNCUED recall only
[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	
Category cue						
Optional Multiple choice cue						

\_\_\_/5

### ORIENTATION

[ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City

\_\_\_/6

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Administered by: \_\_\_\_\_

Add 1 point if ≤ 12 yr edu

<http://www.mocatest.org/default.asp>

# Psychopharmacology Basics

# Antidepressants: SSRIs

MOA: Inhibit 5HT reuptake

Side Effects:

**GI** 5HT<sub>3</sub> receptors activation

**Sexual** D<sub>2</sub>, Ach blockade, 5HT reuptake inhibition

**Endocrine** SIADH; hyponatremia more frequent in older ♀

**Discontinuation sdr.**

**Pregnancy** paroxetine - class d

**Increased suicidal behavior in children & adolescents**

**Serotonin syndrome** with other serotonergic agents: neuromuscular-myoclonus, autonomic instability, mental status, GI symptoms

**CYP450 interactions:** fluoxetine, paroxetine, fluvoxamine-most, citalopram and sertraline-least

# Antidepressants

**SNRIs:** Venlafaxine, duloxetine, desvenlafaxine

- BP elevation at higher dose

**NDRI** (norepi, dopamine reuptake inhibitor):

- Bupropion: Dose dependent seizures; contraindicated in eating d/o

**Mirtazapine:** Selective  $\alpha_2$  adrenergic antagonism with increase in serotonergic and noradrenergic activity; 5ht<sub>2c</sub> and 5ht<sub>3</sub> receptor blockade → 5ht<sub>1a</sub> activation

- Sedation, weight gain, neutropenia

**5HT<sub>2</sub> antagonists/reuptake inhibitors:**

- Nefazodone: Sedation, visual trails, many drug interactions cyp450 3a4, hepatic failure-rare
- Trazodone (metabolite mcpp, a strong serotonin agonist-anxiogenic and induces anorexia), priapism

# Antidepressants

**TRICYCLICS:** Inhibit NE and 5HT uptake and less DA

- Sedation, anticholinergic toxicity (treat with bethanechol), CV-arrhythmias (order EKG >40 years old, avoid in heart disease)
- **Lethal in overdose:** Wide-complex arrhythmia, seizure, hypotension
- Nortriptyline therapeutic window: 50-150 ng/ml

**MAOIs:** Inhibit MAO-A and -B which metabolize NE, 5HT and DA; nonselective- phenelzine, tranylcypromine (selective: selegiline; reversible- rima: moclobemide)

- Serotonin syndrome with SSRIs, SNRIs, triptans
- Hypertensive crisis with adrenergic agents, meperidine and high monoamine content foods; treat with phentolamine, chlorpromazine, nifedipine; DO NOT GIVE  $\beta$  BLOCKERS
- Require low monoamine diet

Generic Brand Antidepressant Names and FDA Approved Indications		
Sertraline	Zoloft	Major depression,(MDD), OCD (adult and child), PTSD, social anxiety d/o, panic d/o, premenstrual dysphoric d/o (PMDD)
Fluoxetine	Prozac (weekly available)	MDD (adults, children, adolescents), panic, OCD, bulimia nervosa, PMDD
Fluvoxamine	Luvox (XR)	OCD
Paroxetine*	Paxil (CR)	MDD, OCD (adult, child and adolescent), social anxiety, Generalized anxiety disorder (GAD), PTSD, PMDD
Citalopam**	Celexa	MDD
Escitalopram	Lexapro	MDD (adults and adolescents), GAD
Venlafaxine	Effexor (XR)	MDD, panic, social anxiety d/o, GAD
Des-venlafaxine	Pristiq	MDD
Duloxetine	Cymbalta	MDD, neuropathic pain, fibromyalgia
Bupropion	Wellbutrin (SR, XL), Zyban	MDD, Smoking cessation
Mirtazapine	Remeron	MDD,
Nefazodone	n/a	MDD
Trazodone	Desyrel	MDD
Phenelzine	Nardil	MDD
Tranlycypromine	Parnate	
Selegiline	Emsam (patch), Deprenyl (oral)	
Amitriptyline	Elavil	MDD
Nortriptyline	Pamelor	MDD

# Antipsychotics

1<sup>st</sup> generation DISCUSS/MONITOR RISK

## **D2 blockade**

- **Movement d/o: Parkinsonism** at 80% blockade (treat with anticholinergics), **akathisia** (tx with  $\beta$  blockers or benzos), **acute dystonia** (tx with IM antichol.), **tardive dyskinesia** (eliminate offending agent)
- **NMS**: Rigidity, hyperthermia, tachycardia,  $\uparrow$ CPK, AMS, potentially lethal! – Supportive measures
- **Anticholinergic**
- **Sexual** (increased prolactin)
- **Retinitis pigmentosa**: chlorpromazine and thioridazine
- **QT prolongation** black box: thioridazine



# Antipsychotics

2<sup>nd</sup> generation DISCUSS/MONITOR RISK

Risperidone, paliperidone, olanzapine, quetiapine, ziprasidone, aripiprazole, iloperidone, asenapine

D2 (also D3 and D4) , 5HT2 blockade, glutamate?

- **Metabolic**: Weight gain and direct effect on triglycerides, serum leptin
- **Sexual**
- **Movement**: risperidone anticholinergic treatment
- **Orthostatic hypotension**: titrate slowly (quetiapine, iloperidone)
- **QT prolongation**: ziprasidone, iloperidone

# CLOZAPINE minimal D2 blockade (D1, D2, D3, D4), 5HT2A (also 5HT2C, H1, M1, $\alpha$ 1)

## Five black box warnings

1. **Agranulocytosis:** Do not give or d/c if WBC is  $<3,500$  or ANC  $<2,000$ , MONITOR these numbers weekly x 6mo, twice/mo x 6 mo., Then monthly for lifetime
2. **Cardiovascular events:** Myocarditis, pulmonary emboli
3. **Patients with neurocognitive disorders:** Increased risk of death – *blanket warning for ALL 2<sup>nd</sup> generation antipsychotics*
4. **Orthostatic hypotension**
5. **Seizures**

## Advantages

- Indicated in refractory schizophrenia (failed  $\geq 2$  antipsychotics)
- Improvement continues long term: at 6 mo., One year and 5 years
- It decreases suicide risk and violence in patients with schizophrenia
- Along with quetiapine, used in psychosis in Parkinson's patients because it does not induce EPS

GENERIC BRAND AND TRADE NAMES AND FDA APPROVED INDICATIONS		
<b>Fluphenazine</b>	Prolixin (oral, IM, decanoate)	Schizophrenia
<b>Haloperidol</b>	Haldol (oral, IM, decanoate)	Schizophrenia
<b>Trifluoperazine</b>	Stelazine	Schizophrenia
<b>Thioridazine</b>	Mellaril	Schizophrenia
<b>Chlorpromazine</b>	Thorazine	Schizophrenia, MDD
<b>Risperidone</b>	Risperdal (oral, long acting inj.)	Schizophrenia (+ children 13-17), bipolar mania (+ children 10-17) and irritability in autism; long acting risperidone is approved for schizophrenia and bipolar I disorder.
<b>Paliperidone</b>	Invega (oral, long acting inj.)	Schizophrenia and schizoaffective disorder
<b>Olanzapine</b>	Zyprexa (oral, IM, long acting injection)	Schizophrenia, acute treatment of mania and mixed episodes of bipolar d/o, maintenance tx. Of bipolar; acute agitation in schizophrenia and bipolar mania for the short acting IM injection. Adults and children over 13 years old.
<b>Quetiapine</b>	Seroquel	Schizophrenia, , acute treatment of mania and mixed episodes of bipolar d/o, maintenance tx. Of bipolar; adjunct treatment of MDD
<b>Ziprasidone</b>	Geodon (oral, IM)	Schizophrenia, schizoaffective and bipolar mania (the latter indication + children 10-17)
<b>Aripiprazole</b>	Abilify (oral, IM)	Schizophrenia, , acute treatment of mania and mixed episodes of bipolar d/o, maintenance tx. Of bipolar; adjunct treatment of MDD; irritability in autism; acute agitation in schizophrenia for short acting IM formulation
<b>lloperidone</b>	Fanapt	Schizophrenia
<b>Asenapine</b>	Saphris	Schizophrenia, acute manic and mixed episode
<b>Clozapine</b>	Clozaril, FazaClo	Refractory schizophrenia
<b>Lurasidone</b>	Latuda	Schizophrenia

# Mood Stabilizers

## Lithium:

- Serotonin effect; **Li** protects rat cerebral cortex and hippocampus from glutamate induced cell death
- Anti-suicidal effect in bipolar d/o
- Side effects:
  - **Lethal in overdose:** Therapeutic window 0.6-1.2 meq/L; > 3.5 meq/l fatal
  - Long term: Hypothyroidism, renal insufficiency
  - NSAIDs, ACE inhibitors, thiazide diuretics, tetracycline, salt restriction ↑ levels
  - Theophylline, caffeine, osmotic diuretics ↓ levels
  - Can use K sparing diuretics to treat nephrogenic diabetes insipidus (amiloride)
  - Pregnancy class D: Ebstein anomaly rare 1/2,000 births

# Mood Stabilizers

## ○ Valproate

- Increases brain GABA levels, modulates glutamate
- Risk of pancreatitis and liver failure
- Drug interactions: Increases levels of drugs metabolized through glucuronidation (lamotrigine, lorazepam)
- Pregnancy class D: Neural tube defects (3-5% spina bifida risk)

## ○ Lamotrigine

- Inhibits Na channels; stabilizes neuronal membranes; modulates glutamate
- Risk of Stevens Johnson Syndrome 3/1,000

## ○ Carbamazepine

- Blocks Na channels, modifies adenosine receptors; inhibits glutamate; increases extracellular serotonin
- Agranulocytosis, hyponatremia, **induction of other drugs' hepatic metabolism**
- Pregnancy class D: Neural tube defects

# Benzodiazepine Anxiolytics

## GABA-A agonists

- Effects:
  - Anxiolytic: anxiety, insomnia, acute agitation, withdrawal syndromes
  - Hypnotic: useful in anesthesia
  - Anticonvulsant: seizure control
  - Muscle relaxation
- All are pregnancy category D drugs; fetus with possible congenital abnormalities; fetus may suffer withdrawal
- Dependence, tolerance, withdrawal
- In patients with liver failure give lorazepam, oxazepam, temazepam metabolized by glucuronidation only (Out The Liver)

<b>Valproate</b>	Depakote (ER)	Mania (mixed episodes and high number of illness manic episodes >10 predict response to valproate), migraine, seizures
<b>Carbamazepine</b>	Carbatrol, Tegretol XR, Equetro	Seizures, trigeminal neuralgia and (Equetro only) manic and mixed episodes of bipolar disorder
<b>Oxcarbazepine</b>	Trileptal	seizures
<b>Lamotrigine</b>	Lamictal	seizures
<b>Gabapentin</b>	Neurontin	Seizures, post-herpetic neuralgia
<b>Topiramate</b>	Topamax	Seizures, migraine
<b>Alprazolam</b>	Xanax	Various benzodiazepines are approved by FDA as hypnotics, to treat anxiety disorders (panic, GAD, social anxiety), and in the case of clonazepam, as <b>adjunct</b> in treatment of acute mania)
<b>Diazepam</b>	Valium (oral, IV)	
<b>Lorazepam</b>	Ativan (Oral, IM, IV)	
<b>Oxazepam</b>	Serax	
<b>Temazepam</b>	Restoril	
<b>Hydroxyzine</b>	Vistaril	
<b>Benzotropine</b>	Cogentin (oral, IM)	
<b>Diphenhydramine</b>	Benadryl (oral, IM)	
<b>Buspirone</b>	Buspar	GAD
<b>Naltrexone</b>	Revia (oral, long acting injectable)	Adjunct in treatment of alcoholism
<b>Disulfiram</b>	Antabuse	Alcohol dependence
<b>Buprenorphine and Naloxone</b>	Suboxone	Opiate dependence



# Other Somatic Treatments

## ○ FDA approved

- ECT: Triggers seizures in normal neurons by application of pulses of current through the scalp that propagate to the entire brain.
- VNS: Stimulation of left vagus nerve; pulse generator in chest wall
- TMS: Pulsatile high-intensity electromagnetic field induces focal electrical currents in the underlying cerebral cortex

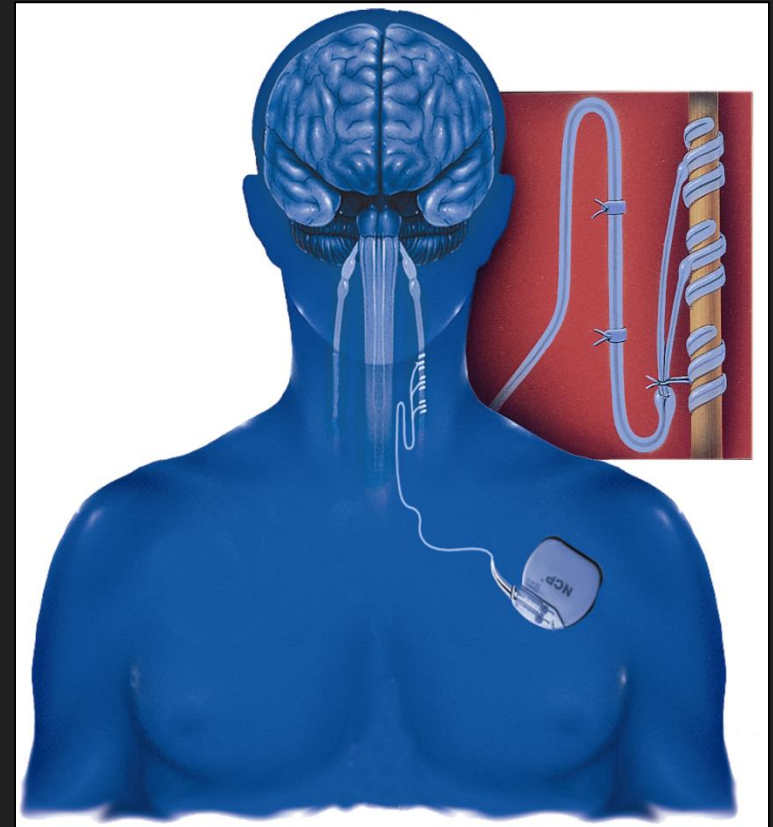
## ○ Not FDA approved

Light therapy, neurosurgery in OCD, deep brain stimulation for OCD and refractory depression



# Vagus Nerve Stimulation (VNS)

- FDA approved for epilepsy; FDA approved for treatment resistant depression 2005
- Pulse generator implanted in left chest wall area, connected to leads attached to left vagus nerve
- Mild electrical pulses applied to CN X for transmission to the brain



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