

ANTIDEPRESSANTS: “2ND Generation” Drugs (p. 1)

1. Introduction

these drugs are neither the traditional TCAs (tricyclic antidepressants), nor are they SSRIs or “dual-action” selective reuptake inhibitors

these drugs show **comparable effectiveness to TCAs, MAOIs**

these drugs were developed in the **1970s and 1980s** to improve on the TCAs

like the SSRIs that were developed later, **show fewer, less problematic SEs:**

- less antiACh effects

- less cardiovascular toxicity

- less toxic in OD

- thus, are good for elderly pts. or pts. with cardiovascular risk

most have almost **no risk of orthostatic hypotension**

have different chemical structures vs. the TCAs,

- are heterocyclics (4 & 5 rings)

- are structurally similar to the **BZDs**

- are structurally similar to the **neuroleptics**

some of these drugs **decrease NE reuptake** (NE transporter protein blockers):

- e.g. maprotiline (Ludiomil)

 - nomifensine (Merital)

 - amoxapine (Asendin)

some of these drugs also **block post-synaptic RS for DA...** and thus are useful in treating a pt. with both depression & psychosis

- e.g. Asendin

ANTIDEPRESSANTS: 2nd Generation Drugs (p.2)

2. maprotiline/Ludiomil

is a **SNRI**
as efficacious as imipramine/Tofranil
has a long 1/2 life
can cause seizures (although rare)
does not impair cognitive functions
usually not a first choice drug

3. amoxapine/Asendin

primarily a **SNRI**
as efficacious as imipramine/Tofranil in treating depression
slightly more efficacious than imipramine in treating anxiety & agitation
also blocks post-synaptic DA RSs...similar to neuroleptics/antipsychotics
can have **Parkinson-like SEs (EPSEs)**
good for treating pts. with both depression and psychotic Sxs
very toxic in OD (can cause seizures --- death)
has the highest antiACh effects of all the 2nd generation antidepressants
orthostatic hypotension, sedation

4. trazodone/Desyrel

not an SNRI, not an SSRI
does **block the 5HT₂ RSs**, and --- down regulation of postsynaptic 5HT RSs
relatively long onset of Sx relief, 2 to 5 weeks
SEs: **drowsiness, sedation** (20% of pts.)
priapism (rare, but can have serious consequences)
less antiACh effects
small/moderate impairment of cognitive function
less toxic in OD

5. bupropion/Wellbutrin

blocks the reuptake of DA & of 5HT (no effects on NE), **SDRI**
is a weak DA & 5HT agonist
may also directly stimulate the postsynaptic DA RS

ANTIDEPRESSANTS: 2nd Generation Drugs (p.3)

5. bupropion/Wellbutrin (cont.)

can cause + **psychotic Sxs at high doses...why?**

no orthostatic hypotension

low risk of lethal effects in OD

note: however, **decreases the threshold for seizures**

no impotency SEs, in fact may even facilitate sexual behavior

good for tx of anxiety

SEs: anxiety, insomnia, even PAs in susceptible Ss

dizziness, nausea

headache

also good for tx. of bipolar mood disorder

is also **used to block** (formerly abused) **drug cravings** (e.g. in former smoker)

is called “**Zyban**” when used for that purpose (marketed separately from

“Wellbutrin”)

why would this drug be helpful in this context?...

(6. alprazolam/Xanax)

is a GABA agonist (no effects on NE, 5HT, or DA)

high abuse potential

but does have **some antidepressant effects...**

usually used as an anxiolytic, but might be useful as an augmenting drug in a

pt. with both depression and anxiety