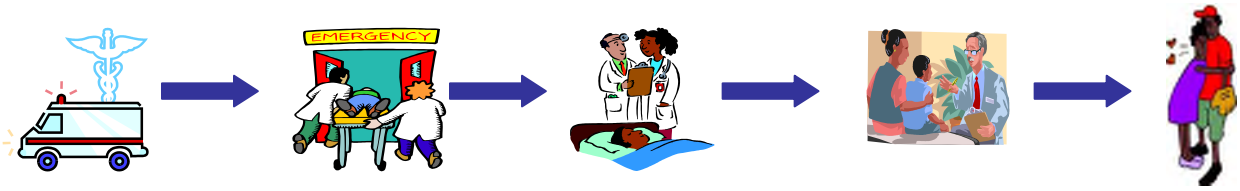
SCREENING & SECONDARY PREVENTION OF POSTTRAUMATIC STRESS AFTER INJURY

A BRIEF REPORT:
CURRENT BEST PRACTICES & PRACTICAL TOOLS
FOR HEALTH-CARE PROVIDERS



FLAURA KOPLIN WINSTON, MD, PHD
NANCY KASSAM-ADAMS, PHD
ANGELA MARKS, MSED
TRAUMALINK, CHILDREN'S HOSPITAL OF PHILADELPHIA

TABLE OF CONTENTS

BACKGROUND: PEDIATRIC INJURY & TRAUMATIC STRESS

When a child is injured, it can be a frightening experience for everyone. Healthcare providers are uniquely positioned to make a difference for children and parents in the aftermath of traumatic injury.

Healthcare professionals can –

- Minimize potential for distress during medical care
- Help identify children and families in distress
- Provide anticipatory guidance and referral

The Emergency Medical Services for Children (EMSC) program funded TraumaLink at The Children's Hospital of Philadelphia to develop models for screening and secondary prevention of traumatic stress after injury that can be integrated into pediatric emergency care and trauma management.

What children and parents have told us:

"I thought I was going to die. Thought I must really be hurt. I was so scared because my mom was not there."

"Ambulance was loud, the ride was bumpy - afraid we'd crash because it was going fast."

"Doctors crowded around & stuck stuff on me & cut my clothes off -- I didn't know what was happening."

"I saw my son lying in the street. Bleeding, crying, the ambulance, everybody around him. It was a horrible scene. I thought I was dreaming."

"My child was hurt and I couldn't get to him fast enough - feeling helpless to be there for him."

This report summarizes current research and intervention development for pediatric injury and traumatic stress, and provides recommendations for best practices in healthcare settings.

What is traumatic stress?

Traumatic stress reactions include symptoms of **re-experiencing, avoidance, and hyper-arousal**. Posttraumatic stress disorder (PTSD) is diagnosed when multiple symptoms last for more than a month and impair functioning in everyday activities.

Re-Experiencing
- Intrusive, unwanted thoughts about the trauma
- Nightmares and flashbacks
- Distress at trauma reminders

Avoidance
- Avoid things related to the trauma
- Reduced interest in usual activities
- Emotionally numb or detached

Hyper-arousal
- Increased Irritability
- Trouble concentrating or sleeping
- Exaggerated startle response – "jumpy"
- Extra vigilant – "on edge"

Other reactions
- New, trauma-related fears
- Somatic complaints (bellyaches, headaches)
- Feeling in a daze or "spacey"

Can injury lead to traumatic stress?

What children and parents have told us:

"I'm afraid to do many things I used to do. I'm more jumpy. When I'm in the car, I think we'll be hit again."

Parent: "He stays more to himself. Now he's extremely cautious, always worrying about his little brother being hit by a car."

Traumatic stress reactions are common after injury. In fact, most injured children and their parents report at least one acute traumatic stress reaction in the first month following an injury. With time and support, these reactions usually remit. However, about 1 out of 6 injured children will have persistent posttraumatic stress symptoms that bother them or get in the way of their daily functioning.

ACUTE TRAUMATIC STRESS REACTIONS
within 1 month after child injury

88% of children

83 % of their parents

PERSISTENT SYMPTOMS OF PTSD
4-6 months post-injury

16 % of children

15 % of their parents

Who is more likely to have ongoing distress?

Certain factors increase a child's risk for developing persistent traumatic stress – these include:

Before the Injury	At the time of the Injury	After the Injury
• Previous traumatic experiences • Prior behavioral or emotional problems	• Extremely frightened • Exposed to scary sights and sounds • Separated from his/her parents • More severe levels of pain	• Parent with acute stress disorder • New traumatic experiences • Continued pain • Poor coping skills +/or social isolation

How might we help children at risk? What is likely to make a difference?

Healthcare providers across the EMS continuum can incorporate an understanding of traumatic stress in encounters with children & families.

Healthcare professionals can –

- provide care that is sensitive to traumatic stress issues
- minimize potentially traumatic aspects of medical care and procedures
- provide children and parents with anticipatory guidance about coping with traumatic stress reactions
- screen to help identify individuals who are at greater risk for ongoing traumatic stress

HELPFUL APPROACHES TO INTERVENTION

Helpful approaches: The D-E-F protocol for healthcare providers

The **D – E – F protocol** is a useful framework developed by the Medical Traumatic Stress Working Group of the National Child Traumatic Stress Network (NCTSN) that helps providers identify, prevent, and treat traumatic stress responses at the time of need. After attending to the basics of a child's physical health (the A – B – C's) healthcare providers can promote a child's health and recovery (and reduce the chance of ongoing traumatic stress) by paying attention to the next steps – the "D – E – F":

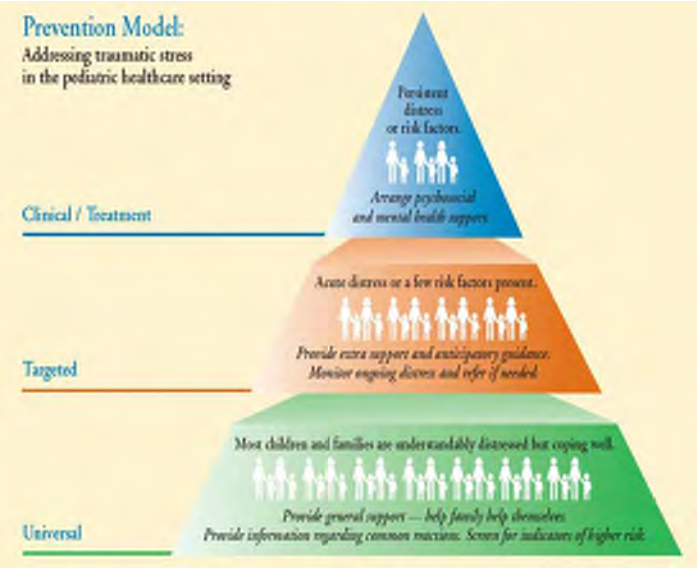
- Reduce **DISTRESS**
- Promote **EMOTIONAL SUPPORT**
- Remember the **FAMILY**

For providers taking care of injured children, the D-E-F protocol suggests that within the scope of what is feasible and practical in one's setting, providers do the following:

D – DISTRESS	➢ Actively assess and treat pain ➢ Provide child with information about what is happening ➢ Listen carefully for child's understanding and clarify any misconceptions ➢ Ask about fears and worries ➢ Provide reassurance and realistic hope
E – EMOTIONAL SUPPORT	➢ Encourage parents to be with their child as much as possible ➢ Empower parents to comfort and help their child
F – FAMILY	➢ Gauge family distress (and other life stressors) ➢ Support parents so they can support their children ➢ Encourage parents to use available coping resources / support systems.

Helpful approaches: The Prevention Model

Not all people require the same level of intervention or resources in order to cope successfully after a traumatic injury. Most individuals cope well and get better on their own. Models for preventive care, such as those developed by the National Institute for Mental Health (NIMH), suggest matching the type and degree of preventive intervention to an individual's or family's level of risk.



In this approach,

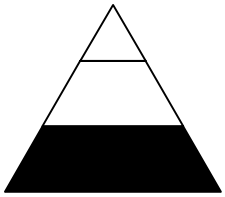
Universal interventions are those that would be helpful to all children/families**,**

Selective / Targeted interventions are provided to those with indicators of potential risk for ongoing distress**,** and

Indicated / Psychosocial treatment interventions are provided when ongoing distress, or an immediate need for psychological intervention, is clearly present.

Helpful approaches: Applying the Prevention Model to screening and "stepped intervention"

Some basic information about the psychological aspects of recovery after injury, and messages for parents about how to help their children, should be provided **UNIVERSALLY** after a child is injured.

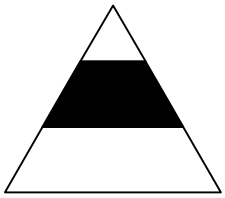


UNIVERSAL:
Give every child and parent general support and information regarding common reactions and coping.

- Mention common reactions to trauma and ways for parents to promote child resilience and adaptive coping.
- Provide clear written information, in an appealing format, and encourage parents to review this as needed after returning home.

Handout for Parents – After the Injury: Helping My Child Cope
Download handout: traumalink.chop.edu/CARIT

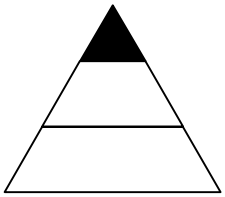
SELECTED/TARGETED interventions can then be provided for those children or parents in greater distress, or with risk factors identified via screening in the acute care setting.



SELECTIVE / TARGETED:
Give extra support / anticipatory guidance, and arrange monitoring or follow-up.

- These families can benefit from more focused anticipatory guidance, before a child is discharged from the ED or trauma care. Talk with child and parent about:
  - People in the same family can have different reactions and ways of coping
  - Parents can help by remaining sensitive to child's reactions and needs and helping child stay in touch with friends and normal activities
  - Parents should follow child's lead - don't force child to talk but be available
  - Encourage parents to be aware of their own reactions and get support
- Monitor ongoing distress (see **follow-up recommendations on page 9**) and refer for more psychosocial support if needed.

For the relatively smaller proportion of injured children who have multiple risk factors, severe distress, or distress that persists for two to six weeks after the injury, **INDICATED / TREATMENT** interventions should be offered.



INDICATED / TREATMENT:
Refer for assessment or intervention by psychosocial provider and/or mental health professional.

- A referral / consultation for additional psychosocial support should be provided to the parents and child.
- The next step is often a more thorough assessment by a mental heath professional. Utilize your health system's psychosocial resources, e.g., a social work or psychiatry consult.
- See description of STAR preventive intervention (page 12) for key elements of indicated interventions in the first month to six weeks post-injury.

PUTTING IT ALL TOGETHER:
BEST PRACTICE RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

To illustrate opportunities for integrating trauma-informed practices into pediatric trauma care, we present a composite case. At multiple points throughout Sam's story – from the time the first EMT arrives at the scene until the time Sam visits his primary care provider several weeks later, we suggest best practices for the healthcare providers who take care of Sam.

- How can providers **incorporate an understanding of traumatic stress** responses into patient care?
- How can providers **integrate screening and secondary prevention efforts** into the healthcare setting?

AT THE SCENE

BEST PRACTICE RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

Sam was riding his bike with two friends in the city park. As the boys looped in and out of the street, they didn't see the small truck that rounded the corner and struck Sam, throwing him from the bike. A passerby saw what happened and called 911 – the EMTs arrived several minutes later. His two friends ran to find Sam's mother, and she arrived at the scene just in time to join Sam in the ambulance on the way to the hospital.

The pre-hospital providers treating Sam provided him with information about what was happening, reassuring him that there were lots of people who would be taking good care of him. They encouraged Sam's mom to talk with him calmly, pointing out how she could stay near her son without hindering what they needed to do to take care of him.

❖ BEST PRACTICE AT THE SCENE OF THE INJURY:

- **Remember D–E–F**
- **Encourage & support parent to stay with child***
- **Provide anticipatory guidance as needed**

*In general, children benefit when parents can be with them during emergency care.

- Research has shown that separation from parents increases a child's acute distress and increases the risk of developing ongoing traumatic stress symptoms.
- Parents can be encouraged (and supported) to stay with their child as much as possible, including riding with him or her in the ambulance or other emergency transport, as policies allow.

However, there is also evidence that riding with their child in the ambulance/helicopter may:

- Increase parents' own acute distress and
- Increase the parent's own risk of developing persistent traumatic stress.

This highlights the <u>need to provide basic support and information for the family</u> throughout care of the injured child. When parents are supported in coping with their own distress, they are better able to assist their child.

Next: Follow Sam through his ED visit

EMERGENCY DEPARTMENT CARE

BEST PRACTICE RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

*In the **Emergency Department (ED)**, Sam was relatively quiet and compliant, but complained of being in pain. He became more visibly upset only when his mother left him to make phone calls to other family members. He was treated for a fractured arm and facial contusions.*

During her examination, the physician treating Sam explained what she was about to do and suggested where Sam's mom could stand and what she could do to comfort him that would not be in the way of the medical team ("You could hold his hand and talk with him while we do this"). The nurse taking care of Sam asked him and his mom a few screening questions to assess risk of ongoing traumatic stress. During her interactions with them, she chatted with them about how they were doing, and mentioned that while a lot of kids (and parents) feel shaky or think about what happened over and over in the first few days, it usually gets a lot better after that. She provided them with a handout about coping with injury that they could refer to later.

❖ BEST PRACTICE AT THE EMERGENCY DEPARTMENT:

- **Remember D–E–F**
- **Provide basic information on traumatic stress & coping to all injured children and their parents**
- **Screen for risk of ongoing distress**
- **Provide anticipatory guidance as needed**

Screening for Risk

The ED visit for traumatic injury provides a unique opportunity to identify a child's risk for developing persistent traumatic stress symptoms. However, there are also challenges:

- ❖ Time is limited.
- ❖ Common sense markers like injury severity do not predict psychological outcome – children with minor injuries (who are released from the ED) are also at risk.
- ❖ It is difficult to differentiate normal reactions to trauma from problematic reactions.

Therefore, screening tools need to be:

- ❖ Brief
- ❖ Easily administered and scored in the ED / acute care setting
- ❖ Able to identify evidenced-based early markers for risk of later problems

The TraumaLink team has developed a promising brief risk screening measure – the Screening Tool for Early Predictors of Posttraumatic Stress (STEPP). When ED nurses field-tested the STEPP in the course of their usual clinical care of injured children, the majority found it easy to use. The TraumaLink team is currently working to revise the STEPP, originally developed and tested with children admitted to the hospital, to ensure that it also works well for use in the ED.

(See STEPP screener on page 8, with suggestions for how to use the results of screening on page 9.)

Next: Follow Sam through his inpatient admission

INPATIENT TRAUMA CARE

BEST PRACTICE RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

Sam was admitted for surgical reduction of his fracture and stayed at the hospital for two nights. Sam's mom was able to be with him for most of this stay, and other members of his family visited often. The doctors and nurses were able to manage his pain well and kept the D –E – F protocol in mind during their interactions with Sam and his family. They explained all of the procedures to Sam, and reassured him frequently that he would be back to playing ball soon. They also made sure that Sam's mom and other family members had what they needed and involved them in Sam's care whenever possible. Before Sam was discharged, the nurse administered a quick traumatic stress screening measure - just 8 questions for Sam and his mom. (See next page for screening results and next steps.)

❖ BEST PRACTICE DURING INPATIENT TRAUMA TREATMENT:

- **Remember D–E–F**
- **Screen for risk of ongoing distress**
- **Provide anticipatory guidance as needed**

The TraumaLink team has developed a promising brief risk screening measure – the Screening Tool for Early Predictors of Posttraumatic Stress (STEPP). The STEPP assesses risk for both children and parents and was designed to be easily administered by clinicians in the acute care setting (see Winston et al. 2003: JAMA). In children hospitalized after an injury, the STEPP appears to be a useful tool for predicting which of these children and their parents are more at risk for ongoing traumatic stress reactions. The STEPP consists of 12 items – 4 questions for the parent, 4 for the child, and 4 items easily obtained from the medical record.

STEPP ©

QUESTIONS FOR PARENTS	No	Yes
1. Did you see the incident (accident) in which your child got hurt?	0	1
2. Where you with your child in the ambulance/helicopter coming to the hospital?	0	1
3. When your child was hurt (or when you first heard about it), did you feel really helpless?	0	1
4. Before the injury, had you child ever had behavior or attention problems for a while?	0	1
QUESTIONS FOR KIDS		
5. Was anyone else hurt or killed (when you got hurt)?	0	1
6. Was there a time when you didn't know where your parents were?	0	1
7. When you got hurt, or right afterwards, did you feel really afraid?	0	1
8. When you got hurt, or right afterwards, did you think you might die?	0	1
INFORMATION FROM MEDICAL RECORD		
9. ED triage heart rate over 104 (child under 12) over 97 (child 12 and older)	0	1
10. Extremity fracture?	0	1
11. Child is a girl	0	1
12. Child is 12 or older	0	1

Scoring the STEPP

Assessing Child's Risk:

Questions – 4, 5, 6, 7, 8, 9, 10, 11

If **4** or more (of these 8 items) are **YES,** child screener is positive (higher risk for later PTSD symptoms)

Assessing Parent's Risk:

Questions – 1, 2, 3, 4, 10, 12

If **3** or more (of these 6 items) are **YES,** parent screener is positive (higher risk for later PTSD symptoms)

Copies of the STEPP can be obtained from TraumaLink –

Contact Angela Marks at marksa@email.chop.edu

Next: Using screening results: Ideas for Follow-Up

HOW IS SAM DOING?
USING SCREENING TO GUIDE INTERVENTION

Scenario 1:

A few days post-injury, Sam reports that he didn't feel too scared in the ambulance or in the ED, because he knew people were taking care of him. He now appears to be doing well: his spirits are high, he is sleeping well, and he's looking forward to getting back to school.

IF SAM's STEPP SCORE is negative and clinicians have no other concerns about his psychosocial recovery, provide **UNIVERSAL INTERVENTION:**

- Ensure that Sam and his mother have information on common reactions during recovery from injury, and
- Provide clear written information that they can take home to refer to as needed later (e.g., "After the Injury: Helping My Child Cope").

OR

Scenario 2:

A few days post-injury, Sam remembers how scared he was in the ED when he didn't know where his mom was. When he was first hit by the car, he thought he might die. When asked, Sam's mom notes that Sam seems more "jumpy" and that she is feeling anxious herself.

IF SAM's STEPP SCORE is positive OR clinicians have concerns about his psychosocial recovery, provide **SELECTIVE / TARGETED INTERVENTION:**

- Provide universal intervention (see left) PLUS
- Provide additional focused anticipatory guidance about Sam's reactions and suggest coping strategies.
- Arrange for follow up to monitor psychosocial recovery.

FOLLOW UP TO MONITOR PSYCHOSOCIAL RECOVERY

Follow up contact a few weeks post-injury is indicated for those children who have a positive STEPP screen score, OR for those who show greater acute distress or have a history of exposure to other traumatic events. The purpose of follow-up is to assess whether the child's acute distress symptoms have resolved (or to assist the parent in assessing this) and to determine if the child or parent may need additional help in coping with the injury.

Depending on local resources and systems of care, this might take the form of a **follow-up packet mailed to parents**, a **telephone contact**, or a **follow-up medical visit**.

Materials for each of these follow-up techniques are being piloted as part of TraumaLink's EMSC-funded project to create screening and secondary prevention protocols:

- **FOLLOW-UP PACKET MAILED TO PARENTS:** Sent 2 weeks post-injury, this is designed to help both parent and child assess their own distress and coping, and determine if they might need further assistance. A 10-item checklist asks about acute stress reactions, coping strategies, and other risk / protective factors. Simple scoring instructions link the checklist score to suggestions for next steps, including requesting additional help if necessary.
- **FOLLOW-UP PHONE CALL:** A phone call to parent and child 2 weeks after the injury can allow the provider to screen for ongoing acute stress reactions / distress and determine if further assistance is needed. The 10-item checklists are used to guide brief telephone assessments with parent and child.
- The **results of this mail / phone assessment determine the next steps** offered to each child/family:
  - If the child is doing well, parents are encouraged to continue to offer support to their child, and children are encouraged to keep up with their normal activities.
  - If the child appears to be having some trouble, parents are reminded that many children have a few reactions to a frightening event like an injury, and are offered a referral for further support.

  (A brief in-person preventive intervention that provides further support is described on page 12.)

CONTINUITY OF CARE

BEST PRACTICE RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

After a two-night stay at the hospital, Sam was discharged from the hospital with instructions from the hospital trauma team to follow-up with his Primary Care Provider in three weeks. In his discharge letter to the primary care physician, the trauma surgeon mentioned that in addition to checking on Sam's physical recovery it would be helpful to check in with Sam and his mom about any ongoing worries or traumatic stress reactions.

IMPROVING CONTINUITY OF CARE: COMMUNICATING FROM HOSPITAL TO FOLLOW-UP CARE

After an ED visit for injury, or following discharge from inpatient trauma treatment, many children's next contact with the healthcare system will be with their Primary Care Provider. The TraumaLink team has developed and piloted several methods of promoting continuity of care for traumatic stress screening and prevention, including communication from the trauma surgeon to the child's primary care home, and automated electronic alerts to primary care providers.

- **Discharge from hospital Trauma Care to Primary Care**: The trauma surgeon's discharge letter, in addition to detailing issues regarding continuity of medical care, can include information about traumatic stress after injury. TraumaLink piloted the inclusion of a standard paragraph into the discharge letter: introducing the potential for traumatic stress post-injury, and providing informational materials (brochure & pocket-guide) for the Primary Care Provider. Materials highlight reactions and risk factors and include suggestions for anticipatory guidance.

Dr. John Trauma Surgeon
Children's Hospital
Any town, USA 10101

Dear Dr. Primary:

Our Trauma Team treated Sam Smith after his admission to Children's Hospital on 10/8-10/2004. As you know, Sam is previously healthy ten-year-old boy who was hit by a care while riding his bike with friends. He was brought to the hospital with facial contusions and on imaging was found to have a humerus fracture and mild concussion. He did well in the hospital and was sent home with follow-up with our Orthopedic Surgeons. Orthopedics have arranged for follow-up in several weeks. I suggested to Mom that they continue her well-child check-ups in your office.

Lastly, an important but often overlooked consequence of an injury is post-traumatic stress (PTSD), which can develop in a child or the parent of an injured child regardless of injury severity or treatment duration. With this letter, I have enclosed a brochure and pocket guide on pediatric injury and traumatic stress. These highlight signs and symptoms to look for to identify patients and families at greater risk for PTSD, and give suggestions for anticipatory guidance. A parent handout is also enclosed.

Sincerely,

Dr. John Trauma Surgeon

Standard paragraph:
"Lastly, an important but often overlooked consequence of an injury is post-traumatic stress (PTSD), which can develop in a child or the parent of an injured child regardless of injury severity or treatment duration. With this letter, I have enclosed a **brochure** and **pocket guide** on pediatric injury and traumatic stress. These highlight signs and symptoms to look for to identify patients and families at greater risk for PTSD, and give suggestions for anticipatory guidance. A parent handout is also enclosed."

Materials can be downloaded at traumalink.chop.edu/CARIT

Next: Follow Sam to his Primary Care visit

PRIMARY CARE FOLLOW-UP

BEST PRACTICE RECOMMENDATIONS FOR HEALTHCARE PROVIDERS

Three weeks later, Sam saw his Primary Care Provider (PCP). An automatic flag in the electronic medical record alerted the PCP that Sam had recently been seen in the ED and hospitalized for an injury and prompted the physician to administer a traumatic stress screen. Although his injuries were healing well, Sam's mom reported that he was still having nightmares, was avoiding playing outside with his friends, and seemed a little withdrawn. Sam admitted that he was still feeling nervous about being near the place where he'd been injured.

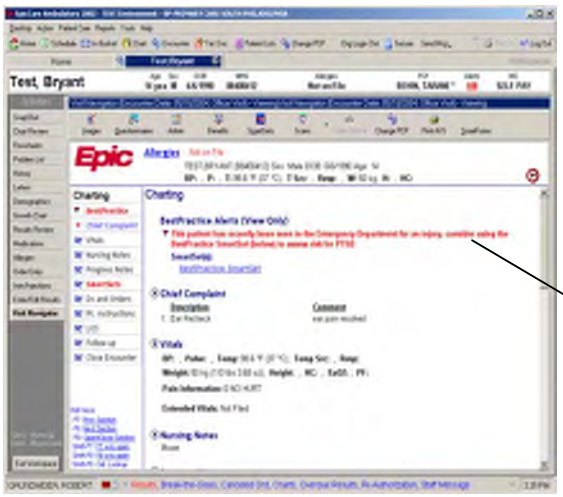
The PCP gave Sam and his mom some information on traumatic stress, suggested a way to deal with nightmares, and praised their efforts to return to normal activities. The PCP also suggested that they might want to talk with someone for some extra help and guidance, and offered to provide them with a referral.

❖ BEST PRACTICE IN PRIMARY CARE:

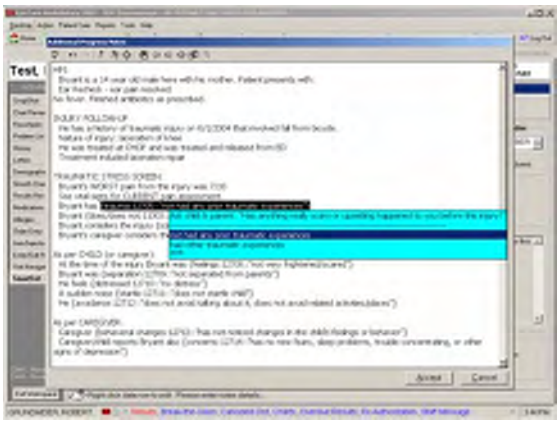
- **Remember D–E–F**
- **Screen for risk of ongoing distress**
- **Provide anticipatory guidance as needed**
- **Refer if necessary**

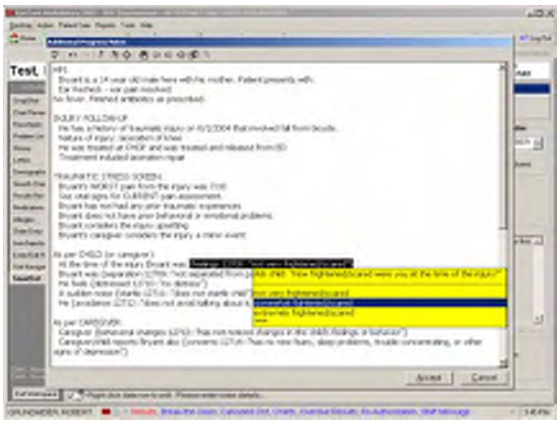
Primary Care screening / secondary prevention for traumatic stress:

- ❖ The TraumaLink team has developed and piloted an automated alert to prompt screening for ongoing traumatic stress at the child's next primary care visit.
- ❖ When a child is treated in the ED or hospital for an unintentional injury, the Primary Care Provider sees an alert in the electronic medical record at the child's next visit.
- ❖ This prompts providers to access a brief set of questions about risk factors and traumatic stress reactions.
- ❖ Physicians "point and click" to answer each item, automatically creating a note in the patient's chart re: screening, assessment, and plan. Suggestions for appropriate action, follow-up, and referral are included.



Best Practice Alert: "This patient was recently seen in the ED for an injury, consider using the Best Practice SmartSet below to assess risk for PTSD."





Next: A brief preventive intervention

BRIEF PREVENTIVE INTERVENTION AT FOLLOW-UP

Skills for Trauma Recovery (STAR) is an example of a brief preventive intervention designed to help children and adolescents who are still experiencing some distress of having difficulty coping 2 – 6 weeks post injury. The aim of the intervention is to help parents help their child recover well after an injury and to prevent persistent traumatic stress symptoms.

- In terms of the Prevention Model, STAR is an "indicated" intervention (see page 5).
- Intervention manual describes activities – can be facilitated by mental health professional or healthcare providers with special interest and expertise
- Parent and child workbooks complement in-session activities and provide at-home practice and reminders.

Competency-based approach:
STAR helps parents and children use and build their existing skills. It assumes that with this extra support, parents and children can get their natural coping and recovery process "back on track". The focus is on enhancing existing skills and strengths that may have been delayed or slightly derailed after a traumatic injury.

TraumaLink has piloted the STAR intervention with several children and parents; we are still learning about STAR and are continuing to work on refining the intervention.

NEXT STEPS IN INTERVENTION DEVELOPMENT

With new funding from EMSC, the TraumaLink team is working on translating existing secondary prevention materials (handouts and workbooks) into video and interactive website formats to enable more broad dissemination. The audience for these new materials will be parents, with an aim of helping parents help their children.

Next: More resources for providers and parents

Additional Resources for Providers and Parents

For Healthcare Providers:

USEFUL SUMMARIES / REVIEW ARTICLES

Bronfman ET, Biron Campis L, Koocher GP. Helping children to cope: Clinical issues for acutely injured and medically traumatized children. *Prof Psychol Res Pra*c 1998:29:574-81.

Horowitz L, Kassam-Adams N, Bergstein J. Mental health aspects of emergency medical services for children: Summary of a consensus conference. *J Pedatr Psychol* 2001; 26:491-502.

Kassam-Adams N, Fein J. Posttraumatic stress disorder and injury. *Clinical Pediatric Emergency Medicine* 2003; 4:148-55.

National Child Traumatic Stress Network (2004). Pediatric Medical Traumatic Stress Toolkit, www.NCTSNet.org.

Saxe, G., Vanderbilt, D., & Zuckerman, B. Traumatic stress in injured and ill children. *PTSD Research Quarterly* 2003, 14:1-3. AVAILABLE AT: www.ncptsd.va.gov/publications/rq/rqpdf/V14N2.PDF

Stoddard, F., & Saxe, G. Ten year research review of physical injuries. *J Amer Acad Ch Adol Psychiatry* 2001; 40:1128-1145.

RESEARCH ARTICLES

Fein J, Kassam-Adams N, Gavin M, Huang R, Blanchard D, Datner E. Persistence of post-traumatic stress in violently injured youth seen in the Emergency Department. *Arch Pediatr Adolesc* Med 2002; 156:836-40.

Kassam-Adams, N. & Winston, FK. Predicting PTSD: The relationship between ASD and PTSD in injured children. *J Amer Acad Ch Adol Psychiatry 2004*; 43: 403-411.

Winston FK, Kassam-Adams N, Vivarelli-O'Neill C, Ford J, Newman E, Baxt C, et al. Acute stress disorder symptoms in children and their parents after pediatric traffic injury. *Pediatrics* 2002; 109:e90.

Winston FK, Kassam-Adams N, Garcia-Espana JF, Ittenbach R, Cnaan A. Screening for risk of persistent posttraumatic stress in injured children and their parents. *JAMA* 2003; 290:643-9.

For Parents:

Children and Trauma: A Guide For Parents and Professionals Cynthia Monahon, Jossey-Bass: San Francisco; 1997.

Your Child in the Hospital: A Practical Guide for Parents Nancy Keene, Rachel Prentice, & Linda Lamb, O'Reilly & Associates, Inc.; Cambridge, MA; 1999.

It won't hurt forever: Guiding your child through trauma Peter Levine, *Mothering*, Jan/Feb 2002.

Stress and Coping During Healthcare Procedures www.chop.edu/childlife/stress_coping.shtml

Traumatic Stress Resources on the Web For Providers and Parents:

The National Child Traumatic Stress Network	www.NCTSNet.org
The National Center for PTSD	www.ncptsd.org
TraumaLink, Children's Hospital of Philadelphia	traumalink.chop.edu/CARIT
Center for Pediatric Traumatic Stress, Children's Hospital of Philadelphia	www.chop.edu/CPTS

Please contact TraumaLink (marksa@email.chop.edu) for more information regarding any of the tools or materials described in this report.