Trauma Center Alcohol Screening and Intervention

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Disclosures

- *I have no affiliations, sponsorship, financial funding or holdings that might be perceived as affecting the objectivity of my presentation.*
Objectives

- Discuss alcohol and injury; SBIRT model
- Describe nuisances of SBIRT implementation
- Describe translation research with SBIRT
Alcohol Use

How many American adults (ages 18 and over) drank in the past year and how much did they drink?
Percentage having at least one drink: females 59.6% males 71.8%

How many drinks did drinkers usually consume on a drinking day?

- 1 drink females 48.2% males 28.7%
- 2 drinks females 29.9% males 29.0%
- 3 or more drinks females 21.9% males 42.3%
Binge Drinking Among US High School Students

Had five or more drinks of alcohol in a row within a couple of hours on at least 1 day (during the 30 days before the survey)

United States, High School Youth Risk Behavior Survey, 2011

Alcohol and Injury

Contributing factor to the leading causes of fatal injuries:

- Motor Vehicle Crashes
- Suicide
- Homicide
- Drowning
- Falls

High rates of alcohol misuse among adolescent trauma inpatients (30%) and adult trauma patients (45%)
If receive no other intervention -
Injury alone does not change drinking habits of injured patients long-term
SBIRT

- Screening, Brief Intervention and Referral to Treatment
- Randomized Clinical Trials have yielded some promising results
  - Adult studies in ED, Trauma Services, Primary Care
  - Pediatric Emergency Department studies
- Recommended by several national organizations
“Alcohol is such a significant associated factor and contributor to injury that it is vital that trauma centers have a mechanism to identify patients who are problem drinkers. Such a mechanism is essential in Level I and II trauma centers. In addition Level I centers must have the capability to provide an intervention for patients identified as problem drinkers.”

American College of Surgeons - Committee on Trauma. Resources for Optimal Care of the Injured Patient: 2006
“Screening - a healthcare professional assesses a patient for risky substance use behaviors using standardized screening tools. Screening can occur in any healthcare setting”

- Laboratory testing
- Informal screening questions
- Standardized screening questions
  - AUDIT, MAST, CAGE, ASSIST, CRAFFT
Alcohol Interventions

Forms of Intervention

- Brief Intervention
- Referral for Specialized Treatment
- Primary Prevention
“Brief Intervention - a healthcare professional engages a patient showing risky substance use behaviors in a short conversation, providing feedback and advice”

- Varying sessions (1-5 sessions)
- Delivered by various professionals
  - Research Staff; Physicians; RN; Social workers; Psychologists; Health Advocates
- Many utilize motivational interviewing techniques
Referral to Treatment

“Referral to Treatment - a healthcare professional provides a referral to brief therapy or additional treatment to patients who screen in need of additional services”

- 4-5% of adult patients who misuse alcohol require more intensive treatment
- Part of the SBIRT model is to connect those who need additional treatment with community resources
SBIRT

- Few utilize formal screening tools
  - 25-39% within US trauma centers

- Even less have formal SBIRT policies in place
  - 15% of US Emergency Department
Barriers to SBIRT Adoption

- Lack of time
- Lack of training/ confidence
- Concerns about patient acceptability
- Reimbursement barriers
Multi Site Translational Research Study

Participating IFCK Sites

Cincinnati
Detroit
Hartford
Indianapolis
Milwaukee
Pittsburgh
San Diego
Study Timeline

<table>
<thead>
<tr>
<th>Study Month</th>
<th>Adoption</th>
<th>Implementation</th>
<th>Maintenance</th>
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<tbody>
<tr>
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<td>Project site leader</td>
<td>Retrospective one month medical record review #1 (Baseline)</td>
<td>Retrospective one month medical record review #2</td>
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<td>Key Informant Baseline Surveys</td>
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<td>24</td>
<td></td>
<td>Retrospective one month medical record review #3</td>
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<td></td>
<td></td>
<td>Project site leader semi-structured interviews</td>
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Rhode Island Hospital
A Lifespan Partner
Evaluation Components

- **Blinded Medical Record Review**
  - Review of injured adolescent patients during 1 month periods to assess compliance with SBIRT
    - Baseline (September 2009)
    - Post Implementation Phase (September 2011)
    - Post Maintenance Phase (September 2012)
Evaluation Components

- **Computerized self report surveys**
  - Project site leaders
  - Key informants at each study site
    (chosen from list of trauma center components designated by American College of Surgeons)

- **Semi-structured interviews with site leaders**
  - Access barriers and opportunities to implementation
Comparison of Baseline Alcohol Screening Activities

<table>
<thead>
<tr>
<th>Site</th>
<th>Project Site Leader report on Baseline SBIRT Activities</th>
<th>Site Key Informant report Baseline SBIRT Activities</th>
<th>Medical Record Review Baseline SBIRT Activities (% received CRAFFT)</th>
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<td>Site C</td>
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<td>Site D</td>
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<tr>
<td>Site G</td>
<td>No</td>
<td>Yes=2 No=1</td>
<td>0%</td>
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Percentage of Admitted Adolescent Trauma Patients Receiving a Standardized Alcohol Screening Tool (CRAFFT), by Study Phase
Admitted Adolescent Trauma Patients Requiring Brief Intervention Across Sites by Study Phase
Summary

- Baseline screening rates (11%) lower than self reported rates of site leaders and key informants
- Adopting/implementing a SBIRT policy for trauma patients can improve and maintain services
- Moderators for successful SBIRT implementation:
  - efforts led by trauma coordinator/director
  - electronic medical record utilization
  - connection to recertification
  - strong partnership with social work
  - real time monitoring
Dispensary Organizational Screening and Brief Intervention Services (DO-SBIS) for alcohol at trauma centers study design

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1. Introduction

Physical injury with and without trauma patients constitute a major public health problem in the United States. Approximately 5.3 million people in the United States are hospitalized in trauma centers each year (1,2), with 1.2 million of these patients suffering moderate to severe injury (1,2). Epidemiological investigations have documented that alcohol use problems are endemic among trauma patients (3-5). A study of emergency department toxicology specimens showed that alcohol screening and brief intervention for trauma patients is feasible, and patients who were screened and received counseling were significantly less likely to return to the emergency department with a alcohol use problem within 6 months (5). In addition, principal clinicians reported that alcohol screening and brief intervention may reduce alcohol consumption among patients presenting to acute care medical–surgical centers (5).

2. Materials and Methods

The study was conducted at four trauma centers in the United States. Patients were randomly assigned to the intervention or control group, with the intervention group receiving screening and brief intervention for alcohol use problems. The control group received usual care. The primary outcome was the prevalence of alcohol use problems at 3 months after hospital discharge in the intervention group versus the control group.

3. Results

The prevalence of alcohol use problems was significantly lower in the intervention group compared to the control group at 3 months after hospital discharge (p < 0.05). The findings suggest that screening and brief intervention for alcohol use problems in trauma centers may be effective in reducing alcohol use problems among patients.
Trauma Center Alcohol Screening and Intervention