



Screening and Brief Intervention: A Team Approach

WellSpan Health ~ York Hospital
Trauma Services

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Objectives



- Justify SBI process in trauma centers
- Identify appropriate SBI patient populations
- Discuss team roles in the SBI process
- Diagram leveraging the EHR for SBI
- Discuss logistical pearls for an all-inclusive SBI program

Trauma and Alcohol

- Alcohol is responsible for approximately ½ of all trauma deaths and non-fatal injuries in the United States.

2010 American College of Surgeons Committee on Trauma. Alcohol and Injury.

<http://www.facs.org/trauma/alcoholinjury.pdf>



2004: U of S. California DOT



J Am Coll Surg. 2004 Nov;199(5):687-92.

Alcohol and illicit drugs in traumatic deaths: prevalence and association with type and severity of injuries.

Demetriades D, Gkiokas G, Velmahos GC, Brown C, Murray J, Noguchi T.

Department of Surgery, Division of Trauma and Surgical Intensive Care Unit, Keck School of Medicine of the University of Southern California, Los Angeles, CA, USA.

Abstract

BACKGROUND: My colleagues and I studied alcohol and illicit drug intoxication in trauma fatalities and their association with the nature and severity of injuries.

STUDY DESIGN: We examined the trauma registry and autopsies of all trauma fatalities at an academic Level I trauma center. Statistical analysis was performed to evaluate the association of substance use with the Injury Severity Score, body areas with severe trauma (Abbreviated Injury Score ≥ 3), and spinal injuries.

RESULTS: From January 2000 to May 2003, 931 trauma deaths occurred; 600 victims were tested for alcohol and illicit drugs and 256 of these (42.7%) tested positive. Male victims were significantly more likely to have a positive screen than female patients (46.1% versus 26.7%, $p = 0.0003$). Penetrating trauma was significantly more likely to be associated with a positive screen than blunt trauma (53.0% versus 31.0%, $p < 0.001$). Hispanic and African American victims were more likely to have a positive screen than Caucasians or Asians. Half the patients in the age group 15 to 50 years had a positive screen. Victims with penetrating trauma and positive screen were significantly more likely to be dead at hospital arrival than victims with negative toxicology (68.8% versus 48.8%, $p = 0.05$). Pedestrians killed by automobiles who had positive screens were more likely to have severe abdominal trauma (Abbreviated Injury Score ≥ 3) than victims with negative toxicology (54.2% versus 25.0%, $p = 0.02$).

CONCLUSIONS: There is a high rate of alcohol and illicit drug use in patients who die from trauma, especially penetrating trauma in men aged 15 to 50 years, who are Hispanic or African American. Victims with penetrating trauma and positive toxicology are considerably more likely to have no vital signs on admission than victims with negative toxicology. Pedestrians killed by automobiles who had positive screens have a higher incidence of severe abdominal injuries than victims with negative screens.

Trauma admissions offer a teachable moment



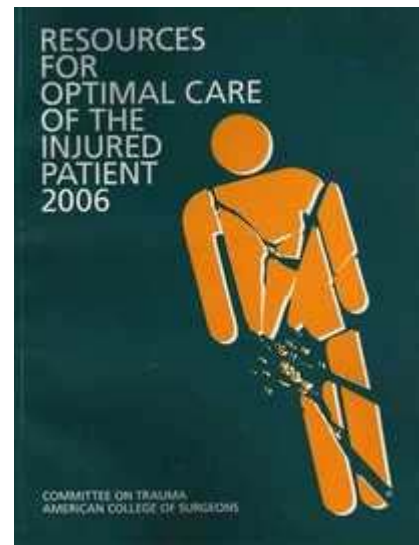
- Captive audience
- “Fresh” in their mind
- Ready to make a change (Forced?)
- Family/Peer support

Trauma Centers = Focus on Injury *Prevention*

ACS Standard



- Trauma centers must have a mechanism to identify patients who are problem drinkers
- Level-1 centers must have capacity to provide an intervention



PTSF Standard XXXI – Social Work Capabilities



- The institution must have a mechanism to identify patients who are at risk for substance abuse.
 - Level 1 & 2 = Expected
 - Level 3 = Desired
- The institution must provide an intervention for patients identified at risk.
 - Level 1 = Expected
 - Level 2 & 3 = Desired



Table
15

Alcohol Use

38 % of Patients Tested

ALCOHOL USE	NUMBER	PERCENT
No (confirmed by test)	198,791	23.86
No (not tested)	434,465	52.14
Yes (confirmed by test - beyond legal limit)	85,337	10.24
Yes (confirmed by test - trace levels)	34,886	4.19
Not applicable	16,230	1.95
NK/NR	63,602	7.63
Total	833,311	100.00



AMERICAN COLLEGE OF SURGEONS

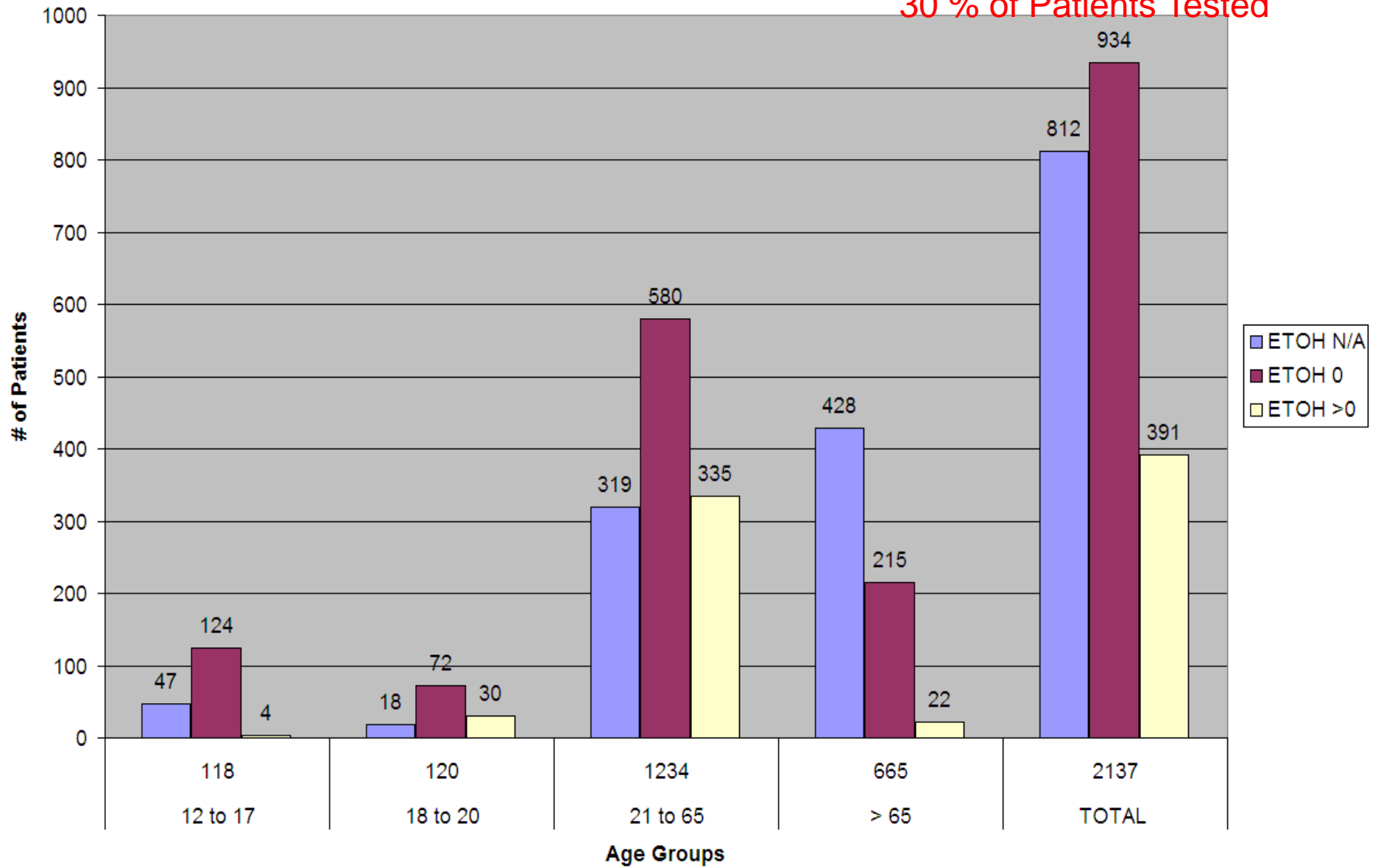
Inspiring Quality:
Highest Standards, Better Outcomes

York Hospital: Level-1 Regional Resource Trauma Center



York Hospital Alcohol Levels By Age Group

30 % of Patients Tested

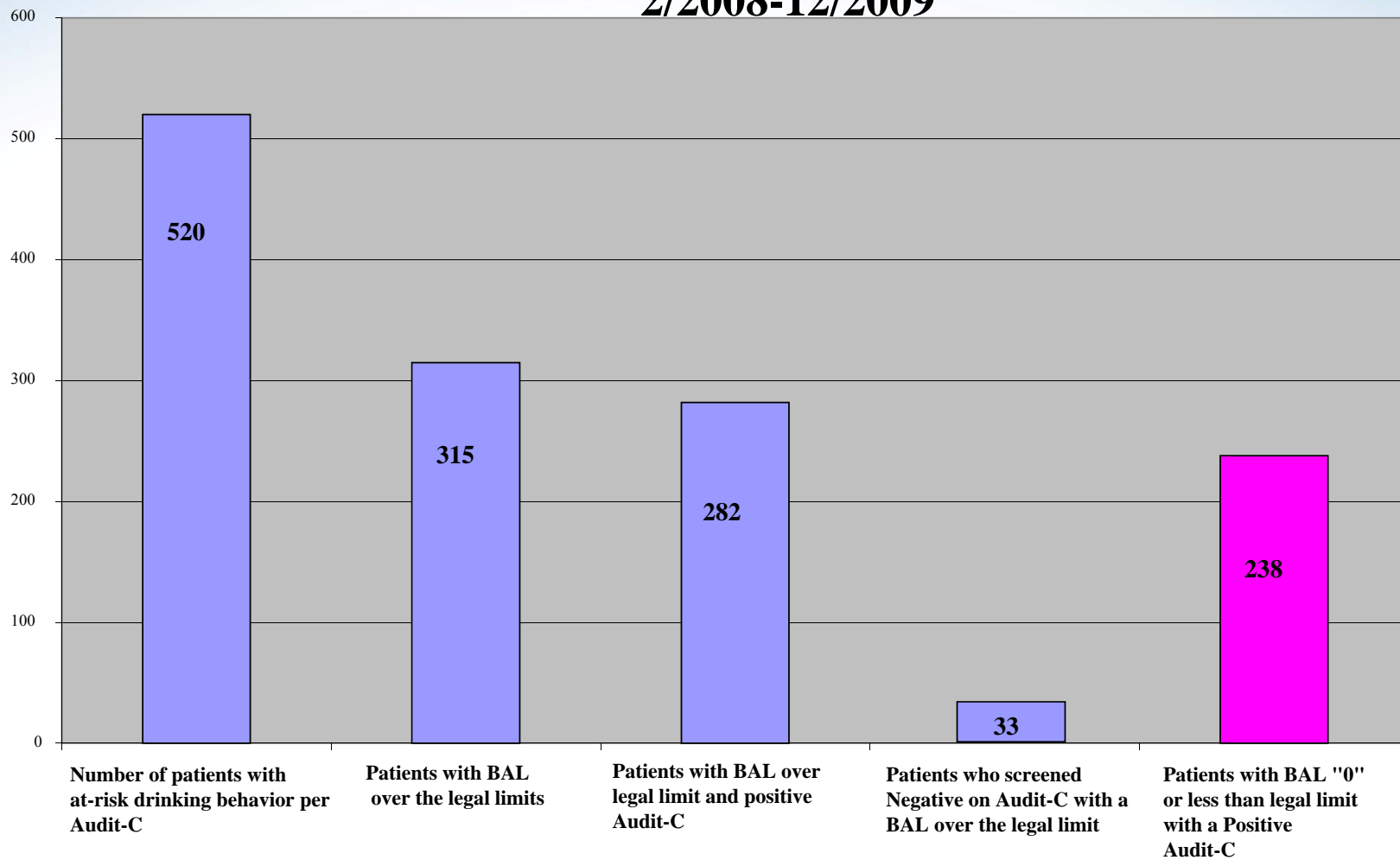


At Risk Population: Screening

- Positive BAL (> 0.08 mg/dl)
- Issues: Not all inclusive
 - Patients who happen to not have alcohol ‘on board’ at this particular incident
 - “Legal Limit”
 - Did not include < 15 years old
 - Not preventative



At-Risk Drinking Numbers: 2/2008-12/2009



Admission Order Set (2013)



	Component	Status	Details	Order Com
Patient Care				
<input type="checkbox"/>	<input checked="" type="checkbox"/> Mattress Specialty (Air)		Sofcare	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Compression Mechanical Stockings		Legs ; pneumati	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Intake & Output		QSHIFT	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Complete Age Appropriate Alcohol-Drug Screen	Ordered	05/06/13 14:25:00	
Nutrition				
<input type="checkbox"/>	<input checked="" type="checkbox"/> Diets		NPO	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Supplement of Choice Consult		Supplement of Choice, May ...	
IV Fluids				
	Calculate Maintenance Rate Using 4 - 2 - 1 Rule; The banana bags contain MVI and ascorbic acid.			
<input type="checkbox"/>	<input checked="" type="checkbox"/> Dextrose 5% in Lactated Ringers Injection (Dextrose 5% i...		mL/hr, IV, Inj	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Pediatric Banana Bag (D5W LR base)		mL/hr, IV	
<input type="checkbox"/>	<input checked="" type="checkbox"/> D5W NaCl 0.9% KCl 20mEq 1000mL (D5W NSS KCl 20meq i...		mL/hr, IV, Inj	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Pediatric Banana Bag (D5W NSS K20meq base)		IV, mL/hr	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Communication		Nursing may initiate normal ...	

Staff Role- RN



- RN completes screening (Audit-C or CRAFFT)
- If screening is negative BUT BAL is positive the screening is considered positive
- If positive, automatic referral to social worker

Screening Tools:

- AUDIT-C (18 years and older)
 - **A**lcohol **U**se **D**isorders **I**dentification **T**est – **C**onsumption
- CRAFFT (12-17 years)
 - **C**ar, **R**elax, **A**lone, **F**orget, **F**riends, **T**rouble

When to screen?

- BAL on admission to trauma resuscitation
- Cognitively intact
- Readiness to learn



Performed on: 05/10/2013 1858

SBI Screen Adult

SBI Screen Interv

SBI SCREEN for Adult Trauma Patients (18 years and Older)

Audit- C	Score
How Often Do You Have A Drink Containing Alcohol <input type="radio"/> Never <input type="radio"/> 2-3 times-week <input type="radio"/> Monthly or less <input type="radio"/> 4 or more times-week <input type="radio"/> 2-4 times-month	<input type="text"/>
How Many Drinks Did You Have On A Typical Day When You Were Drinking In The Past Year <input type="radio"/> 1 or 2 <input type="radio"/> 7 to 9 <input type="radio"/> 3 or 4 <input type="radio"/> 10 or more <input type="radio"/> 5 or 6	<input type="text"/>
How Often Did You Have 6 Or More Drinks On One Occasion In The Past Year <input type="radio"/> Never <input type="radio"/> Monthly <input type="radio"/> Daily or almost daily <input type="radio"/> Weekly <input type="radio"/> Less than monthly	<input type="text"/>
Total Score*	<input type="text"/>

ETOH Level

* 0.08 or greater
 Less than 0.08

If positive Audit-C or Positive ETOH Level and Social Services is Not Available Prior to Discharge, Proceed to Intervention Section

1. Men: A score of 4 or more is considered positive for increased risk for hazardous drinking and/or alcohol dependence.

2. Women: A score of 3 or more is considered positive for increased risk for hazardous drinking and/or alcohol dependence.

3. An ETOH over 0.08 mg/dl automatically places the patient with "at-risk" behavior. Consult Social Services to do intervention. Complete the Audit Screen and CAGE on this patient also.

*** If Unable to Complete Screening Prior to Discharge, Complete Field Below ***

Unable to Assess Patient

Intubated Confused Unconscious Sedated Other:

Audit-C

**Note- age 18-21: ETOH > 0 = positive – auto-populates*

Identifying Adolescent Substance Abuse At-Risk Behaviors (12-17 Years of Age)

Assessment

During the Past 12 Months, Did You*

- Drink any alcohol [more than a few sips]
- Smoke any marijuana or hashish
- Use anything else to get high
- Denies all of the above

Response - "anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff".

*** If any responses above – except Denies all of the above – are checked, complete the entire CRAFFT; otherwise, discuss only the "C" (car) question below. ***

C Have you ever ridden in a CAR driven by someone (including yourself) who was "high" or had been using alcohol or drugs? If yes, discuss implications with adolescent. Yes No

R Do you ever use alcohol or drugs to RELAX, feel better about yourself, or fit in. Yes No

A Do you ever use alcohol or drugs while you are by yourself, ALONE. Yes No

F Do you ever FORGET things you did while using alcohol or drugs. Yes No

F Do your family or FRIENDS ever tell you that you should cut down on your drinking or drug use. Yes No

T Have you ever gotten into TROUBLE while you were using alcohol or drugs. Yes No

ETOH LEVEL

- 0.08 or greater
- Less than 0.08

Drug Screen

- Positive
- Negative

Scoring: Two or More Yes Answers on the CRAFFT OR a Positive ETOH/Drug Screen Suggests a Serious Problem and a Need for Further Assessment and Intervention.

If positive CRAFFT or a positive ETOH/Drug screen and Social Services is Not Available Prior to Discharge, Proceed to Intervention Section.

*** If Unable to Complete Screening Prior to Discharge, Complete Field Below ***

Unable to Assess Patient

- Intubated
- Confused
- Unconscious
- Sedated
- Other:



CRAFFT Screening Tool – Age 12-17

Staff Role- Social Worker



- Completes Intervention Tab in EHR
 - Adult: CAGE Screening and Interventions
 - Adolescents: FRAMES
 - Outcomes



SBI Screen Adult

SBI Screen Interv

SBI Screen Interventions for Adult Trauma Patients (18 years and Older)

*** IF AT-RISK DRINKING IS IDENTIFIED, COMPLETE CAGE ASSESSMENT BELOW ***

CAGE Screen

- Have you ever felt you should cut down on your drinking
- Have people annoyed you by criticizing your drinking
- Have you ever felt bad or guilty about your drinking
- Have you ever had a drink first thing in the morning

CAGE Total

>2 = High Risk for Dependence

Intervention

- Compare audit score with scoring guideline
- Review safe drinking guidelines
- Obtain feedback from patient including discussion of motivation to change
- Recommended drinking within limits of low-risk drinking

Motivational Score

NOT READY VERY READY

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

Patient Agreement

- Yes
- No

If No, What Did the Patient Agree To

NIAAA GUIDELINES FOR LOW RISK DRINKING

	Drinks Per Week	Drinks Per Occasion
MEN	14	4
WOMEN	7	3
> 65 YEARS	7	1

Outcome

- Brief intervention completed
- Education materials provided
- Recommended follow-up with substance abuse counseling at time of discharge
- Referral made for substance abuse consult

Outcome Comment

NIAAA GUIDELINES FOR LOW RISK DRINKING

	Drinks Per Week	Drinks Per Occasion
MEN	14	4
WOMEN	7	3
> 65 YRS	7	1

Brief Intervention - Adolescent



SBI Screen Interventions for Adolescent Trauma Patients (12-17 Years of Age)

Intervention

- F** Give the adolescent **FEEDBACK** on your level of concern.
- R** Emphasize that the **RESPONSIBILITY** for change lies with the adolescent.
- A** Give clear, frank **ADVICE** on how to make changes in behavior.
- M** Offer a **MENU** of different options for making changes.
- E** Express **EMPATHY** throughout your encounters.
- S** Promotes the adolescent's feelings of **SELF-EFFICACY** (optimism) to make needed changes.

Outcome

- Brief intervention completed
- Education materials provided
- Recommended follow-up with substance abuse counseling at time of discharge
- Referral made for substance abuse consult

Outcome Comment

*** Results May be Shared with Parents/Guardians Under Specific Conditions Defined in Trauma Policy. ***

Patient Education



- Effects of Alcohol – includes referral centers
- Ways to cut-down on drinking (goal was to drink 'safely' not necessarily to eliminate)
- Handout: Facts about underage drinking
- Interactive Web Sites:
 - Abovetheinfluence.com
 - Cdc.gov/alcohol.fact-sheet.htm
 - Youtube.com/watch?v-11aEOcnukRY

Cross-Coverage / Teamwork



- If Social Worker assesses patient before the RN does, then they complete the screening.
- If Social Worker is not available to do the brief intervention, then the RN can complete it.

The last person to complete the task removes it from the patients “task list”.

Compliance



- Daily rounds
- Weekend discharge follow-up
- ED discharge from TRA
- CPIC Reports

Trauma Performance Improvement Report

Department: Pediatrics

Time Period: September, 2012 – February, 2013



AIM	Indicator	Benchmark/Goal	Findings and Conclusions	Actions and Interventions	Responsible Person	Completion Date
Safety Timeliness Effectiveness Efficiency Equity Patient-Centeredness	Injury Prevention Education Post Head Injury Discharge Instructions Adolescent Substance Abuse Screening	95% 95% 100%	Pediatric cases= 62 Safety/injury prevention education completed: 61/62 = 98% Benchmark met 36 patients sustained a head injury (58% of total admissions) 36/36 = 100% had documentation of completed post head injury instructions Benchmark met 39 patients > 11 years admitted to Pediatrics CRAFFT tool screening 39/39= 100% 9/39 screened positive= 23% Intervention using FRAMES completed ; 2 referrals recommended Benchmark met	<ul style="list-style-type: none"> ➤ Documentation reinforced. ➤ Audit results shared at monthly staff meetings. ➤ Corrective action per performance appraisal for non compliance. ➤ Staff not in compliance are transparent to all unit members. ➤ Patients transferred to rehab/BHS not included in data collection.. ➤ Secured standardized post head injury education. ➤ Limited sample size can negatively impact the compliance percentage. **Continue to monitor compliance to achieve established goals for all indicators	Pediatric PI Committee	ongoing

Trauma Performance Improvement Report
Department: Pediatrics
Time Period: March, 2013 – August, 2013



AIM	Indicator	Benchmark/Goal	Findings and Conclusions	Actions and Interventions	Responsible Person	Completion Date
<i>Safety</i> Timeliness Effectiveness Efficiency Equity <i>Patient-Centeredness</i>	Injury Prevention Education Post Head Injury Discharge Instructions Adolescent Substance Abuse Screening	95% 95% 100%	Pediatric cases= 51 Safety/injury prevention education completed: 49/50 = 98% Benchmark met 23 patients sustained a head injury (46% of total admissions) 23/23 = 100% had documentation of completed post head injury instructions Benchmark met 30 patients > 11 years admitted to Pediatrics CRAFFT tool screening 30/30= 100% 9/30 screened positive= 30% Intervention using FRAMES completed on all patients screened at risk Benchmark met	<ul style="list-style-type: none"> ➢ Audit results shared at monthly staff meetings. ➢ Documentation compliance included in performance appraisal. ➢ Poor documentation providers are identified. ➢ Patients transferred to rehab/BHS are not included in data collection. ➢ Standardized post head injury education utilized. ➢ Limited sample size can negatively impact the compliance percentage. ➢ Use of “teach back” as a standard of practice has improved overall documentation in the education record. **Continue to monitor compliance to achieve established goals for all indicators	Pediatric PI Committee	Ongoing