**PTSD Treatment Options**

Clinicians have several treatment options to consider for the treatment of posttraumatic stress disorder (PTSD) in military members. In addition to considerations of effectiveness, clinicians should consider access to services, availability, training, and patient preferences when choosing an evidence-based treatment option.

**Prevention**

Early intervention after exposure to trauma may prevent the development of PTSD. Evidence indicates that brief (four to five sessions) cognitive-behavioral therapy (CBT) that includes an exposure-based therapy component may help prevent PTSD. Group interventions for trauma-related psychosocial and social support may also provide a benefit. Importantly, there is no known benefit to prophylactic medication or group psychological debriefing following a trauma. Evidence suggests that benzodiazepines, routine psychopharmacology in individuals without symptoms, and individual psychological debriefing may actually cause harm.

**Treatment Options for PTSD**

The first line of treatment for PTSD should include an evidence-based psychotherapy (i.e., talk therapy) and/or psychopharmacology. The psychotherapies with the most evidence typically include one or more of several productive therapeutic approaches including exposure to traumatic memories, stimuli, or situations, cognitive restructuring of trauma-related beliefs, and stress reduction techniques. The table below summarizes effective PTSD psychotherapy approaches detailed in the Department of Veterans Affairs and Department of Defense (VA/DoD) clinical practice guidelines. These treatments should be considered the first line of treatment for patients with PTSD. Note that these approaches are non-exclusive and similar techniques are often used in more than one approach. Providers should choose the appropriate training prior to delivering PTSD psychotherapies.

<table>
<thead>
<tr>
<th>Therapy Approach</th>
<th>Therapeutic Elements</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Exposure-based Therapies</td>
<td>Includes in-vivo, imaginal, or narrative (oral and/or written) exposure to traumatic memories, situations, or stimuli. These therapies also generally include elements of cognitive restructuring (e.g., evaluating the accuracy of beliefs about danger) as well as relaxation techniques.</td>
<td>Prolonged Exposure Therapy Brief Eclectic Psychotherapy Narrative Therapy</td>
</tr>
<tr>
<td>Cognitive-based Therapies</td>
<td>Emphasizes cognitive restructuring strategies including challenging beliefs connected to the traumatic event. Also includes relaxation techniques and discussion of the traumatic event either orally or through writing.</td>
<td>Cognitive Processing Therapy Cognitive Therapy</td>
</tr>
<tr>
<td>Stress Inoculation Training</td>
<td>Especially emphasizes breathing retraining and muscle relaxation. May also include cognitive approaches and exposure techniques.</td>
<td>Stress Inoculation Training</td>
</tr>
<tr>
<td>Eye Movement Desensitization and Reprocessing</td>
<td>Typically includes alternating eye movements, exposure elements (e.g., holding distressing traumatic memories in mind without verbalizing them) cognitive approaches (e.g., identifying a negative cognition, an alternative positive cognition, and assessing the validity of the cognition), and relaxation/self-monitoring techniques (e.g., “body scan”).</td>
<td>Eye Movement Desensitization and Reprocessing Therapy</td>
</tr>
</tbody>
</table>

**Additional Therapies**

Imagery Rehearsal Therapy is an effective approach for reducing nightmares in patients with PTSD. Cognitive behavioral therapy (CBT) for insomnia is a very effective approach for treating sleep problems and may be considered for PTSD patients who present with sleep difficulties. Research suggests that group therapies, such as CBT group therapy, can improve PTSD symptoms. There is insufficient evidence to recommend family or couples therapy as a first-line treatment for PTSD, but family and couples therapy should be considered to treat family disruptions caused by PTSD symptoms. Although CBT techniques are used in several productive treatment approaches, CBT that does not focus on a target trauma is not an effective treatment for PTSD. Currently, the research does not provide evidence that dialectical behavior therapy is effective to treat PTSD.

**Pharmacological Treatment Options**

Medications can help address PTSD symptoms, as well as treat related co-morbid diagnoses. The clinician should consider the evidence when prescribing PTSD medications. It is important to remember that marketing messages, patient preferences, and clinical customs may not be consistent with the evidence base. As a rule, an initial pharmacological approach should include a first-line monotherapy trial before proceeding to subsequent strategies. Providers should allow sufficient time for response (at least eight weeks) and monitor the patient for outcomes and side effects. Adherence is critical to pharmacological treatment success and providers should communicate therapy expectations, side effects, and information for contacting the provider with questions or concerns in order to improve adherence.

Currently, the evidence base is strongest for the selective serotonin reuptake inhibitors (SSRIs), often used to treat depression. The Federal Drug Administration approved two SSRIs (sertraline and paroxetine) to treat PTSD, but strong evidence also supports off-label use of the SSRI fluoxetine as a...
first line treatment. The acetonin acetylcholin esterase inhibitor (SNRI) venlafaxine has received strong research support for the treatment of PTSD and providers can consider it as a first line treatment. See the table below for a list of preferred initial treatments for PTSD. Note that although SSRIs should typically be the preferred initial class of medication for PTSD patients, providers should consider a patient's response or side effect history, as well as comorbidities, when choosing medication and dosage. Providers should tailor medication choices to the individual patient. As an example, SSRIs increase the risk of precipitating a manic episode in patients with comorbid bipolar disorder.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Class</th>
<th>Typical Dosage Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sertraline (Zoloft)</td>
<td>SSRI</td>
<td>50 mg – 200 mg daily</td>
</tr>
<tr>
<td>Paroxetine (Paxil)</td>
<td>SSRI</td>
<td>20 mg – 60 mg daily</td>
</tr>
<tr>
<td>Fluoxetine (Prozac)</td>
<td>SSRI</td>
<td>20 mg – 60 mg daily</td>
</tr>
<tr>
<td>Venlafaxine (Effexor)</td>
<td>SNRI</td>
<td>75 mg – 300 mg daily</td>
</tr>
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</table>

Additional Pharmacological Options

In addition to the antidepressants discussed as first line treatments, other antidepressants may be considered in the treatment of PTSD. Mirtazapine has received some research support and may be particularly helpful for treatment of insomnia in PTSD. Trazodone is also used to treat insomnia in PTSD, although the evidence does not currently support its use. Nefazodone may be considered, but it contains a black-box warning regarding liver failure and thus requires liver function tests and precautions as recommended in the medication’s prescribing information. All of the antidepressants discussed thus far are effective treatments for major depressive disorder comorbid with PTSD.

Research supports the use of a number of additional medications as adjunctive treatments or as second-line treatment options. Prazosin, an antihypertensive, is effective in decreasing nightmares in PTSD and may be considered as an adjunctive treatment. More research is needed to determine if prazosin is effective for the treatment of other PTSD symptoms. There is research supporting tricyclic antidepressants and monoamine oxidase inhibitors (first type of antidepressant developed) for the treatment of PTSD, but these medications should not be used as a first-line treatment because of their safety and side effect profiles.

Research has generally not supported the use of mood stabilizers in the treatment of PTSD. There is some evidence supporting the use of topiramate, but the current VA/DoD guidelines list topiramate as having no benefit for the treatment of PTSD. Topiramate may be an option for patients who fail first-line pharmacotherapy. Mood stabilizers are helpful in treating comorbid bipolar disorder and PTSD, particularly when considering that SSRI and other antidepressants may precipitate a manic episode in patients with bipolar disorders. Examples of mood stabilizers that may be considered for the treatment of comorbid bipolar disorder and PTSD are carbamazepine, divalproex, lamotrigine, and topiramate. Importantly, drugs in this class often require regular lab work and/or must be titrated slowly. Providers, and patients, should take care to follow package insert instructions to avoid potentially serious side effects.

There is some evidence that atypical antipsychotics are useful in alleviating psychotic symptoms in PTSD patients. However, recent evidence suggests that atypical antipsychotics are not useful for treating PTSD symptoms. Current VA/DoD PTSD clinical practice guidelines advise against the use of atypical antipsychotics as monotherapy for PTSD or as adjunctive agents for the treatment of PTSD. Similarly, research suggests that benzodiazepines are not useful in the treatment of PTSD symptoms and may interfere with PTSD treatment. Benzodiazepines also have potential for addiction. Patients with PTSD should use benzodiazepines with great caution.

Complementary and Alternative Medicine

Complementary and alternative medicine (CAM) approaches are often considered alternative to typical medical practices. Acupuncture is often considered a CAM treatment. There is some evidence that acupuncture may improve PTSD symptoms and acupuncture may be considered a treatment for patients with PTSD. Broadly, other forms of CAM include natural products, mind-body medicine, body manipulation and movement techniques, and energy techniques. Overall, there is insufficient evidence to recommend CAM approaches as a first line of treatment for PTSD.

Several CAM approaches, such as mindfulness and yoga, are similar to traditional medical relaxation techniques and may be considered as adjunctive treatment of hyperarousal symptoms, although the relative effectiveness of these treatments is unknown. CAM approaches may be considered for patients who refuse other treatments, but providers should consider the risks of CAM approaches and keep in mind that treatments that have a limited evidence base for effectiveness also have a limited evidence base for potential harm and side effects.

Guidelines and Resources

The Defense Department collaborated with the VA to develop an evidence-based guideline to assist health professionals with the management of post-traumatic stress.

"PTSD 101," made available by the VA National Center for PTSD, is a Web-based educational resource designed for practitioners who provide services to military men and women and their families as they recover from combat stress or other traumatic events.

Additional Resources

Center for the Study of Traumatic Stress

National Center for PTSD, Mental Health Care Providers

National Institute on Drug Abuse, “Comorbiddity: Addiction and Other Mental Illnesses”

National Center for PTSD Clinicians Guide to Medications for PTSD

PTSD Fact Sheet (April 2014; PDF)