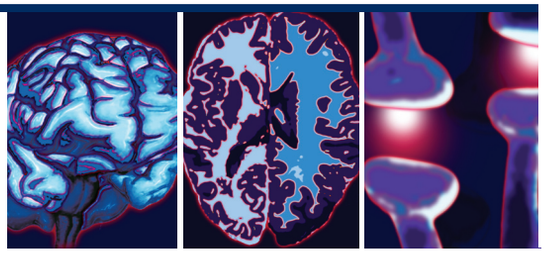

How best to treat post-traumatic stress disorder

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Q What diagnostic work-up is required before initiating treatment for post-traumatic stress disorder?

The current diagnostic criteria for post-traumatic stress disorder (PTSD) define the traumatic event coupled with three major symptom clusters. The traumatic stress (criterion A) notes that the person has been exposed to a traumatic event in which they witnessed or experienced an event that involved actual or threatened death or injury, or a threat to their physical integrity. The individual's response to the event involves intense fear, helplessness or horror. The re-experiencing symptoms (criterion B) characterize ways in which the individual relives the event and are considered the unique and defining symptoms of the disorder. Examples of these symptoms include nightmares, intrusive recollections or flashbacks. The criterion C symptoms involve avoidance of reminders of the traumatic event. These symptoms contribute to much of the functional disability of PTSD. Criterion D symptoms involve increased arousal such as hyper-vigilance, exaggerated startle responses, irritability, difficulty concentrating and insomnia. The symptoms should have a duration of at least 1 month and cause significant distress or impairment [1]. PTSD is considered chronic if the symptoms are present for at least 6 months. The prevalence of PTSD is approximately 7% in the US population [2].

It is evident from these symptoms that there may be significant overlap with other anxiety syndromes as well as mood disorders. For example, intrusive memories are similar to intrusive thoughts in obsessive–compulsive disorder, flashbacks include symptoms of panic attacks and often have a similar duration, avoidance symptoms are similar to phobic disorders, and hyper-arousal symptoms are similar

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to generalized anxiety disorder symptoms. There is also an overlap with major depression symptoms, such as irritability, insomnia, difficulty concentrating and decreased interest. Dissociative disorder symptoms may occur in the context of flashbacks. Psychotic symptoms (e.g., hallucinations) may also occur during flashback episodes. Therefore, it is critical when evaluating a patient with any anxiety or mood disorder symptoms to inquire about a trauma history. Substance use disorders are highly prevalent in the PTSD population [3,4]. The early detection and treatment of these disorders is imperative for a successful outcome.

The history of exposure to trauma and the development of subsequent characteristic PTSD symptoms is key to the diagnosis. As with all psychiatric disorders, it is important to rule out an underlying medical disorder, such as endocrine or cardiovascular disorder. It is imperative that the patient has had a recent physical and neurological examination with laboratory studies as indicated. It is also important to evaluate for common comorbid diagnoses such as major depression, bipolar disorder and substance use disorders. Last, surveys in primary care settings have suggested relatively high rates of PTSD but low rates of recognition and treatment [5]. Therefore, it is important to inquire about exposure to traumatic events when evaluating patients in these settings.

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Q How soon after initiating pharmacologic treatment should this be reviewed? What are the most common scenarios encountered at this stage of treatment?

The first-line or mainstay treatments for PTSD are considered the selective serotonin reuptake inhibitor (SSRI) antidepressants. Efficacy for two of these agents, sertraline and paroxetine, was established in US FDA regulatory trials [6,7]. Current consensus suggests that a trial length of at least 12 weeks at the maximum tolerated dose of an antidepressant is best to discern treatment response. Patients should be monitored on a weekly basis during initiation of treatment. Common side effects encountered early in treatment with an SSRI include anxiety or activation, nausea, headaches and sexual dysfunction. It is important to discuss the potential for these side effects prior to the initiation of treatment in order to facilitate adherence. Alternative antidepressants include other antidepressants such as citalopram, escitalopram, fluoxetine, nefazodone, trazodone, mirtazapine, venlafaxine and others. These antidepressants should be considered if one of the FDA-approved agents is not effective.

The goal of antidepressant treatment is to facilitate global PTSD symptom reduction and to treat commonly associated morbidities such as major depression. For treatment of refractory PTSD, a growing body of literature suggests that the addition of other classes of psychotropic agents may facilitate responses [8]. These include atypical antipsychotics, mood stabilizers, such as lamotrigine, and certain agents to facilitate sleep. The latter include prazosin, which has been demonstrated to be especially useful in targeting nightmares [9] as well as other core PTSD symptoms. More extensive research is now being conducted regarding the optimal doses of prazosin and the efficacy of the combination of prazosin with antidepressant medications.

Q Following a decision to continue treatment, when and how should treatment be monitored?

Treatment should be monitored at least on a monthly basis. Longer term studies (e.g., with fluoxetine) suggest that antidepressants remain effective beyond the customary trial period. It is important to keep in mind that subsequent stressors may result in an exacerbation of symptoms. For this reason, there is increasing interest in the ability of antidepressants to facilitate resilience in the individual to later stressors [10]. Adherence to medication is greatly enhanced by ongoing education of not only the patient but also, with permission, family members and significant others. The potential side effects should always be monitored. In addition to those noted above, these include weight gain and CNS side effects, such as sedation or cognitive dysfunction. Prazosin requires monitoring for blood pressure (hypotensive) effects.

The use of mood stabilizers may require close monitoring for blood levels and possible blood cell abnormalities or hepatic effects. If atypical antipsychotics are used for treatment refractory symptoms or for psychosis, close attention should be paid to extrapyramidal side effects or for metabolic effects such as weight gain, dyslipidemias and glycemic effects. These agents require more frequent laboratory monitoring during the first year of therapy, usually on at least a quarterly basis.

Q What factors should be considered when initiating nonpharmacologic treatments?

First of all, certain psychotherapies have a strong empiric basis for being considered as first-line treatments [11]. Prolonged exposure therapy may be especially effective but other types of cognitive behavioral treatments have demonstrated efficacy. Prolonged exposure involves four components: education about PTSD and the treatment approach; relaxation training; *in vivo* exposure to traumatic stimuli; and repeated imaginal exposure with the therapist. Optimizing treatment with these therapies is ideal to help with a more complete response. However, cost, availability of appropriately trained therapists, and other factors may limit the use of these therapies. It is important for the field to increase the availability of these therapies. Additional important modalities to consider include family and group therapy. PTSD does not exist in a vacuum for the individual patient, there is often a ripple effect on others including family members. Family therapy, therefore, is useful for enhancing support systems for the patient. Group therapies also facilitate this. There have also been specialized groups developed for PTSD treatment including nightmare groups, anger management groups, and mindfulness-based stress-reduction, as examples. To help with outreach for patients who have difficulty with access to care, telepsychiatry is increasingly having a role. Occupational and recreational therapies may play an important role depending on the individual patient's needs. The availability of a specialized PTSD program is helpful to integrate all of these treatment approaches.

Q What factors would lead you to terminate treatment for PTSD?

Post-traumatic stress disorder is for most patients a chronic illness. In light of this, most patients will benefit from ongoing treatment, at least with antidepressant medication and supportive therapy. Continuation of therapy should be considered for at least 1 year. After this, gradual taper and discontinuation of the antidepressant may be considered while carefully monitoring for recurrent illness. Ongoing psychoeducation and supportive therapy is especially crucial if treatment is to be terminated. The patient should have ready availability of resources to access if there is recurrent illness. Finally, a number of current practice guidelines exist for PTSD treatment. It is useful for the clinician to have a working knowledge of these guidelines, which are applicable to both pharmacological and psychotherapeutic approaches [11].

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