Bottom Line

Regarding Preventive Approaches

The BAP, WHO, and VA/DoD guidelines have recommendations for prevention of PTSD in individuals who have been recently exposed to traumatic events, and these recommendations may be relevant to the treatment of CIS.

Preventive treatment with propranolol or sertraline and trauma-focused cognitive behavioural therapy are recommended for early intervention to prevent PTSD after a potential traumatic event. Relaxation techniques and advice about sleep hygiene are also recommended for patients with acute insomnia.

Regarding Treatment Approaches

Selective serotonin reuptake inhibitors (SSRIs; fluoxetine, paroxetine, and sertraline) and serotonin norepinephrine reuptake inhibitors (SNRIs; venlafaxine) are recommended as first-line pharmacological treatment of PTSD, while cognitive behavioural therapy, stress management therapy, and eye movement desensitization and reprocessing are recommended as psychological approaches for PTSD. One guideline[3] did not recommend the combination of drug and psychological approaches as initial treatment for PTSD, while the rest of the guidelines did not mention combination therapy.

There are no guidelines that have specific recommendations for OSI or CIS.

References

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ABOUT CADTH

CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs and medical devices in our health care system.

CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

Ce document est également disponible en français.

October 2015

CADTH Evidence Driven.

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Treatment for Post-Traumatic Stress Disorder, Operational Stress Injury, or Critical Incident Stress: **A Summary of Clinical Practice Guidelines**

Anyone can be negatively affected by exposure to a traumatic event. Members of the armed forces, as well as first responders (i.e., police, firefighters, and emergency workers), experience more frequent exposure to such events because intense combat, emergency situations, and other traumatic events are part of their duties and work experience.

In the context of military operations, stress reactions experienced by members of the armed forces are also known as operational stress injuries (OSI). Critical incident stress (CIS) refers to stress reactions associated with critical incidents often encountered by emergency workers and first responders. Symptoms of OSI and CIS can manifest in multiple ways, including fatigue, poor attention and concentration, anger, guilt, depression, chronic anxiety, increased alcohol consumption, and other physical, cognitive, emotional, and behavioural conditions.

Post-traumatic stress disorder, also known as PTSD, is a common symptom of OSI and CIS. Unlike OSI and CIS, which are non-medical terms describing a cluster of symptoms, PTSD is a diagnosable mental health condition.

CADTH has reviewed available clinical practice guidelines regarding the treatment for PTSD, OSI, or CIS.[1] As no evidence-based guidelines were identified for the treatment of patients with OSI or CIS, the reports included in this review present guidelines and recommendations for the treatment of individuals with PTSD.

The clinical practice guideline groups included in this summary are the Canadian Anxiety Guidelines Initiative Group (CAGIG) (2014);[2] British Association for Psychopharmacology (BAP) (2014);[3] World Health Organization (WHO) (2013);[4] US Veterans Health Administration, Department of Defense (VA/DoD) (2010);[5] American Academy of Sleep Medicine (AASM) (2010);[6] and the World Federation of Societies of Biological Psychiatry (WFSBP) (2008).[7]

Recommendations Summarized

Drug treatment options (prevention and treatment)

Psychological treatment options (prevention and treatment)

Alternative and complementary treatment options (prevention and treatment).

Table 1: Summary of Evidence-Based Recommendations Regarding the Prevention and Treatment of PTSD

Clinical Practice Guideline Group	Canadian Anxiety Guidelines Initiative Group (2014)	British Association for Psychopharmacology (2014)	World Health Organization (2013)	Veterans Health Administration, Department of Defence (2010)	American Academy of Sleep Medicine (2010)	World Federation of Societies of Biological Psychiatry (2008)
Country	Canada	United Kingdom	World Health Organization	US	US	Multiple countries
PREVENTION						
Drug treatment	No recommendations	For prevention of PTSD after major trauma: Preventive treatment with propranolol or sertraline is recommended.	After a potential traumatic recent event: Benzodiazepines and antidepressants are not recommended. Benzodiazepines are not recommended for adults with insomnia.	After exposure to traumatic event: Pharmacological therapy is not recommended.	No recommendations	No recommendations
Psychological treatment	No recommendations	For prevention of PTSD after major trauma: Preventive trauma-focused CBT is recommended. Routine single- or multiple-session "debriefing" is not recommended.	After a potential traumatic recent event: CBT is recommended for treatment of acute traumatic stress symptoms. No specific recommendation about stand-alone problem-solving counselling, EMDR, relaxation, or psycho-education.	After exposure to traumatic event: CBT is recommended as early intervention to prevent PTSD (in patients with significant early symptoms). Routine psychotherapy intervention for asymptomatic individuals is not recommended. Individual psychological debriefing is not recommended. Voluntary multiple group sessions may be effective.	No recommendations	No recommendations
Alternative and complementary treatments	No recommendations		After a potential traumatic recent event: Relaxation techniques and advice about sleep hygiene are recommended for patients with acute insomnia.	No recommendations	No recommendations	No recommendations
TREATMENT						
Drug treatment	For core symptoms of PTSD: SSRIs (fluoxetine, paroxetine, and sertraline) and SNRI (venlafaxine XR) are recommended as first-line treatment of PTSD. A number of other drugs are recommended as second-line, third-line, and adjunctive therapy, or not recommended (refer to the guideline).	For acute treatment of PTSD: SSRIs (paroxetine, sertraline) and SNRI (venlafaxine) are recommended as pharmacological treatment. Drug treatment should be continued for at least 12 months in patients responding to treatment. A combination of drug and psychological approaches is not recommended for initial treatment. When initial therapy fails, consider increasing the dosage, switching to other evidence-based treatment, combining evidence-based pharmacological and psychological treatments, adding antidepressants (olanzapine, risperidone, or prazosin), or referring to regional or national specialist services.	For PTSD: SSRIs and TCAs are not recommended as first-line treatment. They should be considered if stress management or EMDR have failed or are not available, or there is concurrent moderate-to-severe depression.	For pharmacological interventions of PTSD: SSRIs (fluoxetine, paroxetine, and sertraline) and SNRI (venlafaxine XR) are strongly recommended as monotherapy. Mirtazapine, nefazodone, TCAs (amitriptyline, imipramine), or monoamine oxidase inhibitors (phenelzine) are also recommended. The use of benzodiazepines, guanfacine, or anticonvulsants (tiagabine, topiramate, valproate) is not recommended. There is no recommendation for the use of prazosin, bupropione, trazodone, anticonvulsants (lamotrigine, gabapentin), or atypical antipsychotic drugs. Atypical antipsychotic drugs (risperidone or olanzapine, or quetiapine), and prazosin for nightmares are recommended as adjunctive therapy. There is no recommendation for a sympatholytic or an anticonvulsant as adjunctive therapy.	For pharmacological treatment of PTSD-associated nightmares: Prazosin is recommended. Clonidine and other drugs may be considered (refer to the guideline). Nefazodone and venlafaxine are not recommended. There is no recommendation for clonazepam.	For pharmacological treatment for PTSD: SSRIs (fluoxetine, paroxetine, and sertraline) and SNRI (venlafaxine) are recommended as first-line treatment. The efficacy of other drugs was noted with lower levels of evidence (refer to the guideline).
Psychological treatment	No recommendations	For acute treatment of PTSD: Trauma-focused individual CBT or EMDR as psychological treatment is recommended. A combination of drug and psychological approaches is not recommended for initial treatment.	For PTSD: Individual or group CBT with trauma focus, EMDR, or stress management are recommended.	For psychotherapy interventions of PTSD: CBT or EMDR is recommended as psychotherapy. Relaxation techniques, imagery rehearsal therapy and Brief Psychotic Therapy, hypnotic techniques, and group therapy and augmentation therapy can be considered for symptoms associated with PTSD. There is no specific recommendation about Dialectical Behaviour Therapy, Family or Couples Therapy as first-line treatment. Supportive psychotherapy is not considered.	For non-pharmacological options for nightmare disorder: CBT is recommended (i.e., image rehearsal therapy, lucid treatment therapy, exposure, relaxation and rescripting therapy, sleep dynamic therapy, self-exposure therapy, systematic desensitization). EMDR is recommended. There is no recommendation for individual psychotherapy.	For non-pharmacological treatment for PTSD: "Debriefing" is contraindicated. There are no concrete recommendations regarding CBT, exposure therapy, and EMDR.
Alternative and complementary treatments	No recommendations	No recommendations	No recommendations	For somatic treatment of PTSD: Acupuncture may be considered. For CAM of PTSD: There is no recommendation for the use of CAM as first-line treatment. CAM may be considered as adjunctive treatment.	Progressive deep muscle relaxation, hypnosis, and testimony method are recommended.	For non-pharmacological treatment for PTSD: There are no concrete recommendations regarding repetitive transcranial magnetic stimulation.

CAM = complementary and alternative medicine; CBT = cognitive behavioural therapy; EMDR = eye movement desensitization and reprocessing; PTSD = post-traumatic stress disorder; SSRI = selective serotonin reuptake inhibitor; SNRI = serotonin norepinephrine reuptake inhibitor; TCA = tricyclic antidepressant.

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