Psychiatry | Mini-OSCE | 6th group | 1st semester | 2023-2024

Required topics:

1- History taking & mental status examination.
2- Mood disorders
3- Anxiety disorders, OCD and traumatic syndromes
4- Psychotic disorders
5- Substance use disorders.
6- Drugs:

SSRIs and their side effects.
Antipsychotics and all their side effects.
Clozapine and it's pro-cons and it's side effects.
Everything about lithium.
Everything about sodium valproate.

THE ONES IN RED ARE THE ONES TALKED ABOUT IN THIS FILE

(1)

<u>Psychiatric Hx:</u>

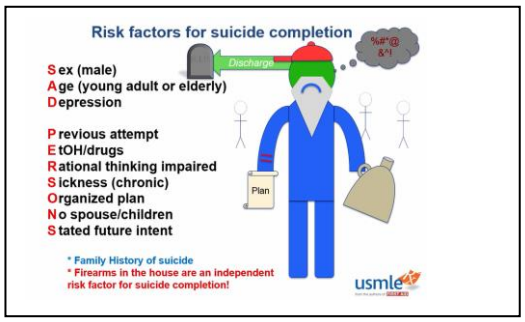
A. PP:
1- Name
2- Age
3- Marital status
4- How many kids
5- Occupation (income) – educational level
6- Residence (place/housing conditions)
7- Did you come by yourself or someone brought or you were referred
8- Military service
9- Religion

B. CC+ duration (here ask why did they seek medical attention today out of all days)
How many episode? Remission period if there is?

C. HOPI:
Should be present in every hx:
1- What triggered it? (stress/death of close person/trauma/unemployment/sexual abuse/war)
2- What exacerbate it/what relieves it?
3- Impact on life (family/relationships/occupation/education)

4- Neurovegetative aspects (sleep/appetite/energy/concentration/psychomotor retardation/agitation)
5- Suicidal/homicidal ideation/self-harm (now or previously)
1- Wish to die, not wake up?
2- Thought of killing self?
3- Have you ever tried? How many times? How?
4- Do you have a plan (guns/pills/jumping from high floor)? When after how many days?
5- Did you write your own testament?

6- Do you want to do it to get rid of your life or to get attention?
If specifically suicide history add:
- Ask about depression and bipolar
- ask for family history
- "Sad person" risk factors
- Firearms in the house



6- Psychotic features
7- Support system (family and friends)
8- Baseline mental health (when you're in your best shape * feeling well * rate your functionality on a scale of 1-10 / what are your goals post-treatment, after you leave this place)

D. Past Psychiatric and medical hx:
1- First contact when was it first time?
2- Previous psychiatric diagnoses
3- Hx of hospitalization and regular outpatient visits/psychiatrist
4- Current meds/compliance/improvement/does it worsen your symptoms (include OTC)
5- Any other medical conditions (thyroid/stroke/Addison/cushing/mono/cancers)
6- Hepatitis/HIV
7- Previous pregnancies and its complications
8- Allergies (actual allergy vs ADRs)

E. Substance use hx:
1- First intake and on what age and why
2- Amount (on average dose and quantity) and did it increase with time and route (ask directly about IV use?)
3- Symptoms of use (mental and medical)
4- Ever experienced symptoms of withdrawal?
5- Sobriety (longest period)
6- Last intake before presentation
7- Previous hospitalizations or consultations for rehab purposes
8- Impact on his life and does it waste your time
9- Do you take it just when you wake up (eye-opener)
10- Do you want to stop?

11- legal / forensic history
12- Smoking/alcohol/caffeine/tea if excessive

F. Personal & developmental hx:
1- Pregnancy complications/NICU/weight/which month
2- Developmental milestones (same as your peers? Walking/talking/bathroom)
3- Head trauma/inattention/infection/seizures
4- Child abuse/sexual abuse/bullying
5- Academic performance
6- Did you have friends and your relationship with them

G. Family history
1- Alive/dead/occupation/reason of death
2- How was their health
3- How was your relationship with them
4- Consanguinity
5- (psychiatric diagnoses and what medications worked for them/substance use/ suicidal attempts)

H. Social history:
Most assessed in the PP as mentioned earlier
+ exercise / diet
+ pets/ travel

If they asked only about Social & forensic history
- Current living place & accommodations, marital status, occupation
- Religious & cultural attitudes
- Smoking, alcohol?
- Substance use? [misuse or abuse]
- Have they been charged or convicted of any offenses?
- Employment/education
- Milestones/personal development

MENTAL STATE

Appearance and behavior:

1- Appearance fits his age (looks younger/older than reported)
2- Gender
3- Grooming (taking care of himself)
4- Hygiene (no smelling of alcohol, urine or feces)
5- Clothing fits age, gender and weather
6- No scars, cuts, tattoos, needle marks, body piercings, bruises
7- No erosion of tooth enamel/bruxism
8- Facial expressions
9- Eye-to-eye contact and pupil size
10- Cooperative behavior (seductive, eager, charismatic, manipulative)
11- Positioning sitting (or standing)
12- No abnormal posture or gait/stance
13- Not responding to hallucinations (murmuring, looking around the room)
14- No tics or tremors or automatisms or choreoathetoid movements or catatonia (abnormal movements)
15- No distractibility, threatening or aggressive or inhibited behavior

Speech

1- Rate (pressured, slowed, or regular)
2- Volume (lord or soft)
3- Tone (normal or monotonic)
4- Quantity and fluency (poverty or hyperverbal or normal)
5- Articulation (dysarthria or stuttering)
6- Word-finding difficulties (expressive dysphasia)
7- Neologisms, inappropriate (sensory dysphasia)
8- Rhythm (prosody as if he talks in a poem or normal)
9- latency

Mood and affect

1- Mood: how are you feeling this past period (weeks or months in general) (rate from 1-10)
2- Affect: how I see the patient (euthymic, euphoric, neutral, dysphoric)
3- Range (depth and range of feelings shown): flat (none), blunted, constricted, full (normal/average), intense (more than normal) – (broad or restricted)
4- Motility (how quick he shifts emotional states): sluggish, supple, not labile and susceptible to change with good emotion response
5- Appropriateness (congruent or incongruent)
6- Lack of emotional response (reactive)
7- Anxiety/stress

Thought process

1- Logical/linear
2- Circumstantiality: When the point of the conversation is eventually reached but with overinclusion of trivial or irrelevant details.

3- Tangentiality: Can follow conversation but point never reached or question never answered.
4- Loosening of associations: No logical connection from one thought to another
5- Flight of ideas: Thoughts change abruptly from one idea to another, often based on understandable associations or distracting stimuli; usually accompanied by rapid/pressured speech. (there is logical association)
6- Derailment: starts right then abruptly shifts to something irrelevant
7- Neologisms (Wernicke's aphasia)
8- Word salad: Incoherent collection of words
9- Clang associations: word connections due to phonetics "my car is red. I've been in bed. It hurts my head."
10- Thought blocking

Schizophrenia has 1- thought blocking 2- derailment 3- circumstantiality

Thought content

1- Poverty of thought vs overabundance
2- Delusions: fixed, false beliefs that are not shared by the person's culture and remain despite evident to the contrary(grandeur, greatness, superpowers – control (someone other than them have control over their emotions and actions – reference (subtype: erotomania) – paranoid – somatic (thinking they have a disease) – nihilism (I don't have a heart, I don't exist) – thought broadcasting – thought insertion – thought withdrawal –religious/conventional beliefs exaggerated) – jealous type - guilt
3- Phobias
4- Obsessions
5- Suicidal and homicidal ideation

Perceptual disturbances

1- Hallucinations: sensory perceptions that occur in the absence of an actual stimulus (hallucinations are from external space, while pseudo hallucinations are from internal space)
Auditory: 1- echo (repeats your words) 2- commentary/narrating 3- derogatory (commands) OR 1st 2nd3rd person voices
Visual (organic/substance) – delirium tremens ->> lilliputian hallucinations
Olfactory occur in epileptic auras, depressive and schizophrenics
Hypnagogic/hypnopompic
Functional vs reflex hallucinations (when you listen to music, you see persons/objects no one sees -> reflex. When you listen to music, you hear sounds no on hears -> functional)
Extracampine hallucinations (beyond the possible sensory field, seeing someone who is behind you for example)

2- Illusions: inaccurate perception of existing sensory stimuli (1- effect illusions (at time of heightened emotion) 2- completion illusions (resolve on closer attention) 3- pareidolic illusions (seeing faces in a fire or clouds)
3- Derealization/Depersonalization

4- Sensory distortions: associated with organic/substance ->> hyperacusis, micropsia (something external that augments the distortions, hearing something real will lead to hearing sounds not real, if you sleep you feel like drowning, if you see a light reflection you might see abnormal things)

Comment: no auditory/visual/olfactory/hypnagogic/hypnopompic/functional/reflex/extracampine hallucinations. No effect/completion/pareidolic illusions. No depersonalization/derealization

Cognition

1- Consciousness: alert – drowsy – lethargic – stuporous – comatose
2- Orientation to person, place and time
3- Calculation
4- Memory:
   Immediate (repeat certain words or digits)
   Recent (short-term memory) after 5 minutes, tell him what is my name
   Remote memory (long term memory)
5- Fund of knowledge
6- Attention/concentration (100-7 or spell "world" backward)
7- Reading/writing
8- Abstract concepts (give him مثل) if not abstract then its concrete
9- Judgement (excellent – good – fair – poor)
10- Insight (do you feel that your experiences are a result of illness, do you think its mental or medical, do you think you need treatment, will you accept medical advice and treatment)
11- Do: 3 steps

Consciousness – orientation – attention/concentration –calculation – memory – fund of knowledge – abstract thinking – reading/writing – judgement – insight – do

(2)

CC: Anxiety

A. PP:

1. Name
2. Age (phobia ~ 10 / social anxiety ~ 13 / GAD ~ 30 / separation ~ 1 / selective mutism ~ 2-4)
3. Gender
4. Marital status
5. Educational level
6. Occupation (+income)
7. Military service

8. Religion
9. Residence (place/ housing conditions)

B. CC+ duration (> 6 months = GAD, social anxiety, agoraphobia, phobias in general, separation anxiety in adults / > 1 month = separation anxiety in children, selective mutism)

C. HOPI:

Rule out medical conditions and meds/ substances that cause anxiety (examples include hyperthyroidism, pheochromocytoma, head injury, heart attack, asthma, etc… / any substance could lead to anxiety whether through intoxication or withdrawal)

3 core features: exaggeration (out of proportion fear or distress) / catastrophizing (destructive impact on life)/ expecting the worst

Must ask about:

1. Triggering events (especially in agoraphobia, a single panic attack, and separation anxiety)
2. Impact on life (occupation / education / relationships/ functioning)
3. Neurovegetative aspects (sleep / appetite / energy / concentration / psychomotor retardation, agitation)
4. Suicidal (VERY IMPORTANT)/ homicidal ideation
5. Psychotic features
6. Support system (family & friends)
7. Baseline mental health (when you're in your best shape * feeling well * rate your functionality on a scale of 10 / what are your goals post-treatment, after you leave this place?)

Specifics for each disorder:

Panic disorder:
1. Frequency of the attacks
2. Spontaneous or triggered
3. Fear of the fear
4. Occupied by the attack for at least 1 month following it (avoiding anything that might trigger it / huge distress)
5. Coexistent agoraphobia
>> Da PANICS:
Depersonalization, derealization, dizziness
Palpitations, Paresthesias
Abdominal discomfort
Nausea, numbness
Intense fear of death or going insane

Chills, chest pain
Shortness of breath, sweating
*** Due to the overlap in symptoms you have to rule out serious medical conditions like MI, PE, thyrotoxicosis, hypoglycemia

Agoraphobia:
1. As mentioned earlier a traumatic triggering event
2. Avoidance of two of these at least because of distress of not being able to escape or obtain help: transportation, crowded areas, open places (bridges), enclosed places (supermarket)
3. Can be very severe that they don't even leave home
4. Coexistent panic disorder

Special phobias:
1. Intense distress when they get exposed to the phobia inducer
2. Avoidance of the phobia inducer
3. Examples: animals & insects / needles & blood / heights / elevators / etc…

Social phobia:
1. Fear of embarrassment, humiliation, and rejection when in a social gathering
2. Distress upon eating in public, going to public bathrooms, speaking in public
3. Avoidance of social settings and isolation
4. Assess for performance anxiety (public speaking)

Selective mutism:
1. Normal language and communication skills
2. Goes mute in certain settings and not in all settings
3. Use of other means of communication: gesturing / whispering/ writing
4. Coexistent social phobia

Separation anxiety:
1. Distress upon separation / or worry from any experience that might lead to separation
2. Worry of harm to or loss of the figures of attachment
3. Somatic symptoms to caused by the idea of separation or to avoid separation
4. Reluctant to stay home alone
5. Reluctant to go to school or work
6. Reluctant to sleep alone
7. Nightmares about separation

GAD:
1. Excessive distress at all times
2. No control over the anxiety

3. 3 or more of the following (Worry WARTS): fatigue/ irritability/ abdominal distention / restlessness / muscle tension / sleeplessness

All can lead to substance use disorders
All can coexist with depression, bipolar, other anxiety disorders

D. Past Psychiatric hx:
As always

E. Substance use hx:
As always + as mentioned earlier.

F. Personal & developmental hx:
As always

G. Family history
As always

H. Medical & surgical:
As always + as mentioned earlier.

I. Allergies
As always

J. Medications
As always + as mentioned earlier.

K. Social history:
As always

L. Forensic history
As always

Treatment:

Benzodiazepines for bridging purposes or to manage acutely (avoided when there's depression)

Beta blockers >> performance anxiety, panic attacks

ALL CBT & SSRIs (SNRIs work as well)
plus:
Family therapy in selective mutism & separation anxiety
Exposure therapy in phobias

Start with low doses then increase the dose gradually as they might increase anxiety at first (SSRIs)

OCD

CC: recurrent intrusive thoughts (for example)

A. PP:
1. Name
2. Age
3. Gender
4. Marital status
5. Educational level
6. Occupation (+income)
7. Military service
8. Religion
9. Residence (place/ housing conditions)

B. CC+ duration

C. HOPI:

Rule out medical conditions and meds/ substances that might explain the patient's complaint

Must ask about:

1. Triggering events
2. Impact on life (occupation / education / relationships/ functioning)
3. Neurovegetative aspects (sleep / appetite / energy / concentration / psychomotor retardation, agitation)
4. Suicidal (VERY IMPORTANT)/ homicidal ideation
5. Psychotic features
6. Support system (family & friends)
7. Baseline mental health (when you're in your best shape * feeling well * rate your functionality on a scale of 10 / what are your goals post-treatment, after you leave this place?)

Specific considerations:
1- obsessions: intrusive recurrent undesirable thoughts that the patient tries to ignore, suppress, or relieve through compulsions
2. Compulsions: repetitive behaviors in response to obsessions
3. Time consuming (>1hr / day)

4. examples include: contamination/ symmetry / fear of harm/ taboo
5. Observe + ask about speech / motor tics (Coexistent Tourette)

Can lead to substance use disorder
Can coexist with depression, bipolar, and other anxiety disorders

D. Past Psychiatric hx:
As always

E. Substance use hx:
As always + as mentioned earlier.

F. Personal & developmental hx:
As always

G. Family history
As always

H. Medical & surgical:
As always + as mentioned earlier.

I. Allergies
As always

J. Medications
As always + as mentioned earlier.

K. Social history:
As always

L. Forensic history
As always

Treatment:

CBT / exposure therapy / response prevention therapy / SSRIs / if severe 2nd generation antipsychotics/ could use the TCA clomipiramine

Trauma-induced disorders

A. PP:
1. Name
2. Age
3. Gender
4. Marital status
5. Educational level
6. Occupation (+income)
7. Military service
8. Religion
9. Residence (place/ housing conditions)

B. CC+ duration (PTSD: occurs within 3 months of the event (not necessarily as they can present at any time following the trauma) and lasts for > 1 month (50% recover in 3 months) / ASR: occurs within 1 month of the event and lasts for < 1 month / adjustment disorder: occurs within 3 months of the event and resolves 6 months following it)

C. HOPI:

Rule out medical conditions and meds/ substances that might explain the patient's complaint

Must ask about:

1. Triggering events
2. Impact on life (occupation / education / relationships/ functioning)
3. Neurovegetative aspects (sleep / appetite / energy / concentration / psychomotor retardation, agitation)
4. Suicidal (VERY IMPORTANT)/ homicidal ideation
5. Psychotic features
6. Support system (family & friends)
7. Baseline mental health (when you're in your best shape * feeling well * rate your functionality on a scale of 10 / what are your goals post-treatment, after you leave this place?)

Specific considerations:

PTSD:
TRAUMA
1. Traumatic life-threatening event directly witnessed or experienced
2. Re-experiencing the trauma (flashback/memories/ etc…)
3. Avoidance of places, people, anything that reminds them with the trauma
4. Unable to function properly

5. More than a month
6. Arousal state (hypervigilance / insomnia / anger outbursts / etc…)
++
7. Two or more negative cognitions / emotions: anhedonia, inability to express positive emotions, self-blame, negative emotions (sadness, guilt, etc…), negative thoughts of self and others, dissociative amnesia

Adjustment disorder:
1. non-life-threatening trauma (divorce, death of a loved one, etc…)
2. Impairs function
3. Extreme distress related to the event

Can lead to substance use disorder
Can coexist with depression, bipolar, and other anxiety disorders

D. Past Psychiatric hx:
As always

E. Substance use hx:
As always + as mentioned earlier.

F. Personal & developmental hx:
As always

G. Family history
As always

H. Medical & surgical:
As always + as mentioned earlier.

I. Allergies
As always

J. Medications
As always + as mentioned earlier.

K. Social history:
As always

L. Forensic history
As always

Treatment:

PTSD: SSRIs / SNRIs then CBT (cognitive processing therapy) / for severe cases >> atypical antipsychotics

ASR: Mainly CBT (might in some cases use meds but this is not the standard)

Adjustment disorder: CBT / group therapy

Extra:
Acute stress reaction management:
Ketamine
Lithium
Clozapine
ECT

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<u>Psychosis:</u>

Ddx (big picture): schizophrenia/ schizophreniform/ schizoaffective/ brief psychotic episode / delusional disorder / Mood disorder with psychosis / Neurocognitive disorders / substance intoxication or withdrawal / delirium

Schizoid PD = no psychosis / schizotypal PD = paranoid + eccentric but no full-blown psychosis

delirium: medical emergency+cognitive impairment / hypoactive-psychomotor retardation(elderly), hyperactive-psychomotor agitation (substance intoxication, withdrawal), mixed/ treat the underlying cause+haloperidol

A. PP:
1. Name
2. Age (15-55/ males >>early 20s, females >> late 20s) + later onset = better prognosis
3. Gender (prognosis better in females)
4. Marital status
5. Educational level
6. Occupation (+income) >> low socioeconomic status is a risk factor for schizophrenia
7. Military service
8. Religion
9. Residence (place/ housing conditions) >> immigrants are at higher risk of developing delusional disorder

B. CC+ duration (>6 months = schizophrenia or schizoaffective/ 1-6 months= schizophreniform/ <1 month= brief psychotic/ >1 month= delusional disorder)

C. HOPI:

Rule out medical conditions and meds/substances that might lead to psychosis:

Medical: CNS (infection/neurocognitive/epilepsy/trauma/tumor) - Endocrine (thyroid/adrenals/parathyroid)- Vitamins (B12/folate/niacin) - CTDs (SLE)

Meds: e.g: NSAIDs, antihypertensives, antihistamines, anticonvulsants

Substances (IMPORTANT: differentiate whether it's the cause or it's just comorbid to schizophrenia/ ask about current and previous use): stimulants / depressants / hallucinogens / etc…

##. Must ask about:
1. Triggering events
2. Impact on life (occupation / education / relationships (a good support system improves prognosis))
3. Neurovegetative aspects (sleep / appetite / energy / concentration / psychomotor retardation, agitation)
4. Suicidal / homicidal ideation

5. MOST IMPORTANT:
Psychotic features (symptomatology)

Positive symptoms:
- delusions (grandeur/ paranoid/ control / reference/ religious / guilt / jealousy (especially in delusional disorder)/ somatic / nihilistic/ thought withdrawal, broadcasting, insertion)
- hallucinations (commanding or not/ type)
- Bizarre behaviors
- Disorganized speech

Negative symptoms (5 As): poor Attention / Anhedonia / Alogia (speech poverty) / Avolition (lack of motivation) / flat Affect
*** rule out MDD if only negative symptoms

Cognitive symptoms: attention / recent memory / function execution

Specific considerations:

Schizoaffective:

MDD or bipolar criteria met (but make sure that isolated psychosis occurs for at least 2 whole weeks to differentiate it from mood disorders with psychosis)

Brief psychotic episode:
Triggering event (trauma / sexual abuse)
*** transient psychosis in borderline personality disorder is not considered a brief psychotic episode

Delusional disorder:
Only delusions / non bizarre / no major impairment of function / hearing problems (increase the risk)

6. Baseline mental health (when you're in your best shape * feeling well * rate your functionality on a scale of 10 / what are your goals post-treatment, after you leave this place?)

D. Past Psychiatric hx:
As always

E. Personal & developmental hx:
As always + perinatal problems (difficulties during labor or medical conditions during pregnancy)

F. Family history
As always + family history of schizophrenia in particular

G. Allergies (as always)

H. Social
As always

positive symptoms respond better to treatment
1st generation antipsychotics high potency = extra pyramidal symptoms (after stopping the drug and starting them on atypical antipsychotics >> dystonia: benzotropine / akathisia: propranolol or benzodiazepines / tradive dyskinesia: benzodiazepines)
*** NMS: stop all antipsychotics + dantrolene + bromocriptine
1st generation antipsychotics low potency + atypical = anti-HAM
Atypical = metabolic (a good, atypical antipsychotic to use in patients at high risk = aripiprazole)
clozapine = decreases suicide / for refractive schizophrenia cases / watch out for agranulocytosis + (severe constipation / drooling / cardiomyopathy/ convulsions)
weight gain = clozapine / olanzapine
hyperprolactinemia = risperidone

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Substance use hx:

1- First intake and on what age and why
2- Amount (on average dose and quantity) and did it increase with time and route (ask directly about IV use?)
3- Symptoms of use (mental and medical)
4- Ever experienced symptoms of withdrawal?
5- Sobriety (longest period)
6- Last intake before presentation
7- Previous hospitalizations or consultations for rehab purposes
8- Impact on his life and does it waste your time
9- Do you take it just when you wake up (eye-opener)
10- Do you want to stop?
11- Are you trying to stop but not able to?
12- Used in dangerous situations
13- Psychotic symptoms due to substance use
14- legal / forensic history
15- Smoking/alcohol/caffeine/tea if excessive

Alcohol (CNS depressant):

Abuse: harmful use of alcohol like binge drinking (no dependence)
Addiction: chronic use accompanied by physical and psychological dependence

Symptoms of overuse: loss of coordination/ unsteady gait / slurred speech/ stupor or coma

Withdrawal symptoms (6-24 hrs): anxiety / GI upset / tremors / palpitations/ diaphoresis / headache/ INTACT MENTAL STATUS
*** Other more serious withdrawal symptoms: seizures (6-48 hrs) / hallucinations (12-48 hrs) / DT - hyperactive delirium (72-96 hrs)

Treatment of withdrawal:
1st line >> benzodiazepines
Maintenance:
1. Disulfiram (aldehyde dehydrogenase inhibitor (accumulation of acetaldehyde)) >> autonomic activation
2. Naltrexone
3. Acamprosate >> diarrhea

Complications (thiamine deficiency):

Wernicke syndrome, or Wernicke encephalopathy: Symptoms include confusion, ataxia (loss of coordination), and eye movement abnormalities.

If left untreated, Wernicke syndrome can progress to Korsakoff syndrome, which involves severe memory impairment and cognitive deficits.

*** BAC limit for driving: 80 mg/dL

Barbiturates (CNS depressant):
Overdose: fatal respiratory depression (narrow therapeutic index)

Benzodiazepines (CNS depressant):
Withdrawal: life-threatening seizures
Relatively safe >> no alteration of vital signs
Antagonist: flumazenil

Opioids:

1. Desirable effects: euphoria/ sedation/ pain relief <> Undesirable effects: e.g: constipation / miosis / skin flushing / confusion

2. Symptoms of overdose: depressed mental status / meiosis / decreased bowel sounds / respiratory depression

3. Symptoms of withdrawal: yawning / piloerection/ rhinorrhea & lacrimation/ nausea/ vomiting / diarrhea/ restlessness

4. Treatment (withdrawal / addiction)
A. Naloxone (short acting opioid antagonist)
B. Naltrexone (long-acting opioid antagonist)
C. Buprenorphine (partial agonist and antagonist) given with naloxone usually.
D. Methadone (long-acting opiate)

*** No tolerance: miosis / constipation

Cocaine & amphetamines:

MOA: reuptake inhibition vs reuptake inhibition & release; respectively

1. Intoxication: alertness, increased energy, euphoria, decreased need for sleep, autonomic activation (dilated pupils, chest pain, tachycardia, hypertension), fever, hallucinations, seizures

*** treatment: benzodiazepines (don't use beta blockers (dominating alpha effect, worsening of vasoconstriction))

2. Withdrawal symptoms (not life-threatening, supportive): increased sleep, fatigue, depression, difficulty concentrating

Others:

1. PCP: NMDA blockade: hallucinations & psychosis / NE, dopamine, serotonin reuptake inhibition: sympathetic activation
*** most common cause of death: trauma (psychosis, violence, disinhibition, dissociation, loosing of pain sensation)
*** treatment: benzodiazepines, haloperidol

2. LSD: NO sympathetic stimulation, hallucinations (trip (expanded consciousness)/ bad trip (paranoia, anxiety)/ synesthesia (hearing colors, tasting voices)/ depersonalization

*** Following discontinuation >> flashbacks (experience symptoms as if they are on the drug but they aren't)
*** Treatment: supportive

3. ##IMPORTANT##
Ecstasy (MDMA): An amphetamine: alertness, euphoria, bruxism, autonomic activation / similar structurally to serotonin (serotonin syndrome: treatment >> cyproheptadine)

*** Serious complications of intoxication to remember hyponatremia (increased water intake, increased ADH secretion) / hepatotoxicity

*** Withdrawal: "Crash" (similar to amphetamines withdrawal symptoms)

4. Marijuana: increased appetite, ataxia, slurred speech, impaired cognition & judgment, euphoria, anxiety

*** All stimulants decrease appetite vs marijuana
*** Medical uses of cannabinoids: help with chemotherapy induced nausea & vomiting / improves appetite in wasting illnesses like AIDS

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Drugs

SSRI Side effects:

1- Sexual dysfunction (anorgasmia, erectile dysfunction, latent ejaculation)
2- SIADH
3- Weight gain
4- Sedation
5- GI upset
6- Rebound anxiety
7- Serotonin syndrome (hyperActivity (hyperreflexia, clonus), Autonomic hyperactivity (hypertension, tachycardia, hyperthermia, diaphoresis), Altered mental status) (treat with benzos, supportive and cyproheptadine (5HT-2 receptor antagonist)
   - Most common side effect = GI upset
   - Most common side effect that patients quit from = Erectile dysfunction
   - Weeks to work = 4-6 hrs peak (but it starts working within 1-2 weeks)

SNRI most common side effect = HTN

- Antidepressants are discouraged as monotherapy for bipolar disorder due to concerns of activating mania or hypomania. They are occasionally used to treat depressive (only when needed) episodes when patients concurrently take mood stabilizers.
- Resistant depression best treatment = California mix (venlafaxine + mirtazapine)

Typical Antipsychotics side effects

1- Anti – HAM (especially the low-potency class)
2- Neuroleptic Malignant Syndrome (especially the high-potency class) (mental status changes, rigidity, autonomic instability, fever, rhabdomyolysis + "Malignant fever" mnemonic
3- Extrapyramidal symptoms
   - Acute dystonia (minute to hours) – benztropine, diphenhydramine
   - Akathisia (days to months) – beta blockers, benzodiazepine, benztropine
   - Drug-induced parkinsonism (days to months) – benztropine, amantadine
   - Tardive dyskinesia (months to years) – velbenazine, deutetrabenazine, benzodiazepine, IV botulinum toxin injections + switch to atypical antipsychotic
4- Chlopromazine = corneal deposits – Thioridazine = retinal deposits

Atypical Antipsychotics side effects

1- Metabolic syndrome (weight gain, dyslipidemia, hyperglycemia) (especially olanzapine and clozapine)
2- Hyperprolactinemia (especially risperidone)
3- NPS, EPS less common than typical antipsychotics (especially risperidone)

Clozapine special side effects:

1- Agranulocytosis – 1% (monitor CBC (absolute neutrophil count weekly for 6 months then every 2 weeks for 6 month and then monthly – if ANC < 1500 = immediately stop the drug)
2- Lowers seizures threshold – 4% (avoid any stimulant that may increase risk of seizures)
3- Myocarditis
4- Anti-cholinergic side effects higher than any atypical antipsychotic

PROS:

1- Best efficacy
2- Refractory schizophrenia (30% improvement, especially negative symptoms)
3- Reduces suicide risk (as lithium in bipolar)
4- Less EPS (as it is atypical)

<u>Lithium</u>

1- GI upset (nausea, vomiting, diarrhea)
2- Neurologic side effects (tremors, ataxia)
3- Hypothyroidism
4- Nephrogenic diabetes insipidus
5- Ebstein anomaly
6- Renal damage

Symptoms worse ESPECIALLY when given with diuretics

Drugs that decrease clearance of Lithium:

- Thiazides
- NSAIDs
- ACEi
- Tetracyclines
- Metronidazole

Lithium has NARROW therapeutic index (0.6-1.2) = serial testing needed

Gold standard for bipolar = Lithium(reduces suicide risk)

IF contraindicated = Valproate

<u>Valproate side effects (CONS):</u>

1- Gi upset (nausea, vomiting)
2- Weight gain, increased appetite
3- Tremors
4- Fatal hepatotoxicity (monitor LFTs and CBC for liver toxicity and thrombocytopenia)
5- Pancreatitis
6- PCOS
7- Neural tube defects
8- Potent CYP450 inducer (need to increase other drugs doses if metabolized by liver enzymes)

PROS for valproic acid in the treatment of bipolar disorder:

1. Preferred for mixed episodes
2. Preferred in rapid cycling bipolar (Rapid cycling is defined by the occurrence of four or more mood episodes (major depressive, hypo- manic, or manic) in 1 year.)
3. Less effect on thyroid function
4. When lithium can't be used, or the patient is not responding well to it

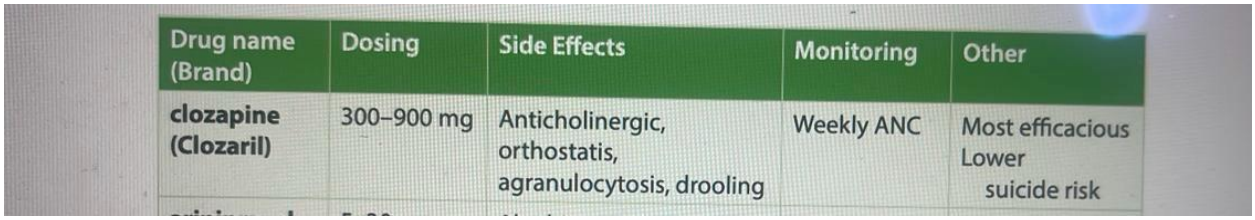
<u>Carbamazepine side effects:</u>

1- SIADH
2- Aplastic anemia
3- Neural
4- tube defects

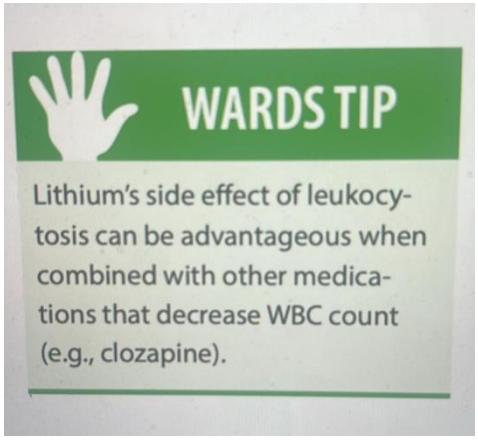
<u>Lamotrigine (for depressive episodes) side effects:</u>

1- Benign rash
2- Stevens-Johnson syndrome

- We don't use carbamazepine because its enzyme inducer
- Lamotrigine is used for depressive episodes not manic
- Benzodiazepines: Lorazepam and oxazepam don't affect the liver

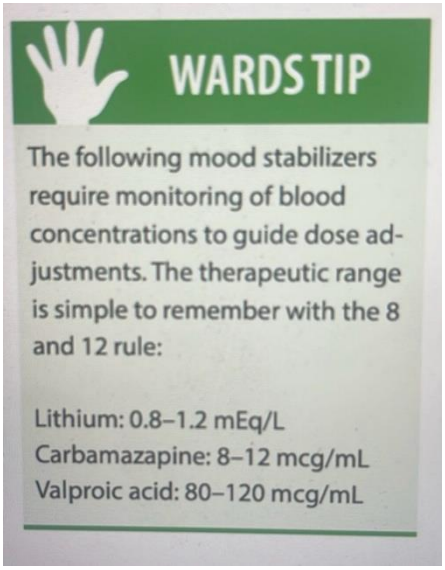


Drug name (Brand)	Dosing	Side Effects	Monitoring	Other
clozapine (Clozaril)	300–900 mg	Anticholinergic, orthostatis, agranulocytosis, drooling	Weekly ANC	Most efficacious Lower suicide risk



WARDS TIP

Lithium's side effect of leukocytosis can be advantageous when combined with other medications that decrease WBC count (e.g., clozapine).



WARDS TIP

The following mood stabilizers require monitoring of blood concentrations to guide dose adjustments. The therapeutic range is simple to remember with the 8 and 12 rule:

Lithium: 0.8–1.2 mEq/L
Carbamazapine: 8–12 mcg/mL
Valproic acid: 80–120 mcg/mL

Mood Stabilizers

Drug name Brand)	Dosing	Side Effects	Monitoring	Other
Lithium	900–1800 mg	GI upset, tremor, nephrogenic DI, renal failure	Thyroid, renal, serum drug level (0.8–1.2)	Ebstein's anomaly Lower suicide risk
lamotrigine (Lamictal)	100–200 mg	GI upset, SJS rash	Monitor for rash	Dose slowly
valproic acid (Depakote)	500–2000 mg	GI upset, weight gain, liver toxicity	Liver, ammonia, serum drug level (80–120)	Contraindicated in pregnancy: neural tube defect
carbamazepine (Tegretol)	800–1600 mg	Hyponatremia, agranulocytosis	Liver, renal, serum drug level (8–10)	Contraindicated in pregnancy: neural tube defect PacMan inducer

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