

### SSRIs- selective serotonin reuptake inhibitors

**Mode of Action** Blocks reuptake of serotonin, makes **MORE** Serotonin available.

**Drugs** Fluoxetine, Sertraline, paroxetine, citalopram, escitalopram

**Side Effects** Sexual Dysfunction (apathy, anorgasmia), GI Dysfunction (N/V)

**SSRIs** First Line in treatment for depression but also **First Line for Suicide**

### NDRI- Norepinephrine Dopamine reuptake inhibitor

**Mode of Action** Blocks reuptake of NE and Dopamine to make **MORE** available.

**Drugs** Bupropion

**Side Effects** SE: Insomnia, anorexia, weightless, tremor.

**Contraindicated with seizure disorders, anorexia/bulimia**

*No serotonergic activities = no sexual dysfunction*

### SNRI- serotonin-norepinephrine reuptake inhibitors

**Mode of action** Increases both Serotonin and Norepinephrine

**Drugs** Venlafaxine, Desvenlafaxine, **Duloxetine**, Levomilnacipran.

**Side Effects** NE (tremors, tachycardia, ED) Serotonin (Sexual dysfunction, GI Dysfunction).

**ALERT** Monitor HTN & Tachycardia (especially Levomilnacipran) due to *greater NE* uptake.

**Duloxetine** used for depression & generalized anxiety disorder, chronic musculoskeletal pain.

### TCAs- Tricyclic Antidepressants

**Mode of Action** blocks reuptake of NE and NE/serotonin, increasing availability

**Drugs** Nortriptyline, Amitriptyline

**Side Effects** SE: (*too many*) but includes sedation, anticholinergic effects, postural hypotension.

Can take longer to reach therapeutic dose (10-14days) and max effect (4-8 weeks).

**TCAs** far more lethal in OD due to cardiac conduction disturbances from increased sodium channel blockade. *was first developed but no longer first choice*

**memory trick** Amy-Trips-on things (sedation, postural hypotension etc)

### NaSSA- Norepinephrine & serotonin specific AntiD

**Mode of Action** increase transmission of serotonin specific antidepressant

**Drugs** Mirtazapine

**Side Effects** SE: Sedation, increased appetite, weight gain.

**Benefits** anti anxiety & antidepressant effects with minimal sexual dysfunction, improved sleep, minimal GI symptoms

### MAOIs- monoamine Oxidase Inhibitors

**Mode of Action** Inhibit the action of **MAO** prevents destruction of **monoamines**

**Action** results in increased levels of neurotransmitters.

**Drugs** Isocarboxazid, Phenelzine

**Side Effects** Consideration: **Tyramine** is a monoamine. If consumed cannot be broken down by liver. If consumed can produce vasoconstriction = increased BP, risk of hypertensive crisis.

### MAOIs- monoamine Oxidase Inhibitors (cont)

**Patient Education** with **MAOIs** give list of food/drugs to avoid/moderation) Foods rich in Tyramine: aged cheeses, anything pickled, smoked fish. Drugs interactions: anything that increases serotonin or epinephrine can increase risk of hypertensive crisis or risk of Serotonin syndrome (dangerous levels of Serotonin).

**Monoamines** are neurotransmitters: NE, Epinephrine, dopamine, serotonin and other foods/drugs.

**MAO** is an enzyme that destroys Monoamines.

Serotonin Syndrome: think hot and sweaty.

