Adults in an In-Patient Treatment Program for Severe Cases of Major Depressive Disorder (MDD) and Treatment-Resistant Depression (TRD)

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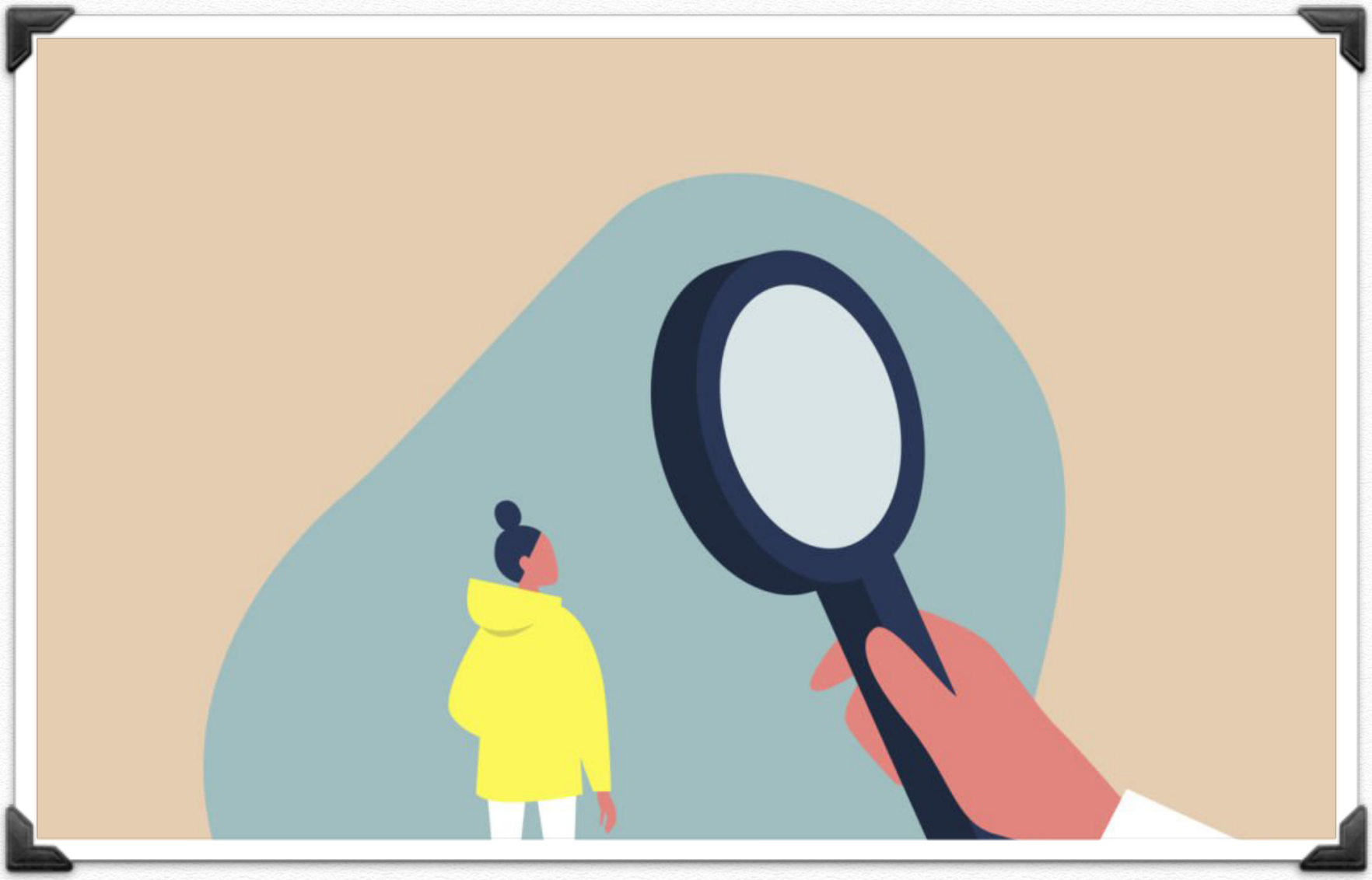
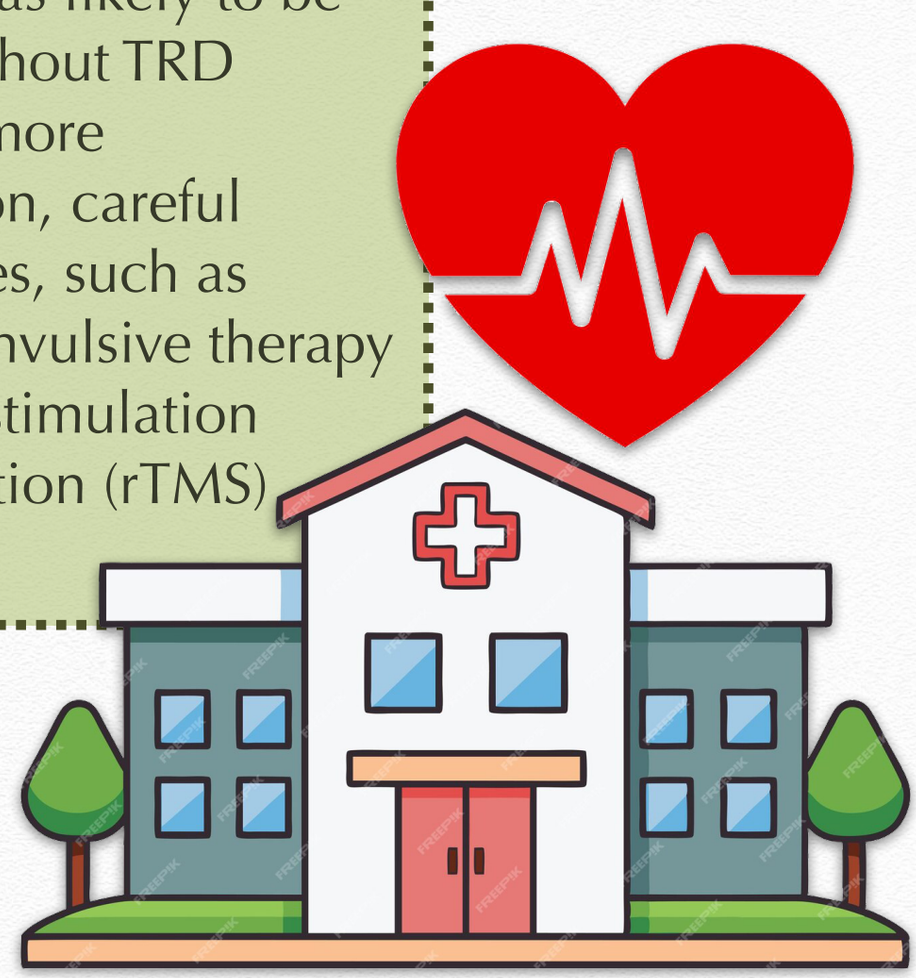
What psychopharmacology issues might present in this population?



In-Patient Treatment for MDD and TRD

- According to Citrome et al. (2019), approximately 12% of Major Depressive Disorder (MDD) cases in the United States require hospitalization due to treatment resistance, disability, and high suicide risk (p. 378). Treatment-Resistant Depression (TRD) occurs in 30% of people with MDD and requires that they have had an inadequate response to two or more oral antidepressants at the right dose and for a long enough period of time (Cleveland Clinic, 2023a). MDD clients with TRD are at least twice as likely to be hospitalized for depression compared to those without TRD (Crown et al., 2002). In such cases, clients need more comprehensive care that includes close observation, careful medication management, and access to procedures, such as ketamine-assisted psychotherapy (KAP), electroconvulsive therapy (ECT), vagus nerve stimulation (VNS), deep brain stimulation (DBS), or repetitive trans-cranial magnetic stimulation (rTMS) (Mayo Clinic, 2021; Voineskos et al., 2020).



According to the Cleveland Clinic (2023a), the following MDD symptoms are more likely to occur with TRD:

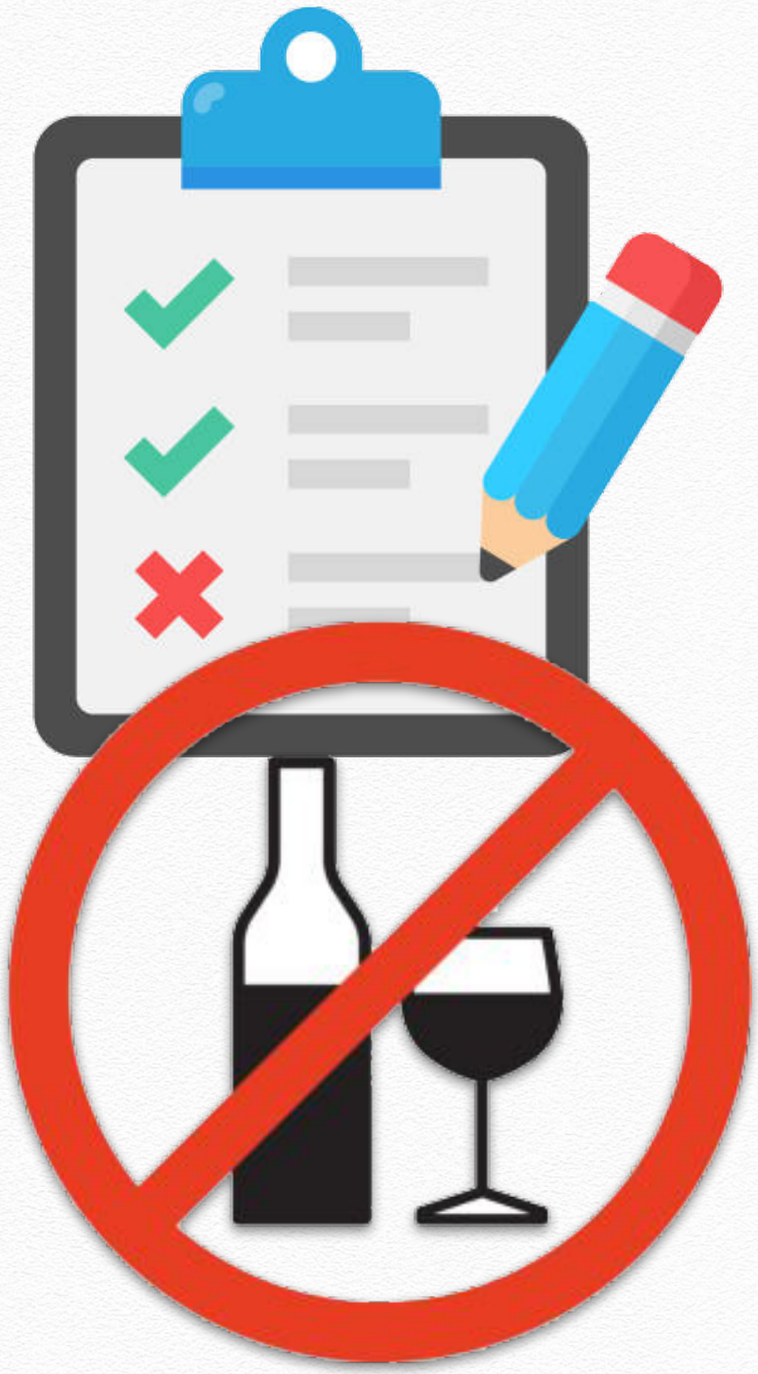
- Severe depressed mood
- Severe sleep disturbance
- Severe appetite changes
- Longer lasting depressive episodes
- Anhedonia (reduced ability to experience pleasure)
- A higher number of lifetime depressive episodes
- Anxiety
- Suicidal ideation and behavior

Psychopharmacological Considerations

- Clients with TRD require close psychiatric monitoring because this type of depression does not respond fully to first-line anti-depressants (Cleveland Clinic, 2023a). First-line anti-depressants include selective serotonin reuptake inhibitors (SSRIs), serotonin and norepinephrine reuptake inhibitors (SNRIs), and atypical anti-depressants (Cleveland Clinic, 2023a). Nuanced dosage and frequency adjustments, adding supplemental medications, or additional procedures are necessary to effectively treat TRD (Mayo Clinic, 2021). Clients with suicidality may require a rapid-acting anti-depressant such as ketamine (Shen et al., 2024).

Contraindications

- During intake, clients need to be thoroughly screened for all other medications, supplements, and substances they may be taking (Mayo Clinic, 2021). If a client lists a monoamine oxidase inhibitor (MAOI) as one of their medications, the client needs to be made aware that foods containing tyramine, such as certain cheeses, pickles, and wines, are contraindicated (Mayo Clinic, 2022). Substance Use Disorder (SUDs) is a common co-morbidity with TRD and can involve substances that are contraindicated with many anti-depressant medications, such as alcohol (Allen, 2024). The depressive phases of Bipolar Disorder may also be treatment-resistant and require careful medication management, especially since the manic phases of Bipolar Type 1 are contraindicated with SSRIs (Medical Coverage Database, 2018; National Health Service, 2021). Additionally, certain pre-existing conditions can be contraindicated with adjunctive medications and procedures for TRD. For example, hyperthyroidism and high blood pressure are contraindicated with the use of ketamine and would disqualify a client from becoming a candidate for KAP (Eshkevari, 2024).



According to the National Health Service (2024), first-line anti-depressants such as SSRIs and SNRIs can have these commons side effects:

- Feeling agitated, shaky or anxious
- Feeling and being sick
- Indigestion and stomach aches
- Diarrhea or constipation
- Loss of appetite
- Dizziness
- Not sleeping well (insomnia), or feeling very sleepy
- Headaches
- Loss of libido (reduced sex drive)
- Difficulties achieving orgasm during sex or masturbation
- Difficulties obtaining or maintaining an erection (erectile dysfunction)

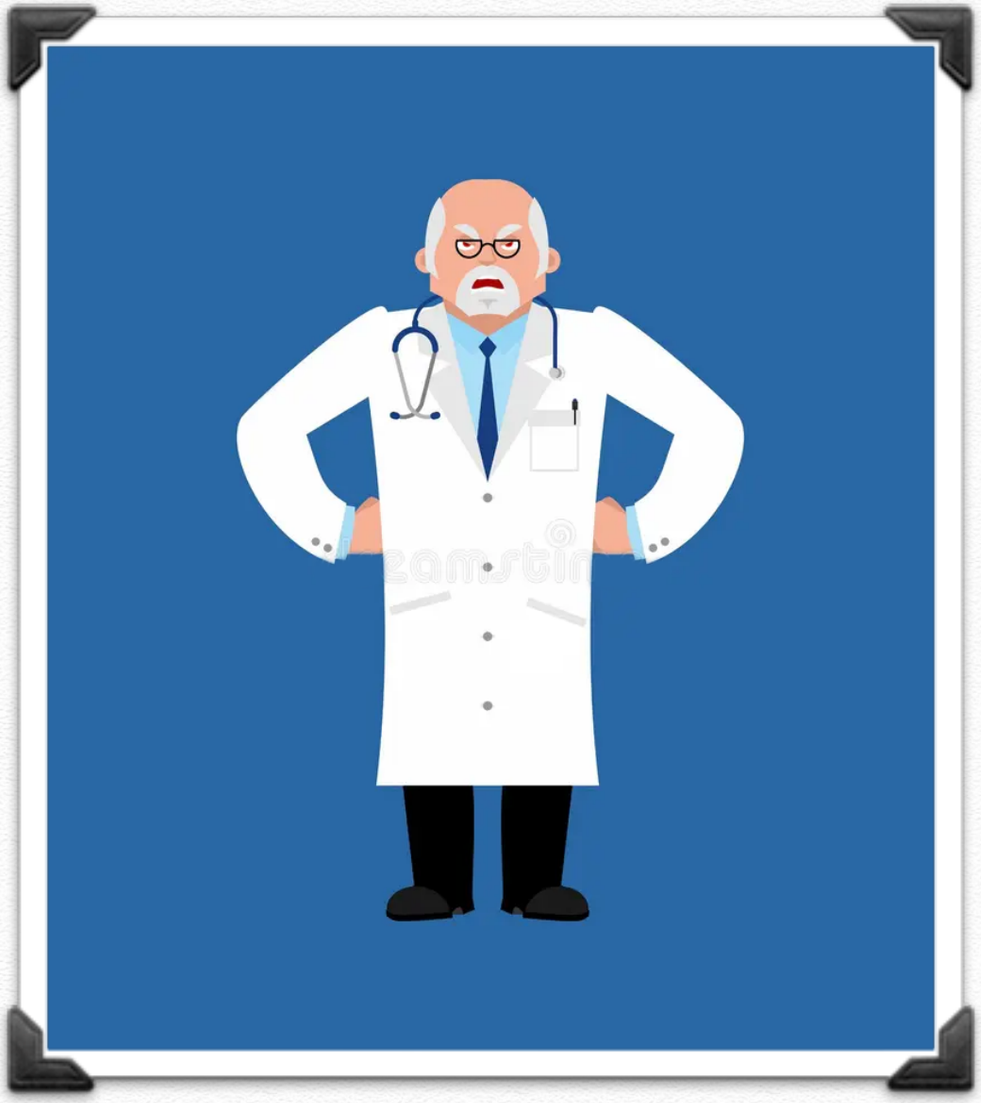
Serious Side Effects of First-Line Anti-Depressants

- Hyponatremia, Serotonin Syndrome, and suicidal thoughts are the three most severe side effects that may occur as a result of taking first-line anti-depressants prescribed for TRD (National Health Service, 2024). According to the National Health Service (2024), "Hyponatremia is a condition where sodium levels in the blood drop too low, causing dangerous fluid buildup in cells. Symptoms include confusion, headache, loss of appetite, and muscle pain. In severe cases, it can lead to seizure, coma, or breathing cessation. … Serotonin Syndrome is a serious but uncommon side effect that occurs when serotonin levels in the brain become too high. [Life-threatening] symptoms include seizures (fits), irregular heartbeat (arrhythmia), and unconsciousness". Young people under the age of 25 are particularly at risk for suicidal thoughts while taking anti-depressants (Mayo Clinic, 2022).

Serotonin Syndrome

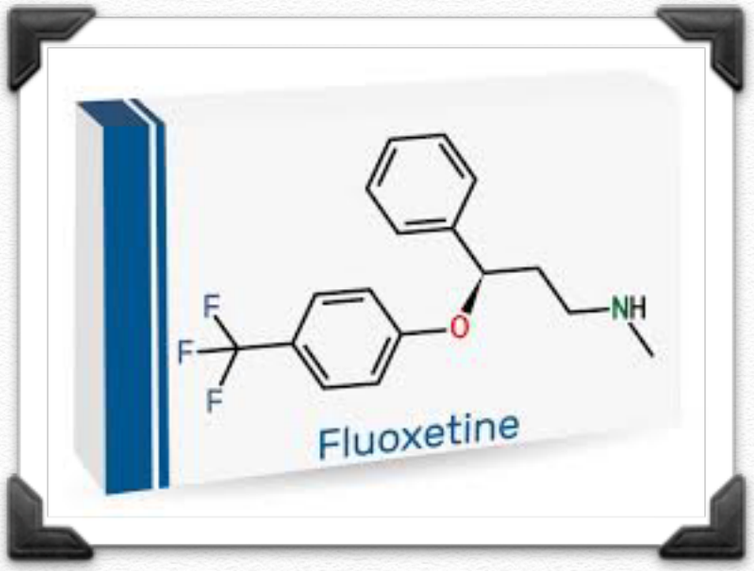
Conservative Bias

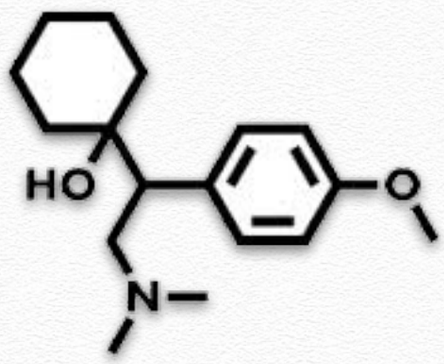
- Some treatment programs may have a conservative bias against certain "novel" medications and reject effective treatments like KAP. It is important for in-patient settings to embrace all treatment options and forms of administration to maximize their clients' healing potential.



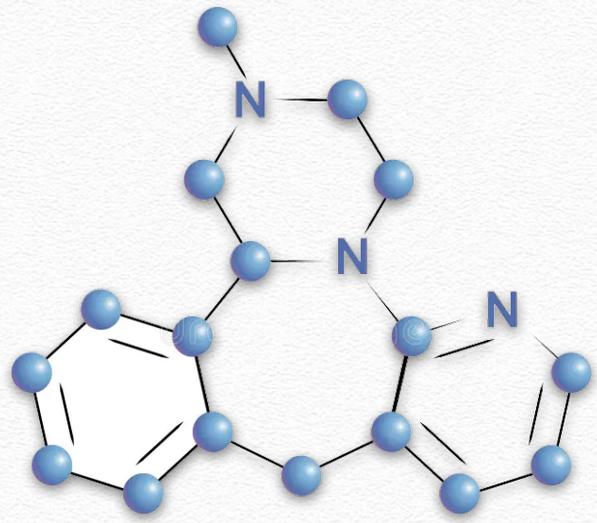
What drugs are prescribed most often and for what symptoms?

In the treatment of TRD, many first-line anti-depressants are used in combination with adjunctive medications that improve their efficacy (Cleveland Clinic, 2023a). According to the Mayo Clinic (2022), first-line anti-depressants include selective serotonin reuptake inhibitors (SSRIs), serotonin and norepinephrine reuptake inhibitors (SNRIs), and atypical anti-depressants.





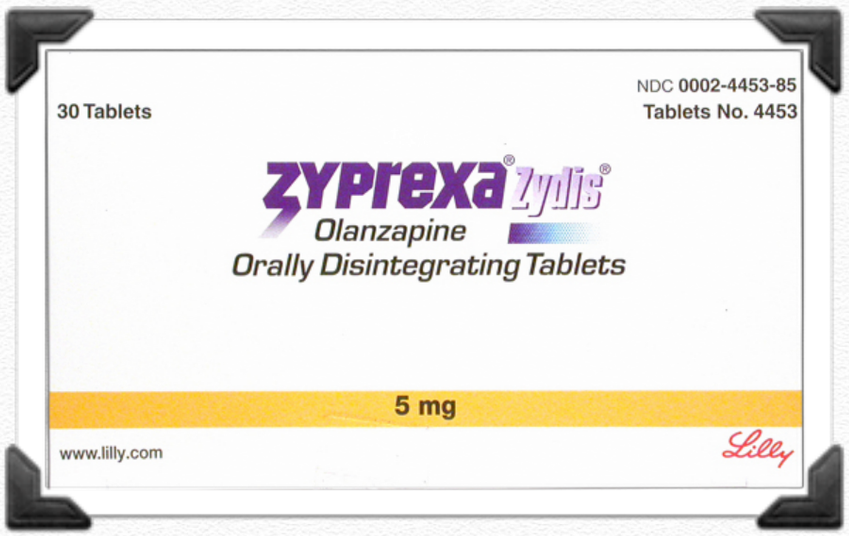
venlafaxine



Mirtazapine

Medication Type	Generic Term(s)	Brand Name(s)	Symptoms Treated/ Mechanism of Action
SSRIs	Fluoxetine Paroxetine Sertraline Citalopram Escitalopram	Prozac Paxil, Pexeva Zoloft Celexa Lexapro	May improve depression symptoms by blocking reuptake and making more serotonin available to help pass messages between brain cells (Mayo Clinic, 2024).
SNRIs	Duloxetine Venlafaxine Desvenlafaxine Levomilnacipran	Cymbalta, Drizalma Sprinkle Effexor XR Pristiq Fetzima	May improve depression symptoms by blocking the reabsorption of serotonin and norepinephrine in the brain, which increases the levels of these neurotransmitters (Mayo Clinic, 2019c).
Atypical Anti-Depressants	Trazodone Mirtazapine Vortioxetine Vilazodone Bupropion	Trazodone Remeron Trintellix Viibryd Forfivo XL, Wellbutrin SR	May improve depression symptoms by changing the levels of one or more neurotransmitters, such as dopamine, serotonin, or norepinephrine (Mayo Clinic, 2019a).

According to the Cleveland Clinic (2023a), the Food and Drug Administration (FDA) has approved 5 anti-depressant medications specifically for TRD. These include: aripiprazole (Abilify®), brexpiprazole (Rexulti®), quetiapine (Seroquel®), olanzapine (Zyprexa®), and esketamine nasal spray (Spravato®).



Medication Type	Generic Term(s)	Brand Name(s)	Symptoms Treated/ Mechanism of Action	Adjunctive Medication To…
3rd-Generation Antipsychotics	Aripiprazole Brexpiprazole	Abilify Rexulti	May improve depression symptoms by affecting serotonin and norepinephrine levels (Cleveland Clinic, 2023a).	N/A
2nd-Generation Antipsychotics	Quetiapine Olanzapine	Seroquel Zyprexa	May improve depression symptoms by affecting dopamine levels (Cleveland Clinic, 2023a).	Quetiapine is FDA-approved when combined with antidepressants for TRD (Cleveland Clinic, 2023a). Olanzapine is FDA-approved when combined with fluoxetine (Prozac) (Cleveland Clinic, 2023a).
Ketamine Derivative	Esketamine	Spravato	Rapid remission of depressive symptoms within 2 hours of administration (Cleveland Clinic, 2023a).	Esketamine is FDA-approved when combined with an oral antidepressant (Cleveland Clinic, 2023a).

According to the Cleveland Clinic (2023a), the following medications may also be used as adjunctive medications when first-line anti-depressants do not manage all of a client's MDD symptoms:

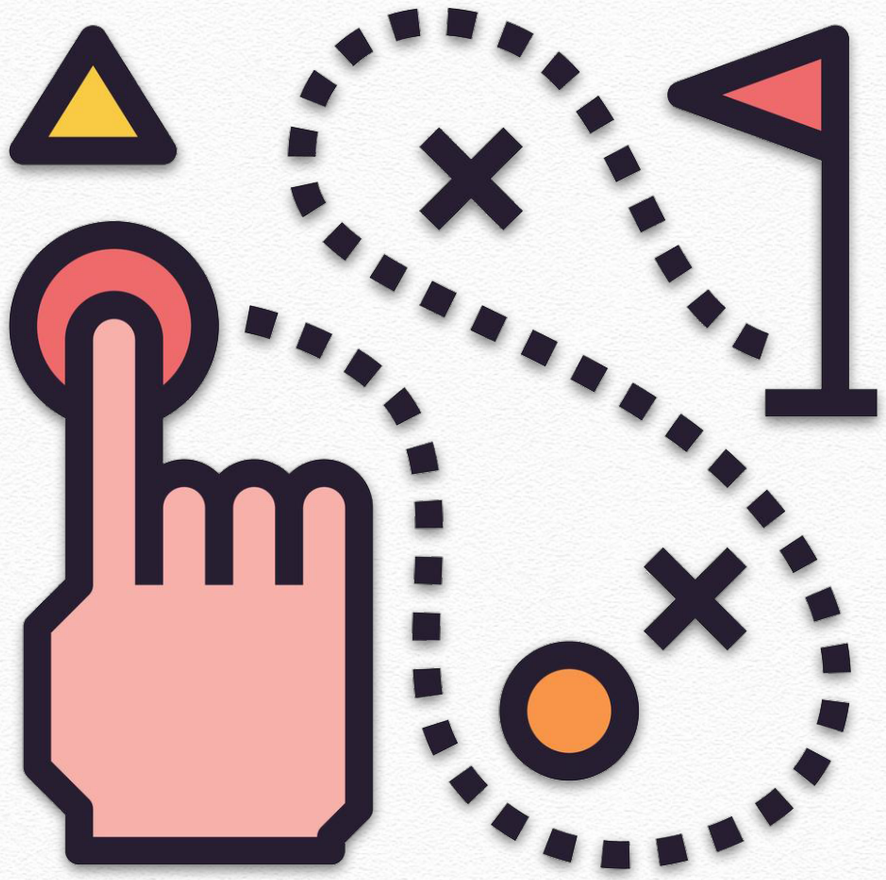
Medication Type	Generic Term(s)	Brand Name(s)	Symptoms Treated/ Mechanism of Action
MAOIs* *Has a higher risk of side effects than first-line anti-depressants.	Tranylcypromine Phenelzine Isocarboxazid Selegiline	Parnate Nardil Marplan Emsam	May improve depression symptoms by inhibiting monoamine oxidase, which results in more available norepinephrine, serotonin, and dopamine. These neurotransmitters effect changes in both cells and circuits that have been impacted by depression (Mayo Clinic, 2019b).
Tricyclic Anti-Depressants* *Has a higher risk of side effects than first-line anti-depressants.	Imipramine and Nortriptyline Amitriptyline, Doxepin, and Desipramine	Pamelor Norpramin	May improve depression symptoms by blocking the reuptake of norepinephrine and serotonin, which increases the levels of these chemicals available to influence mood and behavior (Cleveland Clinic, 2023b).
Dissociative Anesthetic and Atypical Psychedelic (Hallucinogen)	Ketamine	Ketalar	May improve depression symptoms by increasing glutamate receptors in the brain, creating neuroplasticity, and allowing for increased neural connections that positively affect mood (Torrice, 2020). Ketamine may also produce a healing altered state of consciousness or mystical experience.
Classic Psychedelic (Hallucinogen)	Psilocybin	N/A	New studies are showing that 1-2 doses of psilocybin can significantly reduce depression symptoms for 1 month to 1 year (Gukasyan et al., 2022). Psilocybin may also produce a healing altered state of consciousness or mystical experience.

Medication Type	Generic Term(s)	Brand Name(s)	Symptoms Treated/Mechanism of Action
Mood Stabilizer	Lithium	Lithobid	May improve depression symptoms if taken in combination with an SSRI anti-depressant like citalopram (Cleveland Clinic, 2023a). Lithium works by changing the release of chemicals like dopamine or serotonin in the brain. Taking lithium helps one to have more control over their emotions (Health Direct, 2022).
Dopamine Agonist	Pramiprexole	Mirapex	May improve depression symptoms by helping to restore the balance of dopamine in the brain (Cleveland Clinic, 2023a).
Second-Generation Antipsychotic (Dopamine and Serotonin Partial Agonist)	Cariprazine	Vraylar	May improve depression symptoms by helping the brain respond better to dopamine and serotonin, two chemicals in the brain that affect and stabilize mood (Upham, 2023).

According to the Mayo Clinic (2021), the following procedures may also be used as adjunctive treatments when first-line anti-depressants do not manage all of a client's MDD symptoms:

Procedure	Symptoms Treated/Mechanism of Action
Deep Brain Stimulation (DBS)	May improve depression symptoms by delivering a mild electrical current to targeted areas of the brain. The electricity in this current stimulates the brain cells in the respective area, creating neuroplasticity and allowing for increased neural connections that positively affect mood (Voineskos et al., 2020).
Repetitive Trans-cranial Magnetic Stimulation (rTMS)	May improve depression symptoms by delivering electric currents via an electromagnet to stimulate nerve cells in the region of the brain involved in mood control (Mayo Clinic, 2021).
Electroconvulsive Therapy (ECT)	May improve depression symptoms by using a carefully measured dose of electricity to induce a small, brief seizure that causes changes in brain chemistry (Mayo Clinic, 2021).
Vagus Nerve Stimulation (VNS)* *Only used after rTMS and ECT are deemed ineffective.	May improve depression symptoms by stimulating the vagus nerve with electrical impulses. A neck implant sends electrical signals that travel along the vagus nerve to the mood centers of the brain (Mayo Clinic, 2021).

What are some strategies and recommendations for how counselors can engage in collaborative care and support clients in need of referrals to prescribing providers?



“Dynamic Toolbox”
Colored pencil on dot paper
6 in. X 8 in.
2024

- The image of a dynamic toolbox came into my mind when I thought of the collaborator role in the context of psychopharmacology. Medication management is not a panacea; however, it can be a critical element to a client's increased mental health.

- Coordinate care with the client's psychiatrist or prescribing psychologist to assess and attune to their evolving needs. Additionally, track the client's depression scores by administering a PHQ-9 depression questionnaire every 4-6 weeks as they adjust to their new anti-depressant medication(s). This would ensure that the counselor is screening for any major changes in the client's mood or increased self-harm/suicide risk.

- If a client is a suicide risk, create a safety plan with the client and share the plan with their family and other providers.

- Build rapport with the client and make sure all of the other dimensions of healthy living are met (e.g., healthy endocrine levels, pain management, exercise, yoga, meditation, nutrition, sleep…etc.). A deficit or imbalance in one or more of these dimensions can cause or exacerbate depression (Cleveland Clinic, 2023a).

- Healthy interdependent relationships and creative interests that spur curiosity are also a major factor in reducing depression symptoms. Help clients identify what their systems of support are, whether it is family, friends, or community (Cleveland Clinic, 2023a). Connect clients with community resources to make new friends and engage in interests (Cleveland Clinic, 2023a).

- Taking a holistic approach and not competing with other providers to be the client's best treatment modality is key. Sometimes mental healthcare is like the chicken-or-the-egg scenario and we never really know what risk factors came first in a client's life. Whatever the case, it is important to give a client as many tools in their toolkits as possible to address evolving mental health needs.

- Destigmatize hospitalization and the use of psychopharmacological interventions by normalizing them when they become necessary to improve clients' mental health. If we think of mental healthcare as actual healthcare, then continuing to take an SSRI or dissociative psychedelic is no different than someone who regularly takes medication to lower their blood pressure when lifestyle changes are insufficient. Use the phrase, "mental healthcare is healthcare".

- Emphasize clients' underlying strengths and resilience that can arise out of managing mental health challenges.

- Address the shame of a "permanently defective" label that can prevent clients from seeking the help they need to recover and thrive. Empower clients by helping them reframe their shame around taking medications so that they can see it as one of many mental healthcare tools they can control. Use the phrase, "you are not defined by your mental illness".

- Provide psychoeducation to clients for how to apply the medication tool (within the prescribed frequency and avoiding any contraindications) and how much to apply (the dose). This can give them the power and agency to collaboratively track their progress and communicate their needs with the counselor and psychiatrist.

- Explain to clients that most anti-depressants can take 2-8 weeks to begin improving symptoms (Mayo Clinic, 2021). Clients need to be patient and comply with taking the medication long enough to determine its efficacy (Mayo Clinic, 2021). If side effects are intolerable, medication changes can be made (Mayo Clinic, 2021). In cases of TRD, adjunctive medications and procedures can be prescribed (Mayo Clinic, 2021). Once the client has been stabilized on medication, encourage the client to attend regular psychotherapy. Studies show medications are more efficacious in combination with psychotherapy (Kamenov et al., 2017). Integrative care is especially important when psychedelic medicines such as ketamine or psilocybin are indicated (Brown & Arden, 2020). Use the phrase, “no single medication is ever a panacea”.

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