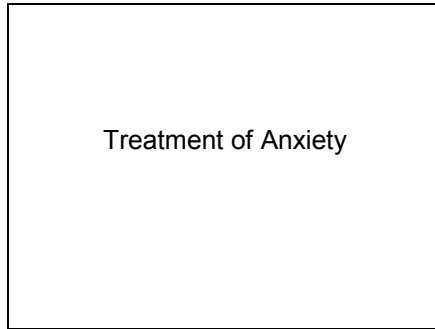


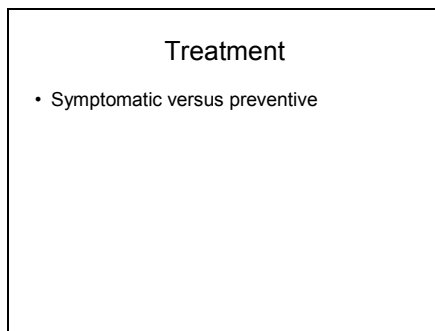
Treatment of Anxiety Disorders.

Bob Boland MD

Slide 1



Slide 2



When considering treatment of anxiety, one first has to consider first the goals of treatment.

Are you trying to alleviate current symptoms of anxiety, or prevent future occurrences?

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Object of Treatment

- Symptomatic
 - Episode
- Preventive
 - Disorder

Your goal will influence the treatment choice, as some treatments are better at one or other goal.

Often misunderstandings occur between the doctor and patient, or between different members of the treatment team because the goals are not clear.

Neither goal is inherently “more correct.” If a person is having a current episode of anxiety they are not going to be interested in talking about prevention—they want relief.

Some clinicians value one approach over another, but these should be recognized for what they are: individual values. From a clinical scientific point of view each approach has its benefits and risks.

Slide 4

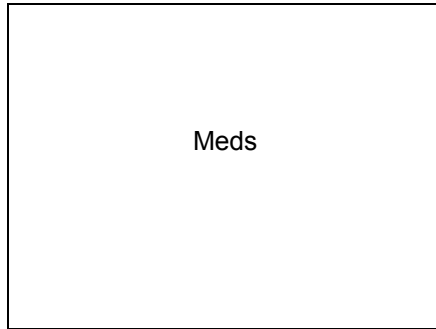
To Cover

- Medications
- Psychotherapy

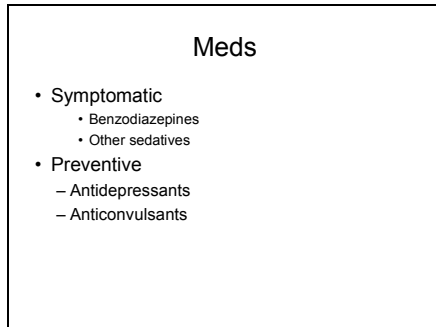
I know we’ve been covering mostly medications for treatment, but I did want to say something about psychotherapy as well as this being an area of exciting research and in many cases the therapies are equally or more effective than medications.

Note that whether we use meds or therapy the discussion about symptomatic treatment remains—there are symptomatic and preventive approaches in both cases.

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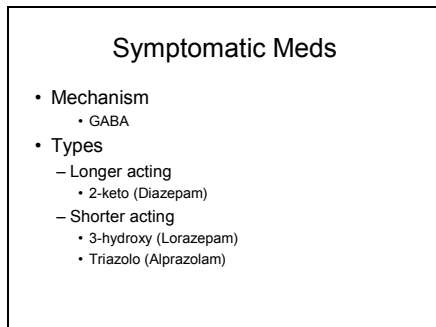


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The most common medications used for anxiety are the antidepressants and/or sedative hypnotics.

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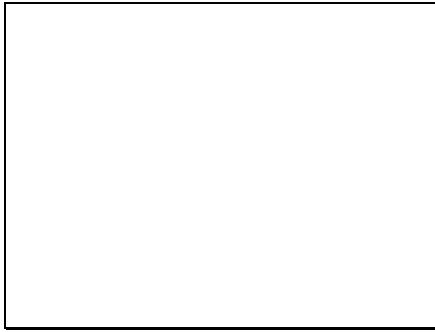


There are three classes of benzodiazepines: 2-keto, 3-hydroxy, and triazolo. 2-keto drugs include chlordiazepoxide, diazepam, prazepam, clorazepate, halazepam, clonazepam, and flurazepam. Many of these are pro-drugs; they are oxidized in the liver (usually to active metabolites). They therefore tend to have long half-lives and are more susceptible to drug interactions and age effects. The 3-hydroxy drugs include oxazepam, lorazepam, and temezepam. These are conjugated in the liver (to inactive substances); thus, they have shorter half-lives, and are less affected by age and other drugs. The triazolo class includes alprazolam, triazolam and adinazolam. These are oxidized, but with more limited active

The Treatment of Anxiety Disorders

metabolites. Thus, they are somewhat shorter-acting than the 2-keto drugs. The mechanism of action relates to specific receptors on GABA receptors.

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Film—action of drug at the benzo site

The mechanism of action for benzodiazepines is potentiation of GABA action at GABA-A receptors in the CNS. Benzodiazepines increase the affinity of GABA for its receptor, and can potentiate the increase in chloride permeability (and hyperpolarization) of the target neurons normally produced by GABA.

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Symptomatic Treatment

- Pro's
 - Effective
 - Short acting (PRN use)

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Symptomatic Treatment

- Con's
 - Side effects
 - Tolerance
 - Withdrawal

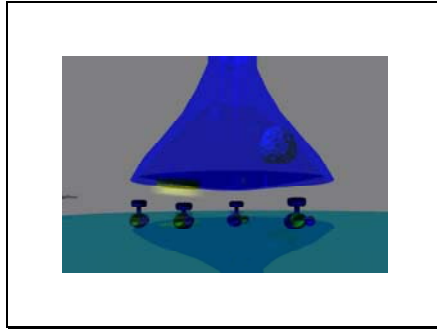
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Preventive Treatment

- Antidepressants
- Anticonvulsants
- Action
 - Indirect modulation

Antidepressants have gradually replaced sedative hypnotics for the first line of treatment of many anxiety disorders. Several studies show antidepressants to be as effective as benzodiazepines for a variety of anxiety disorders (e.g., fluoxetine [Prozac] compared favorably against alprazolam [Xanax] for panic disorder). Their mechanism of action in treating anxiety is presumed to be similar to that for their antidepressant effect. This presumption is reasonable, as monoamines exert a modulatory influence on most other neurotransmitters in the brain, including GABA. However, antidepressants are used preventively, on an every day basis. They are not effective in “as needed” dosing, and thus are not appropriate for short-term anxiety, or for quick relief of acute anxiety.

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Action of SSRIs

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Preventive Treatment

- Pro's
 - Effective prevention
 - Reduces
 - # episodes
 - Length
 - Severity
 - No tolerance or withdrawal

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Preventive Treatment

- Con's
 - Long acting
 - Require daily use
 - No prn usage

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In practice...

- Often use combinations

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Other Somatic Treatments

- HT_{1A} agonists (Buspirone)
 - GAD (maybe)
 - NOT panic
 - NOT benzo replacement
- β Blockers
 - Social anxiety?
- Neurosurgery
 - Ex. OCD

5-HT_{1A} Agonists

Buspirone is a novel agent, in the class of drugs called azaspirones. Buspirone's mechanism of action is very complex and, so far, it is not totally elucidated. Several different neuropharmacologic processes can be involved. Buspirone has an affinity for 5-HT_{1A} - receptors, moderate affinity for DA₂-receptors, and weak affinity for 5-HT₂-receptors but no affinity for the benzodiazepine receptor complex (on the GABA receptor) in vitro. It is not useful for panic or other acute anxiety syndromes, but it may be **useful for generalized anxiety disorder**. It works like an antidepressant; in other words, it requires regular dosing and takes several weeks to work. There is little abuse potential and few side effects. Buspirone lacks the benzodiazepines' sedative, muscle relaxant, or anticonvulsant actions, and has no ability to affect benzodiazepine withdrawal symptoms. It is also surprisingly free of significant drug-drug interactions. However, it is not widely used; this means either that the drug isn't as effective in clinical situation than in "ideal" drug marketing studies, or that the patients who are most likely to benefit may not be the complicated anxiety disorders seen by psychiatrists. Thus, there is a bias against the drug.

Other novel treatments include β antagonists ("beta blockers") for social phobias and *neurosurgery* for OCD.

β antagonists (e.g. propranolol) are used especially for treatment of physical symptoms such as tremor and tachycardia. (Note: epinephrine can cause skeletal muscle twitch via β 2 agonist effects; this would be blocked by propranolol).

For more on **neurosurgery**, see the chapter on OCD.

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Psychotherapy

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Symptomatic

- Goal: stop attack
- Ex. Relaxation therapies
 - Deep breathing
 - Progressive muscle relaxation

Psychotherapies have been greatly successful for many of the anxiety disorders, sometimes more so than somatic treatments.

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Preventive Psychotherapies

- Goal: prevent attacks/disorder
- Ex. Cognitive behavioral therapy (CBT)

. An example of a well-studied effective treatment for anxiety is **cognitive behavioral treatment (CBT)**.

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CBT for Panic Disorder

- Psychoeducation
- Continuous panic monitoring
- Breathing retraining
- Cognitive restructuring
- Exposure to fear cues

CBT is based on learning theory; the idea is that people learn to develop automatic responses of fear or dread in relation to a stimulus. What is learned can be unlearned, and much of CBT is spent teaching the patient to tolerate the triggers of anxiety. In the case of phobias, the triggers are clear; in the case of panic disorder, the trigger is, in a sense, the anxiety itself, and the patient learns to tolerate their anxiety. This treatment may be the only thing that helps agoraphobia if it is associated with the panic (which, otherwise, often persists long after medications have prevented the panic).

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Psychoeducation

- 1-2 session
 - didactic
- Identify/ name sx's
- Explain basis of sx's
- Outline plan for tx

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Continuous Panic Monitoring

- Ex. diaries
- Monitor
 - Attacks
 - Cognitions
 - Events
- Helps to
 - Assess problem
 - Find associations

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Breathing Retraining

- Ex. abdominal breathing
- to control physiologic reactivity.
- Practice daily.

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Cognitive Restructuring

- Identify and counter fear of bodily sensations
- Decrease catastrophizing
- Realistic assessment of likely outcomes
- Socratic method

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Exposure to Fear Cues

- Hierarchy of fear-inducing situations
- Systematic desensitization
- Can be imaginal or natural setting (ex. for agoraphobia)

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Also use combinations