



Pharmacological Treatment of Acute Stress Reactions and PTSD

Although most disaster survivors will experience common stress reactions after a traumatic event, a minority will develop psychiatric conditions, most notably posttraumatic stress disorder (PTSD) and depression. In these cases both psychosocial and pharmacological treatment may be warranted. This fact sheet addresses pharmacological treatment, see Psychosocial Treatment of Disaster Related Mental Health Problems: A Fact Sheet for Providers for more on psychosocial interventions.

Who should receive pharmacological treatment?

Pharmacological treatment for acute traumatic stress reactions (within one month of the trauma) is generally reserved for individuals who already have received a brief individual or group intervention. If these approaches are ineffective, clinicians should consider pharmacotherapy. To date there have been very few controlled pharmacological treatment trials for acute stress reactions. Consequently, the present recommendations are based on research and anecdotal reports concerning postdisaster insomnia, anxiety, and depression, as well as anecdotal evidence. Furthermore, there are no FDA approved medications for acute stress reactions and the only FDA approved medications for PTSD are sertraline and paroxetine.

Prior to receiving medication, the trauma survivor should have a thorough psychiatric and medical examination. Ongoing medical conditions, psychiatric diagnoses, current medications, and possible drug allergies should be assessed. In addition, clinicians should ask questions regarding alcohol, marijuana, and other drugs since these substances may interact with prescribed medications and may complicate an individual's psychological and physiological response to the trauma. For individuals with medical and/or surgical concerns, a clinician may need to take special precautions when prescribing psychotropic medications. It is also extremely important to consider possible drug interactions for individuals who are taking other prescribed or over-the-counter medications.

When should pharmacological treatment begin?

In some cases, a clinician may need to prescribe psychotropic medications even before he or she has completed the medical and psychiatric evaluation. The acute use of medications may be necessary when the survivor is dangerous, extremely agitated, or psychotic. In such circumstances, the individual should be taken to an emergency room. In the emergency room, short-acting benzodiazepines (e.g. lorazepam) or high potency neuroleptics (e.g. haldol) with minimal sedative, anticholinergic, and orthostatic side effects may prove effective. Atypical neuroleptics (e.g. risperidone), at relatively low doses, may also be useful in treating impulsive aggression.

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After a disaster, some survivors experience extreme and persistent arousal in the form of anxiety, panic, hyper-vigilance, irritability, and insomnia. Empirical research has shown that hyper-arousal during the

first few weeks following trauma is a risk factor for the development of PTSD. Techniques to reduce arousal include relaxation and breathing exercises, utilizing social supports, psychotherapy, and pharmacotherapy. Pharmacological agents for the treatment of trauma-related arousal include antiadrenergic agents such as clonidine, guanfacine, prazosin, and propranolol. Brief (but not sustained) treatment with benzodiazepines may be helpful.

What pharmacological agents should clinicians prescribe?

At this point, there are no recommendations regarding the usefulness of adrenergic agonists to prevent or ameliorate PTSD.

1. Prazosin (a post-synaptic alpha-1 antagonist) is recommended for treatment of traumatic nightmares but not for the full PTSD syndrome (where findings have been mixed).
2. Propranolol (a post-synaptic beta antagonist) has not been shown to prevent the later development of PTSD when administered shortly after trauma exposure (for example in emergency rooms).
3. Guanfacine (a pre-synaptic alpha-2 agonist) has been shown to be no better than placebo in randomized trials with veterans with chronic PTSD.
4. Clonidine (also an alpha-1 agonist) has not been tested in any randomized trials, to date.

In addition to lack of proven efficacy, all of these medications should be prescribed judiciously for patients with cardiovascular disease because these medications may reduce blood pressure. In addition, clonidine may induce rebound hypertension if the client's blood levels fall due to infrequent dosing or a sudden discontinuation. Furthermore, these agents should not be prescribed to persons with diabetes as they may interfere with counterregulatory hormone responses to hypoglycemia.

Benzodiazepines are useful because they are effective and fast acting. In recent-trauma survivors, benzodiazepines can reduce anxiety and arousal and improve sleep. However, prolonged use may not be effective. In a study of trauma survivors with acute stress disorders (i.e., occurring 1-3 months after the trauma), the short-term use of benzodiazepines for sleep was associated with an acute reduction in posttraumatic stress symptoms (Mellman et al., 1998). However, another study found that the early and more prolonged use of benzodiazepines was actually associated with a higher rate of subsequent PTSD (Gelpin et al., 1996). It is recommended that benzodiazepines be used to treat extreme arousal, insomnia, and anxiety, but their use should be time limited. Other pharmacological agents may also be helpful in treating insomnia in persons suffering from acute traumatic stress. Low doses of trazadone, nefazadone, and amitriptyline are possible choices.