# ACS / Trauma Programs
American College of Surgeons

# BEST PRACTICES GUIDELINES

## SCREENING AND INTERVENTION FOR MENTAL HEALTH DISORDERS AND SUBSTANCE USE AND MISUSE IN THE ACUTE TRAUMA PATIENT

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# INTRODUCTION

# INTRODUCTION

While considerable attention is paid to mortality as an outcome following trauma, more recently attention is focused on quality of life and patient-reported outcomes. Posttrauma mental health significantly impacts quality of life after injury, including the development of posttraumatic stress disorder (PTSD) and depression. For example, rates of PTSD are higher in injury patients compared to the general population, and PTSD symptoms impact overall physical functioning and health-related quality of life.[1,2] Similarly, substance use and misuse are risk factors for poor physical functioning and mental well-being following trauma. Because the incidence of posttrauma mental health disorders and the occurrence of substance misuse are relatively high compared to the general population, trauma centers need to address these issues using best practices guidance for care.

The goals of mental health screening and intervention are to identify patients most at risk for nonremitting distress, to intervene to reduce that risk, and to ensure that patients who develop chronic symptoms are connected to best practice treatments. Several approaches are described in this Best Practices Guideline (BPG). The intent is to improve overall outcomes for trauma patients by providing holistic, multidisciplinary disease-centered care.

This publication is intended as a best practices guide for posttrauma mental health and substance misuse screening and intervention for trauma centers. The literature regarding the rates of PTSD, depression, and substance misuse are reviewed. Screening methods and intervention models of care to address substance misuse are presented (including alcohol and other substances), followed by screening and treatment for PTSD and depression. Different approaches are highlighted with consideration of trauma center level and with attention to the scaling and sustainability of programs. We urge trauma centers to consider posttrauma mental health care and to strive for optimal substance misuse screening and intervention.

# IMPORTANT NOTE

The intent of the ACS Trauma Quality Programs (TQP) Best Practices Guidelines is to provide health care professionals with evidence-based recommendations regarding care of the trauma patient. The Best Practices Guidelines do not include all potential options for prevention, diagnosis, and treatment, and they are not intended and should not be used as a substitute for the provider's clinical judgment and experience. The responsible provider must make all treatment decisions based upon their independent judgment and the patient's individual clinical presentation. Although these Best Practices Guidelines have been reviewed with significant care, they are provided as is and without liability. The ACS and any entities endorsing the Guidelines shall not be liable for any direct, indirect, special, incidental, or consequential damages related to the use or misuse of the information contained herein. The ACS may modify the TQP Best Practices Guidelines at any time without notice.

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## OVERVIEW

### KEY POINTS

- Resilience, recovery, delayed onset, and chronic distress are the four major trajectories of mental health wellness following trauma.

- Trauma-informed care is a care approach intended to improve patient engagement, adherence to best practices for treatment, and patient outcomes.

- Population-based studies suggest that mental health and substance use disorders work in a combined manner to increase the risk of a patient's recurrent hospitalization and mortality after an index injury.

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Posttraumatic stress disorder (PTSD) or depression occurs in at least 20% of hospitalized trauma survivors in the United States.[1,2] Substance use disorders may afflict more than half of trauma center patients.[3] Left untreated for these disorders, outcomes for recovered trauma patients are more likely to include lost productivity, poor quality of life, chronic disease, and social and functional impairment.[4,5]

Trauma centers also admit a subgroup of patients who have attempted suicide via self-inflicted injury and who experience suicidal ideation after other injuries derived from non-self-inflicted mechanisms.[10-13] Approximately 50% of patients reporting high levels of PTSD symptoms in the days and weeks after an injury develop suicidal ideation during the year following hospitalization.[6-8]

Trauma patients with unaddressed mental health issues, prior trauma, and substance misuse are at increased risk for readmission and injury recidivism.[9,10] These vulnerable and underserved patients often include racial and ethnic minorities, victims of interpersonal or community violence, and uninsured or economically disadvantaged patients. They are disproportionately affected due to the cumulative structural, social, and health factors that raise risk for mental health disorders postinjury, and they have a decreased likelihood of diagnosis and treatment.[11-12]

## Four Trajectories of Mental Health Wellness

Four trajectories of mental health wellness following trauma are common: resilience, recovery, delayed onset, and chronic (nonremitting) distress.[13,14]

- *Resilience*, the most prevalent outcome, is characterized by relatively stable and healthy levels of mental health symptoms postinjury. Distress may be present in the initial hours and days postinjury, but it does not persist at high levels.

- *Recovery* is characterized by high levels of distress that resolve after a longer interval of time (e.g., weeks or months) with or without treatment. Resilience and recovery trajectories differ primarily in the timing of adaptation.

- *Delayed onset* typically follows a course of moderate (subclinical) symptom levels that worsen over time, rather than a sudden onset of pathology.

- *Chronic distress* is characterized by high levels of distress that remain clinically elevated for many months and even years.

These four mental health wellness trajectories provide an important guide for clinical decision making regarding the implementation and timing of screening, intervention, and referral. See more detailed information in the Postinjury Mental Health Care section on page 23.

## Social Determinants of Health

Trajectories of mental health wellness vary by mechanism of injury. For example, patients who experience penetrating trauma and intentional violence experience a resilience trajectory less often than patients who experience serious falls.[15] Disparities among injured patients are well documented and suggest that racial/ethnic minorities, uninsured patients, and individuals with fewer educational or financial resources have greater risk of mortality and exposure to violence, less access to rehabilitative services, and less positive trajectories of mental and physical health.[12,16] Risk factors associated with these disparities include higher prevalence of cumulative trauma preinjury, discrimination, health literacy, economic and occupational disadvantage, community violence, and neighborhood context (e.g., physical conditions, social cohesion,

perceptions of neighborhood danger).[17,18,19,20] Additionally, these factors can serve as a barrier to mental health treatment-seeking, access, and engagement. Health system barriers include lack of multilingual providers, inadequate cultural competence in care, and health insurance access.

## Trauma-Informed Care Approaches

Trauma-informed care recognizes the importance of understanding patients' life experiences in delivery of care. It aims to improve patient engagement, adherence to best practices for treatment, patient outcomes, and provider wellness (e.g., safety, distress, burnout).[21] The aims of trauma-informed care models are to promote patient recovery and to use all supportive services, such as behavioral health, nursing, occupational therapy, and physical therapy. Key goals of trauma-informed care are to improve the overall patient experience and to improve access to care among vulnerable and traditionally underserved populations. The Substance Abuse and Mental Health Services Administration (SAMHSA) model promotes the need to recognize the role of prior traumatic experiences (i.e., preinjury) in illness and recovery. This model emphasizes the use of evidence-informed, intentional healthcare interactions to reduce the risk of revictimization and to improve trust in the healthcare system, encouraging patients to accept recovery services.[21] Key domains associated with an integrated trauma-informed approach may include patient and provider safety, transparency and trust-building, shared decision making, involvement of peers or navigators when feasible, and personalization of care with attention to cultural context.

## Mental Health and Substance Use Disorders and Outcomes

Among injured trauma survivors, mental health and substance use disorders are associated with a broad profile of adverse outcomes that include impairments in physical, social, and work-related function.[22-24] In one nationwide 69-site trauma center investigation, PTSD and depression made an independent dose-related contribution to the survivor's inability to return to work after injury hospitalization.[4] Population-based investigations suggest that mental health and substance use disorders work in a cumulative manner to increase the risk of recurrent hospitalization and mortality after an initial injury hospitalization.[10,25,26]

A growing number of randomized clinical trials (RCT) conducted by trauma centers suggest that interventions targeting mental health and substance use disorders can impact key patient functional outcomes. Interventions targeting alcohol consumption demonstrated effectiveness in reducing recurrent traumatic injury, while interventions targeting PTSD demonstrated effectiveness in reducing postinjury impairments in physical function.[27,28] Studies also found moderate patient engagement in mental health follow up services using technology-enhanced, stepped-care approaches designed to address PTSD and depression.[29,30]

## Delivery of Mental Health and Substance Use Services

A few studies assessed the delivery of mental health and substance use services in trauma centers.[31-35] These studies suggest a dramatic increase in the percentage of trauma centers delivering screening and intervening for alcohol use problems, in response to the American College of Surgeons Committee on Trauma (ACS-COT) trauma center standards for Alcohol Screening and Intervention.[31,32,35] However, a recent national survey reported only 25-30% of adult US Level I and II trauma centers screen patients for PTSD symptoms.[33]

Alcohol screening and intervention in trauma centers is most frequently performed by social workers, and trauma centers are often building upon existing alcohol services to integrate screening and intervention services for other substance use and mental health disorders.[32,33] Many trauma centers are also working to implement posttrauma mental health programs. The sections that follow draw upon existing literature, as well as best practices, to inform guidelines for posttrauma mental health and substance abuse screening.

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BEST PRACTICES GUIDELINES

SCREENING AND INTERVENTION FOR MENTAL HEALTH DISORDERS AND
SUBSTANCE USE AND MISUSE IN THE ACUTE TRAUMA PATIENT

# SUBSTANCE MISUSE AND INTERVENTION

## THE IMPORTANCE OF SUBSTANCE USE SCREENING AND INTERVENTION

### KEY POINTS

- Alcohol and substance use problems are prevalent and increasing among trauma patients. They are associated with increased mortality, complications, need for critical care, increased length of stay, and cost of care.
- Trauma centers participate in nationwide screening and intervention programs for substance use problems.
- Screening and intervention programs improve outcomes related to substance use problems.

## Screening, Brief Intervention, and Referral to Treatment (SBIRT)

The origin for SBIRT was the acknowledgement that alcoholism is a medical condition, and it can be characterized by alcohol dependence and the associated effects.[1] Experts now recognize other alcohol-use behaviors, such as *harmful drinking* (pattern of drinking that causes health problems over time) and *problem drinking* (drinking causes consequences such as a hangover, but there is no dependence on alcohol), as additional public health problems that can similarly benefit from screening and intervention.

*Hazardous* and *harmful* drinking, concepts developed by the World Health Organization (WHO), helped change the characterization of alcohol-use problems as a *disorder* rather than a *disease*. In 1982, the WHO developed the Alcohol Use Disorders Identification Test (AUDIT), an assessment now used worldwide to identify hazardous and harmful drinking.[2] Other available screening tools are described in other sections of this guideline.

Brief intervention (BI) follows a positive screen. BI is a short conversation that allows an individual to explore reasons for changing their substance-use behavior. BI permits feedback from individuals and may include provision of self-help materials. Extensive research using AUDIT established that a relatively small expenditure of resources for BI can result in meaningful changes in alcohol use behavior.[3] BI, based upon alcohol screening, is now commonly practiced in a broad variety of settings and can be used for positive screens of substances other than alcohol.

## Impact of Alcohol and Substance Use

Over 50% of hospitalized trauma patients report an alcohol and/or drug use diagnosis during their lifetime. At the time of admission, one in four trauma victims meet diagnostic criteria for an active alcohol use problem and 18% meet diagnostic criteria for a drug use problem.[4] In a review of 15 studies published from trauma centers over more than 40 years, the prevalence of alcohol-related injury was 26-62%.[5] One study of randomly sampled hospitalized trauma patients reported that the rate of alcohol and other substance use combined may be as high as 74%.[6-8] For most centers, an estimated 20-50% of trauma patients will have a substance use disorder.[9]

Healthcare providers, including trauma teams, seek the optimal screening and BI method to reach individuals who might be at risk of alcohol and substance use problems. Although AUDIT was developed as a tool for primary care physicians, evidence shows that properly trained nurses, social workers, mental health professionals and other providers may be equally or even more effective at performing brief intervention.

In 2003, the Department of Health and Human Services (DHHS) Substance Abuse and Mental Health Services Administration (SAMHSA) launched an effort to coordinate, standardize, and expand SBIRT for alcohol and other substance use problems.[1] Trauma centers were among the earliest organizations to systematically offer screening and brief intervention. See Figure 1 for an overview of SAMHSA's SBIRT program. Using SAMHSA's approach, trauma centers screen patients, assess risk and either intervene or refer, as appropriate for the patient needs and available trauma center resources.

**Figure 1.**

Overview of Screening, Brief Intervention, and Referral to Treatment[10]
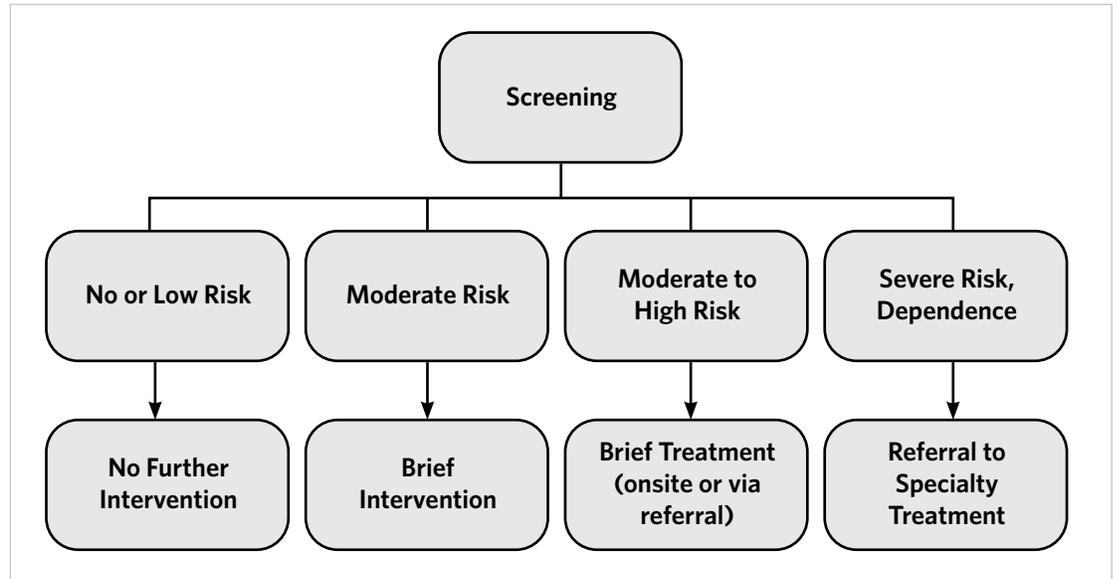
**From:** Substance Abuse and Mental Health Services Administration. Systems-level implementation of Screening, Brief Intervention, and Referral to Treatment. Technical Assistance Publication (TAP) Series 33. HHS Publication No. (SMA) 13-4741. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013. https://www.samhsa.gov/resource/ebp/screening-brief-intervention-referral-treatment-sbirt

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## Efficacy of SBIRT

Efficacy of BI may depend upon the substance used, patient factors, the clinical endpoint being measured, and the professional credentials and training of the provider delivering the BI.[9] Trauma victims who screen positive for substance use problems do so most often for alcohol, less often for illicit drugs, and sometimes for both. Early studies on behavioral intervention for alcohol use in trauma patients demonstrated a promising reduction in alcohol abuse and the cost effectiveness of SBIRT.[9] By 2007, the ACS-COT began requiring Level I trauma centers to screen for alcohol use.[11] Numerous studies subsequently reported the feasibility of screening and BI in trauma centers with measurable reductions in alcohol consumption, problem drinking including drinking under the influence (DUI) arrests, and hospital readmissions.[3,12] Although SBIRT among patients simply using alcohol had no effect, when provided to patients with alcohol misuse or disordered use, SBIRT reduced readmission by 66%.[13] Costs associated with repeat hospitalization were also reduced.

BI is less well studied in injured patients with opioid, stimulant, marijuana, or other substance use problems; and efficacy of BI demonstrated less effectiveness. A recent trauma center study highlighted the complexity in assessing efficacy in BI for drugs. Investigators saw a significant reduction in drug use at 3, 6, and 12 months after injury, but the reduction was similar whether patients received only brief advice not to use drugs, brief motivational interviewing (BMI) including a 30–45 minute session, or BMI plus a booster by telephone at 4 weeks after intervention.[14] Trauma teams may conclude from this study that any form of BI may be effective, but they must also acknowledge that the trauma event, the 'teachable moment' itself, can be a factor in reducing drug use and that BI made little or no difference.

Efficacy may also depend upon other patient factors. For example, some patients with brain injury are not candidates for a brief intervention, or they may have limited results. Race and ethnicity may be a factor in BI efficacy. In a study comparing Blacks, Latinx, and white trauma patients receiving either handouts or motivational interviewing, Latinx patients showed improved drinking outcomes at one year compared to Blacks and whites.[15] Differences in outcome between these ethnic groups might be due to cultural factors, cultural and ethnic concordance between provider and patients, or other factors. More effectiveness research is needed to inform care teams that provide SBIRT. Research needs to focus on substances other than alcohol, different patient populations, provider types and credentials, training, BI methods, and other patient factors. The ACS-COT continues to advocate use of the 'teachable moment' of injury as an opportunity to enhance each trauma victim's recovery and future health.

SBIRT is solidly positioned as a fundamental part of trauma center injury prevention. By providing SBIRT systematically and without bias, health equity is enhanced and health disparities are reduced. Such an approach assures that all populations are treated equally and receive the same effective intervention, regardless of socioeconomic, demographic or other factors. By educating trauma teams about the importance of and how to perform SBIRT, the benefit of reduced substance use problems can be extended to the greatest number of patients.

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# SUBSTANCE USE SCREENING

### KEY POINTS

- A best practice is to have an SBIRT clinician, someone with patient care responsibilities who has been given extra training in screening, brief intervention, or both. Clinical supervision resources include someone with additional training and expertise in psychology or psychiatry.

- Each trauma center develops a written policy and procedure for SBIRT service provision within their health system as a best practice.

- Develop a therapeutic rapport with the patient prior to the screening questions to improve the outcomes with the SBIRT screening process.

*Alcohol use disorder*, drinking alcohol in a disordered pattern, receives more attention in the United States than consuming alcohol in less healthy, risky patterns. Screening for risky alcohol use and disordered use is associated with alcohol-related injuries often seen in patients hospitalized with traumatic injuries.[1] Numerous clinical approaches for SBIRT in US trauma centers and resulting research findings are documented.[2] Best practices in SBIRT indicate the importance of screening injured patients regarding the use of other drugs, including medications used in a nonprescribed manner. In substance-related screening, it is best to gauge where on the spectrum of experimental use, misuse, or addictive use the trauma patient's pattern of using or drinking might occur.

The screening element of SBIRT ideally helps the injured patient begin to examine and explore their drinking or other drug use patterns and the impact of those patterns on health including injury. Comparative scores are provided on a substance-related continuum, ranging from low-risk, moderate, and severe risk. Rather than determining a diagnosis, a positive screen is designed to begin the process of indicating the need for intervention and referral guidance.

## Who Performs Screening

A best practice is to have the SBIRT clinician, someone with patient care responsibilities who has been given extra training in screening, brief intervention or both. Each facility identifies and credentials SBIRT clinicians. The clinician can be a registered nurse, psychologist, social worker, counselor, addiction specialist, health educator, injury prevention specialist, or other health professional. Clinical supervision resources include someone with additional training and expertise in psychology or psychiatry.

Trauma centers (Levels I-IV) have many staffing options for SBIRT. SAMHSA funded research on SBIRT initiatives in 118 sites, involving 658,000 patients, demonstrated successful implementation of SBIRT using a variety of staff, internal specialists, and external contractors. Cost savings were realized without loss of quality services when using midlevel or support staff (e.g., health educator or injury prevention staff) as an in-house generalist (IHG).[3]

When available, a specialist who provides screening and intervention services frees other trauma staff from SBIRT responsibilities. The trauma program can employ an SBIRT-educated clinician or educate an existing staff member. This model can be efficient because less effort is needed to educate a clinician, and it results in SBIRT implementation consistency.[3] Alternatively, an SBIRT specialist can be contracted from an external organization. Contracted services can include eScreening or other telehealth SBIRT options. Blended models are another option for trauma centers, such as screening conducted by trauma staff with the contractor providing brief intervention or referral for treatment after a positive finding.[3]

In trauma centers with active trauma research agendas, specialists (e.g., trauma-informed psychologists, counselors, clinical social workers, or clinical addiction specialists) are the typical best practice model for SBIRT implementation. The trauma center may also serve as an approved clinical training site for graduate students, such as masters students in counseling and PhD students in clinical and counseling psychology. The student in an unpaid supervised clinical internship can provide SBIRT services and extend the capacity of a specialist in a cost-effective manner.[4]

As a best practice, each trauma center develops a written policy and procedure for SBIRT service provision within their health system.

## Identifying Who, How, and When to Screen

Perform a daily automated query or manual chart review of each trauma patient's electronic medical record (EMR) that includes the following risk factors:

- Blood alcohol levels obtained on admission (when available), prioritizing those who are positive or exceed a certain threshold as established in the hospital SBIRT policy

- Urine drug screens obtained on admission (when available), prioritizing those who are positive or exceed a set threshold per SBIRT policy

- Nurse prescreening answers to questions about alcohol and other drug use questions, often found in the Social History section. For example:

  – How many drinks containing alcohol do you have on a typical day you are drinking?
  *This question is also one of the items in USAUDIT.*[5]

  – How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?[6]
  *This item is a part of the National Institute on Drug Abuse (NIDA) Quick Screen and is the first question from that tool.*

- History and physical information in the EMR related to alcohol or drug use

- Other laboratory test values, such as Gamma-glutamyl transpeptidase (GGT) or other lipid panels

- Miscellaneous records, e.g., DUI citations, laboratory tests performed by transferring facilities

Consider asking the information technology (IT) department to establish an automated EMR query adapted for alcohol and other drug screening to help identify trauma patients with known risk factors for substance misuse or disordered use. This enables a daily automated query of new admissions, a timesaver in the screening process.[7]

Best practice includes a brief screening with the trauma patient at the bedside, optimally taking 2–5 minutes.

## When to Perform Screening

The trauma program's screening and intervention clinical group can determine the best time during the patient's hospital stay to begin the screening process. Multidisciplinary team meetings provide important daily updates on patient progress that helps determine which patients are ready for screening (medically stable, coherent, and engaging in trauma care). A best practice is to perform screening as the trauma patient becomes medically stable, has a Glasgow Coma Scale score $\geq 14$, is not acutely intoxicated or heavily medicated, and is able to respond to the screening process. This may be after transfer to the trauma step-down unit or closer to hospital discharge. An interview format is preferred for screening injured patients.

## Informed Consent

Establish and inform patients of the limits of confidentiality within the trauma center before screening. Decisions about documentation location (e.g., EMR and trauma registry), information included, and how screening results are shared are vital. Federal Confidentiality Regulations governing confidentiality of records pertaining to substance-related counseling (42 CFR, Part 2) must be considered by each trauma center. See this resource for more information: https://www.ecfr.gov/current/title-42/chapter-I/subchapter-A/part-8

Inform the patient that the screening tool is not used for diagnosis, rather the questions provide a way to explore how the patient cares for their health. Advise the patient to consider how their individual scores compare with those for whom the screen tool was developed. Also emphasize that the trauma center tries to screen all patients, and that the patient was not singled out by anyone.

## Selecting a Screening Tool

Two major strategies for substance use screening are:

- ***Mass screening***. At least one screening mechanism is applied to all injured hospitalized patients. The screening tools ideally include one or more of the following based on data from admission: blood alcohol levels, urine drug screens, evidence-based questions pertaining to patterns of alcohol and other drug use, or patient self-report of problematic misuse.[3]

- **Selective screening**. At least one valid screening tool with robust evidence of sensitivity and specificity for detecting problematic substance use is selected for injured patients with positive findings. Refer to Table 1 for screening tools in current use.

If blood alcohol levels are not routinely acquired on patients in a trauma center and it precludes selective screening, a mass screening protocol is recommended.

Developing rapport with the patient is an important step prior to beginning the screening, and it is usually done in the first 3 to 5 minutes. Trauma patients may be guarded and vulnerable regarding issues of substance use patterns because of prior stigma or being negatively impacted by substance misuse. Models for establishing therapeutic rapport exist, derived from Rogers' Person-Centered Theory[13], such as motivational interviewing.[14,15] See Box 1 to review the RREACH model for establishing rapport. Gaining expertise in this communication method and skill in rapport building are strongly recommended.

**Table 1.** Clinical Screening Tools for Alcohol and Other Substance Misuse

| Validated Screening Tools for Injured Patients | Adults | Adolescents | Substance Type, Tool Description |
|---|---|---|---|
| USAUDIT[5] <br><br>https://sbirt.webs.com/USAUDIT-Guide_2016_final-1.pdf | X | X | 10-items, alcohol, interview format available |
| USAUDIT-C <br><br>Tobacco, Alcohol, Prescription Medication, and Other Substance Use (TAPS)[8] Part I (Screen), Part II (Brief Assessment) https://www.drugabuse.gov/taps/#/ <br><br>Developer's JSON API Available Here <br><br>For additional information on how to use this feed and example code, use this form: https://nida.nih.gov/nida-apis-overview-developers/api-gateway-registration | X | X | Brief, 3 items from USAUDIT, alcohol <br><br>*Part I*: 5-items, tobacco, alcohol, prescription and other drugs, use over past 12 months. <br><br>*Part II*: 9-items, use over past 3 months. |
| NIDA Modified ASSIST: APA Level 2[9] <br><br>https://www.drugabuse.gov/nidamed-medical-health-professionals/screening-tools-resources/american-psychiatric-association-adapted-nida-modified-assist-tools <br><br>An application programming interface (API) for this screening tool is available for developers of EMR systems. The code and documentation are available at www.drugabuse.gov/developer | X | | 10-items screen for recent drug use; |
| CAGE-AID [10,11] | X | X | Brief, 4 items, alcohol and other drug use |
| CRAFFT, Version 2.1+N[12] <br><br>https://crafft.org/get-the-crafft/ | | X | 4-items, (interview format available), alcohol, vaping, other drugs. When Positive a decision tree guides selection of Parts B (6 item) and C (10 items) |

Table courtesy of Laura Veach, PhD, LCAS, LCMHC, CCS, Wake Forest University School of Medicine, Winston Salem, NC.

**Box 1.** RREACH Model for Establishing Rapport

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**Focus on Building *Rapport*.**
Spend 1-4 minutes with the individual, listening and attending, minimizing questions prior to the screen. Remember, this is a person hospitalized for a significant injury, in a step-down unit and medically stable, but injured.

- ***R**eflect with **E**mpathy*
  - "You are stunned by the close call you had."
  - "You are worried about how the MVC/FALL/ASSAULT happened."
  - "A lot has happened, that is hard right now."
- ***A**ffirm **C**oncern for **H**ealth*
  - To reduce stigma, *explore the individual's concern for their health* rather than saying "I am here to ask questions about your drinking and drug use".
  - Then, introduce screening as a tool to explore the individual's health picture related to use of alcohol or other drugs.
  - Transition next to Screen at the Bedside, using the interview format, when possible (taking 2 to 5 minutes).
  - *If the Screening is positive,* ask the patient if they would like to hear scoring and feedback to further care for their health.

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Courtesy of Laura Veach, PhD, LCAS, LCMHC, CCS, Wake Forest University School of Medicine

Better outcomes with the SBIRT screening process may result. In addition, it is important to adhere to the screen instructions and to record patient answers as they are shared without correction or expansion.

Screening can be conducted electronically, with paper and pencil, or in interview format. The interview format is often a preferred option for trauma patients. The oral interview is helpful for patients with severe injuries, literacy issues, vision challenges, or other complications. Use of the interview format can enhance rapport and be beneficial when a brief intervention is indicated.[5] Other studies suggest that screening is interventional in nature, especially when conducted in the interview format.[16] The screening process then can be therapeutic by creating greater awareness of substance misuse patterns and lead to behavior change.

## Other Drugs and Alcohol Screening

**AUDIT**. The gold standard for alcohol screening is the Alcohol Use Disorders Identification Test - AUDIT, based on decades of research. The AUDIT is translated into many languages and used internationally in multiple studies, supporting its validity, specificity, and sensitivity.[5] The revised version, USAUDIT, uses the same 10-items and better reflects United States (US) consumption patterns

(see Box 2 for standard drink definitions) with scoring adapted for use in the US. It can be administered with paper and pencil, electronically or interview. See Table 2 for USAUDIT-C, a 3-item version often used with injured patients as a way to quickly determine the presence of risky drinking.[5]

When addressing both alcohol and other drugs, both illicit and prescription misuse, consider using these screening tools: TAPS,[8] ASSIST,[9] or CAGE-AID.[10,11] Older adults, in particular, may benefit from a careful screen of prescribed medications, if mixed with over-the-counter medicines.

**Box 2.** Standard Drink Definitions



**What Is a Standard Drink?**

12 fl oz of regular beer = 5 fl oz of table wine = 1.5 fl oz shot of distilled spirits (gin, rum, tequila, vodka, whiskey, etc.)

about 5% alcohol — about 12% alcohol — about 40% alcohol

From: National Institute on Alcohol Abuse and Alcoholism. Rethinking drinking: Alcohol and your health. https://www.rethinkingdrinking.niaaa.nih.gov/How-much-is-too-much/. Accessed December 19, 2021.

**Table 2.** The USAUDIT-C Questionnaire[5]

| Questions | 0 | 1 | 2 | 3 | 4 | 5 | 6 | Score |
|---|---|---|---|---|---|---|---|---|
| 1. How often do you have a drink containing alcohol? | Never | Less than monthly | Monthly | Weekly | 2-3 times a week | 4-6 times a week | Daily | |
| 2. How many drinks containing alcohol do you have on a typical day you are drinking? | 1 drink | 2 drinks | 3 drinks | 4 drinks | 5-6 drinks | 7-9 drinks | 10 or more drinks | |
| 3. How often do you have X (5 for men, 4 for women & men over age 65) or more drinks on one occasion? | Never | Less than monthly | Monthly | Weekly | 2-3 times a week | 4-6 times a week | Daily | |
| | | | | | | | **Total** | |

The AUDIT 1–3 (US) can be used for clinical purposes without permission or cost.

**AUDIT-C Scoring Instructions**
Similar to the full 10-item USAUDIT, the answers are scored using the numbers at the top of the column. Write the answer as given by the patient in the scoring column at the far right. Tabulate those numbers in the scoring column to calculate the injured patient's score. A score of 7 or more for women or for men aged 65 years or older, or a score of 8 or more men under age 65 years indicates a positive risk. Further evaluation is recommended, which may involve the full USAUDIT or referral during the brief intervention.

**From:** Babor T, Higgins-Biddle J, Robaina K. *The Alcohol Use Disorders Identification Test, Adapted for Use in the United States: A Guide for Primary Care Practitioners USAUDIT.* https://sbirt.webs.com/USAUDIT-Guide_2016_final-1.pdf. Accessed November 9, 2021.

**CAGE**. The CAGE, a 4-item simple, yet robust, screening tool, developed by Dr. John Ewing, originally focused on alcohol. The acronym, CAGE, guides the 4 items in the questions: **C**utting down on alcohol use; **A**nnoyance if others criticize one's drinking; **G**uilt about drinking; and **E**ye-opener use of alcohol to get going upon awakening. It was revised to address other drug use and is known as the CAGE-AID.[10,11] Refer to Table 3.

**Table 3.** CAGE-AID Substance Abuse Screening Tool

| The CAGE and CAGE–AID Questionnaires | |
|---|---|
| 1 | Have you ever felt you ought to cut down on your drinking *or drug use?* |
| 2 | Have people annoyed you by criticizing your drinking *or drug use?* |
| 3 | Have you ever felt bad or guilty about your drinking *or drug use?* |
| 4 | Have you ever had a drink *or used drugs* first thing in the morning to steady your nerves or to get rid of a hangover? |

*Note.* The plain text shows the CAGE questions. The italicized text was added to produce the CAGE–AID. For this study, the CAGE–AID was preceded by the following instruction: "When thinking about drug use, include illegal drug use and the use of prescription drugs other than as prescribed."

**Scoring:** A YES response = 1 point, a NO response = 0. Sum the results of all questions. A total score of 0-1 = no intervention. A score of 2-3 = a brief intervention. A score of 4 = referral to treatment.
**From:** Brown RL, Leonard T, Saunders LA, & Papasouliotis O. The prevalence and detection of substance use disorders among inpatients ages 18 to 49: An opportunity for prevention. *Preventive Medicine.* 1998; 27: 101–110. Used with permission.

**Sharing Screening Scores with the Patient**

Sharing the screening results is important to promote motivation about taking future steps that follow a positive screening. The manner in which the information is provided is important.

- Ask the patient if they would like to see or hear their screening results, or for permission to share the results.
- Next, it is helpful to state how these scores may change, but they also provide a current snapshot of how their patterns of substance use or consumption compare to many others who have answered the same questions.
- Reassure the patient that the scores do not provide a diagnosis, but provide information about how their reported use may be impacting their health and injury risk.

When screening reveals a low risk, consider the provision of health education, such as the National Institute on Alcohol Abuse and Alcoholism (NIAAA) drinking guidelines: Limit alcohol intake to 2 per day for men and 1 per day for women (https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/moderate-binge-drinking). Providing a handout may enhance the educational aspect of screening when the score is low risk.

When scores indicate a positive screen, the brief intervention follows. See the section titled Substance Use Brief Intervention on page 18 for more information.

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**Additional Resources**

American Society of Addiction Medicine (ASAM): https://www.asam.org/quality-care/clinical-guidelines, Accessed April 19, 2022.

- 2020 National Practice Guideline for the Treatment of Opioid Use Disorder; Focused Update
- Appropriate Use of Drug Testing in Clinical Addiction Medicine
- Guideline on Alcohol Withdrawal Management

Centers for Medicare and Medicaid. 2022. https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/SBIRT_Factsheet_ICN904084.pdf. Accessed April 19, 2022.

- *Screening, Brief Intervention, and Referral to Treatment (SBIRT) Fact Sheet.*

National Institute on Drug Abuse. 2015. https://www.drugabuse.gov/nidamed-medical-health-professionals/screening-tools-resources/american-psychiatric-association-adapted-nida-modified-assist-tools. Accessed December 4, 2021.

American Psychiatric Association Adapted NIDA Modified ASSIST Tools.

National Institute on Drug Abuse. 2019. https://www.drugabuse.gov/nidamed-medical-health-professionals/screening-tools-prevention. Accessed April 19, 2022.

- Screening Tools and Prevention: Validated Screening Tools.

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11. Brown RL, Leonard T, Saunders LA, & Papasouliotis O. The prevalence and detection of substance use disorders among inpatients ages 18 to 49: An opportunity for prevention. *Preventive Medicine*. 1998; 27: 101–110.
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# SUBSTANCE USE BRIEF INTERVENTION

## KEY POINTS

- Harm reduction intervention, often a focus of brief interventions in trauma centers, is an evidence-based practice for reducing substance use and related harms that does not require complete abstinence.

- Medication-assisted therapy, plus behavioral treatment or counseling, is increasingly recognized as a best practice intervention for opioid use disorder.

- A diagnosed substance use disorder is chronic, and relapse is common.

SAMHSA notes that interventions associated with SBIRT can be brief. It can be a single session, as brief as 5 minutes, and it can target one or more specific behaviors associated with alcohol and/or drug use. This initial intervention occurs in a non-substance use treatment setting, making trauma centers an appropriate environment for an initial intervention for alcohol and/or drug use. Refer to Figure 1 on page 10 for a concise overview of the SBIRT process and recommended levels of intervention.

An SBIRT *brief intervention* (BI) generally includes one to five sessions that last between 5–60 minutes. The goals are to increase patient motivation to make a change in their substance use, to educate them about their substance use, and/or to increase motivation to seek more in-depth treatment based on referrals provided. The BI generally follows a motivational approach, consistent with a motivational interviewing framework.[1] Provide the BI immediately following screening, or as close in time as possible. Preferably, the BI is provided as early as possible during in-hospital treatment when the patient is alert and oriented. This helps assure best care practices are provided prior to discharge. The BI provider can be a clinician (e.g., a registered nurse, psychologist, social worker, counselor, addiction specialist, health educator, injury prevention specialist, or other health professional) or a peer counselor. The BI provider does not need to be the same person who conducted the screening. It is important for the BI provider to have substance use BI education, as well as ongoing education and/or supervision. BIs are often the most common intervention provided within trauma centers.

*Brief treatment* is intended to be 5 to 12 sessions that often include more in-depth treatment approaches that target reductions in substance use (e.g., cognitive-behavioral therapy and motivational enhancement therapy). Some trauma centers have the clinicians and resources to provide brief treatment within their organization.

Individuals with screening results meeting severe levels for alcohol and/or drug use (e.g., meeting diagnostic criteria for an alcohol or substance use disorder) are referred to longer or more intensive specialty treatment. Facilitating successful referral to specialty substance use treatment is often dependent on having integrated or coordinated services within a facility or strong linkages to community-based providers. Provide patients with a menu of treatment referral options, that span treatment goals (e.g., harm reduction or abstinence) and modalities (e.g., intensive outpatient, residential, or individual therapy), to enhance the likelihood they will seek additional services. BIs within the trauma setting often need to focus on enhancing motivation to seek specialty and intensive treatment following rehabilitation services.

## Brief Intervention for Alcohol

Substantial empirical evidence supports SBIRT for alcohol use among trauma patients. A review of SBIRT studies involving patients presenting to the emergency department found patients reported less alcohol use, had fewer negative consequences due to their alcohol use, and had a decline in repeat emergency department visits after a BI.[2] Conservative measures in large population SBIRT studies demonstrated a reduction in alcohol use by 35% and heavy drinking (defined as drinking to intoxication) by more than 40%.[3]

Consistent with an SBIRT model, the selected intervention for alcohol use is based on the screening results. Most individuals (70%) screened for alcohol use fall into the "no or low risk" group and do not need follow up intervention. A substantial number of patients (15%) fall into the "moderate risk" group for which a BI is warranted.[4] Although BIs can take many forms, they most commonly focus on three areas within the context of alcohol use treatment:

- Provide the individual with screening results—how their drinking compares to the general population.
- Explore the individual's view of their drinking and changes they may want to make, if any.
- Assist the individual to navigate the available options for making a change to their alcohol use, e.g., attempting to reduce drinking on their own or seeking outpatient treatment.

See Box 3 for examples of methods to introduce screening results and brief interventions.

**Box 3.** Examples of Methods to Introduce Three Common Foci of Brief Interventions

> **Results from Screening:** If it would be okay with you, I would like to go over the results of your screening and learn more from you about how things are going.
>
> **Exploring Patients Point of View:** What do you make of these [screening] results? How does this fit with your goals for the future?
>
> **Navigating Change Options:** Based on all of this, where do you want to go with your use of alcohol? What, if any, changes to your alcohol use are you considering making over the next few months?

BIs are typically conducted in the spirit of motivational interviewing, with the provider engaging in active listening while displaying compassion and empathy. The provider and patient work in partnership with each other, and the provider accepts the patient as they are and the decisions made. The provider evokes from patients their personal strengths and existing motivations.[1] Key processes inherent to motivational interviewing (e.g., engaging, focusing, evoking, and planning) are used throughout BIs to engage patients to consider potential changes they want to make regarding alcohol use. It is recommended that BI providers receive motivational interviewing education as well as ongoing supervision or continuing education.

See Box 4 for a sample BI conversation between a provider and patient following a screening for alcohol use.

Brief treatments, generally reserved for patients who screen at moderate-to-high-risk for alcohol use, are more time-intensive and require greater resources and expertise to implement. These treatments include empirically supported interventions for alcohol use, such as cognitive-behavioral therapy, relapse prevention, or mindfulness-based relapse prevention. The treatments often involve 5 to 12 sessions and are provided by clinicians with expertise in treating substance use (e.g., psychologists, social workers). The treatments typically begin after hospital discharge in an outpatient setting. An estimated 3–5% of patients fall into the moderate-to-high-risk group based on screening within trauma centers.[4] Trauma centers are recommended to have a list of providers for brief treatments in their catchment area to facilitate referral to treatment.

## Brief Intervention for Drugs

Despite widespread empirical support for SBIRT related to alcohol use, mixed empirical support exists for SBIRT effectiveness for drug use. Madras, et al., found reductions in illicit drug use of 67% following SBIRT.[4] DiClemente, et al., studied components of SBIRT for opiates and methamphetamines, including BIs that used motivational interviewing, and found insufficient evidence to support these approaches.[5] The prevailing belief is that SBIRT for drug use (including illicit drug use and prescription drugs used not as prescribed) remains the standard of treatment for patients who screen positive for moderate or higher drug use.

BI for drug use, similar to intervention for alcohol use, provides BIs to those at moderate risk, brief treatments to those at moderate-to-high-risk, and referral to specialty treatment to those at greatest risk. One notable difference for drug use can be referral for medication-assisted therapy (e.g., buprenorphine, naltrexone) for patients who screen at-risk for opiate use and want to stop their use. When feasible, evaluate for and consider initiation of medication-assisted therapy during hospitalization and before discharge.

**Box 4.** Sample Brief Intervention

# Sample Brief Intervention

The patient has positive screening results. However, because the AUDIT indicates that the patient has an early, and relatively mild, drinking problem, only simple advice is needed. This intervention takes about 3 minutes.

| | |
|---|---|
| **Transition statement to move from screening to brief intervention** | CLINICIAN: Thank you for answering those questions. Would you be interested to find out how your score on this questionnaire compares with other people?<br><br>PATIENT: Sure, I guess. |
| **Giving information/ feedback** | CLINICIAN: Okay. Well those 10 questions have been given to thousands of people around the world so that people can find out whether it would be good for them to change their drinking. Scores can range from 0-40. Scores between 0-6 (women)/0-7(men) are considered low-risk drinking; scores between 8-15 are considered hazardous drinking, and scores above 15 likely indicate more serious alcohol problems. Your score was 9, which puts your drinking in the hazardous range.<br><br>PATIENT: Oh wow. |
| **Understanding patients' views of drinking and enhancing motivation** | CLINICIAN: Surprised?<br><br>PATIENT: Yeah. I figured I'd be, you know, in the lowest range.<br><br>CLINICIAN: So you thought your drinking was less than average ...<br><br>PATIENT: Yeah, I mean my friends drink more than me. I'm not an alcoholic or anything like that.<br><br>CLINICIAN: Well, let's not worry so much about labels here. I'm more concerned about whether your drinking is going to hurt you in the future or not.<br><br>PATIENT: Yeah.<br><br>CLINICIAN: Many of our patients are surprised to learn what their scores are, and it's just an opportunity to think about making a change. If you were to do that, your chances of avoiding another injury in the future would be much better.<br><br>PATIENT: I don't know about quitting, that seems like way overkill for me. But maybe I could cut down. |
| **Giving advice and negotiating** | CLINICIAN: Many patients can successfully cut down so they reduce their risk of injury and other problems. Men who are successful in cutting down are able to drink no more than 4 standard drinks per occasion and no more than 14 drinks per week. What do you think you'll do?<br><br>PATIENT: Well, I guess I could give it a try. It's not like it's a big deal to me or anything...<br><br>CLINICIAN: That's really great. You sound determined. So your limit would be no more than 4 drinks per occasion (beers, 5 oz. of wine or a mixed drink with 1.5 oz of spirits), and no more than 14 drinks per week. It's a good opportunity for you to test your control over alcohol. Just remember that this guideline means you can't have all of your weekly drinks in one day! (both laugh) And most important of all, no drinks at all if you're driving.<br><br>PATIENT: Yeah, well I think I can stay under those limits pretty easily. And also, I never drink and drive anyway.<br><br>CLINICIAN: Really? That's great to hear. How do you avoid that?<br><br>PATIENT: If I take my car out, I just don't drink anything, period, end of story. And if I know I'm going to drink, I use a designated driver. |
| **Closing on good terms** | CLINICIAN: Good for you, and thanks for talking with me. |

**From:** American College of Surgeons Committee on Trauma. Alcohol screening and brief intervention (SBI) for trauma patients: COT quick guide. https://www.facs.org/-/media/files/quality-programs/trauma/vrc-resources/alcohol-screening-and-brief-intervention-sbi-for-trauma-patients-cot-quick-guide.ashx. Accessed December 5, 2021.

## 12-Step Groups

The most common form of peer support for substance use in the United States is a 12-Step Group, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA). This is a common referral resource for individuals with alcohol or substance use problems. These abstinence-based groups are guided by 12-steps that individuals work through to grow spiritually, repair harm they have caused to others and themselves, and achieve abstinence from alcohol (AA) or drugs (NA). These groups also include a strong focus on community support and encourage participants to obtain a "sponsor" (e.g., an individual who is in recovery from alcohol/drug use who can help guide/provide support to new members). AA and NA view substance use as a "disease" and encourage individuals to accept that they have a disease that can be controlled only through abstinence. AA and NA programs are widespread throughout the United States and are free of charge. Growing empirical evidence supports AA and NA in the reduction of substance use.[6] Providers need to be mindful that many patients view AA and NA as stigmatizing because these groups view substance use as a disease and individuals having this disease as "addicts". Thus, referral conversations need to consider the goals of the patient (e.g., abstinence) and treatment preference (e.g., group or individual).

## Relapse to Substance Use

Alcohol and drug use disorders are considered difficult to treat with high rates of relapse.[7] Relapse is a broad term that may encompass the first occurrence of substance use following a period of abstinence or a return to pre-intervention levels of substance use following treatment. An estimated 50% of patients relapse following various forms of substance use treatment.[8] Individuals with co-occurring mental health problems are at greater risk for relapse to alcohol and/or drug use compared to individuals without co-occurring mental health problems.[9] Clinicians need to understand that a diagnosed substance use disorder is chronic, relapse is common, and it does not indicate treatment failure. Relapse is one step in the substance use treatment journey that many patients experience.

## Addressing Alcohol Withdrawal

An estimated 50% of patients admitted to trauma centers report problems associated with alcohol use.[10] Monitoring patients for alcohol withdrawal syndrome (AWS) is important. AWS has signs and symptoms ranging from anxiety, restlessness, difficulty sleeping, and fine tremor, to delirium and seizures. Approximately 1% of admitted trauma patients demonstrate signs of AWS.[11] Another study reported 15–30% of surgical trauma patients have evident AWS.[12] Because many AWS symptoms can be misattributed to physiological responses from acute trauma, it is essential to evaluate patients with high-risk alcohol use for AWS.[13] Prior to any intervention for alcohol use by providers with a specialty in substance use treatment, AWS must be treated, and potentially include medical detoxification.

## Harm Reduction versus Abstinence

In general, the goal of BIs in an SBIRT model, within trauma centers, is to help reduce substance use frequency and associated harms.

**Harm reduction** principles focus on reducing danger or harm associated with substance use (e.g., helping patients use alcohol/drugs in a less risky way), rather than complete abstinence from substances.[14] This approach recognizes that not every individual is ready to, or wants to, completely stop their use of alcohol and/or drugs. The priority emphasis is reducing harms associated with use, which may include moderation of use. For example, harm reduction can focus on increasing motivation to use rideshare services when drinking rather than driving, or to encourage access to needle exchange programs that reduce harms associated with intravenous drug use.

**Abstinence-based interventions** focus on sustaining the individual's efforts to abstain from alcohol and/or drugs. Abstinence-based approaches generally assume that individuals are unable to moderate their use of alcohol and/or drugs, and abstinence is the only suitable treatment outcome. Abstinence-based treatments are most commonly associated with 12-step facilitation models (e.g., Alcoholics Anonymous/Narcotics Anonymous).

## Mental Health Comorbidities

Many individuals with an alcohol or substance use disorder, or risky alcohol and drug use, have co-occurring mental health disorders. In the United States, an estimated 9.2 million adults have a co-occurring substance use disorder and mental health disorder.[15] Consider the impact of co-occurring mental health problems when initiating treatment for alcohol and/or drug use. The prevailing treatment suggestion is to simultaneously target substance use and co-occurring mental health problems.[16] Referral to specialty care for individuals with co-occurring disorders is often necessary for provision of empirically-supported brief treatments. BIs, within the context of SBIRT, can also include a focus on enhancing motivation to engage in mental health treatment and follow up.

## Medication-Assisted Therapies

For patients with opioid use disorder, medication-assisted therapy, plus behavioral treatment or counseling, is increasingly recognized as a best practice intervention. Medications used for opioid use disorder (e.g., methadone, buprenorphine, naltrexone) are intended to reduce cravings for the drug and/or reduce withdrawal symptoms. Providers of medication-assisted therapies are usually located in hospital settings, outpatient clinics, and substance use treatment centers. Referral for medication-assisted therapies is a primary intervention for patients with opioid use disorder. Medication-assisted therapies, particularly naltrexone, are increasingly utilized for patients with alcohol use disorders.

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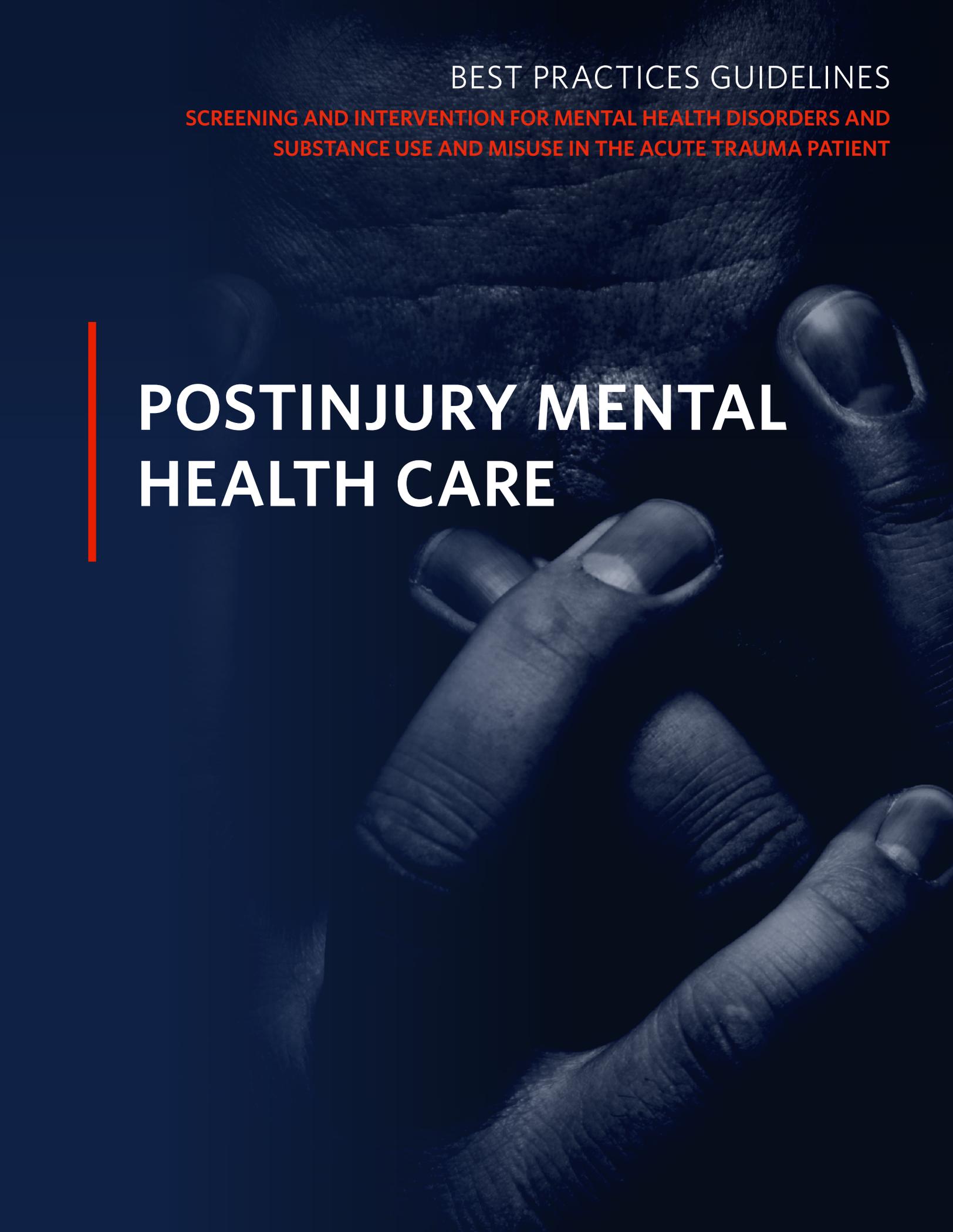
# POSTINJURY MENTAL HEALTH CARE

# THE IMPORTANCE OF POSTINJURY MENTAL HEALTH SCREENING AND INTERVENTION

## KEY POINTS

- PTSD and depression are prevalent and increasing among trauma patients, and these conditions significantly impact the patient's quality of life.
- The ACS-COT recently incorporated mental health screening and standardized protocols for referral to services in the *2022 Resources for Optimal Care of the Injured Patient*.
- Validated screening instruments are available for adult and pediatric hospitalized patients.
- Models of care and efficacy of specific types of interventions to reduce distress are still emerging.

Within the first year after injury, an estimated 21% of traumatic injury survivors develop PTSD and an estimated 23% develop depression symptoms.[1] In communities exposed to recurrent violence and defined mass conflict, the prevalence of PTSD and severe distress is increased.[2] These findings may be applicable to settings without an actual war, such as settings where pervasive and recurrent community violence occurs. These symptoms significantly impact quality of life for patients. Therefore, identifying who is at greatest risk for long-term distress is warranted given the high rates of posttrauma mental health conditions. See Boxes 5 and 6 for definitions of PTSD and depression.

Mental health difficulties such as PTSD and depression are prevalent in the pediatric population postinjury as well, with 20-30% of pediatric trauma patients reporting mental health symptoms and/or decreased quality of life.[3-8] Untreated PTSD and depression are major risk factors for deficits in other domains, including physical recovery, social functioning, and quality of life.[9–11] Significant depression and PTSD symptoms have also been found in 20-40% of caregivers with traumatic injuries, with caregiver symptoms inversely related to children's recovery.[5,12] Across Level I and Level II trauma centers in the U.S. in 2014, less than 25% are screened for depression and 7% for PTSD symptoms.[10,14] In a recent study by Ridings and colleagues, 28% to 36% of pediatric trauma centers had protocols for assessment, and 18% to 20% for psychoeducation postinjury.[15]

Failure to screen patients with traumatic injury for mental health difficulties leaves up to 90% of those with postinjury PTSD or depression without adequate care to address these and related needs.[10] Trauma centers can help to address limited access to mental healthcare through screening for risk for long-term distress following injury.

## Framework for Early Intervention

Early intervention for PTSD and depression following injury can range from cognitive behavioral interventions (e.g., behavioral activation, prolonged exposure therapy) to psychopharmacologic intervention. For pediatric populations, it can include family members/guardians as a part of care. While no current consensus exists on the most efficacious treatment to prevent chronic PTSD and depression following injury, models of care that have specific treatment elements within them have demonstrated significant reductions in PTSD and depression (e.g., Stepped, Collaborative Care).[11] These models of care and evidence are reviewed below.

The International Society for Traumatic Stress Studies (ISTSS) published guidelines on prevention and early treatment interventions for children and adults at risk for PTSD.[17] Based on the Institute of Medicine's (IOM) classification of prevention, these guidelines included early treatment. Rather than recommending the provision of psychological intervention for all trauma patients, the ISTSS guidelines emphasized the importance of providing psychological intervention to patients actively experiencing distress or at greatest risk to experience mental health concerns after a traumatic injury. Not all patients demonstrate symptoms during hospitalization or the early days postdischarge. Provision of early treatment is most likely to be provided in the outpatient setting, using either integrated behavioral health care services within outpatient trauma surgery follow up clinics or in collaboration with existing specialty mental health services.

**Box 5.** Definition of PTSD[16]

**Note:** The following criteria apply to adults, adolescents, and children older than 6 years. For children 6 years and younger, see the DSM-5 section titled "Posttraumatic Stress Disorder for Children 6 Years and Younger".

A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:
1. Directly experiencing the traumatic event(s).
2. Witnessing, in person, the event(s) as it occurred to others.
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse). **Note:** Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.

B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s). **Note:** In children older than 6 years, repetitive play may occur in which themes or aspects of the traumatic event(s) are expressed.
2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s). **Note:** In children, there may be frightening dreams without recognizable content.
3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) **Note:** In children, trauma-specific reenactment may occur in play.
4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:
1. Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

D. Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
1. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia, and not to other factors such as head injury, alcohol, or drugs).
2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., "I am bad," "No one can be trusted," "The world is completely dangerous," "My whole nervous system is permanently ruined").
3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
4. Persistent negative emotional state (e.g., fear, horror, anger, guilt, or shame).
5. Markedly diminished interest or participation in significant activities.
6. Feelings of detachment or estrangement from others.
7. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
1. Irritable behavior and angry outbursts (with little or no provocation), typically expressed as verbal or physical aggression toward people or objects.
2. Reckless or self-destructive behavior.
3. Hypervigilance.
4. Exaggerated startle response.
5. Problems with concentration.
6. Sleep disturbance (e.g., difficulty falling or staying asleep)

F. Duration of the disturbance (Criteria B, C, D and E) is more than 1 month.

G. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

H. The disturbance is not attributable to the physiological effects of a substance (e.g., medication, alcohol) or another medical condition.

**Box 6.** DSM-IV to DSM-5 Major Depressive Episode/Disorder Comparison[16]

| Criteria[1] | DSM-IV | DSM-5[2] |
|---|---|---|
| Class: Mood Disorders | ✓ | |
| Class: Depressive Disorders | | ✓ |
| Five or more of the following A Criteria (at least one includes A1 or A2) | ✓ | ✓ |
| A1 Depressed mood—indicated by subjective report or observation by others (in children and adolescents, can be irritable mood). | ✓ | ✓ |
| A2 Loss of interest or pleasure in almost all activities—indicated by subjective report or observation by others. | ✓ | ✓ |
| A3 Significant (more than 5 percent in a month) unintentional weight loss/gain or decrease/increase in appetite (in children, failure to make expected weight gains). | ✓ | ✓ |
| A4 Sleep disturbance (insomnia or hypersomnia). | ✓ | ✓ |
| A5 Psychomotor changes (agitation or retardation) severe enough to be observable by others. | ✓ | ✓ |
| A6 Tiredness, fatigue, or low energy, or decreased efficiency with which routine tasks are completed. | ✓ | ✓ |
| A7 A sense of worthlessness or excessive, inappropriate, or delusional guilt (not merely self-reproach or guilt about being sick). | ✓ | ✓ |
| A8 Impaired ability to think, concentrate, or make decisions—indicated by subjective report or observation by others. | ✓ | ✓ |
| A9 Recurrent thoughts of death (not just fear of dying), suicidal ideation, or suicide attempts. | ✓ | ✓ |
| The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. | ✓ | ✓ |
| The symptoms are not due to the direct physiological effects of a substance (e.g., drug abuse, a prescribed medication's side effects) or a medical condition (e.g., hypothyroidism). | ✓ | ✓ |
| The symptoms do not meet criteria for a mixed episode[3] | ✓ | |
| There has never been a manic episode or hypomanic episode. | ✓ | ✓ |
| MDE is not better explained by schizophrenia spectrum or other psychotic disorders. | ✓ | ✓ |
| The symptoms are not better accounted for by bereavement (i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation).[4] | ✓ | |

1. The symptom must either be new or must have clearly worsened compared with the person's pre-episode status and must persist most of the day, daily, for at least 2 weeks in a row. Exclude symptoms that are clearly due to a general medical condition, mood-incongruent delusions, or mood-incongruent hallucinations.

2. Symptom must persist most of the day, daily, for at least 2 weeks in a row, excluding A3 and A9.

3. A mixed episode is characterized by the symptoms of both a major depressive episode and a manic episode occurring almost daily for at least a 1-week period. This exclusion does not include episodes that are substance induced (e.g., caffeine) or the side effects of a medication.

4. This differentiation requires clinical judgment based on cultural norms and the individual's history.

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# CORE POSTINJURY MENTAL HEALTH CARE PROGRAM COMPONENTS

### KEY POINTS

- ACS verification standards state that all trauma centers must have a protocol to screen patients at high risk for psychological sequelae with a process for referral to a mental health provider.
- Additional trauma programs include brief assessment and intervention, in addition to screening, as a part of care for the injured patient.
- Develop screening protocols only in the context of adequate treatment and referral protocols.

Similar to the SBIRT model developed to address alcohol and substance use, comprehensive postinjury mental health programs often include protocols for inpatient screening, brief intervention, and referral to outpatient mental health services. Some programs also have outpatient mental health care for trauma patients post discharge. Adequate resources and personnel are needed to provide mental health services, and these resources are not always readily available within trauma centers.[1] With the current limited infrastructure of mental health care, inpatient trauma programs are encouraged to include some or all of the following core elements when implementing mental health programming.

## Screening

The American College of Surgeons (ACS) currently recommends that all trauma centers have a protocol for mental health screening.[2] *Screening* is a form of triage, an effort to determine if a patient is at risk for developing long-term distress following injury that might warrant further evaluation or intervention. The screening process is not designed to establish an accurate psychological or psychiatric diagnosis, but to determine if such a diagnosis is likely, and to identify those in need of early intervention and potential referral. The dilemma regarding the utility of screening in the setting of inadequate referral and treatment resources needs to be addressed by health care organizations. Availability of treatment resources, particularly after a positive screen, is necessary to enhance

care and can also be challenging. Kazlauslas noted that poor health infrastructure can negatively influence access to mental health resources; and even in settings where the patient population is known to potentially be at higher risk for mental health issues, resources may not be readily available.[3,4] Consider development of a referral/resource base simultaneously with screening protocols to promote more effective program functioning. Consider adapting the guidelines used to fit the resources available for a program.[5]

## Assessment

Trauma centers able to employ mental health specialists may also consider implementing *brief assessment* protocols. A brief assessment of mental health-related symptoms (e.g., anxiety, mood, sleep) is conducted after a positive screen or after another provider has identified the need for a mental health consult. The brief assessment further defines the nature and extent of current distress and possible diagnosis (such as Acute Stress Disorder [ASD]) to guide brief intervention, a treatment plan and referral.

## Brief Intervention

Based on the brief assessment, trained mental health professionals can provide a *brief intervention* during the inpatient admission. The brief intervention flows from the patient and/or caregiver assessment, and targets the most distressing symptoms. The types of interventions provided and the care coordination vary depending upon the postinjury mental health care model adopted, already existing services and resources, trauma center level, and resources available. Brief intervention can include pharmacotherapy for insomnia and nightmares, targeted cognitive and behavioral interventions for posttraumatic stress symptoms and depression, and motivational interviewing for substance misuse (refer to the Substance Use Brief Intervention section on page 18). Mental and behavioral health providers integrated into the trauma service will determine the best intervention approach based on the presenting problem, and relevant evidence-based treatments for those symptoms. These providers work to coordinate care, as needed, with the trauma team and other providers (e.g., pain management team).

# Referral

Referral for services needs to be available before screening occurs. The provider conducting the screening needs to be educated on how to talk about the results of the screen and how to provide information about outpatient resources. Providers are encouraged to provide patients with referrals for continued mental health services. When available, these services can be provided within the trauma center system of care, or refer the patient to the hospital's mental health clinic, ideally offering a warm handoff. When these services are not available in the facility, provide patients with a list of outpatient *trauma-informed clinicians* within the community. Trauma-informed clinicians have substantial training in understanding and addressing trauma-related sequelae. For rural or geographically isolated trauma centers, providers are encouraged to identify providers who engage in telehealth services.

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## THE MENTAL HEALTH SCREENING PROCESS ACROSS THE LIFESPAN

### KEY POINTS

- Screening is an effort to determine patient risk for long-term trauma-related psychological distress that needs further assessment and intervention, not a process to establish a mental health diagnosis.
- Best practice includes a brief risk screening (optimally between 2–5 minutes) with the trauma patient at bedside.
- Establish and inform patients of the limits of confidentiality within the trauma center before screening.

## Who Performs Screening and Assessment

Adult and pediatric trauma centers have many staffing options to administer mental health screening that can be determined by the facility or specialty service. Screening can be conducted by a wide range of clinicians including a social worker, care manager, registered nurse, counselor, health educator, injury prevention specialist, psychologist, or other health professional. Performing mental health screening does not require mental health expertise, and training in administration of screening is typically brief. Centers with limited staffing or resources to conduct in-person screening can consider automated mental health risk screening based on EMR data.

In trauma centers with active trauma research agendas, specialists such as trauma-informed psychologists, counselors, or clinical social workers are the typical best practice model for implementation of mental health screening and brief intervention. The trauma center can potentially serve as an approved clinical training site for graduate students, such as masters students in counseling or graduate and post-graduate students in clinical and counseling psychology. Clinical trainees can provide assessment and intervention services under the supervision of a clinician (e.g., trauma-informed psychologist, clinical social worker, or clinical addiction specialist) and extend the capacity of a specialist in a cost-effective manner.

## Identifying Who and How to Screen

Mental health screening practices must be tailored to the individual patient, as well as the clinical situation. It is important to recognize that patients may present with traumatic stress predating the physical injury. Trajectory of psychological functioning after the proximate physical injury can be influenced by several risk factors, such as prior trauma exposure, prior psychiatric history or distress, characteristics of the injury, and postinjury reactions. The focus of early screening can include preexisting stress symptoms, non-distress related risk factors, plus symptoms associated with the patient's injury.[1] Best practice includes a brief risk screening (optimally between 2–5 minutes) with the trauma patient at bedside.

For greater population impact, consider screening all patients admitted for injury. This can be completed by an individual or through an automated screen (refer to examples that follow).

## When to Perform Screening

The trauma program's screening and intervention clinical group can determine the best time during the hospital stay to begin the screening process. Multidisciplinary team meetings provide important daily updates on patient progress and help to determine which patients are ready for screening. As with substance use screening, a best practice is to perform screening as the trauma patient becomes medically stable, has a Glasgow Coma Score $\geq$14, is not acutely intoxicated or heavily medicated, and is able to respond to the screening process. This can occur after transfer to the trauma step-down unit or closer to hospital discharge. Ideally screening can be completed as early as possible in the clinical course to allow time for further inpatient assessment and intervention, when appropriate and available, and to ensure appropriate allocation of resources and referrals.

Patients experiencing symptoms of traumatic stress that do not meet diagnostic criteria for ASD or PTSD can still experience significant disruption in functioning and quality of life. While most recover without lasting impairment, continued reassessment of stress symptoms through screening and rescreening is important. Consider as well that the medical care patients receive following

injury can be a traumatic experience and contribute to the development of stress responses. Thus, a dynamic screening process that includes reassessment of stress responses as care progresses is ideal. Additionally, trauma program personnel may observe distress or a change in behavior that can warrant assessment or reassessment, and can place referrals as necessary to mental health providers.

## Consider Trajectories of Functioning and Resilience

When considering implementation of mental health screening and intervention in the trauma setting, it can be helpful to consider the four core trajectories of postinjury symptomatology: resilience, recovery, delayed onset, and chronic distress.[2,3] (Refer to the description of these core trajectories in the Overview section on page 5). Utilizing these trajectories can inform the timing and specificity of mental health screening as well as the type, intensity, and duration of mental health intervention. Most trauma survivors will experience some psychological reactions following injury and hospitalization, and some will go on to recover naturally without intervention.[2,4]

It is important to avoid over-pathologizing what can be a normative reaction to stress following a traumatic event and to recognize that most people will fall into the resilience and recovery trajectories.[3,5] Hospital-based mental health screening within the early days postinjury can primarily focus on determining the patient's risk of developing nonremitting postinjury mental health concerns, rather than on diagnosis of a disorder, with the intention of facilitating or promoting a patients' recovery process.[6] For example, low to moderate distress at beside can signal that the patient is likely on a resilience trajectory and may benefit from normalization, education, and resources to facilitate recovery.

Most patients' reactions will resolve naturally without intervention or with the help of brief intervention. However, when individuals in the hospital screen positive for long-term distress and are symptomatic, they may be at greater risk for a chronic distress trajectory. In this case brief intervention is likely warranted and can be conducted during hospitalization if resources allow. Early identification of individuals with more severe acute stress reactions helps healthcare providers to stratify patients needing

more intensive, immediate psychological care, as well as close follow up. Mental health resources are very limited, and an accurate risk stratification and early identification can direct limited resources to those most in need.[6] Brief intervention may also be indicated when a patient's distress interferes with their ability to engage in care, regardless of the patient's most likely recovery trajectory. Mental health symptom screening can also be administered postdischarge and used to identify individuals experiencing delayed onset of postinjury mental health symptoms or significant chronic distress.[1]

In the field of early intervention for PTSD, *when* is just as important as *what* when considering implementation of mental health interventions. Universal approaches can be more harmful than helpful, and brief intervention was shown to be most effective when tailored to those in acute distress.[7] Risk screening and subsequent symptom screening are important components when determining who can most benefit from intervention and selecting specific interventions to meet the needs of patients at various times during the recovery process. The ISTSS website has information on types of interventions with evidence for early treatment.[8]

## Informed Consent

Establish and inform patients of the limits of confidentiality within the trauma center before screening. It is also important to discuss how information gathered will be documented and utilized by the treatment team; for example, to facilitate a referral to inpatient brief assessment and intervention services or to provide appropriate outpatient mental health resources.

Begin by explaining the nature of the screening and assessment process. Remind the patient or caregiver that the screening tool is not used for diagnosis, rather the screen provides a way to explore if a patient may be at risk for postinjury mental health concerns. One way to explain the rationale for screening is to indicate that trauma center care includes care associated with the physical injury, as well as the emotional impact of the traumatic event and injuries, to help patients find the best course of recovery. Assure that the patient understands the screening process and why certain questions are asked. Explain that it is acceptable to choose to delay a response or to not answer

a question. Be aware that the patient can feel unsafe discussing the occurrence or consequences of traumatic events, as if the event is reoccurring.[9]

Confirm that healthcare team members understand what the screening tools measure. They can then accurately explain the purpose and use of the tool to loved ones and provide information about next steps following screen administration. The mental health specialist can inform and support the healthcare team members' understanding of these screening tools.

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# SELECTING A MENTAL HEALTH SCREENING TOOL

## KEY POINTS

- It is recommended that trauma centers choose screening measures that are validated for the population with traumatic injury to assess for PTSD- and depression-related symptoms.

- A positive screen for PTSD and/or depression needs to trigger a patient referral to the appropriate mental health professional for a more in-depth assessment.

- Screening in the pediatric population needs to include special considerations for age, developmental level, and language ability when choosing screening tools, and the impact of parental distress.

- Conduct hospital-based mental health screening early postinjury to determine patient risk for nonremitting postinjury mental health concerns.

- Consider development of a mental health referral/resource base simultaneously with implementation of the screening process to promote more effective program functioning.

Two major strategies for postinjury mental health screening are:

- *Automated screening.* Automated screening procedures are based on EMR data abstraction to conduct postinjury PTSD and/or depression risk stratification.

- *Clinician-administered screening.* At least one valid screening tool with robust evidence of sensitivity and specificity for detecting risk for postinjury PTSD and depression is administered by a member of the clinical team.

A number of screening tools are validated specifically for hospitalized pediatric and adult trauma patients. This best practices guideline focuses primarily on measures validated specifically for this population to assess risk for postinjury mental health concerns.

Given the significant co-occurrence of postinjury PTSD and depression, screening measures developed specifically for trauma patients may concurrently assess risk for both disorders. Selecting a screening measure that is predictive of the risk for both PTSD and depression may increase feasibility of screening protocols and reduce the clinical staff time burden. Consider the resources (personnel and time) available within the facility when selecting a tool to use. Among adults, questionnaire-style tools were generally found to have higher predictive accuracy than diagnostic interview screening assessments, and these can be more feasible in acute care settings.[1]

## Postinjury PTSD and Depression Screening in Adults

See Table 4 for information about clinical screening tools used to assess adults for PTSD and depression. Descriptions of several individual screeners follow the table.

**Table 4.** Clinical Screening Tools for PTSD and Depression in Adults (See Appendix B-1 to review these mental health screening tools.)

| Validated Screening Tools for Injured Patients | PTSD | Depression | Tool Description | Timing |
|---|---|---|---|---|
| Automated PTSD Screen | X | | Automated risk abstraction tool based on several EMR data points | Inpatient |
| Injured Trauma Survivor Screen | X | X | 9-item yes/no response screener assessing pre-, peri-, and posttrauma risk factors. | Inpatient |
| Patient Health Questionnaire (PHQ) | | X | 2-item or 9-item Likert self-report depression symptom screener | Inpatient; outpatient |
| Peritraumatic Distress Inventory (PDI) | X | X | 13-item self-report Likert scale screener assessing physiological and emotional responses during and after trauma | Inpatient; outpatient—validated for 30 days postinjury |
| Posttraumatic Adjustment Screen (PAS) | X | X | 10-item Likert scale screener assessing pre-, peri-, posttrauma risk factors | Inpatient |
| PTSD Checklist-5 | X | | 4-item, 8-item, or 20-item Likert self-report questionnaire assessing PTSD symptoms | Inpatient following brief screen; Outpatient |

**Automated PTSD Screen**. Russo and colleagues developed an automated screen designed to assess postinjury PTSD among hospitalized patients based on data from the EMR.[2] Data abstracted from the EMR includes gender/sex, race, insurance status, intensive care unit (ICU) visit, previous hospitalizations, intentionality of injury, tobacco use, blood alcohol content or previous substance use disorder, and history of mental health diagnosis. While an automated screen reduces staff time burden, its performance is impacted by the quality and completeness of EMR data. Additional upfront implementation support can be required to ensure data quality.

**Injured Trauma Survivor Screen (ITSS)**. The ITSS assesses risk for postinjury PTSD and depression. It is validated with and specifically intended for hospitalized injury survivors.[3,4] The ITSS consists of nine yes/no items that assess the patient's preexisting mental health history, characteristics of the injury that are associated with an elevated risk, and reactions since the injury. Refer to the Multi-Tier Approach to Psychological Intervention after Traumatic Injury (MAP-IT) on page 39 for an overview of implementation of the ITSS into routine practice.

**Peritraumatic Distress Inventory (PDI)**. The PDI is a 13-item self-report Likert screener that assesses peri- and posttrauma physiological and emotional responses to predict risk for postinjury PTSD and depression. The PDI was initially administered to patients 30 days postinjury, and it performed well as a diagnostic risk assessment.[5] Additional studies are needed to assess the validity of the PDI as a predictive risk screen that can be administered in the days and weeks postinjury. A unique strength of the PDI is its availability and strong validity in several languages.

**Posttraumatic Adjustment Screen (PAS)**. The PAS is a predictive screen for postinjury PTSD and depression that was validated in a study of patients admitted to Level I trauma centers in Australia. It is a 10-item Likert-style screener that assesses pre-, peri-, and posttrauma risk factors. The PAS demonstrates reliable prediction of PTSD based on a cutoff score of 16.[6] Importantly, the PAS was validated with a small percentage of traumas resulting from assault (5%); this may impact external validity in US trauma centers with greater numbers of patients admitted for trauma from assault.

**PTSD Checklist-5 (PCL-5)**. The PCL-5 is a 20-item Likert-type self-report questionnaire designed to assess symptoms associated with diagnostic criteria for PTSD based on the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.* Its purpose is to determine probable diagnosis. Both a 4-item and 8-item abbreviated PCL-5 were validated with hospitalized trauma patients and were shown to have acceptable diagnostic utility.[7,8] Further validation of the PCL-5 predictive utility is needed. See Appendix B-1 for the PTSD Checklist-5.

## Postinjury PTSD and Depression Screening in Children and Youth

Considerations for pediatric screening must include the child's age, cognitive development, and acquired language skills. Screening tools may be administered by a medical professional, child, parent, or the clinical provider. Screening tools based on self-report are typically appropriate for children aged 8 years and older. When selecting a screening tool, assure that the screening tool was validated for the age group of interest, timing of use relative to the injury event, and method of administration.[9]

Several pediatric screening tools are available, but no gold standard exists for early mental health triage of children following traumatic injury. The screening tools selected for inclusion were validated in or are regularly used acutely in pediatric trauma centers. See Table 5 for information about selected pediatric screening tools.

When choosing measures to use when screening children for PTSD and depression, several unique pediatric considerations are important:

- *Developmental and cognitive limitations.* Many children are limited in their ability to express or understand their emotional stress. Few tools are validated for very young and non-verbal children, and little is known about the prevalence of certain mental health conditions in young children.
- *Child/caregiver dyad.* The loss of a sense of personal safety, which includes loss of or threat to caregivers can be particularly destabilizing for young children. This is reflected in the newer DSM-V PTSD criteria for children 6 years or younger.[10]
- *Caretakers' perceptions and caretakers' own symptoms.*

**Table 5.** Clinical Screening Tools for PTSD and Depression in Children and Adolescents (see Appendix B-2 for several of these screening tools)

| Validated Screening Tools and Age Group | PTSD | Depression | Tool Description | Timing |
|---|---|---|---|---|
| Acute Stress Checklist for Children (ASC-Kids) 8 to 17 years | X | | Evaluates acute stress reactions in children; brief (1–2 minute) and full (5–10 minute) version are available | 3 days to one month following a traumatic event |
| Child Trauma Screening Questionnaire (CTSQ) 7 to 16 years | X | | A 10-item survey adapted from an adult PTSD screening tool consisting of items that indexed PTSD-like symptoms | |
| Peritraumatic Distress Inventory – Children (PDI-C) 8 to 17 years | X | X | A 13-item self-report Likert scale screener assesses physiological and emotional responses during and after trauma | Conducted in emergency department and outpatient setting up to 30 days postinjury |
| Screening Tool for Early Predictors of PTSD (STEPP) 8 to 17 years | *X* | | A 12-item instrument administered by clinicians, contains four dichotomous questions for the child, four questions for the parents, and four data points gathered from the medical record | Can be implemented at the bedside of a trauma patient |
| Australian version of STEPP (STEPP-AUS) 7 to 17 years | *X* | *X* | An eight-item instrument that measures risk factors for child and/or parent developing PTSD; also assesses for symptoms of depression | Immediately after injury (in the emergency department) and up to 4 weeks after injury |
| Child Stress Disorders Checklist Short Form (CSDC-SF) 6 to 18 years | X | | Assesses traumatic stress reactions in injured children; does not require special training to administer | During hospitalization, and up to three months postinjury |
| Young Child PTSD Screen (YCPS) 3 to 6 years | X | | Child traumatic stress symptoms six-item tool to determine which patients may benefit from evidence-based mental health treatment for PTSD symptoms | Acute aftermath of traumatic events (2-4 weeks after an event); in settings where time for longer assessments or more in-depth mental health assessment is not available |
| Pediatric Emotional Distress Scale Early Screener (PEDS-ES) 6 to 9 years | X | X | Symptoms often seen in young children after a traumatic event (anxious/withdrawn, fearful, acting out) | Administered within 6 to 13 days post-accident |

- *Pediatric manifestations of traumatic stress.* Pediatric manifestations can present with behavior changes or be misdiagnosed with similar mental health condition. Recognition of these manifestations of traumatic stress enable earlier and more accurate referral for focused mental health services.

  – Many children are restless or have trouble focusing in school; and these symptoms are often misidentified as attention-deficit/hyperactivity disorder (ADHD). ADHD is much more commonly diagnosed in children than PTSD.

  – Acute and long-term reactions to stress often manifest in subtle behavioral changes in children including withdrawing from friends, demonstrating developmental regression (start thumb sucking), somatic complaints, or engaging in imaginary play that is seemingly unrelated to the inciting event.

**Acute Stress Checklist for Children**. Developed by the Center for Pediatric Traumatic Stress, the ASC-kids is a brief, practical self-report measure of acute stress disorder (ASD) reactions (including ASD diagnostic criteria) designed for children and adolescents between the ages of 8 and 17 years.[11-14] A full-length ASC-Kids (English) and CEA-N (Spanish) is available, as well as the six- and three-item screening versions (ASC-6 and ASC-3; CEA-6 and CEA-3), with scoring instructions. For additional information see www.HealthCareToolbox.org/acute-stress-checklist.

**Child Trauma Screening Questionnaire**. The CTSQ is a 10-item self-report screen which can be used to help identify children at risk of developing PTSD. The questions are designed to assess traumatic stress reactions in children and adolescents aged 8 to 17 years following a potentially traumatic event.[14] The screen was adapted from the 10-item Trauma Screening Questionnaire (TSQ) designed for adults.

This screen was chosen because Brewin and colleagues (2002) found that the screen was an excellent predictor of PTSD in adult survivors of a rail crash (sensitivity: 0.86; specificity: 0.93; PPV: 0.86; NPV: 0.93; overall efficiency: 0.90).[15] The child version of the TSQ, the CTSQ was adapted for this study by rewording the questions to make them more comprehensible for children. The screen was given to a pilot sample to test for comprehension, and no problems were identified. This tool can be obtained from https://www.nctsn.org/measures/child-trauma-screening-questionnaire.

**Peritraumatic Distress Inventory (PDI)**. See the description of this tool in the section on adult screening tools. The PDI can also be used as a self-report tool for children and adolescents aged 8 to 17 years.[16]

**Screening Tool for Early Predictors of PTSD (STEPP)**. Identifying children and parents at risk of PTSD creates an opportunity to monitor them. A system of stepped care, offering timely treatment, if needed, can contribute to the prevention of chronic trauma-related disorders. For this purpose, Winston and colleagues developed the Screening Tool for Early Predictors of PTSD (STEPP). The tool asks questions of the child or adolescent aged 8 to 17 years, the parent, and collects data from the EMR. The STEPP appeared to be effective in identifying those who are at risk of persistent posttraumatic stress—both children and their parents—following traffic-related injury to children.[17]

**Australian version of STEPP (STEPP-AUS)**. This is an eight-item screening tool developed from STEPP. In the STEPP-AUS, children and adolescents (N = 90; aged 7–17 years) were assessed within 4 weeks of an injury requiring hospital treatment and followed up 3 and 6 months later. Screening methods were adapted from existing instruments and examined: (a) an Australian version of the Screening Tool for Predictors of PTSD (STEPP-AUS), (b) an abbreviated measure of initial PTSD severity, and (c) an abbreviated measure of initial maladaptive trauma-specific beliefs. The STEPP-AUS correctly identified 89% of the children who developed PTSD at 6-month follow up and the 69% of children who were non-PTSD.[18]

**Child Stress Disorders Checklist Short Form**. The CSDC-SF is a brief four-item measure that assesses traumatic stress reactions in injured children aged 6 to 18 years, based on caregiver report.[19,20] Because the measure is very short and does not require specialized training for administration or interpretation, it may be a useful tool for providers who treat injured youth to identify those at risk for traumatic stress reactions.

**Young Child PTSD Screen**. This tool is intended to quickly screen young children 3 to 6 years old for PTSD in the acute aftermath of traumatic events (2–4 weeks after an event) and/or in settings where there would not be time for longer assessments or more in-depth mental health assessment is not available.[21]

**Pediatric Emotional Distress Scale Early Screener (PEDS-ES)**. This survey instrument is administered to parents of injured children within 2 weeks of the injury. It assesses the frequency of 21 problematic behaviors using a four-point Likert scale. This measure was designed to rapidly assess and screen for elevated symptomatology in children aged 6 to 9 years following exposure to a stressful and/or traumatic event. Information is collected by caregiver report. It is not intended to be a diagnostic instrument. It consists of behaviors that have been identified in the literature as associated with experiencing traumatic events and consists of 17 general behavior items and four trauma-specific items. The measure yields scores on the following scales: 1) Anxious/Withdrawn, 2) Fearful, and 3) Acting Out. Of the four trauma-specific items, two are loaded on a separate Talk/Play factor.[22,23]

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# POSTINJURY MENTAL HEALTH INTERVENTION ACROSS THE LIFESPAN

## KEY POINTS

- Models for postinjury mental health care programs vary in their approach to identify patients for screening, referral for consultation, and type of treatment provided.

- Consider the resources available at the trauma center to identify the model appropriate for trauma center implementation.

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After screening, targeted assessment and evaluation may be warranted for patients who screen positive. A best practice is for mental health symptom assessment and evaluation to be completed by a trained mental health professional, such as a psychologist, licensed clinical social worker, or psychiatrist. The trauma program can employ a mental health professional to provide further assessment and brief intervention during admission. Trauma programs can also establish collaborative relationships with mental health professionals within the larger facility or in the community to facilitate referral to mental health assessment and intervention postdischarge.

After receiving a referral for a patient after a positive screen or because of mental/behavioral health concerns from a trauma provider, the trained mental health professional will gather information prior to meeting with the patient to perform the assessment. Patient information gathered may include the following information:

- Patient demographics (e.g., gender/sex, race/ethnicity, insurance status, age)

- Past or current alcohol, tobacco, or substance use (when available)

- Preexisting mental health history or trauma exposure (when available)

- Mechanism and intentionality of injury

- Injury severity

- Critical care admission

- Previous hospitalizations

- Death of a loved one from trauma

- Glasgow Coma Scale score on admission

Further history of the patient relevant to their psychological care will be gathered during the assessment.

Brief intervention can be provided by a mental health clinician during hospitalization. This intervention can be a single session or multiple sessions provided over the course of a prolonged hospitalization. Sessions tend to last 5 to 60 minutes, and they can include family members or co-treatment with interdisciplinary treatment team members (e.g., physical therapist, speech language pathologist). Brief intervention is informed by the results of screening and brief assessment. It is targeted to a patient's most pertinent concerns or source of distress (e.g., traumatic stress reactions, sleep disturbance, pain, grief) and/or recovery interfering behaviors (e.g., treatment adherence). Brief intervention may also be used to mitigate the impact of preexisting mental health concerns related to adjustment to injury and hospitalization. Brief intervention is provided shortly after assessment and preferably as early in the hospitalization course as possible. The brief intervention provider can be a different provider than one who conducted the screening.

Brief intervention during hospitalization can be used to increase motivation or facilitate access to outpatient mental health treatment. Some trauma centers have the clinicians and resources to provide brief treatment within their organization which may help to facilitate engagement in postdischarge mental health treatment services.

## Existing Models of Postinjury Mental Health Care and Intervention Programs

### Stepped, Collaborative Care Model

The Stepped, Collaborative Care Model was developed at Harborview Medical Center in Seattle, WA. It was designed for delivery to patients over the first 12 months postinjury in the inpatient surgical setting, outpatient surgical clinics, and by phone as patients transition to primary care and community-based rehabilitation. Stepped, collaborative care can begin with population-based, automated EMR screening for PTSD.[1] After screening is completed, stepped, collaborative care provides continuous care management services to help patients navigate psychosocial stressors and obstacles that may impede physical and psychological recovery postinjury. Care managers, which can include

nurses, coordinate services provided to trauma patients across the continuum of care, and they provide brief behavioral interventions. These interventions include:[2-5]

- Behavioral activation to support adaptive coping and adjustment and

- Motivational interviewing to target problematic alcohol use and other high-risk behaviors that may contribute to trauma recidivism.

Embedding psychotherapeutic intervention elements within care management improves overall population impact.[6]

Pharmacotherapy targeting PTSD and related comorbidity, such as depression, is also an essential component of the evidence-based stepped, collaborative care intervention. Patients receive care management and complete the PTSD Checklist (PCL-5) to identify and monitor symptoms of PTSD to aid treatment planning. For patients experiencing significant PTSD symptoms, a mental health professional (master's level) provides cognitive behavioral therapy intervention, including psychoeducation, relaxation strategies, cognitive restructuring, and graded exposure. The team prescriber (e.g., physician, nurse practitioner) provides the medication intervention intended to initiate and optimize adherence to PTSD-focused psychopharmacological treatment (e.g., sertraline 75–200mg, paroxetine 10–50mg) and related concerns like insomnia and posttraumatic nightmares (e.g., prazosin 1mg, trazadone 50mg).[4]

A substantial randomized clinical trial (RCT) evidence-base now supports the effectiveness of collaborative care interventions in reducing PTSD symptoms, alcohol use, violence risk behaviors such as postinjury weapon carriage, and multiple patient-centered concerns that link to other social determinants of health.[2-7] A recent 25-site US Level I trauma center comparative effectiveness trial demonstrated the collaborative care intervention to be feasible and acceptable to patients and providers across US trauma care systems.[2,8,9] The collaborative care case vignette from the University of Kentucky derives from this national trial.

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**Case Vignette for Stepped, Collaborative Care: University of Kentucky Hospital in Lexington, KY**

When the Stepped, Collaborative Care Model was implemented, an attending trauma surgeon completed additional training in psychopharmacology and weekly consultation with a psychiatrist to support implementation of the medication management component of the model. At present, the trauma service is developing a proposal to hire a full-time nurse practitioner (NP) to provide outpatient clinical services to symptomatic traumatic brain injury (TBI) patients and to patients who screen positive for PTSD. Plans include having the NP provide additional training to the inpatient team on implementation of screening, conducting inpatient consultations, and managing an outpatient follow up clinic in collaboration with the trauma pharmacist, social workers, and attending physicians as needed. The program plans to partner with the Department of Psychiatry to provide additional behavioral health resources and specialty mental health care.

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## Multi-Tier Approach to Psychological Intervention after Traumatic Injury (MAP-IT)

The MAP-IT Model is a screening and brief intervention model developed at Froedtert Hospital in Milwaukee, WI. It was designed to triage services based on patients' postinjury PTSD and depression symptoms.[10] The Injured Trauma Survivor Screen (ITSS) is administered by a social worker during the inpatient screening process. When a patient screens positive for elevated postinjury PTSD and/or depression risk, trauma/critical care providers receive a best practice alert recommending a trauma psychology consultation in the EMR. The trauma psychologist completes an assessment of PTSD and depression symptoms using the PTSD Checklist-5 (PCL-5) and a depression measure (e.g., Patient Health Questionnaire-9 [PHQ-9]).

A clinical interview and a psychosocial history are conducted for a complete evaluation. The psychological intervention is based on the patient's symptom score. Patients determined to be at lower risk for depression or PTSD (score <16) are provided psychoeducation about postinjury mental health, including signs of increasing severity, promoting natural recovery, and resources for outpatient mental health services. Patients determined to be at a greater risk for depression or PTSD (score ≥16), are

provided early psychological intervention for depression and trauma-focused, evidence-based intervention for PTSD during hospitalization. See Selecting a Mental Health Screening Tool on page 33 for more information about the assessment tools listed.

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**Case Vignettes for MAP-IT Model**

***Queen's Medical Center in Honolulu, Hawaii.*** A full-time trauma psychologist is a member of the trauma team and attends interdisciplinary rounds. The MAP-IT Model is utilized to conduct screening and provide brief intervention to trauma patients. Registered nurses on the trauma service administer the ITSS which generates a Best Practice Alert to the advanced practice providers to order a trauma psychology consultation. The trauma psychologist also conducts chart reviews and prompts the trauma team to request consultations, as appropriate. The trauma team also places psychology consults outside the screening process (e.g., when a patient exhibits significant distress, has trouble with motivation to engage in medical cares, etc.) The trauma psychologist provides inpatient brief psycho-diagnostic assessments and interventions during hospitalization, and provides outpatient care as needed in a posttrauma mental health clinic imbedded in the surgical care clinic. The clinic is designed to provide evidence-based trauma treatment to patients experiencing chronic distress related to their traumatic injury after hospital discharge.

***University of Arkansas for Medical Sciences (UAMS) in Little Rock, AR.*** A trauma psychologist (0.6 FTE) is a part of the trauma team and attends interdisciplinary rounds when on service. The MAP-IT Model is used to conduct screening and provide brief intervention to trauma patients. The unit social worker administers the ITSS and requests trauma psychology consultations based on positive screens. Any member of the trauma treatment team (e.g., advanced practice providers (APP), unit nurses, speech-language pathologists, physical therapists) can request a trauma psychology consultation or request co-treatment to support adjustment to injury and hospitalization. The trauma psychologist accepts outpatient referrals for evidence-based PTSD treatment through UAMS' Department of Psychiatry outpatient mental health clinic. Connection to outpatient mental health services through a state-funded tele-mental health service, available at no-cost to Arkansas residents, is also facilitated. The UAMS program also includes a trauma psychology fellow who also rounds with the psychiatry consultation-liaison (C-L) team. The attending psychologist conducts and provides mentorship to medical students and residents on trauma-related research projects and participates in multidisciplinary peer review and operational steering committee meetings.

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**Consultation-Liaison (C-L) Models**

Postinjury mental health care programs can extend an existing C-L service or be implemented as a new program.[11,12] C-L psychiatrists and psychologists specialize in the assessment and management of psychiatric disorders that are comorbid with medical illnesses. The composition of C-L teams and their capacity to provide behavioral intervention during admission vary between hospital systems. Some consist of psychologists or psychiatrists only, and some have both providers combined on the same service or additional mental health experts (e.g., APP, social worker). When teams are able to provide postinjury assessment and brief intervention during hospitalization, mental health clinicians can respond to inpatient consults and provide follow up as requested by a member of the primary treatment team.

A C-L service model typically relies on the primary treatment team to identify patients potentially in need of mental health services and request a consultation. Universal screening of all patients on a particular service or unit is usually not included in this model. Instead, the primary trauma team identifies the need for consultation (e.g., patient exhibiting significant distress, loss of loved one in trauma, etc.) when a clinical issue arises. Additionally, if a trauma program is conducting PTSD and depression screening, the patients who screen positive can then be referred to the C-L team. Once a consultation request is received, a C-L team completes an initial evaluation and determines the need for brief intervention and family support. Patients are typically followed through hospitalization and are assisted in establishing outpatient psychiatric and psychological services as indicated. Some C-L models of care for trauma patients are part of a larger C-L service for an entire hospital and others are embedded within a trauma program and services are solely for trauma patients (see examples in case vignettes).

**Case Vignettes For the C-L Model**

*Cooper University Health Care in Camden, NJ.* A full-time C-L psychologist responds to consultation requests for all services, including the trauma service. The psychologist attends interdisciplinary trauma rounds and collaborates with the Psychiatry C-L team as needed. The psychologist conducts chart reviews on all pediatric and adult trauma patients to determine mechanism of injury and any preexisting mental health concerns from the EMR. The psychologist identifies patients who might benefit from a consultation based on pre-trauma risk factors and mechanism of injury, and prompts the trauma APP to request a trauma psychology consultation. The APPs also place consultation requests directly. Once a referral is received, the psychologist conducts a brief psycho-diagnostic evaluation, performs a brief intervention, and follows the patient during hospitalization for ongoing intervention, provides family support as needed, and helps to develop a treatment plan for postdischarge care.

*Virginia Commonwealth University (VCU) Health in Richmond, VA.* A full-time clinical health psychologist is integrated into the trauma team and attends interdisciplinary rounds. The trauma service APPs/physicians identify pediatric and adult patients during interdisciplinary rounds to determine those in need of an inpatient consult and requests a consultation in the medical chart. Screening is based on the provider identifying the need, such as concerns about acute traumatic stress symptoms, past psychiatric history, or behavioral concerns. The responding psychologist conducts an initial psycho-diagnostic assessment, identifies appropriate interventions, and follows the patient during hospitalization. The psychologist also provides family support as needed and treatment planning for postdischarge care. The VCU program includes doctoral psychology students, pre-doctoral psychology interns, and post-doctoral psychology fellows. The attending psychologist is involved in trauma service activities (e.g., Injury Violence Prevention meetings, patient care committees, trauma-informed leadership team, Committee on Grief, and trauma-related research), as well as providing care in a small outpatient clinic.

## Trauma Resilience and Recovery Program (TRRP)

The growing acceptability and feasibility of technology- and tele-mental health-based care benefits the trauma population because many patients have poor mobility in the early stages of recovery. Many rural patients have difficulty routinely accessing appropriate mental health care, and tele-mental healthcare can provide access to care, especially for trauma programs that have a large catchment area. Technology-based screening and intervention can reduce early PTSD treatment access barriers faced by many trauma patients.

**Case Vignette for the TRRP: Medical University of South Carolina in Charleston, SC**

This is a technology-enhanced, stepped care intervention that consists of:

- In-hospital education
- Symptom self-monitoring via an automated text-messaging system
- Brief mental health chatbot or telephone screen 30-days postdischarge and
- Referral to best practice mental health services as needed.

Patients who screen positive for PTSD and/or depression 30 days postdischarge are offered face-to-face treatment, local referrals, or home-based tele-mental health. Two-thirds of patients express a preference for home-based tele-mental health. Home-based tele-mental health services for PTSD and depression are demonstrated to be non-inferior to office-based treatment.[13-16] TRRP is unique in its utilization of technology-enhanced approaches including its text messaging system, chatbot screener, and use of telehealth platforms to enhance access to services for trauma patients.

Unlike many models, TRRP uniquely provides brief screening 30 days postinjury. While many models focus on initial identification of risk at the bedside, TRRP extends the screening timeframe to identify patients experiencing probable PTSD or depression because bedside screening is only modestly predictive of PTSD and depression. This allows accurate screening for patients who may have experienced natural recovery in the initial weeks after injury or delayed onset of symptoms. A positive 30-day screen triggers referral to formal mental health treatment in the psychiatry department or via the patient's local community. Approximately 15% of patients who screen negative on the ITSS at the bedside screen positive for PTSD or depression at the 30-day session.[17] Using both bedside and postdischarge screening, TRRP captures a greater number of trauma patients at elevated risk to experience postinjury PTSD and/or depression and provides some level of intervention at both time frames.

**D-E-F Protocol to Assess and Treat Children and Families with Traumatic Stress**

The D-E-F Protocol is a trauma-informed approach designed by the National Child Traumatic Stress Network and the Substance Abuse and Mental Health Services Administration as part of the Pediatric Medical Traumatic Stress Toolkit for Health Care Providers.[18] The D-E-F Protocol outlines three actions intended to mitigate the impact of medical trauma for pediatric patients and their families:[19]

- Reduce DISTRESS by assessing and treating sources of distress (e.g., pain, worries) for patients and their families,
- Promote EMOTIONAL SUPPORT by educating and empowering parents to talk about distress and provide appropriate support, and
- Remember the FAMILY by encouraging family members to use their own coping skills and identify sources of distress and strength.

The D-E-F Protocol includes recommendations for brief assessment measures for the three actions and trauma-informed interventions that all members of the treatment team can use to promote adaptive coping for children and their families.

## Mental Health Comorbidities

Consider psychiatric comorbidities and preexisting mental health concerns when discussing postinjury mental health care for patients with traumatic injuries. Premorbid psychiatric disorders are a risk factor for PTSD.[20] Psychiatric comorbidity is also an established risk factor for trauma.[21,22] Prevalence of premorbid diagnoses among trauma patients to a Level I trauma center was estimated at 55%.[20] Once injured, patients with a psychiatric comorbidity have a longer hospital length of stay (LOS), increased complication rates, and higher rates of discharge to rehabilitation and nursing facilities.[23-25]

**Medication Management**

Management of patients with pre-injury psychiatric medications becomes complicated when a patient is admitted to a trauma center for several reasons including: new medications required to treat the injury, potential substance abuse withdrawal, and new mental health stressors. In addition, patients treated in trauma centers can present with emotional symptoms that require pharmacotherapy to manage acute psychiatric concerns as a first line intervention.[26] Consider the use of psychopharmacotherapy in the acute care medical setting and how pharmacotherapy can be used in clinical practice to inform secondary prevention of PTSD.[26,27]

Refer to the discussion by Kearns and colleagues about early pharmacological treatments for PTSD.[28] Other resources include the clinical practice guidelines of the National Center for PTSD[29] and the ISTSS Prevention and Treatment Guidelines.[30] A continuing need exists for consensus building and an evidence base for use of psychiatric medications, medication reconciliation, and treatment planning.

While practices vary by interdisciplinary team organization in hospital settings, consider the following strategies when addressing premorbid psychiatric concerns, and emerging acute mental health concerns that arise:

- Have a discussion with the medical provider (e.g., trauma attending, trauma pharmacist, psychiatrist) about continuing home psychiatric medications, and determine any contraindications such as sedative impact, alcohol withdrawal, delirium, etc.
  - Identify specific members of the trauma team with additional training or interest in psychopharmacology for these consultations
- Coordinate care and make referrals
  - Contact the patient's regular outpatient therapist and psychiatrist
  - Make a referral to psychiatry/substance abuse teams and mental health counseling during hospitalization when services are available and additional expertise is needed
  - Provide a mental health referral or reconnect the patient to preexisting mental health provider/psychiatrist prior to discharge
  - Transfer the patient for an inpatient psychiatric admission when ongoing acute psychiatric management is required

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SCREENING AND INTERVENTION FOR MENTAL HEALTH DISORDERS AND
SUBSTANCE USE AND MISUSE IN THE ACUTE TRAUMA PATIENT
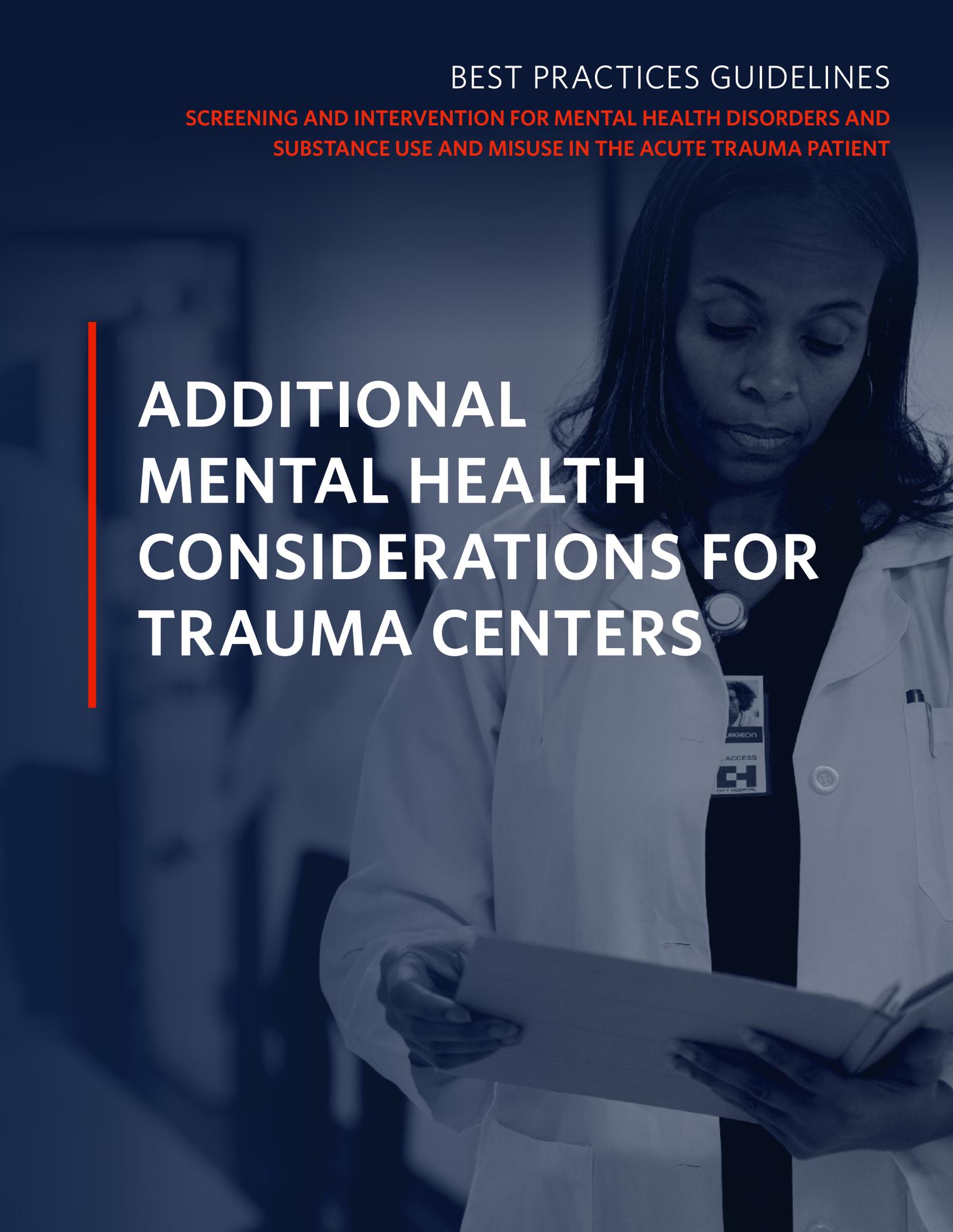
# ADDITIONAL MENTAL HEALTH CONSIDERATIONS FOR TRAUMA CENTERS

# HOSPITAL-BASED VIOLENCE INTERVENTION PROGRAMS

## KEY POINTS

- Hospital-based violence intervention programs (HVIP) provide care to blunt and penetrating injury survivors.

- Psychological distress is higher in patients who experience trauma from assault compared to those experiencing trauma unrelated to violence.

- HVIPs and posttrauma mental health programs can be integrated and collaborate to offer mental health services to those at great risk for posttrauma mental health psychological distress.

Violence survivors are at greater risk for PTSD and depression compared to those injured by non-violent means. Many patients who experience violence-related trauma often come from low-resourced communities where access to basic needs is interrupted, and healthcare and mental health care are limited. Additionally, individuals from marginalized communities can experience historic cultural mistrust of healthcare systems, reducing the likelihood of follow up care. HVIPs broadly provide substantial resource allocation and connection for patients with injuries from violence, and their impact goes beyond interruption of violence. A trauma center's postinjury mental health program can consider collaboration with existing hospital-based violence intervention programs (HVIP) within their facility or community that could increase access to mental health care for survivors of violence. When developing a posttrauma mental health program, consider whether an HVIP exists at the facility and how the posttrauma mental health program could integrate care for this vulnerable population. Consider the volume of patients with violence-related injuries and penetrating trauma when deciding to implement a program.

When an HVIP exists in the facility or community, postinjury mental health programs can help provide the structural support needed for implementation and/or maintenance of the HVIP's mental health components, or they can act as reliable referral sources for HVIPs. In general, greater partnership and collaboration between various psychosocial programs (e.g., injury prevention, substance use prevention programs, community paramedicine programs) help address the disparities in access to psychosocial care that trauma patients often encounter. For more information see the primer on development of HVIPs.[1]

## Trauma Recovery Center Model

The Trauma Recovery Center Model was initially developed by the University of California, San Francisco at the Zuckerberg San Francisco General Hospital. This model emphasizes connection to comprehensive psychosocial resources to support survivors of violence and crime.[2] Services offered by these programs include the following: trauma-informed clinical case management; credible messengers (i.e., individuals with social credibility and influence in priority populations/communities); evidence-based psychotherapy for individuals, groups and families; crisis intervention services; medication management; and legal advocacy and assistance with navigating the legal system (e.g., accessing victim compensation funds, filing police reports).

Trauma recovery centers are multidisciplinary in nature and include psychiatrists, psychologists, social workers, and outreach workers. They can be implemented within many settings including community-based organizations, universities, and hospitals or other clinical settings. For hospitals with limited resources, consider collaboration between multiple types of service organizations to develop a trauma recovery center that ensures access to all the necessary services and multidisciplinary providers. Importantly, trauma recovery centers are eligible for federal funding through the Victims of Crime Act (VOCA) and can be implemented in partnership with VOCA administrators. See https://ovc.ojp.gov/funding.

**Case Vignette for the Trauma Recovery Center Model: Froedtert Hospital/Medical College of Wisconsin, in Milwaukee, Wisconsin.**

An HVIP (414LIFE) was developed ten years after a posttrauma mental health program was initiated. Violence interrupters (called hospital responders) are paged when a gunshot wound (GSW) survivor is transported to the trauma center. Hospital responders work with patients to interrupt retaliation, assess safety of patient and family, and address social facilitators of health, including stable housing. They work closely with the posttrauma mental health team to identify distress in patients, connect patients with mental healthcare (inpatient and outpatient), and are credible messengers that encourage mental healthcare when needed.

Two years after 414LIFE was formed, collectively the teams developed the integrated multidisciplinary Trauma Quality of Life clinic where all GSW patients receive postdischarge care. The Trauma Quality of Life clinic team includes a trauma medical provider, psychologist, social worker, physical therapist, and hospital responder. This team collectively provides care to the patient and collaborates in real time on treatment planning. Follow up visits with the team are provided collectively or individually until the patient no longer needs ongoing care (e.g., if a patient is significantly distressed psychologically, they can continue to see the psychologist, even when the rest of the team no longer needs to follow the patient). This clinic model increases access to specialty care and reduces no-show rates.[3]

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# THE ROLE OF THE CARE TEAM

## KEY POINTS

- Consider ways for your trauma program to implement ongoing education and awareness of mental health concerns and brief interventions.

- Educate trauma team members about best practices for trauma-informed care and ways to incorporate mental health approaches into their practice.

- Potential funding for a trauma psychologist position includes revenue generated from inpatient and outpatient direct face-to-face services, virtual care, and research grants.

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All members of the care team have a role in promoting the patient's mental health recovery after injury. Interdisciplinary care is key for mental health intervention. All trauma team members need to know which mental health and psychosocial programs are available in the hospital. It is important for providers to understand how these programs work and who the providers are. This builds collaboration and increases referrals within the hospital, enabling the appropriate and effective use of resources and care integration. Relevant members of the mental health team can include psychology, psychiatry, social work, counselor, psychiatric nurse practitioner, and violence prevention program members (e.g., case workers and mental health counselors).

Educating trauma team members about best practices for trauma-informed care and ways to incorporate mental health approaches into their practice is beneficial for the patients served. Education should include awareness of brief mental health interventions. Formal programs are available that provide trauma-informed care training for healthcare providers. Consider encouraging trauma center personnel to obtain this training. Additionally, consider ways for your trauma program to implement ongoing education and awareness of mental health concerns and brief interventions. Examples of education approaches for mental health include:

- Psychological first aid to manage stress for nursing staff

- Injury violence program information distributed by flyers or bulletin boards

- Medical rounds presentation by a mental health provider about postinjury mental health outcomes

- Grand rounds on motivational interviewing training for providers with a focus on discussing pain management of trauma patients

- A didactic session with trainees focused on ways to talk with a family for a death notification

- Mental health presentation during interdisciplinary rounds for nurses to support patients (e.g., brief relaxation strategies nurses may implement during tracheostomy tube changes, methods to consolidate medical care to promote more healthy sleeping patterns)

## Embedding a Mental/Behavioral Health Expert in a Trauma Program

Some trauma centers have one or more clinical psychologists and psychiatrists embedded into their trauma programs to help with screening, assessment, brief intervention, treatment, and program development. Trauma psychologists and psychiatrists function differently in each trauma program, but their unique contributions allow for integration into interdisciplinary treatment teams.

Psychologists are utilized primarily for their direct patient care expertise, but they can also be helpful in program development, academia, research, training, and psychological assessment. Trauma psychologists focus on the quality of care and health outcomes of patients. Within the treatment team, common reasons for psychological service referrals include: PTSD, medical trauma, acute/chronic pain, sleep difficulties, coping with acute stressors (e.g., cooperating with medical care, being away from work, financial concerns), traumatic grief, amputation, and substance misuse. Mental health interventions related to coping and adjustment in the acute phase of injury can mitigate trauma risk factors that lead to chronic distress and adjustment concerns.

Psychiatrists are often used to engage in screening, assessment, and intervention, as well as training and program development.

## Case Vignette: University Medical Center, New Orleans, LA

University Medical Center, New Orleans has a proactive screening process for all trauma surgery patients admitted to the hospital, in keeping with the Stepped, Collaborative Care Model. An automatic consult is generated in the Trauma Surgery admission orders to prompt the Trauma Psychologists, or trainees, to screen patients for trauma and depression symptoms, substance use disorders, and the potential for violence if the patient is a victim of violence. Patients are treated accordingly with evidenced-based psychotherapy and/or medication via psychiatry, psychology or social work for any symptoms present during hospitalization and offered follow up care in the Trauma Recovery Clinic (TRC). The Trauma Recovery Clinic is a behavioral health clinic integrated within the Trauma Surgery outpatient clinic, to increase access to follow up care among traumatic injury survivors. TRC providers are available for "warm handoffs" if a patient presents with trauma-related symptomology while receiving care in the Trauma Surgery clinic. A "Trauma Recovery Team" has been formed, which consists of psychiatry, psychology, and social work providers, as well as trainees in each discipline. This team meets weekly and carries out the collective endeavor for inpatient and outpatient care, research, education and community outreach. Community partners are also utilized to help patients recover and achieve meaningful changes in behavior, such as addiction treatment, GED pursuit, job training and employment. Trauma Psychology also facilitates a monthly support group for trauma survivors.

**Potential Funding Strategies**. Grant research funding and revenue generated from inpatient and outpatient direct face-to-face services are potential funding strategies for a trauma psychologist or psychiatrist position. It is recommended that trauma programs hiring a psychologist refer to the case vignettes in the Postinjury Mental Health Intervention Across the Lifespan section on page 38 and seek consultation about implementation of these services in their programs. deRoon-Cassini and colleagues cite examples regarding funding and operating margins of current posttraumatic mental and behavioral health programs in trauma centers.[1] Other articles highlighting the benefits of a psychologist embedded in health care teams at academic medical centers can help when discussing the value of a psychologist or psychiatrist on the trauma team.[2,3]

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# SUICIDE SCREENING AND INTERVENTION

## KEY POINTS

- It is recommended that trauma centers, when feasible, use selective screening to identify individuals at risk for suicidal ideation who would not otherwise have been detected.

- A best practice is to recommend that any mental health/psychiatric treatment in the hospital include both suicide screening and intervention for trauma patients during hospitalization.

- The Joint Commission and Suicide Prevention Resource Center have guidance and discharge planning for positive suicide screening interventions.

Suicide was the tenth leading cause of death in the United States, with more than 47,000 deaths in 2019.[1] In addition, some 1.4 million individuals attempted suicide that same year.[2] Suicide has continued to rise nationally over recent decades. Treatment advances to reduce suicide attempts are not resulting in a significant decline in the overall suicide rate.[3] Many individuals with suicide ideation do not receive treatment unless they are currently receiving services or survive a suicide attempt.[4] An important goal of the healthcare system is earlier identification of individuals at risk.[3]

Epidemiological research findings suggest that hospitalized injured patients are at increased risk for suicide.[5–7] Grossman et al. found the risk of suicide 5 times greater for patients admitted for unintentional injuries and 4.5 times greater for individuals previously admitted for assault.[5] Ryb et al., found patients discharged from a Level 1 trauma center had significantly greater risk of suicide compared to the general population.[6] Further, PTSD may also be associated with elevated rates of suicidal ideation.[6] Of note, in the month prior to their death, half of suicide decedents received healthcare services, but only 24% received mental healthcare services, illustrating the need for trauma centers to engage in suicide screening.[8]

## Suicide Screening

Currently no universal recommendations exist to screen all trauma patients for suicidality, however, the Joint Commission recommends suicidality screening for patients treated for any psychiatric condition.[9] The Joint Commission released a Sentinel Event Alert in 2016 highlighting the need for suicide screening.[10] This suicide screening requirement applies only to psychiatric hospitals or patients being treated in general hospitals for psychiatric concerns.[11]

Suicide screening can be approached in either of the following approaches:

- Universal screening to assess risk for all patients
- Selective screening based on patients with elevated risk factors for suicide.

It is recommended that trauma centers, when feasible, use selective screening to identify individuals at risk of suicide who would not otherwise be detected. Perform suicide screening either as a stand-alone screening or in conjunction with PTSD, depression and other mental health and substance misuse screenings.

When assessing at-risk individuals, several factors associated with traumatic injury elevate risk of suicidal ideation for up to 1 year postinjury, including a history of PTSD with concurrent depression, pre-trauma psychiatric conditions, and worsening general mental health functioning.[12,13] The Joint Commission's Sentinel Event Alert identified several of the most well studied suicide risk screening tools. These include: The Patient Health Questionnaire-9 (PHQ-9), Patient Health Questionnaire-2: Suicide Behaviors Questionnaire-Revised (SBQ-R), Columbia-Suicide Severity Rating Scale (C-SSRS), and the ED-SAFE Patient Safety Screener.[14,15] In the pediatric population, the Ask Suicide-Screening Questions (ASQ) are validated for those over 8 years old.[14] If this screening is found to be positive, a Brief Suicide Safety Assessment (BSSA),[16] and a more comprehensive assessment may follow. A best practice is to recommend that any mental health/substance misuse/psychiatric treatment in the hospital include both suicide screening and intervention for trauma patients during hospitalization.

# Intervention

Rates of positive screens for suicidality ranged from 3% to 24% of hospitalized trauma patients in Level 1 trauma centers.[12,17] Engstrom and colleagues found that more than 50% of injured patients (n=635) enrolled in a randomized control trial (RCT) expressed suicidal ideation at one or more assessments.[18] This may be related to either preexisting suicidal thoughts or thoughts precipitated/exacerbated by trauma. Epidemiologic research indicates that approximately 1.8% of trauma patients have an injury resulting from a suicide attempt.[19]

Due to the high-risk nature of the population with suicide-related injuries, it is important to provide appropriate interventions. Following a risk-positive screen, a trained mental health provider or physician needs to complete a suicide risk assessment to determine the level of suicide risk and if a referral for a mental health evaluation is necessary. For trauma centers that have mental health intervention included during hospitalization, screen and provide intervention for suicidality to all patients being treated for other mental health symptoms.

The Joint Commission guidelines recommend the following steps for intervention: facilitating linkage for outpatient follow up care, providing appropriate resources (e.g., crisis line contact information), assessing for and limiting access to lethal means, and completing safety planning for those with positive suicide risk.[9] Similarly the Suicide Prevention Resource Center consensus guide for emergency departments includes recommendations for discharge planning by providing at least one brief intervention (e.g., lethal means counseling, rapid referral, caring contacts, safety planning).[20]

More recent large scale clinical trials in trauma centers, such as the Stepped, Collaborative Care Models, evaluated suicide assessment and monitoring implementation as part of their larger mental health intervention.[21] Recent studies included management of acute suicidal ideation during intervention and found intervention patients demonstrated less suicidal ideation over time.[18] Suicide monitoring and intervention needs to be considered in future RCTs in trauma centers.

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# ADDRESSING OTHER POSTINJURY MENTAL HEALTH SEQUELAE

## KEY POINTS

- Implement system-level preventative measures, such as trauma-informed care practices, to reduce the impact of medical trauma.

- Some factors placing individuals at increased risk of Persistent Complex Bereavement Disorder include poor social support, loss of child or spouse, seeing the body in cases of violent death, and dependency on the deceased.[1] Identify these patients and refer for treatment.

Trauma patients experience mental health sequelae that interfere with their natural recovery and increase the risk of postinjury mental health concerns that do not include preexisting mental health concerns and suicidality. It is important to consider the multitude of biopsychosocial facets of the initial injury, hospitalization, and recovery trajectory to meet the needs of the trauma patient.

## Medical Trauma

In addition to the stress caused by the injury, many trauma patients of all ages experience stress responses related to medical interventions, life-changing complications, acquired disabilities or change in functioning. Hospital environmental factors (e.g., constant noise, frequent medical checks, sleep disruption), and frightening images or thoughts related to delirium, for example, can increase the risk for PTSD development and overall mental health distress.[2] These experiences can be conceptualized as medical trauma or the emotional and physical responses to pain, injury, serious illness, medical procedures, and frightening treatment experiences.[3,4]

Medical trauma can be conceptualized as an acute onset of a disrupted physiologic system in which the ongoing threat is internal (i.e., the body), and it can have a long-term or permanent effect.[5] The estimated incidence rate of critical care-related PTSD is 10%,[6] and approximately 20-30% of patients experience some posttraumatic stress symptoms.[2,6] A critical care admission can be a unique source of stress for patients and their families. For children, separation from a caregiver during admission also contributes to medical trauma. Parents and siblings of children admitted to the hospital are also at greater risk to experience medical traumatic stress.[3,4]

Exposure to medical-related stressors can contribute to the risk for development of postinjury mental health concerns or elevate the risk of postinjury PTSD among trauma patients. This can be due to increased exposure to peritrauma risk factors (e.g., a perceived life threat) and posttrauma risk factors (e.g., posttrauma life stress).[7] For many patients, medical trauma experiences are often intertwined with perceived mistreatment and the perpetuation of power differentials in the health care system.[2] These experiences can lead patients to feel disempowered and marginalized in the context of their care. Implementing system-level preventative measures, such as trauma-informed care approaches that can mitigate the impact of medical trauma and the stress of hospitalization, is recommended.

## Anxiety

Anxiety commonly occurs in injury survivors.[8] Studies report prevalence rates up to 40%.[9,10] Anxiety may interfere with medical care and even delay discharge (e.g., refusal to complete wound care, or participate in physical therapy). When an inpatient mental health support/psychologist is available in the trauma center, consider referring the patient for additional support to optimize care while hospitalized.

## Adjustment to Illness/Injury

In the aftermath of a trauma, patients experience concerns related to coping with and adjustment to the injury. Uncertainty and anxiety can arise related to upcoming medical procedures or adapting to a new prognosis. This uncertainty is uniquely expressed in each patient, but it frequently involves anger, frustration, disengagement, feelings of hopelessness, excessive tearfulness and worry. Over time, patients with prolonged coping and adjustment difficulties may meet criteria for an adjustment disorder because of shifting life roles, new physical limitations, or limited psychological resources to adapt to a new illness/injury. Referral to mental health support/psychologist for inpatient psychological support, as well as potential referrals for outpatient treatment is recommended.

Adjustment to a new illness/injury by pediatric patients can impact developmental trajectories, school performance, and socialization. Make an effort to reduce these burdens when assisting a pediatric patient. Collaboration with pediatric mental health specialists is helpful to assist these patients with adjustment. In addition, the patient's family or caretakers often need psychological support to help cope and adjust with the patient's new illness/injury.

## Posttraumatic Grief

Following a traumatic injury or loss, it is common for individuals to experience depression or grief symptoms, either in addition to or independent of PTSD. Complicated grief (CM), or prolonged grief disorder in ICD 11 (PGD), and persistent complex bereavement disorder (PCBD) in DSM-5 is one possible outcome following a traumatic life experience. Common symptoms include feeling intense and persistent yearning for the deceased, frequent preoccupation with the deceased, and feelings of emptiness and loneliness.[11] Depression and complicated grief share several symptoms including sadness or loss of interest in pleasurable activities, but they are different in that the depressed mood focus is on the loss with PCBD.[12]

Several identified risk factors place some individuals at increased risk of PCBD, including poor social support, loss of child or spouse, seeing the body in cases of violent death, and dependency on the deceased.[1] Cause of death was found to predict the incidence of PCBD with levels of complication, approximating 54% in the case of death of a loved one from a violent cause.[13] PCBD can occur along with other psychological outcomes, including depression and/or PTSD, or it may occur in isolation.

In the pediatric population, loss of a parent, caretaker, sibling or relative can negatively impact functioning. Ensure that pediatric patients understand and comprehend the loss, as this is essential for well-being. Encourage family members to talk with the child and acknowledge their grief to help with the child's adjustment long-term. Provide social support to pediatric and adult populations, patients, and family members with grief psychoeducation by mental health support/psychologist. Additionally, provide referrals for targeted grief treatment when the grief response does not improve with time.

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# IMPLEMENTATION AND INTEGRATION OF THE BEST PRACTICES GUIDELINES

## IMPLEMENTING THE *BEST PRACTICES GUIDELINE FOR SCREENING AND INTERVENTION FOR MENTAL HEALTH DISORDERS AND SUBSTANCE USE AND MISUSE IN THE ACUTE TRAUMA PATIENT*

### KEY POINTS

- An interdisciplinary workgroup, guided by trauma leadership, needs to perform a gap analysis and create an action plan.
- Performance measures are selected to monitor practice changes.
- The action plan is revised as needed, and guideline implementation is monitored until practice changes are sustained.

Implementing a Trauma Quality Improvement Program (TQIP) BPG begins with wide dissemination of the new guideline throughout the trauma center. The trauma medical director (TMD), trauma program manager (TPM), and other trauma leaders accountable for quality and performance improvement (PI) will define the timeline and reporting structure for review and implementation of the guideline. Trauma leadership assembles an interdisciplinary stakeholder workgroup charged with review of the BPG and completion of the gap analysis.

## Gap Analysis and Action Plan

The interdisciplinary stakeholder workgroup compares the trauma center's current practice to the best practices recommended in the guideline. See Table 5 for the recommended gap analysis tool. When gaps in practice are found, the workgroup is responsible for developing an action plan to address these gaps. The action plan may include elements such as development of a facility-specific guideline, development of new processes of care, integration of assessments/tools into the electronic medical record, and education. Performance measures are selected to monitor specific aspects associated with guideline implementation. The workgroup reports the gaps, action plan, and identified performance metrics at the Trauma Operations Committee for review and approval.

**Table 5.** Implementation Gap Analysis Tool

| Management Guidelines | Met | Partially Met | Not Met | Priority | Comments |
|---|---|---|---|---|---|
| Trauma verification and state designation requirements specific to screening and interventions for mental health and substance use are reviewed by trauma leadership, the Trauma Operations Committee members, and stakeholders. | | | | | |
| Hospital regulatory requirements specific to mental health screening and substance use requirements are reviewed. | | | | | |
| Trauma-informed care principles are implemented for all facility units participating in trauma care. | | | | | |
| The integration of screening and interventions for mental health and substance use integration into the trauma center's scope of responsibility is supported by trauma leadership. | | | | | |
| Guidelines for substance misuse and interventions are documented. | | | | | |
| Guidelines for mental health screening and interventions are documented. | | | | | |
| The trauma center has standardized processes to screen patients for acute ASD and PTSD that include standardized screening documentation. | | | | | |

| Management Guidelines | Met | Partially Met | Not Met | Priority | Comments |
|---|---|---|---|---|---|
| Staff responsible for screening patients for posttraumatic ASD and PTSD are defined and have the appropriate training and credentials to complete the screening. | | | | | |
| The center's screening tools for ASD/PTSD are integrated into the electronic medical record. | | | | | |
| The trauma center has standardized and documented processes for mental health screening of children and youth,[1] as well as other specific populations (e.g., pregnant and older adult patients). | | | | | |
| The selected mental health screening processes define the recommended timeframes for initial screening and, if necessary, when follow up assessment is recommended. | | | | | |
| The standardized process defines when interventions are recommended and the professional credentialed to perform or complete an intervention. | | | | | |
| The trauma center develops formal written guidelines for mental health screening that integrate the standardized processes into the guideline. | | | | | |
| This process defines when consultation from a mental health specialist is required and when referrals are required. | | | | | |
| Established guidelines or protocols define the use of telehealth or telemedicine to support the mental health screening, interventions, consultation, and referral processes, including documentation requirements. | | | | | |
| A defined postinjury mental health program or referral process exists for postinjury mental health follow up. | | | | | |
| A trauma psychologist is integrated into the trauma program to assist with trauma mental health needs to include screening, interventions, consultations, or referrals for trauma patients. | | | | | |
| A mental health liaison consultant team supports the trauma center to assist with the interventions, consultations, and referrals for trauma patients. | | | | | |
| A defined facility-based "Violence Intervention Program" is integrated into trauma patient care with defined roles and responsibilities that incorporate mental health practices in daily activities. | | | | | |
| The trauma center has mental health/psychosocial resources to support ASD/PTSD care in the community and outpatient referrals. | | | | | |
| Psychological support resources exist to address acute stress in the trauma patient's family. | | | | | |
| Processes exist for psychiatric medication management during transitions of care (e.g., inpatient to outpatient). | | | | | |
| The trauma center has a standardized process to screen for suicide risks when feasible. | | | | | |
| Suicide risk screening includes a standardized tool integrated into the EMR, and individuals completing the screening have appropriate training and competency skills. | | | | | |
| Mental health resources (psychiatric consultation services) are available for patients who screen positive for suicidality. | | | | | |

| Management Guidelines | Met | Partially Met | Not Met | Priority | Comments |
|---|---|---|---|---|---|
| The health care team assists with defining an appropriate safety plan that is documented in the EMR. | | | | | |
| Regulatory requirements for suicidality screening and recommendations are met and consistent with the patient's age. | | | | | |
| Established guidelines exist to recognize the patient with an increased risk of PCBD (e.g., poor social support, loss of child or spouse, seeing a body in cases of violent deaths, and a dependence on the deceased individual) and a defined consultation or referral processes. | | | | | |
| The trauma center has defined guidelines for managing a patient with delirium, including children and youth. | | | | | |
| Defined standards of care or guidelines exist for the prevention of alcohol withdrawal syndrome, and staff involved in trauma care are educated on their role in the guideline. | | | | | |
| Standardized processes are established to screen trauma patients for alcohol misuse. | | | | | |
| Standardized processes are established to screen trauma patients for other substance/drug use. | | | | | |
| The tools used to screen the patient for alcohol and substance misuse are integrated into the EMR. | | | | | |
| Individuals who screen patients for alcohol and substance misuse have appropriate training and credentialing. | | | | | |
| Personnel are available to provide a brief intervention for patients screening positive, or a process exists for appropriate referrals. | | | | | |
| The trauma center has resources for referral of patients needing substance abuse services. | | | | | |
| Formal written guidelines are established to formalize the standardized processes for alcohol misuse and substance misuse interventions, consultations and referrals. | | | | | |
| The trauma center supports programs such as "Psychological First Aid" that promote the mental wellness and mental health of its staff. | | | | | |
| The trauma center has available support services (employee assistance program/peer support teams) for staff and providers across the care continuum. | | | | | |
| Screening assessments are integrated into the EMR or trauma registry for tracking and compliance. | | | | | |
| The trauma center includes in their screening and assessment guideline follow up processes for situations in which patients who screen positive and are discharged before interventions can be completed. For an example, see Appendix B-4. | | | | | |

## Education Plan

An interdisciplinary education plan is key for successful implementation of screening and interventions at a trauma center for both the mental health and substance misuse. This plan may include different approaches because more than one education method is often needed to assure that the delivery of covered content is appropriate for the targeted audience. See Table 6.

## SBIRT Education Process

A facility leader and support team are needed for the SBIRT education process to assure successful implementation and monitoring. Motivational interviewing is identified as a successful approach to the SBIRT brief intervention.[1] Each facility determines the staff members identified as appropriately trained to conduct the brief interventions. The facility needs to have its educational process outlined within a policy and procedure. See Table 7 for recommended elements of the SBIRT educational plan.

**Table 6.** Mental Health Educational Plan Elements

| Content | Method of Delivery (Lecture, Role Play, Hands On, etc.) | Resources Required | Estimated Completion Date | Date Completed |
|---|---|---|---|---|
| Trauma center verification and state requirements for mental health screening and substance misuse | | | | |
| Selected trauma-informed care model | | | | |
| Four trajectories of postinjury symptomatology: 1. Resilience 2. Recovery 3. Delayed onset 4. Chronic distress | | | | |
| Mental health screening process: 1. Screening 2. Brief Assessment 3. Brief Intervention 4. Available outpatient resources | | | | |
| Symptoms of ASD/PTSD | | | | |

**Table 7.** Recommended Elements of the SBIRT Educational Plan

| Content | Method of Delivery (Lecture, Role Play, Hands On, etc.) | Resources Required | Estimated Completion Date | Date Completed |
|---|---|---|---|---|
| Selected alcohol and other drug abuse (AODA) screening tool and education for staff assigned to perform the screening | | | | |
| Training specific to the brief intervention process | | | | |
| Training for specific postinjury treatment | | | | |

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## INTEGRATION OF THE *BEST PRACTICES GUIDELINES FOR SCREENING AND INTERVENTION FOR MENTAL HEALTH DISORDERS AND SUBSTANCE USE AND MISUSE IN THE ACUTE TRAUMA PATIENT*

### KEY POINTS

- The interdisciplinary workgroup defines elements of the *Best Practices Guidelines for Screening and Intervention for Mental Health Disorders and Substance Use and Misuse in the Acute Trauma Patient* to monitor through the trauma performance improvement processes.

- After approval by the Trauma Operations Committee, the approved mental health and substance use elements are integrated into the current structure and processes of the existing Trauma Performance Improvement and Patient Safety (PIPS) Plan to monitor compliance.

The interdisciplinary stakeholder workgroup defines and recommends key elements of the *Best Practices Guidelines for Screening and Intervention for Mental Health Disorders and Substance Use and Misuse in the Acute Trauma Patient* for integration into the trauma performance improvement processes. After Trauma Operations Committee approval of these key elements, they are integrated, reviewed, addressed, and reported through the structure and processes of the Trauma PIPS Plan. These trauma performance improvement recommendations are applicable to the facility's trauma activations and trauma admission patients with mental health and substance use diagnoses. This includes any direct admits to any service for an injury resulting from a traumatic mechanism.

The workgroup recommends elements of this BPG for integration into the trauma center's performance improvement patient safety (PIPS) plan. See Table 8 for the BPG recommendations. Each trauma center defines the PIPS elements for integration into their trauma performance reviews.
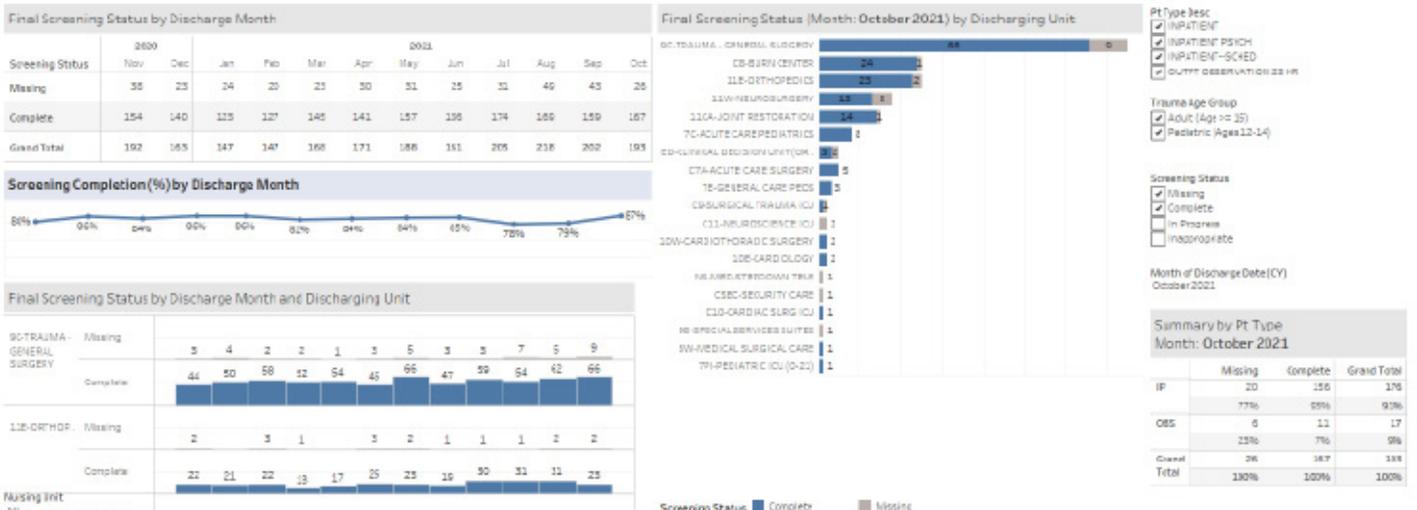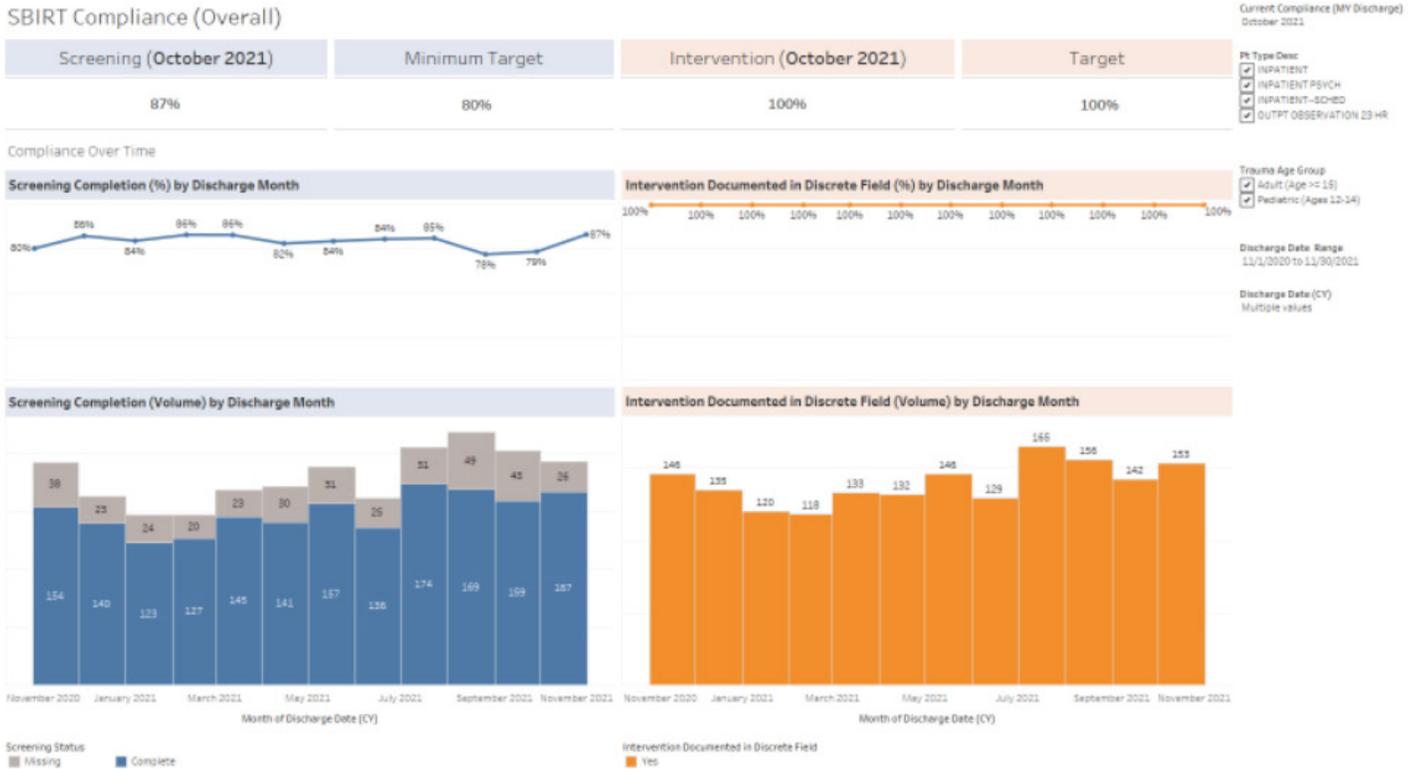
**Table 8.** Mental Health and Substance Use BPG Performance Improvement Recommendations

| Performance Improvement Recommendations | Outcome Measure and Threshold | Facility Compliance |
|---|---|---|
| The PIPS plan has documented guidelines to identify patients at high risk for psychological sequelae. | Mental health screening guidelines are established. Patients who meet the high-risk criteria have documented screening and interventions as appropriate. Compliance is 80% or higher. | |
| Trauma center has referral guidelines for patients identified as high risk for psychological sequelae. | Mental health referral is documented. Compliance is 80% or higher. | |
| Trauma center guidelines for alcohol misuse screening are documented, and guidelines define patients who are to be screened and who performs the screening. | Screening is documented. Compliance is 80% or higher. | |
| Admitted trauma patients 12 years and older are screened for alcohol misuse with a validated tool and/or blood alcohol concentration (BAC). | Screening is documented. Compliance is 80% or higher. | |
| The PIPS plan defines who performs the brief intervention for alcohol misuse and documentation requirements. | Interventions are documented. Compliance is 80% or higher. | |
| Trauma center provides a brief intervention to patients who screen positive for alcohol misuse. | Appropriately trained staff provide brief intervention to 80% or higher of screened patients. | |
| Trauma center has a consultative service available for patients in need of acute mental health intervention. | Level I and II trauma programs have psychiatry continuously available for consult. | |

| Performance Improvement Recommendations | Outcome Measure and Threshold | Facility Compliance |
|---|---|---|
| The PIPS plan has documented guidelines for drug use screening to include patient criteria for screening and documentation requirements. | Screening is documented. Compliance is 80% or higher. | |
| Trauma center has list of outpatient resources for referral of patients that need mental health services for psychotherapy or medication management. | Outpatient resources are included in the discharge planning documentation. Compliance is 80% or higher. | |
| Trauma center establishes a process and criteria for patients needing referral for substance misuse services. | Patients who meet criteria for referral receive referrals. Compliance is 80% or higher. | |
| Trauma center has processes to maintain or modify home psychiatric medications for admitted patients. | Patient who has home psychiatric medications documented through medication reconciliation has them continued, modified, or documented reason for discontinuation. Compliance is 90% or higher. | |
| The PIPS plan has documented guidelines for suicide screening for admitted patients meeting criteria for trauma activation. | Documentation requirements are met. Compliance is 80% or higher. | |
| Trauma center has guidelines for assessment and treatment of alcohol withdrawal. | Patients with positive alcohol screens or BAC are monitored for alcohol withdrawal symptoms. Compliance to the facility's established alcohol withdrawal guideline is monitored. | |

Mental health screening and substance misuse screening processes must be integrated into the trauma performance improvement plan and reporting compliance are demonstrated in Figure 2 on the next page.

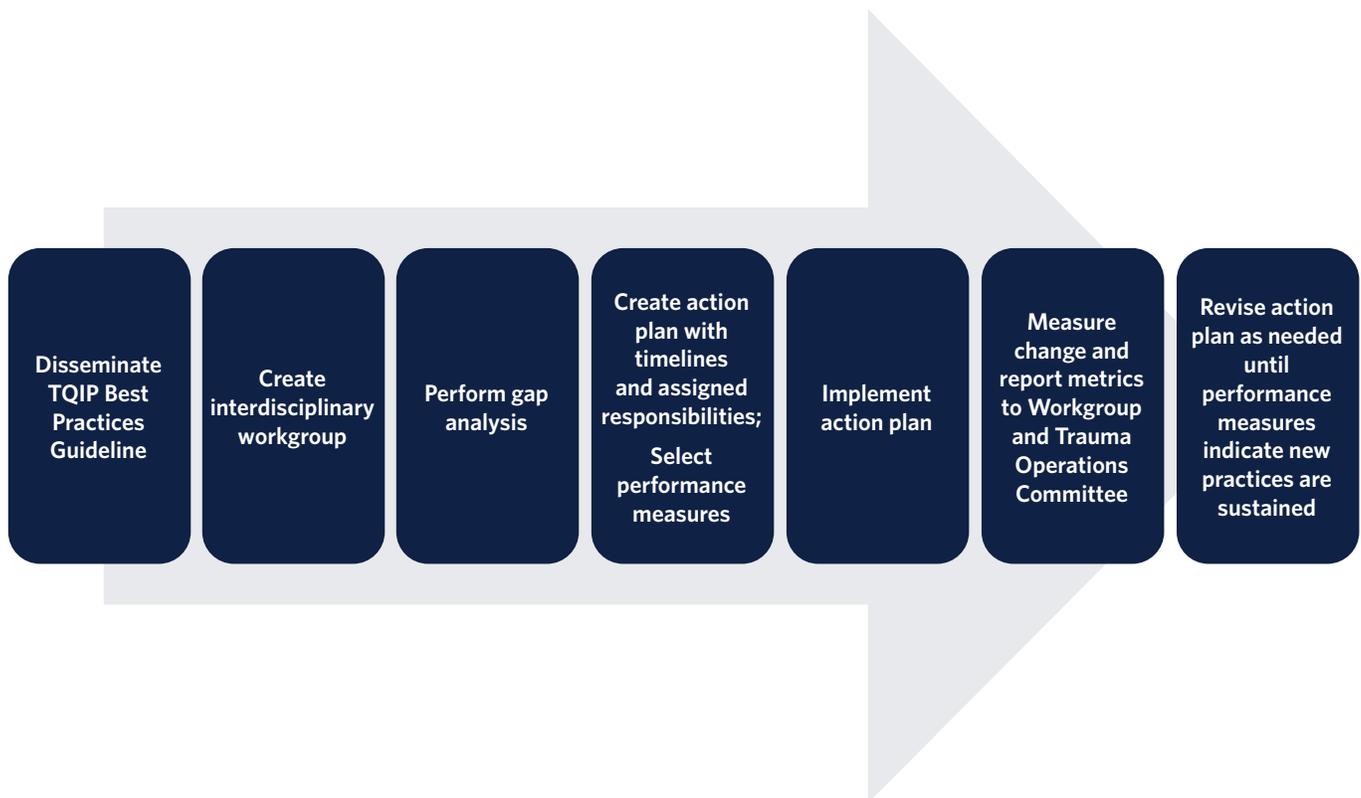**Figure 2.** Sample Performance Improvement Tracking

## Summary

Implementing the guidelines to care for trauma patients with mental health and substance misuse aligns the care team, as well as the healthcare system, to meet the patient's needs. Guideline implementation begins with the commitment and support of trauma leadership, approval of the workgroup, and timeline for the project overseen by the TMD and Trauma Operations Committee.

A defined workgroup of subject matter experts and champions for mental health and substance abuse screening is needed to lead this endeavor. This workgroup is responsible for completing a gap analysis that compares current practice to the BPG. The gap analysis guides the development of an action plan for implementation of

the guideline. The action plan may include development of an educational plan to assure that all staff caring for trauma patients know their roles and responsibilities related to mental health and substance misuse screening, interventions, consultation requests, and referrals, as well as required documentation. Integrating key aspects of the guideline into the trauma center's PIPS plan assists in monitoring compliance to the guideline and patient outcomes. Performance metrics are reported to the stakeholder workgroup and the Trauma Operations Committee for review, leading to subsequent change to the action plan and re-measurement until the changes in practice are sustained. Processes to capture and document billing requirements are needed to assist with sustaining the program. These processes are visually depicted in Figure 3.

**Figure 3.** Integration of the ACS Mental Health and Substance Use Best Practices Guideline into the Trauma Center Performance Improvement Patient Safety Plan



Disseminate TQIP Best Practices Guideline → Create interdisciplinary workgroup → Perform gap analysis → Create action plan with timelines and assigned responsibilities; Select performance measures → Implement action plan → Measure change and report metrics to Workgroup and Trauma Operations Committee → Revise action plan as needed until performance measures indicate new practices are sustained

# DOCUMENTATION/BILLING

## KEY POINTS

- Trauma program leaders need to establish collaborative relationships with the facility's billing and financial team to identify the billing requirements and operational process for mental health and substance misuse screening.

- The trauma program must ensure that the requirements for Health Information Portability and Accountability Act (HIPAA) are met when implementing the mental health and substance misuse best practices guideline.

- The trauma program may explore opportunities to integrate the mental health and substance misuse guideline document into the EMR.

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- Trauma centers have the opportunity to bill for the mental health and substance misuse patient screening and intervention. Four critical steps must be explored to move forward with billing. See Table 9 for a documentation and billing implementation checklist.

- Consult with the facility's financial individual responsible for government reimbursement to define the specific requirements for this billing. This includes which providers can bill for these services, what must be documented, how it must be documented, and the time specifications related to this billing. Screening and brief interventions include time spent administering the screening assessment, including the time spent reviewing the assessment and counseling the patient. No billing can be submitted for negative assessments because no intervention occurs or for the time related to other activities such as the use of an interpreter. See Appendix C-1 to learn more about who can bill for these services.

- Meet with risk management to ensure all HIPAA (1996) requirements are followed related to information regarding mental health and substance misuse.

- Identify and schedule a discussion with the hospital leader responsible for the EMR (e.g., Chief Information Officer and in some cases the vendor), to plan the integration of screening tools and documentation requirements into the EMR. The original workgroup may add the integration of EMR documentation to their task list, or a separate workgroup may be assigned this task. The workgroup selects the most appropriate validated screening tools appropriate for the patient population. See Table 10. The workgroup and EMR leadership define the optimal solutions for integration of these tools and options to capture the documentation and assessments (e.g., the development of "smart phases" or "dot phrases"). This team may choose to integrate drop-down menus for defined procedure codes to facilitate billing. See Appendix C-2 for a listing of CPT codes and specific documentation requirements. These steps may require approval by the hospital's regulatory oversight leaders as well. See Appendix B-3 for an example of screening documentation integration into the electronic medical record.

- Collaborate with the billing department to define the processes for billing. The defined charge for screening and intervention services will be defined by the hospital billing and government reimbursement department. See Table 11. The billing department selects direct billing through charge capture or automated billing from the EMR documentation. Collaboration with the billing department also defines which cost center generates the revenue. Trauma programs without a cost center cannot bill for these services and must identify the appropriate department for billing. If telehealth or telemedicine is used to support the mental health and substance misuse screening and intervention, telehealth and telemedicine needs to be included in the discussion of all for steps of the billing process.

**Table 9.** Documentation and billing implementation checklist for mental health and substance misuse screening

| Elements to Consider for Billing | Who Can Approve? | Date Approved |
|---|---|---|
| Meet with billing/government reimbursement department to identify opportunities for billing. | | |
| Identify who can complete the screening for billing. | | |
| Do these individuals need additional education and documentation of this training? | | |
| Define what must be documented. | | |
| Define the timelines that must be met for screening and for intervention billing. | | |
| Define all billable codes specific to mental health and substance misuse screenings and interventions. | | |
| Consult with risk management to ensure all HIPAA requirements for mental health and substance misuse are in compliance. | | |
| Identify validated screening tools and ensure that age-appropriate tools are utilized (see Table 10). | | |
| Develop a documentation process that supports the workflow needed for patient care, coding, and billing. | | |
| Define the process to integrate tools into the EMR. | | |
| Integrate the selected screening tools and assure the ability to complete the documentation for the screening tools into the EMR. | | |
| Ensure these elements are searchable data fields for reporting purposes. | | |
| Automate consultation orders for referral providers, based on the screening results, and resources available at the trauma center. | | |
| Ensure the documentation meets the HIPAA guidelines. | | |
| In collaboration with billing services, define a billing process for these services (e.g., direct billing through charge capture, or automated billing directly from the e-screening tool). | | |
| Determine which cost center generates the revenue. | | |
| In collaboration with billing services, define the facility charge for these services (see Table 11). | | |
| Ensure that compliance to the defined documentation is tracked and monitored through the trauma center PI initiatives. | | |
| Develop processes for report generation through the EMR when possible, defining the reports needed and their frequency. | | |
| Define billing opportunities and requirements for telehealth/telemedicine. | | |

**Table 10.** Validated Screening Tools

| Validated Screening Tools |
| --- |
| Alcohol Use Disorder Identification Test (AUDIT) |
| Drug Abuse Screening Test (DAST) |
| Primary Care PTSD Screen (PC-PTSD) |
| Injured Trauma Survivor Screen (ITSS) |
| Peritraumatic Distress Inventory (PDI) |
| Posttraumatic Adjustment Screen (PAS) |
| PTSD Checklist-5 (PCL-5) |
| Hospital Anxiety and Depression Scale (HADS) |
| Depression and Anxiety Scales (DASS-21) |
| Pediatric Emotional Distress Scale Early Screener (PEDS-ES) |
| Child Trauma Screening Questionnaire (CTSQ) |
| Screening Tool for Early Predictors of PTSD (STEPP) |
| Acute Stress Checklist for Children (ASC-Kids) |
| Child Stress Disorders Checklist Short Form |
| Young Child PTSD Screen |
| Brief Suicide Safety Assessment (BSSA) |

**Table 11.** Fee Schedule for Mental Health and Substance Misuse Screening and Intervention[1]

| Payer | Code | Description | Fee Schedule |
| --- | --- | --- | --- |
| Commercial insurance, Medicaid | 99408 | Alcohol and/or substance abuse structured screening and brief intervention services, 15-30 minutes | $33.41 |
| Commercial insurance, Medicaid | 99409 | Alcohol and/or substance abuse structured screening and brief intervention services, >30 minutes | $65.51 |
| Medicare | G0396 | Alcohol and/or substance abuse structured screening and brief intervention services, 15-30 minutes | $29.42 |
| Medicare | G0397 | Alcohol and/or substance abuse structured screening and brief intervention services, >30 minutes | $57.69 |
| Medicaid | H0049 | Alcohol and/or drug screening (code not widely used) | $24 |
| Medicaid | H0050 | Alcohol and/or drug service, brief intervention, per 15 minutes (code not widely used) | $48 |

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# APPENDIX A:
# ACRONYMS

## A

AA – Alcoholics Anonymous

ACS – American College of Surgeons

ACS-COT – American College of Surgeons Committee on Trauma

ASAM – American Society of Addiction Medicine

ACS-Kids – Acute Stress Checklist for Children

AODA – alcohol and other drug abuse

APP – advanced practice provider

ASD – acute stress disorder

ASQ – Ask Suicide-Screening Questions

AUDIT – Alcohol Use Disorders Identification Test

AWS – alcohol withdrawal syndrome

## B

BAC – blood alcohol concentration

BI – brief intervention

BMI – brief motivational interviewing

BPG – Best Practices Guideline

BSSA – Brief Suicide Safety Assessment

## C

CG – complicated grief

C-L – consultation-liaison

C-SSRS – Columbia-Suicide Severity Rating Scale

CPT – current procedural terminology for coding

CPTS – Center for Pediatric Traumatic Stress

CTSQ – Child Trauma Screening Questionnaire

## D

DHHS – Department of Health and Human Services

DUI – drinking under the influence

## E

EMR – electronic medical record

## G

GGT – Gamma-glutamyl transpeptidase

GSW – gunshot wound

## H

HCPCS – healthcare common procedure coding system

HIPAA – Health Information Portability and Accountability Act

HVIP – Hospital-based violence intervention programs

## I

ICU – intensive care unit

IOM – Institute of Medicine

ITSS – Injured Trauma Survivor Screen

ISTSS – International Society for Traumatic Stress Studies

IT – information technology

## N

NA – Narcotics Anonymous

NIAAA – National Institute on Alcohol Abuse and Alcoholism

NIDA – National Institute on Drug Abuse

NP – nurse practitioner

## P

PAS – Posttraumatic Adjustment Screen

PCBD – persistent complex bereavement disorder

PCL-5 – PTSD Checklist-5

PDI – Peritraumatic Distress Inventory

PGD – prolonged grief disorder

PHQ-9 – Patient Health Questionnaire-9

PI – performance improvement

PIPS – performance improvement and patient safety

PTSD – posttraumatic stress disorder

## R

RCT – randomized clinical trial

## S

SAMHSA – Substance Abuse and Mental Health Services Administration

SBIRT – screening, brief intervention and referral to treatment

SBQ-R – Suicide Behaviors Questionnaire-Revised

## T

TAPS – Tobacco, Alcohol, Prescription Medication, and Other Substance Use, screening tool

TBI – traumatic brain injury

TMD – trauma medical director

TPM – trauma program manager

TQIP – Trauma Quality Improvement Program

TRRP – Trauma Resilience and Recovery Program

TSQ – Trauma Screening Questionnaire

## U

US – United States

USAUDIT – Alcohol Use Disorders Identification Test, adapted for use in the United States

## V

VOCA – Victims of Crime Act

## W

WHO – World Health Organization

# APPENDIX B-1: MENTAL HEALTH SCREENING TOOLS FOR ADULTS

## Automated Screening Items for PTSD from the Electronic Medical Record

Final indicators for the PTSD risk prediction model

| Indicator | Entry OR[a] (95% CI) | Final model OR (95% CI) |
|---|---|---|
| Gender: female | 2.04 (1.53–2.71) | 2.66 (1.92–3.69) |
| Race: non-White | 1.92 (1.44–2.54) | 1.63 (1.19–2.24) |
| Funding: public, self-pay and veterans insurance | 2.18 (1.58–3.01) | 1.47 (1.04–2.08) |
| ICU visit during hospitalization | 1.39 (1.03–1.89) | 1.37 (0.99–1.89) |
| Prior inpatient hospitalizations (2 or more) | 2.09 (1.59–2.75) | 1.31 (0.96–1.79) |
| Etiology: intentional injury | 1.88 (1.31–2.69) | 1.72 (1.18–2.50) |
| Tobacco use—current or history | 1.42 (1.04–1.96) | 1.24 (0.89–1.72) |
| BAC positive OR any substance disorder *ICD-9-CM* | 1.66 (1.21–2.28) | 1.36 (0.97–1.90) |
| PTSD *ICD-9-CM* | 3.57 (1.38–9.22) | 2.13 (0.81–5.64) |
| Any psychiatric disorder *ICD-9-CM* from EMR | 2.30 (1.56–3.40) | 2.30 (1.56–3.40) |

[a] ORs when indicator was entered into the model.

**From:** Russo J, Katon W, Zatzick D. (2013). The development of a population-based automated screening procedure for PTSD in acutely injured hospitalized trauma survivors. *General Hospital Psychiatry*, 35, 485-491. Used with permission.

## Injured Trauma Survivor Screen (ITSS)

| Questions | YES | NO |
|---|---|---|
| *BEFORE THIS INJURY*: <br> 1. Have you taken medication for, or been given a mental health diagnosis? | | |
| 2. Has there ever been a time in your life you have been bothered by feeling down or hopeless or lost interest in things you usually enjoyed for more than 2 weeks? | | |
| *WHEN YOU WERE INJURED OR RIGHT AFTERWARD*: <br> 3. Did you think you were going to die? | | |
| 4. Do you think this was done to you intentionally? | | |
| *SINCE YOUR INJURY:* <br> 5. Have you felt emotionally detached from your loved ones? | | |
| 6. Do you find yourself crying and are unsure why? | | |
| 7. Have you felt more restless, tense or jumpy than usual? | | |
| 8. Have you found yourself unable to stop worrying? | | |
| 9. Do you find yourself thinking that the world is unsafe and that people are not to be trusted? | | |
| **Total** | | |

**Scoring**: "No" responses are scored zero; "yes" answers are scored "1". For the questions pertinent to depression (1,2,3,5,6), a sum score of "2" is considered positive. For questions pertinent to PTSD (3,4,7,8,9), a sum score of "2" is considered positive.

From: Hunt JC, Herrera-Hernandez E, Brandolino A, et al. Validation of the Injured Trauma Survivor Screen: An American Association for the Surgery of Trauma multi-institutional trial. *J Trauma Acute Care Surg*. 2021;90(5):797-806. doi:10.1097/TA.0000000000003079. Used with permission.

# PATIENT HEALTH QUESTIONNAIRE-9
## (PHQ-9)

| **Over the last 2 weeks**, how often have you been bothered by any of the following problems?<br>*(Use "✔" to indicate your answer)* | Not at all | Several days | More than half the days | Nearly every day |
|---|---|---|---|---|
| **1.** Little interest or pleasure in doing things | 0 | 1 | 2 | 3 |
| **2.** Feeling down, depressed, or hopeless | 0 | 1 | 2 | 3 |
| **3.** Trouble falling or staying asleep, or sleeping too much | 0 | 1 | 2 | 3 |
| **4.** Feeling tired or having little energy | 0 | 1 | 2 | 3 |
| **5.** Poor appetite or overeating | 0 | 1 | 2 | 3 |
| **6.** Feeling bad about yourself — or that you are a failure or have let yourself or your family down | 0 | 1 | 2 | 3 |
| **7.** Trouble concentrating on things, such as reading the newspaper or watching television | 0 | 1 | 2 | 3 |
| **8.** Moving or speaking so slowly that other people could have noticed?  Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual | 0 | 1 | 2 | 3 |
| **9.** Thoughts that you would be better off dead or of hurting yourself in some way | 0 | 1 | 2 | 3 |

FOR OFFICE CODING __*0*__ + _____ + _____ + _____

=Total Score: _____

**If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

| Not difficult at all | Somewhat difficult | Very difficult | Extremely difficult |
|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ |

## Peritraumatic Distress Inventory (PDI)

1. I felt helpless to do more

2. I felt sadness and grief

3. I felt frustrated or angry I could not do more

4. I felt afraid for my safety

5. I felt guilt that more was not done

6. I felt ashamed of my emotional reactions

7. I felt worried about the safety of others

8. I had the feeling I was about to lose control of my emotions

9. I had difficulty controlling my bowel and bladder

10. I was horrified by what happened

11. I had physical reactions like sweating, shaking, and pounding heart

12. I felt I might pass out

13. I felt I might die

**Scoring:** The Peritraumatic Distress Inventory five-point Likert scale that ranges from 0 to 4 (0 = not at all, 1 = slightly true, 2 = somewhat true, 3 = very true and 4 = extremely true). Sum the values for each item. A cutoff score of 14 for predicting full or partial PTSD six-weeks postinjury is suggested for the English version.

Daisuke N, Yutaka M, Naohiro Y, et al., Peritraumatic Distress Inventory as a predictor of post-traumatic stress disorder after a severe motor vehicle accident. *Psychiatry and Clinical Neurosciences*; 2010; 64(2): 149-156. Used with permission from John Wiley & Sons.

# Posttraumatic Adjustment Screen (PAS)

This questionnaire asks you questions that relate to factors that occurred before, during or after the event that caused your injuries. Circle the response that best describes how much you **agree** with the following statements.

| Q | Not at all | To a small extent | To a moderate extent | To a large extent | Totally |
|---|---|---|---|---|---|
| 1* I have needed professional help to deal with emotional problems in the past. | 0 | 1 | 2 | 3 | 4 |
| 2* Previously traumatic events have impacted negatively on my life in the past (e.g., assault, sexual abuse, previous combat duty, natural disasters, witnessing traumatic events). | 0 | 1 | 2 | 3 | 4 |
| 3 In the past I was able to talk about my thoughts and feelings with my family members or friends. | 4 | 3 | 2 | 1 | 0 |
| 4* In the past I was satisfied with the support that I had from my friends and family. | 4 | 3 | 2 | 1 | 0 |
| 5 At the time of the event, I felt terrified, helpless or horrified. | 0 | 1 | 2 | 3 | 4 |
| 6 During the event, I thought I was about to die. | 0 | 1 | 2 | 3 | 4 |
| 7* I have felt irritable or angry since the event. | 0 | 1 | 2 | 3 | 4 |
| 8* I have found it difficult to concentrate on what I was doing or things going on around me since the event. | 0 | 1 | 2 | 3 | 4 |
| 9 I am confident that I can deal with the financial stressors that may arise as a consequence of being injured. | 4 | 3 | 2 | 1 | 0 |
| 10 I can accept what happened to me. | 4 | 3 | 2 | 1 | 0 |

*Note.* Add all items to calculate the posttraumatic stress disorder score on the Posttraumatic Adjustment Scale (PAS). Add items marked with an * to calculate the depression score on the PAS.

# PTSD Checklist-5 (PCL-5)

**Instructions:** Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

| In the past month, how much were you bothered by: | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| 1. Repeated, disturbing, and unwanted memories of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 2. Repeated, disturbing dreams of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)? | 0 | 1 | 2 | 3 | 4 |
| 4. Feeling very upset when something reminded you of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)? | 0 | 1 | 2 | 3 | 4 |
| 6. Avoiding memories, thoughts, or feelings related to the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)? | 0 | 1 | 2 | 3 | 4 |
| 8. Trouble remembering important parts of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)? | 0 | 1 | 2 | 3 | 4 |
| 10. Blaming yourself or someone else for the stressful experience or what happened after it? | 0 | 1 | 2 | 3 | 4 |
| 11. Having strong negative feelings such as fear, horror, anger, guilt, or shame? | 0 | 1 | 2 | 3 | 4 |
| 12. Loss of interest in activities that you used to enjoy? | 0 | 1 | 2 | 3 | 4 |
| 13. Feeling distant or cut off from other people? | 0 | 1 | 2 | 3 | 4 |
| 14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)? | 0 | 1 | 2 | 3 | 4 |
| 15. Irritable behavior, angry outbursts, or acting aggressively? | 0 | 1 | 2 | 3 | 4 |
| 16. Taking too many risks or doing things that could cause you harm? | 0 | 1 | 2 | 3 | 4 |
| 17. Being "superalert" or watchful or on guard? | 0 | 1 | 2 | 3 | 4 |
| 18. Feeling jumpy or easily startled? | 0 | 1 | 2 | 3 | 4 |
| 19. Having difficulty concentrating? | 0 | 1 | 2 | 3 | 4 |
| 20. Trouble falling or staying asleep? | 0 | 1 | 2 | 3 | 4 |

https://www.ptsd.va.gov/professional/assessment/documents/PCL5_Standard_form.PDF. Used with permission.

# APPENDIX B-2: MENTAL HEALTH SCREENING TOOLS FOR CHILDREN AND ADOLESCENTS

## Acute Stress Checklist for Children

ASC-Kids ©

We'd like to know about your thoughts, feelings, and reactions since _____.

There aren't any right or wrong answers, just how YOU are thinking and feeling.
Please put an X in the box that shows how true each of these sentences is for YOU.

*For example, if you feel sort of sleepy in the morning or you feel sleepy in the morning some of the time, you would put an X in the middle box.*

|  |  | Never / Not true | Sometimes / Somewhat | Often / Very true |
|---|---|---|---|---|
| Example | I feel sleepy in the morning. |  | X |  |

| While it was happening: | | Never / Not true | Sometimes/ Somewhat | Often / Very true |
|---|---|---|---|---|
| 1 | It was really shocking, awful, or horrible. |  |  |  |
| 2 | I wanted to make it stop, but I couldn't. |  |  |  |
| 3 | I felt really scared. |  |  |  |
| 4 | I thought I might die. |  |  |  |
| **While it was happening (OR after):** | | Never / Not true | Sometimes/ Somewhat | Often / Very true |
| 5 | I didn't have any feelings – I couldn't feel upset, sad, or glad. |  |  |  |
| 6 | Things seemed unreal to me – as if I was in a dream or watching a movie. |  |  |  |
| 7 | I felt in a daze – like I didn't know what was going on. |  |  |  |
| 8 | I felt different & far away from other people, even if people were with me. |  |  |  |
| **Now:** | | Never / Not true | Sometimes/ Somewhat | Often / Very true |
| 9 | I can't remember some important parts of what happened. |  |  |  |
| 10 | Pictures or sounds from what happened keep popping into my mind. |  |  |  |
| 11 | I can't stop thinking about it. |  |  |  |
| 12 | At times, it seems like it is happening all over again. |  |  |  |
| 13 | When something reminds me of what happened, I feel very upset. |  |  |  |
| 14 | Since this happened, I've had more bad dreams. |  |  |  |

| Now: | Never / Not true | Sometimes/ Somewhat | Often / Very true |
|---|---|---|---|
| 15 | I try not to think about what happened. | | | |
| 16 | I try not to talk about it. | | | |
| 17 | I want to stay away from things that remind me of what happened. | | | |
| 18 | I try to stop my feelings about it. | | | |
| 19 | It's hard for me to fall asleep or stay asleep. | | | |
| 20 | Since this happened, I get angry or bothered more easily. | | | |
| 21 | I have a harder time concentrating or paying attention. | | | |
| 22 | I feel scared that something bad might happen. | | | |
| 23 | A sudden noise really makes me jump. | | | |

*Finish each sentence. Choose the words that are true for you and mark with an X.*

| 24 | My thoughts or feelings about what happened …. |
|---|---|
| | ☐ don't bother me at all ☐ bother me a little ☐ bother me a lot |

| 25 | Since this happened, getting along with friends or family is … |
|---|---|
| | ☐ easier for me ☐ the same as before ☐ harder for me |

| Now: | Never / Not true | Sometimes/ Somewhat | Often / Very true |
|---|---|---|---|
| 26 | I'm having trouble getting back to doing normal things (activities, school, sports). | | | |
| 27 | My parents or other family members have been really upset (sad, scared, or angry) since this happened. | | | |
| 28 | I have people (my parents, family, or friends) who really understand how I feel. | | | |
| 29 | If I get sad or upset, I have a way to help myself feel better. | | | |

ASC-Kids (English) © Children's Hospital of Philadelphia, 2002

CEA-N ©

Nos gustaría que nos dijeras algo sobre lo que piensas, sientes, y tus reacciones desde _____.

No hay respuestas buenas o malas, lo que queremos saber es lo que estás pensando y sintiendo.

Por favor pon una X en el cuadro que más se aproxima a lo que tú sientes.
*Por ejemplo, si sientes <u>un poco</u> de sueño por la mañana o si te da sueño por la mañana <u>a veces</u>, pondrías una X en el cuadro del centro.*

| | | Nunca / Falso | A veces / Un poco | Con frecuencia /Definitivamente |
|---|---|---|---|---|
| *Ejemplo* | *Me da sueño por la mañana* | | X | |

| Mientras sucedía: | | Nunca / Falso | A veces / Un poco | Con frecuencia / Definitivamente |
|---|---|---|---|---|
| 1 | Era realmente espantoso, terrible, u horrible. | | | |
| 2 | Quería hacer que terminara pero no podía. | | | |
| 3 | Me sentía realmente asustado/a. | | | |
| 4 | Pensé que podía morirme. | | | |
| **Mientras sucedía (o después):** | | Nunca / Falso | A veces / Un poco | Con frecuencia / Definitivamente |
| 5 | No tenía ninguna emoción – No me podía sentir mal, triste, ni alegre. | | | |
| 6 | No me parecía real – como si estuviera soñando o viendo una película. | | | |
| 7 | Me sentía con la mente en las nubes – como si no supiera lo que estaba pasando. | | | |
| 8 | Me sentía diferente y distante de los demás, aunque hubiera gente conmigo. | | | |
| **Ahora:** | | Nunca / Falso | A veces / Un poco | Con frecuencia / Definitivamente |
| 9 | No puedo recordar algunas cosas importantes de lo que sucedió. | | | |
| 10 | Imágenes o sonidos de lo que pasó vienen a mi mente. | | | |
| 11 | No puedo dejar de pensar en lo que pasó. | | | |
| 12 | A veces, parece que vuelve a pasar de nuevo. | | | |
| 13 | Cuando algo me recuerda lo que pasó, me siento muy mal. | | | |
| 14 | Desde que esto sucedió, he tenido más sueños malos. | | | |

| Ahora: | | Nunca / Falso | A veces / Un poco | Con frecuencia / Definitivamente |
|---|---|---|---|---|
| 15 | Trato de no pensar en lo que pasó. | | | |
| 16 | Trato de no hablar de lo que pasó. | | | |
| 17 | Quiero alejarme de cosas que me recuerdan lo que sucedió. | | | |
| 18 | Trato de no sentir nada de lo que pasó. | | | |
| 19 | Me es difícil dormir o quedarme dormido/a. | | | |
| 20 | Desde que esto sucedió, me enojo o molesto más fácilmente. | | | |
| 21 | Es más difícil concentrarme o prestar atención. | | | |
| 22 | Tengo miedo de que algo malo pueda suceder. | | | |
| 23 | Un ruido inesperado realmente me hace saltar. | | | |

*Completa cada oración. Escoge la frase que mejor te describe y ponle una X.*

| 24 | Mis pensamientos o sentimientos acerca de lo que pasó… |
|---|---|
| | ☐ no me molestan nada    ☐ me molestan un poco    ☐ me molestan mucho |

| 25 | Desde que esto sucedió, llevarme bien con mis amigos o familia es… |
|---|---|
| | ☐ más fácil para mí      ☐ igual que antes      ☐ más difícil para mí |

| Ahora: | | Nunca / Falso | A veces / Un poco | Con frecuencia / Definitivamente |
|---|---|---|---|---|
| 26 | Me es difícil volver a hacer cosas normales (actividades, escuela, deportes). | | | |
| 27 | Mis padres u otros familiares se han sentido muy mal (tristes, asustados, o enojados) desde que sucedió esto. | | | |
| 28 | Hay personas (mis padres, otros parientes, o amigos) que realmente entienden cómo me siento.. | | | |
| 29 | Si me pongo triste o me siento mal, sé cómo hacerme sentir mejor. | | | |

CEA-N (Español) © Children's Hospital of Philadelphia, 2004

## Child Trauma Screening Questionnaire (CTSQ)

Please indicate whether any of these things have happened to you **since the event.**

| | | | |
|---|---|---|---|
| 1. | Do you have lots of thoughts or memories about the accident that you don't want to have? | Yes | No |
| 2. | Do you have bad dreams about the accident? | Yes | No |
| 3. | Do you feel or act as if the accident is about to happen again? | Yes | No |
| 4. | Do you have bodily reactions (such as a fast-beating heart, stomach churning, sweating and feeling dizzy) when reminded of the accident? | Yes | No |
| 5. | Do you have trouble falling or staying asleep? | Yes | No |
| 6. | Do you feel grumpy or lose your temper? | Yes | No |
| 7. | Do you feel upset by reminders of the accident? | Yes | No |
| 8. | Do you have a hard time paying attention? | Yes | No |
| 9. | Are you on the "look-out" for possible dangerous things that might happen to yourself and others? | Yes | No |
| 10. | When things happen by surprise or all of a sudden, does it make you "jump"? | Yes | No |

**From:** Kenardy JA, Spence SH, Macleod AC. (2006). Screening for posttraumatic stress disorder in children after accidental injury. *Pediatrics*. 2006; 118(3): 1002-1009. Used with permission.

## Screening Tool for Early Predictors of PTSD (STEPP)

| Ask Parent: | Yes | No | | |
|---|---|---|---|---|
| 1. Did you see the incident (accident) in which your child got hurt? | 1 | 0 | ■ | |
| 2. Were you with your child in an ambulance or helicopter on the way to the hospital? | 1 | 0 | ■ | |
| 3. When your child was hurt (or when you first heard it had happened), did you feel really helpless, like you wanted to make it stop happening, but you couldn't? | 1 | 0 | ■ | |
| 4. Does your child have any behavior problems or problems paying attention? | 1 | 0 | | |
| **Ask Child:** | **Yes** | **No** | | |
| 5. Was anyone else hurt or killed (when you got hurt)? | 1 | 0 | | ■ |
| 6. Was there a time when you didn't know where your parents were? | 1 | 0 | | ■ |
| 7. When you got hurt, or right afterwards, did you feel really afraid? | 1 | 0 | | ■ |
| 8. When you got hurt, or right afterwards, did you think you might die? | 1 | 0 | | ■ |
| **Record From Medical Record (Do Not Ask Child or Parent):** | **Yes** | **No** | | |
| 9. Suspected extremity fracture? | 1 | 0 | | |
| 10. Was pulse rate at emergency department triage >104/min if child is under 12 years or >97/min if child is 12 years or older? | 1 | 0 | | ■ |
| 11. Is child 12 years or older? | 1 | 0 | ■ | |
| 12. Is this a girl? | 1 | 0 | | ■ |
| Add Total for Each Column: | | | | |
| | | | Positive Child Screen ≥4 | Positive Parent Screen ≥3 |

PTSD indicates posttraumatic stress disorder. Instructions for completion: Ask questions 1 through 4 of the parent and questions 5 through 8 of the child, and record answers to questions 9 through 12 from the acute care medical record. Circle 1 for yes and 0 for no. Instructions for scoring: The child STEPP score is the sum of responses to questions 4 through 10 and 12. A child score of 4 or higher indicates a positive screen. The parent STEPP score is the sum of responses to questions 1 through 4, 9, and 11. A parent score of 3 or higher indicates a positive screen. ©2003, The Children's Hospital of Philadelphia.

**From:** Winston FK, Kassam-Adams N, Garcia-Espana F, et al. Screening for risk of persistent posttraumatic stress in injured children and their parents. *JAMA.* 2003; 290(5): 643-649. doi:10.1001/jama.290.5.643. Used with permission.

## Screening Tool for Prediction of PTSD, Australian Version

| Question | Yes | No |
|---|---|---|
| **Ask Parent:** | | |
| Has Your Child Ever: | | |
| 1. Had behavior or attention problems for a while? | 1 | 0 |
| 2. Been sad, depressed, worried for a while? | 1 | 0 |
| 3. Has someone close to your child had a serious injury before? | 1 | 0 |
| When Your Child was Injured: | | |
| 4. Did you hear your child crying or asking for help? | 1 | 0 |
| **Ask Child:** | | |
| Before this Injury: | | |
| 5. Have you ever had trouble with being really sad or really worried? | 1 | 0 |
| When you were Injured: | | |
| 6. Did you feel extra "hyper" – like it was hard to stay still? | 1 | 0 |
| 7. Did you feel really "spacey" or in a daze – like things were not real? | 1 | 0 |
| Right Now: | | |
| 8. Are you feeling upset or scared? | 1 | 0 |

**From:** Nixon R, Ellis A, Nehmy T, Ball S. Screening and predicting posttraumatic stress and depression in children following single-incident trauma. *J Clin Child Adolesc Psychol*. 2010; 39(4): 588-596. http://dx.doi.org/10.1080/15374416.2010.486322 Used with permission.

## Child Stress Disorders Checklist Short Form (CSDC-SF)

| | Scale Items | CSDC-SF Mnemonic |
|---|---|---|
| | 0 = not true 1 = somewhat true 2 = very true | |
| 1. | Child reports more physical complaints when reminded of the trauma (headache, stomachache, nausea, difficulty breathing, etc.). | **P**hysical complaints when reminded of trauma. |
| 2. | Child avoids doing things that remind him or her of the trauma. | **T**ries to avoid doing things that are reminders of trauma. |
| 3. | Child startles easily. For example, he or she jumps when hears sudden or loud noises. | **S**tartles easily. |
| 4. | Child gets very upset if reminded of the trauma. | **D**istressed if reminded of trauma. |

**From:** Bosquet EM, Kassam-Adams N, Saxe G. The Child Stress Disorders Checklist-Short Form: A four-item scale of traumatic stress symptoms in children. *Gen Hosp Psychiatry*. 2010; 32(3): 321-327. doi:10.1016/j.genhosppsych.2010.01.009. Used with permission.

# Young Child PTSD Screen

**YOUNG CHILD PTSD SCREEN (YCPS)**

Name _____   ID _____   Date _____

TRAUMATIC EVENTS

An event must have led to serious injury or be perceived as if it could have led to serious injury to the child, or to another person (usually a loved one) and the child witnessed it, and is usually sudden and/or unexpected.

*0 = Absent     1 = Present*
*Circle 0 if the event has not happened and 1 if the event has happened to your child.*
*Frequency is the number of events the child can remember. Generally, children start remembering events around 3 years of age.*

Frequency

| | | | |
|---|---|---|---|
| P1. Accident or crash with automobile, plane or boat. | 0 | 1 | _____ |
| P2. Attacked by an animal. | 0 | 1 | _____ |
| P3. Man-made disasters (fires, war, etc) | 0 | 1 | _____ |
| P4. Natural disasters (hurricane, tornado, flood) | 0 | 1 | _____ |
| P5. Hospitalization or invasive medical procedures | 0 | 1 | _____ |
| P6. Physical abuse | 0 | 1 | _____ |
| P7. Sexual abuse, sexual assault, or rape | 0 | 1 | _____ |
| P8. Accidental burning | 0 | 1 | _____ |
| P9. Near drowning | 0 | 1 | _____ |
| P10. Witnessed another person being beaten, raped, threatened with serious harm, shot at seriously wounded, or killed. | 0 | 1 | _____ |
| P11. Kidnapped | 0 | 1 | _____ |
| P12. Other: _____ | 0 | 1 | _____ |

**From:** https://medicine.tulane.edu/sites/g/files/rdw761/f/YCPS.pdf
Used with permission of Michael S. Scheeringa, MD, MPH

# APPENDIX B-3: EXAMPLE OF INTEGRATING THE SCREENING PROCESS INTO THE ELECTRONIC MEDICAL RECORD DOCUMENTATION OR TRAUMA REGISTRY

## Alcohol Use Risk Assessment Screen

| How many drinks containing alcohol do you have on a typical day when you are drinking? | 1 – 2 drinks | 3 – 4 drinks | 5 – 6 drinks | 7 – 9 drinks | 10 or more drinks |
|---|---|---|---|---|---|
| What is the typical drink containing alcohol | | | __ Glass of wine 5 oz./glass<br><br>__ Cans of beer 12 oz. / can<br><br>__ Shots of liquor (1.5 oz. of 80 proof spirit<br><br>__ Other | | |
| What SBIRT services were provided? | __ Screening only<br>__SBIRT Referral to treatment appointment<br>__SBIRT Attempted but not completed | | __SBI and Materials provided<br>__Declined<br>__Materials only provided | | |
| Risk Level: | __ Low Risk | | __Moderate Risk | | __Severe Risk |
| Alcohol or Other Drug: | __Alcohol | | __Other Drug | | __Both |

### Audit Alcohol Screening

How often do you have a drink containing alcohol?

| 0=Never | 1=Monthly or less | 2=2-4 times a month | 3=2-3 times a week | 4=4 or more times a week |
|---|---|---|---|---|

The Alcohol Use Disorders Identification Test is a publication of the World Health Organization © 2001

How many standard drinks containing alcohol do you have on a typical day?

| 0=1 or 2 drinks | 1=3 or 4 drinks | 2=5 or 6 drinks | 3=7 to 9 drinks | 4=10 or mor... |
|---|---|---|---|---|

The Alcohol Use Disorders Identification Test is a publication of the World Health Organization © 2001

How often do you have six or more drinks on one occasion?

| 0=Never | 1=Less than monthly | 2=Monthly | 3=Weekly | 4=Daily or almost daily |
|---|---|---|---|---|

The Alcohol Use Disorders Identification Test is a publication of the World Health Organization © 2001

# APPENDIX B-4: EXAMPLE OF FOLLOW UP COMMUNICATION

The Level 1 Trauma Center at University of Colorado Hospital does not just treat injuries – we go beyond the initial life-saving medical treatment to focus on a patient's recovery, rehabilitation and re-entry into a healthy, active life. In addition, we hope to address any risk factors to prevent any future hospitalizations. Education is provided to each patient on choices that may lead to healthier living and a quicker return to their active lifestyle.

During your most recent visit, you were asked some screening questions upon admission to best assess your needs while in the hospital. There were a few questions that were asked about alcohol consumption and habits. This routine screening is a quick and easy way for us to identify and intervene with patients whose habits put them at risk for health concerns. The results of your screen showed that you are at a higher risk for negative consequences than those who do not drink alcohol.

This packet includes information about what is considered to be a standard drink. In addition, there is a list of local resources to utilize if reducing alcohol intake is difficult. If you have any questions, please call your primary care doctor or request to speak to a social worker at your next appointment.

Wishing you a speedy recovery,

UCHealth Trauma Department
University of Colorado Hospital

# APPENDIX C-1: WHO CAN BILL?

# Health Professionals Approved for Bill Submission, Intervention, and Duration of Service

| CPT CODE | Who can bill? | Description |
|---|---|---|
| 90832 | Licensed mental health provider | Psychotherapy, 30 minutes with patient |
| 90834 | Licensed mental health provider | Psychotherapy, 45 minutes with patient |
| 90837 | Licensed mental health provider | Psychotherapy, 60 minutes with patient |
| 90845 | Licensed mental health provider | Psychoanalysis |
| 90846 | Licensed mental health provider | Family psychotherapy (without the patient present), 50 minutes |
| 90847 | Licensed mental health provider | Family psychotherapy (with the patient present), 50 minutes |
| 90849 | Licensed mental health provider | Multiple-family group psychotherapy |
| 90853 | Licensed mental health provider | Group psychotherapy (other than of a multiple-family group) |
| 90791 | Licensed mental health provider | Psychiatric diagnostic evaluation |
| 90792 | Licensed medical clinician | Psychiatric diagnostic evaluation with medical services |
| 96156 | Clinical Psychologist | Health behavior assessment or re-assessment (i.e., health-focused clinical interview, behavioral observations, clinical deci |
| 96158* | Clinical Psychologist | Health behavior intervention, individual, face-to-face, initial 30 minutes |
| 96159* | Clinical Psychologist | *Each additional 15 minutes (listed separately in addition to code for primary procedure) |
| 96164** | Clinical Psychologist | Health behavior intervention, group (2 o rmore patients), face-to-face; initial 30 minutes |
| 96165** | Clinical Psychologist | **Each additional 15 minutes (listed separately in addition to code for primary procedure) |
| 96167*** | Clinical Psychologist | Health behavior intervention, family (with the patient present), face-to-face; initial 30 minutes |
| 96168*** | Clinical Psychologist | ***Each additional 15 minutes (listed separately in addition to code for primary procedure) |
| 96170**** | Non Physician Healthcare Professionals | Health behavior internvetion, family (without the patient present). Face-to-face; initial 30 minutes |
| 96171**** | Non Physician Healthcare Professionals | ****Each additional 15 minutes (listed separately in addition to code for primary procedure) |
| Primary Care Setting | Physician and non-physician practitioners | Under psychiatric collaborative care management services - first 70 minutes in the first calendar month for behavorial health manager activities |
| Hospitals and Facilities | Physician and non-physician practitioners | Under psychiatric collaborative care management services - first 70 minutes in the first calendar month for behavorial health manager activities |
| Primary Care Setting | Physician and non-physician practitioners | Under psychiatric collaborative care management services - first 60 minutes in a subsequent month for behavorial health ca manager activities |
| Hospitals and Facilities | Physician and non-physician practitioners | Under psychiatric collaborative care management services - first 60 minutes in a subsequent month for behavorial health ca manager activities |
| Primary Care Setting | Physician and non-physician practitioners | Under psychiatric collaborative care management services - each additional 30 minutes in calendar month of behavorial hea care manager activities |
| Hospitals and Facilities | Physician and non-physician practitioners | Under psychiatric collaborative care management services - each additional 30 minutes in calendar month of behavorial hea care manager activities |

# APPENDIX C-2: CPT CODE DOCUMENTATION REQUIREMENTS

## CPT Code Documentation Requirements (CPT codes 90832, 90834, 90837, 90845, 90846, 90847, 90849, and 90853)

1. All documentation must be maintained in the patient's medical record.

2. Every page of the record must be legible and include appropriate patient identification information [e.g., complete name, dates of service(s)]. The documentation must include the legible signature of the physician or non-physician practitioner responsible for and providing the care to the patient.

3. The submitted medical record must support the use of the selected ICD-10-CM code(s). The submitted current procedural terminology/healthcare common procedure coding system (CPT/HCPCS) code must describe the service performed.

4. When the documentation of time is relevant for coding and payment purposes, time may be documented with start and stop times or with total time.

## CPT Code 90791 coding requirements:

- Elicitation of a complete medical and psychiatric history
- Mental status examination
- Evaluation of the patient's ability and capacity to respond to treatment
- Initial plan of treatment
- Reported once per day
- Not reported same day as Evaluation and Management service performed by the same provider

## CPT Code 90791 documentation requirements:

- Recording the time
- Modality of treatment
- Suggested frequency of treatment
- Clinical notes that summarize:
  - Diagnosis
  - Symptoms
  - Functional status
  - Focused mental status examination
  - Treatment plan, prognosis, and progress

## CPT Code 90792 coding requires:

- Elicitation of complete medical and psychiatric history (including past, family, social)
- Mental status examination
- Establishment of an initial diagnosis
- Evaluation of the patient's ability and capacity to respond to treatment
- Initial plan of treatment
- Report once per day and not on the same day as an Evaluation and Management service performed by the same provider for the same client

*If you are not performing a medical evaluation as you would when coding 90792 (because you are not licensed to do so), please use CPT Code 90791. This applies to all non-MD mental health providers.*

## CPT Code 90792 documentation should include:

- Psychiatric diagnostic evaluation
  - History
  - Mental status
  - Recommendations
- Document one or more medical services such as:
  - Physical examination
  - Writing a prescription
  - Modifying psychiatric treatment

## Documentation Requirements (CPT 96156, 96158, 96159, 96164, 96165, 96167, 96168, 96170, and 96171)

1. All documentation must be maintained in the patient's medical record.

2. Every page of the record must be legible and include appropriate patient identification information [e.g., complete name, dates of service(s)]. The documentation must include the legible signature of the physician or non-physician practitioner responsible for and providing the care to the patient.

3. The submitted medical record must support the use of the selected ICD-10-CM code(s). The submitted CPT/HCPCS code must describe the service performed.

4. Because of the impact on the medical management

of the patient's disease, documentation must show evidence of care coordination with the patient's primary medical care provider or medical provider responsible for the medical management of the physical illness that the psychological assessment/intervention was meant to address.

5. Evidence of a referral to the Clinical Psychologist by the medical provider responsible for the medical management of the patient's physical illness or verification of a recommendation from the medical provider to the Clinical Psychologist, obtained by request and review of the permanent medical records, must be documented in the medical record for the initial assessment and for reassessment.

6. Documentation in the medical record by the Clinical Psychologist must include:

   a. For the initial assessment, progress notes must include at a minimum the following elements:

      • Onset and history of initial diagnosis of physical illness, and

      • Clear rationale for why assessment is required, and

      • Assessment outcome including mental status and ability to understand or respond meaningfully, and

      • Goals and expected duration of specific psychological intervention(s), if recommended.

   b. For re-assessment, detailed progress notes must include the following elements:

      • Date of change in mental or physical status

      • Clear rationale for why re-assessment is required

      • Clear indication of the precipitating event that necessitates re-assessment, and

      • Changes in goals, duration and/or frequency and duration of services

   c. For the intervention service, progress notes must

include, as a minimum, the following elements:

   • Evidence that the patient has the capacity to understand and to respond meaningfully, and

   • Clearly defined psychological intervention planned, and

   • The goals of the psychological intervention should be stated clearly, and

   • Documentation that the psychological intervention is expected to improve compliance with the medical treatment plan, and

   • Rationale for frequency and duration of services

Time duration (stated in minutes) spent in the health and behavioral assessment or intervention encounter is documented in the medical record.

   • When report CPT codes 96159, 96165, and 96168, the quantity billed reflects 1 unit for each 15 minutes.

   • CPT codes 96158, 96164, and 96167 are not to be reported for less than 16 minutes of service

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