POST-TRAUMATIC STRESS DISORDER (PTSD) AND TRAUMA-INFORMED CARE IN CHILDREN AND ADOLESCENTS—IN BRIEF:

Assessment and Diagnosis

Assessment Recommendations

- **Recommendation I:** Evaluate any patients at high risk who have experienced any adverse childhood experiences (i.e., with risk factors such as emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, mother treated violently, household substance abuse, household mental illness, parental separation or divorce, incarcerated household member, etc.) for the possibility of trauma or stress related disorders.
- **Recommendation II:** Use DSM 5 criteria to establish the presence of PTSD. However, many children who have been exposed to trauma may not meet all DSM 5 criteria, but may have a trauma-inducted disorder. In such instance, one may consider the condition in the same way as a full-blown PTSD presentation, unless another disorder is present (e.g., ADHD, ODD, etc.), in which cases one may treat that disorder.
    - **Criterion A (one required):** The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, in the following way(s):
    - Direct exposure
    - Witnessing the trauma
    - Learning that a relative or close friend was exposed to a trauma
    - Indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics)
    - **Criterion B (one required):** The traumatic event is persistently re-experienced, in the following way(s):
        - Intrusive thoughts
        - Nightmares
        - Flashbacks
        - Emotional distress after exposure to traumatic reminders
        - Physical reactivity after exposure to traumatic reminders
    - **Criterion C (one required):** Avoidance of trauma-related stimuli after the trauma, in the following way(s):
        - Trauma-related thoughts or feelings
        - Trauma-related reminders
    - **Criterion D (two required):** Negative thoughts or feelings that began or worsened after the trauma, in the following way(s):
        - Inability to recall key features of the trauma
        - Overly negative thoughts and assumptions about oneself or the world
        - Exaggerated blame of self or others for causing the trauma
        - Negative affect\Decreased interest in activities
        - Feeling isolated
        - Difficulty experiencing positive emotions
    - **Criterion E (two required):** Trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s):
        - Irritability or aggression
        - Risky or destructive behavior
        - Hypervigilance

- Heightened startle reaction
- Difficulty concentrating
- Difficulty sleeping

- **Criterion F (required):** Symptoms last for more than 1 month.
- **Criterion G (required):** Symptoms create distress or functional impairment (e.g., social, occupational).
- **Criterion H (required):** Symptoms are not due to medication, substance use, or other illness.

- **Recommendation II:** When evaluating a child or teen with possible Trauma or Stress Related Disorders, conduct separate Interviews with the child/adolescent and guardian using DSM 5 criteria. See criteria online at http://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm07.

- **Recommendation III:** Assess with validated Trauma rating scales to help guide the diagnosis and increase diagnostic precision of a posttraumatic stress disorder. For the UCLA PTSD Reaction Index, click here: http://www.nctsn.org/nctsn_assets/pdfs/mediasite/ptsd-training.pdf

  - The ACES (Adverse Childhood Experience Study) is an easy-to-use survey for children and adolescents.
  - The ACES questionnaire can be downloaded at no cost, https://acestoohigh.com/got-your-ace-score/.

o **Recommendation IV:** Assess safety/suicide risk

Red Flags or "High Risk" Considerations to determine suicidal risk:
- Suicidal ideation, suicidal gestures, and suicide attempts
- Individuals with impairment may be at increased risk for suicide
- Multiple areas of poor/impaired functioning (school, social and family)
- Co-morbid substance abuse
- Abuse (physical, sexual, emotional, neglect)

Differential Diagnosis:

Psychiatric conditions that can resemble posttraumatic stress disorders include the following:

- Anxiety Disorders
- Acute Stress Disorder
- Obsessive-Compulsive Disorder
- Traumatic Brain Injury
- Bipolar Disorder
- Depression
- Panic Disorders
- Psychotic Disorders
- Adjustment Disorders
- Dissociative Disorders
- Personality Disorders

Comorbidities:

- Those who have stress diagnosis have a higher incidence of subsequent traumatic events including accidents, assaults, injuries from external causes, abuse, neglect and other maltreatment. Similarly there is also a higher incidence of new-onset psychiatric diagnoses in 4 categories – depression, anxiety disorders, alcohol abuse and dependence, and drug abuse

and dependence. (Gradus, Antonsen, Svensson, Lash, Resick & Hansen, 2015).

Medical conditions that can sometimes resemble trauma and stress related disorders:

- Gastrointestinal Disorders
- Alcoholism
- Insomnia
- Somatic complaints

Initial Management Recommendations:

- **Recommendation I**: Clinicians should educate and counsel families and patients about Trauma and Stress Related Disorders and options for the management of the disorder. The Substance Abuse and Mental Health Services Administration (SAMHSA) lists six core principles for trauma-informed care:

    a) Create a sense of safety;
    b) Practice trustworthiness and transparency;
    c) Utilize collaboration and mutuality;
    d) Practice empowerment;
    e) Foster voice and choice; and
    f) Recognize cultural, historical, and gender issues.

Additional information on guidelines can be accessed at http://store.samhsa.gov/shin/content/SMA14-4884/SMA14-4884.pdf and https://www.samhsa.gov/nctic/trauma-interventions.

- **Recommendation II**: Clinicians should develop a treatment plan with patients and families and set specific treatment goals in key areas of functioning including home, peer, and school settings.
- **Recommendation III**: Establish links with community mental health resources, which may include patients and families who have dealt with traumatic or adverse childhood events.
- **Recommendation IV:** Establish a safety plan, which includes restricting access to lethal means, engaging a concerned third-party, and establishing an emergency communication mechanism.

Treatment Recommendations:

- **Recommendation I**: In cases of ***mild*** Trauma and Stress Related Disorders, consider a period of active support and monitoring before starting other evidence-based treatment**.**
- **Recommendation II**: Consider Cognitive Behavioral Therapy, especially trauma-focused CBT (TF-CBT) for mild cases and antidepressant treatment such as SSRIs for moderate cases. A database of TF-CBT clinicians can be found on the UAMS AR-Best website: http://arbest.uams.edu/clinicianslist/.

- **Recommendation III**: If a Primary Care Provider (PCP) identifies a child or adolescent with moderate or severe Trauma and Stress Related Disorders or complicating factors such as co-existing substance abuse, consultation with a mental health specialist should be considered.
- **Recommendation IV:** PCP s should actively support Trauma and Stress Related Disorders in adolescents who are referred to mental health. Consider sharing care with mental health agencies/professionals when possible.

Psychosocial Interventions:

- MBSR (Mindfulness Based Stress Reduction) in youth specifically with known trauma exposure or populations at high risk for ACEs suggest promise in improving a variety of outcomes, including mental health symptoms, behavior and quality of life, and coping. (Ortiz & Sibinga 2011).
- CBT with children, exposure, modeling, CBT with parents, and psychoeducation are considered "well-established" treatments and have the most empirical support (Higa-McMillan et al., 2015).
- There is growing evidence supporting the efficacy of TF-CBT with children suffering from PTSD as a result of sexual abuse and suggesting the efficacy of this treatment for children who have experienced multiple traumas (Cohen, Deblinger, Mannarino & Steer, 2008).

Pharmacotherapy:

There are no randomized controlled trials of medications for PTSD or trauma-induced behavioral disorders. However, clinicians may find that anti-anxiety and anti-depressive agents can be effective for some children on a case-by-case basis (SSRIs). Benzodiazepines should be avoided. See Medication Chart below for starting doses, titration strategy, therapeutic, and maximum recommended doses for these agents.

MEDICATIONS FOR DEPRESSION AND ANXIETY

	Generic Name	Trade Name	Available Forms	Dosing	Duration	Peak Effect	FDA Indication	Side Effects	Comments
SSRI	citalopram	CELEXA	Tablets: 10, 20, 40 mg Solution: 10 mg/5ml	Start with 10 mg given every morning Dose range: 10-40 mg daily	24 hours	4-6 weeks	MDD (A)	Common: nausea, dry mouth, somnolence, insomnia, tremor, ejaculatory dysfunction, dyspepsia, decreased libido Serious: serotonin syndrome, increased suicidality/worsening depression, mania,	profile. Does not usually cause insomnia
SSRI	escitalopram	LEXAPRO	Tablets: 5, 10, 20 mg Solution: 5 mg/5ml	Start with 5 mg (or less) given every morning Dose range 5-20 mg daily	24 hours	4-6 weeks	MDD (12 - 17 yo) & GAD (A)		S-isomer of citalopram
SSRI	fluvoxamine	LUVOX	Tablets: 25, 50, 100 mg	Start with 25 mg given at bedtime; doses above 50 mg should be divided Dose Range: 50-300 mg daily	24 hours	4-6 weeks	OCD (Child & Adolescents)		Luvox brand discontinued in US
SSRI	paroxetine	PAXIL / PAXIL CR	Tablets: 10, 20, 30, 40 mg Solution: 10 mg/5ml CR Tablets: 12.5, 25, 37.5 mg ER	Start with 10 (12.5 if CR) mg daily (may be given at night) Dose range: 10-50 (12.5-37.5 if CR) mg daily	24 hours	4-6 weeks	Paxil: MDD, OCD, Panic, SAD, GAD, PTSD (A) Paxil CR: MDD, panic, PMDD (premenstrual), SAD (A)		Increased risk of withdrawal symptoms if discontinued aburptly
SSRI	fluoxetine	PROZAC	Tablets: 10, 20, 40 mg Solution: 20 mg/5ml	8-11 yo: Start 5-10 mg given every morning 12 and older: Start 10 mg given every morning Dose range: 5-20 mg in children under 12 y/o and 5-40 (to 80 in some cases) mg in children over 12 y/o	24-72 hours	4-6 weeks	MDD, OCD, Bulimia Nervosa, Panic, PMDD (A) MDD (8-17 y/o), OCD (7-17 y/o)		Weekly form available. Long half life prevents withdrawal symptoms if dose is missed
SSRI	sertraline	ZOLOFT	Tablets: 25, 50, 100 mg Solution: 20 mg/ml	Start 12.5 mg per day Dose range: 50-200 mg daily	24 hours	4-6 weeks	MDD, OCD, Panic, PTSD, PMDD, SAD (A) OCD (6-17 y/o)		
SSRI	venlafaxine	EFFEXOR / EFFEXOR XR	Tablets: 25, 37.5, 50, 75, 100 mg XR Capsules (Extended release): 37.5, 75, 150 mg	Start 75 mg/day in divided doses; XR form can be used once daily Dose Range: 75-225 mg (225 mg max per FDA indication; however, in adults max frequently up to 375 mg)	8-12 hours XR: 24 hours	4-6 weeks	MDD (A) XR: MDD, GAD, Panic, SAD (A)	Common: nausea, dry mouth, somnolence, insomnia, tremor, ejaculatory dysfunction, dyspepsia, decreased libido Serious: serotonin syndrome, increased suicidality/worsening depression, mania, HTN, seizures	Monitor BP closely
OTHER	duloxetine	CYMBALTA	Capsules: 20, 30, 60 mg	Starting dose: 30 mg / day for 2 weeks before considering an increase to 60 mg Dose range: 30 to 120 mg / day 7 - 17 y/o Adults: 40-60 mg/ day for MDD, up to 120 for GAD	24 hours	4-6 weeks	MDD, diabetic neuropathy, GAD	Common: nausea, dry mouth, somnolence, insomnia, tremor, ejaculatory dysfunction, dyspepsia, decreased libido, HTN Serious: serotonin syndrome, increased suicidality/worsening depression, mania, hepatotoxicity, Stevens-Johnson syndrome, seizures	
OTHER	bupropion	WELLBUTRIN	Tablets: 75, 100 mg	Start with 75 mg given twice per day Dose range: 37.5 to 450 mg/day in 2-3 divided doses	12 hours	4-6 weeks	MDD (A)		
OTHER	bupropion	WELLBUTRIN SR	Tablets: 100, 150 mg	Start: 100 mg PO qam, incr. 100 mg/day qwk, divide dose bid Max: 400 mg/day Info: avoid/minimize alcohol use; do not cut/crush/chew	12-24 hours	4-6 weeks	MDD (A)	Common: insomnia, irritability, dry mouth, headaches, stomach upset, agitation, muscle aches, appetite suppression and weight loss, constipation or diarrhea. Less common: Stevens-Johnson syndrome, erythema multiforme, seizures, mania, psychosis, increased heart rate,	
OTHER	bupropion	WELLBUTRIN XL	Tablets: 150, 300 mg	Start: 150 mg PO qam, incr. after 7 days to 300 mg/day Max: 450 mg/day Info: avoid/minimize alcohol use; do not cut/crush/chew	24 hours	4-6 weeks	MDD & SAD (A)	liver failure, severe hypertension, migraines, worsened depression, suicidal thoughts	

NOTE: ALL INFORMATION SHOULD BE CHECKED AGAINST CURRENT PDR

The following delineates potential adverse effects of SSRI/SNRI:

- Serious Adverse Effects
  - Serotonin Syndrome (muscle rigidity, tremulousness, myoclonus, autonomic instability, agitated confusion, rhabdomyolysis)
  - Akathisia (uncontrollable internal motor restlessness)
  - Hypomania
  - Discontinuation syndromes (nausea, vomiting, headache, tremor, dizziness, fatigue, irritability, palpitations, rebound depression/anxiety)

- *Common Adverse Effects*
  - *GI effects (dry mouth, constipation, diarrhea)*
  - Sleep disturbance
  - Irritability
  - Disinhibition
  - Agitation/jitteriness
  - Headache

Recommendation: Collaborative Care

- Primary Care clinicians should actively support children and adolescents who are referred to mental health for anxiety symptoms. Consider sharing care with mental health professionals if possible.

- **The free Psych TLC** service is available for:
  - Consultation on psychiatric medication related issues including:
    - Advice on diagnosis and initial management for your patient
    - Titration of psychiatric medications
    - Side effects of psychiatric medications
    - Combination of psychiatric medications with other medications
    - Referral and services consultation regarding children with mental health issues

  - A licensed mental health professional (MHP) and a child and adolescent psychiatrist (CAP) are available via telephone to provide consultation and support to PCPs from 8am-5pm, M-F. Simply call **(844) 547-5688 or (501) 320-7270** to contact the Psych TLC Call Center. One of our expert MHPs will obtain basic information from your about the child and then set up a convenient time for Peter S. Jensen, MD, or another child & adolescent psychiatrist to call you back, usually within 30 minutes to 2 hours.

- Additional Resources for Creating Trauma-Informed Environments of Care:

http://scholar.google.com/scholar?q=traumaInformed+Care+guidelines&hl=en&as_sdt=0&as_vis=1&oi=scholart&sa=X&ved=0ahUKEwiF796Kp4bUAhWEsVQKHeUECjYQgQMIJjAA

http://www.mhcc.org.au/media/25289/berkowitz-ford-ko-2008.pdf

https://s3-us-west-2.amazonaws.com/cxl/backup/prod/cxl/gklugiewicz/media/507188fa-30b7-8fd4-aa5f-ca6bb629a442.pdf

http://m.recoveryonpurpose.com/upload/ASCA_Practice%20Guidelines%20for%20the%20Treatment%20of%20Complex%20Trauma.pdf