Alcohol Screening and Brief Intervention in the Trauma Center Setting

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What is a Trauma Center?

- Trauma Center is a designation given by the American College of Surgeons (ACS)
- The designation represents a hospital's ability to deal with life-threatening injuries
- Level 1 Trauma Centers are required to have specialized surgeons, anesthesiologists, radiologists and operating rooms available 24 hours a day
- Level 1 Trauma Centers are also required to conduct prevention activities, community education and research

Level 2 Trauma Center status is also designated by the ACS

Level 2 Trauma Centers are similar to Level 1 Centers in terms of general surgeon staffing, but they often have less access to surgical sub-specialties and they work in collaboration with Level 1 Trauma Centers to provide the highest quality patient care

Minnesota Trauma Centers

- Level 1 Trauma Centers
  - Hennepin County Medical Center, Minneapolis
  - Mayo Clinic, Rochester
  - North Memorial Medical Center, Robbinsdale
  - Regions Hospital, St. Paul
- Level 2 Trauma Centers
  - St. Cloud Hospital, St. Cloud
  - St. Luke's Hospital, Duluth
  - St. Mary's Hospital, Duluth

Why are Healthcare Providers Concerned About Alcohol Use?

- Excessive alcohol use leads to numerous health conditions including:
  - Hepatitis/cirrhosis of the liver
  - Gastritis, pancreatitis and gastrointestinal bleeding
  - Cancer, especially in the mouth and throat
  - Damage to the brain, including epilepsy and hemorrhagic stroke
  - Vitamin deficiency
  - Obesity
  - Hypertension and heart disease
  - Infertility
  - Major depression
  - ...and many more

- Alcohol changes or conflicts with the way that many medications work in the body
  - Some of these interactions can be life-threatening

- Alcohol's concentration in the brain leads to poor decision making, which can lead to injuries and other negative health outcomes
Is this really that common?

- About 30% of U.S. adults drink at levels that elevate their risk for physical, mental and social problems.
- Of these heavy drinkers, about 25% routinely abuse alcohol or are alcohol dependent.


Why is the healthcare setting an ideal location for screening patients for alcohol disorders?

- Heavy drinking often goes undetected
- Patients are likely to be more receptive, open and ready to change than most physicians assume
- Brief interventions have been shown to promote significant, lasting reductions in drinking levels in at-risk drinkers who are not alcohol dependent


Pyramid of Alcohol Problems

- Drinking Type
  - Dependent Use: 4%
  - Hazardous or At-Risk Use: 25%
  - Low-Risk Use or Abstention: 71%

- Intervention Type
  - Brief Intervention and Referral
  - Brief Intervention
  - No Intervention


Screening Trauma Center Patients for At-Risk Drinking Behaviors

- Alcohol abuse and alcoholism are the underlying causes of nearly half of all traumas in the United States
- Alcoholism is the most common chronic disease in trauma patients, affecting 25 to 40% of patients, compared with a 2 to 5% incidence for other conditions which result in hospitalization


Screening Trauma Center Patients for At-Risk Drinking Behaviors

- Trauma Centers have been viewed as a perfect place to conduct alcohol screening and intervention programs for almost 20 years.
- In 1999, Gentilello et al. found that when trauma patients who screened positive for at-risk drinking behaviors received a brief intervention in the hospital, they showed a 47% reduction in repeat injuries and a 48% reduction in rehospitalizations


Benefits of Routine Alcohol Screenings of Trauma Patients

- Captive audience
- Teachable moment
- Healthcare providers are seen as ‘experts’
- Staff have often developed a good relationship with the patient prior to the screening
- Family members are often involved
- May be an opportunity for follow-up
Downsides of Routine Alcohol Screenings of Trauma Patients

- Other medical issues often need more immediate attention
- Injuries can be too severe to accommodate a screening or intervention
- Patients often discharge to facilities (rehab, long-term care) where alcohol treatment is not a priority or a possibility

Alcohol Screening and Brief Intervention in the Trauma Center

- Beginning in 2008, all Level 1 and 2 Trauma Centers must have an Alcohol Screening and Brief Intervention (ASBI) initiative as part of their program

North Memorial's ASBI Program

- In August of 2007, North Memorial's Trauma Department began screening all trauma patients for at-risk drinking
  - All trauma patients are screened by blood alcohol content (BAC) at admission
  - For ease of implementation, any trauma patient with alcohol in their blood at admission will be flagged to receive a formal screening and intervention before discharge

North Memorial's ASBI Program

- Program basics:
  - Once flagged, the patient is assigned a schedule for screening; usually a day or two before discharge if time allows
  - Screening is done by either the Trauma Nurse Clinicians, the Trauma Social Worker or a Trauma Surgeon

North Memorial's ASBI Program

- All ASBI program patients are screened using the BAC and the AUDIT (Alcohol-Use Disorders Identification Test)
  - BAC is part of the standard "Trauma Panel" blood draw that can be done at admission
  - AUDIT can be given both orally and written, and in English or Spanish.

Feedback using BAC

- Range: "BAC can range from 0 (sober) to .4 (deadly)."
- "Normal drinking is 0.03 to 0.05"
- "Your BAC was ..."
- Elicit reaction: "What do you make of that?"
- "What role do you think alcohol played in your injury?"
North Memorial's ASBI Program

Scoring the AUDIT

<table>
<thead>
<tr>
<th>Score</th>
<th>Level of Intervention</th>
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<tbody>
<tr>
<td>1 – 7 (no risk)</td>
<td>Resources offered based on patient and staff intuition</td>
</tr>
<tr>
<td>8 – 18 (starting to experience health consequences from alcohol)</td>
<td>Brief intervention + appropriate handouts</td>
</tr>
<tr>
<td>19 – 40 (possible alcohol dependence)</td>
<td>Brief intervention + social service referral + treatment options + handouts + possible psych or chaplain referral</td>
</tr>
<tr>
<td>Refusal</td>
<td>&quot;Harmful Interactions: Mixing Alcohol and Medicines&quot; brochure, possible psych or chaplain referral</td>
</tr>
</tbody>
</table>

Feedback using the AUDIT

- Range: "The AUDIT can range from 0 (non-drinkers) to 40 (possible chemical dependency)
- "The AUDIT has been given to thousands of patients in medical settings, so you can compare your drinking to others. A normal AUDIT score is 0 – 7, which is low-risk drinking."
- "Your AUDIT score is...
- Elicit reaction: "What do you make of that?"

Pyramid of Alcohol Problems

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Listen and Elicit Discussion

- Explore the pros and cons of drinking
  - Pay attention to concerns, problem recognition, downsides, etc.
  - Summarize both sides (On the one hand... On the other hand...)
  - Ask about the importance of alcohol use (Why not lower?)
  - Ask about confidence of cutting back (Why not higher?)
  - Ask about readiness

Wrapping up the intervention

- Ask the key questions:
  - Where does this leave you?
  - Do you want to quit? Cut-down? Make no change?

Provide MENU options

- Manage your drinking
- Eliminate drinking from your life
- Never drink and drive
- Utterly nothing
- Seek help

Ask about the plan

- How will you do that? Who will help you? What might get in the way?
North Memorial's ASBI Program

Our Experiences
- From mid-August 2007 through January 2008, we've had about 100 BAC-positive patients
- 58 of the 100 completed the AUDIT
- National statistics have shown about a 47% refusal rate...our refusal rate has been about 20%.
- 15 - 20% of our eligible patients are unable to participate in the ASBI due to severity of injuries

Other details about our ASBI patients
- 40 males, 14 females (4 declined categorization)
- Age breakdown of ASBI patients (7 declined)

<table>
<thead>
<tr>
<th>Age</th>
<th># of patients</th>
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<tr>
<td>&lt;21</td>
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</tr>
<tr>
<td>21-29</td>
<td>13</td>
</tr>
<tr>
<td>30-39</td>
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<td>40-49</td>
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<td>50-59</td>
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<tr>
<td>60-69</td>
<td>9</td>
</tr>
<tr>
<td>&lt;70</td>
<td>7</td>
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What has worked well
- Telling patients that we screen all patients with a positive BAC for alcohol-use problems
- Using the AUDIT tool as a guide for the interaction
- Having a dedicated Trauma Social Worker who has experience with alcohol assessment and treatment referrals

What has worked well
- The nurse clinicians offering the screening
  - It is seen as part of the routine patient care
  - Nurse clinicians have more time to spend with the patient
  - Patients have an established a relationship with the nurse clinician during their stay
  - Nurse clinicians are often less threatening than the Trauma Surgeons
  - Nurse clinicians work collaboratively with the Trauma Social Worker on many issues, including following up on the results of the ASBI
North Memorial's ASBI Program

What have we learned?
- Patients may agree to the screening, but they won't necessarily tell the truth
- The younger patients seem a little more receptive to the idea that their drinking is problematic
- Patients occasionally need to be made aware of how their drinking relates to their injury
- Many of the patients had received previous alcohol or substance abuse treatment

Challenges on the horizon
- Having the program fully implemented during the next "Trauma Season" (summer)
- Possible requirement to screen all Trauma patients for alcohol use, regardless of BAC at admission
- Possible requirement to screen all hospital patients who have a BAC at admission

Questions? Comments?
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Our major success to date
No patient who has successfully completed the ASBI has been readmitted to the North Memorial Trauma Department since the initiative's inception