

Finale

MDD-- Monoamine hypothesis of depression, prescribing considerations- the theory is that depression is caused by a deficiency in monoamine neurotransmission. And mania is the opposite - due to an excess of monoamine neurotransmission.

This hasn't really been proven yet, so then the focus shifted to the monoamine receptor hypothesis - that the abnormality of receptors for monoamine NTs cause depression. In that case, the lack of NT causes upregulation of receptors.

Also not proven yet. Right now the focus is on regulation of gene expression, growth factors, environmental factors, and epigenetic changes.

Prescribing considerations

- do not give antidepressants as monotherapy for bipolar - always combine with mood stabilizer. Must rule out mania or hypomania so don't confuse MDD with BPD and induce mania.

Monitor infant irritability when prescribe SNRI for breastfeeding.

Also keep in mind: client preference, prior treatment response, anticipated adverse effects, comorbidities, half life and interactions (if they will forget to take med, choose something longer acting), cost.

Start patient on drug for 4-8 weeks, on lowest recommended dose. If doesn't work, first increase dose, then switch to diff drug in same class and give adequate trial of high enough dose, then switch to a drug in a different class, then add a second med.

For older people - citalopram and escitalopram should be ½ dose, avoid paroxetine if have history of falls, avoid TCAs prescribed with out CNS depressants.

SSRIs what screens should be completed prior to prescribing a SSRI?

- for SNRIs need to check BP before and during treatment.

Which age group is most at risk when prescribed a SSRI? Why? Kids and adults under 25 - increased risk of suicide

Which SSRI has the least CYP interactions - escitalopram (Lexapro).

Good for forgetful people -

fluoxetine (has 2-3 day half life). Also sertraline (27-36 hour ½ life).

Longest acting

fluoxetine has the longest half life 1-2 weeks. When adding or switching antidepressants use caution for 5 weeks after stopping fluoxetine

More likely to cause discontinuation syndrome. - paroxetine

Safe in nursing and pregnancy and breastfeeding sertraline

Contraindicated in pregnancy

paroxetine (risk of atrial septal defect).

Which medications are used as adjuncts?

Bupropion,
Lowest risk of sexual side
effects bupropion, mirtazapine

What is serotonin syndrome

When use two serotonergic drugs together. Symptoms: mental status changes (agitation, hallucinations, delirium, coma), autonomic instability (tachycardia, dizziness, diaphoresis, hyperthermia), neuromuscular symptoms (tremor, rigidity, myoclonus, hyperreflexia, incoordination), seizures, and/or gastrointestinal symptoms (nausea, vomiting, diarrhea).
Treatment - stop med, supportive care, benzos.

MAOIs black box warning

Suicidal ideation in children, adolescents and young adults

MAOI half life

2.4 hours

SSRIs black box warning

suicidal tendencies

MAOIs (monoamine oxidase inhibitors)

Antidepressants drugs that inhibit the enzyme that deactivates dopamine, norepinephrine, and serotonin. MAOIs appear to be most effective for treating non-endogenous and atypical depressions.

Side-effects include anticholinergic effects, insomnia, agitation, confusion, and weight gain. when taken in conjunction with other drugs or foods containing tyramine, they can cause a hypertensive crisis.

- Lithium levels can be increased by nonsteroidal anti-inflammatory drugs (NSAIDs) and angiotensin-converting enzyme (ACE) inhibitors and decreased by caffeine and mania.

Role of L-Methylfolate in depression treatment

is necessary for the synthesis of monoamines. We generally get L-methylfolate from dietary folic acid, but about 50% of people are deficient. There are small studies that say that supplementing L-methylfolate or regular OTC folate may help as adjunctive treatment of depression.

Recommended to try the OTC folate first. Role of L-Methylfolate in depression tx

Suboptimal folate levels in depressed patients (adjunct to antidepressant)

- L-Methylfolate is a bioavailable form of folate
- L-methylfolate, or 6-(S)-5-methyl-tetrahydrofolate, is derived from folate and is the form that enters the brain and works directly as a methyl donor and monoamine synthesis modulator Why is L-Methylfolate recommended as an adjunct in depression?

Treatment with L-methylfolate seems to be safe, has few if any side effects, and is generally less expensive than augmenting with a second branded antidepressant or atypical antipsychotic

Pregnancy

- Paroxetine is contraindicated in pregnancy due to the risk of congenital defects, including atrial septal defects.

Breast Feeding

- Infant irritability should be monitored when SNRIs are prescribed.

Older Adult

- Older adults may not respond to antidepressants as robustly as younger people if the first episode of depression occurs after age 65.
- Citalopram and escitalopram should be dosed at 1/2 dose due to the risk of QTc prolongation.
- 2019 American Geriatric Society (AGS) Beers Criteria include the following recommendations:
- Avoid paroxetine in clients with a history of falls/fractures.
- Avoid tricyclic antidepressants prescribed with other central nervous system (CNS) depressants.

Children

- Antidepressants increase the risk of death by suicide in children and adults younger than 25.
- Mood-stabilizing drugs require baseline and routine laboratory monitoring to help determine medical appropriateness for the initiation of therapy and monitoring of adverse effects.
- Pre-conception and contraceptive counseling should be provided for women of childbearing age. Risk-benefit ratio should be discussed. If a woman is desiring future pregnancy select medications that are not contraindicated in pregnancy.
- The Federal Drug Administration (FDA) requires the product labeling for all antidepressants to contain language about the potential risk of inducing a mood switch to mania.
- Lurasidone (Latuda) should be taken with food, at least 350 calories, for maximum absorption.
- Lithium carbonate (Lithobid) starting dose is reduced by at least 50% in clients with renal impairment.
- Lithium levels can be increased by nonsteroidal anti-inflammatory drugs (NSAIDs) and angiotensin-converting enzyme (ACE) inhibitors and decreased by caffeine and mania.

Pregnancy

- Lithium, valproic acid, and carbamazepine are teratogenic and are contraindicated during pregnancy.
- Lurasidone has been used in pregnancy without teratogenic effects.

Breast Feeding

- Avoid breastfeeding for clients prescribed carbamazepine, lithium, and lamotrigine.

Older Adult

Use caution. Reduced renal and hepatic function may impact metabolism and elimination. Reduce dose as necessary.

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