Screening Brief Intervention Referral to Treatment (SBIRT):
A Guide for Assessing and Addressing Alcohol Consumption in the Heart Failure Population
K. Melissa Smith, DNP, ANP-BC
(no disclosures)

Objectives
- Explain how alcohol contributes to cardiomyopathy
- Define the acronym SBIRT.
- List examples of appropriate response and referrals for positive screening results.

HEART FAILURE AND ALCOHOL
Pathophysiology

• Excessive alcohol consumption leads to
  — Negative inotropic affect on myocytes
  — Left ventricular myocyte loss and dysfunction
  — Elevated levels of norepinephrine
  — Depressed myocardial contractility with acute ethanol ingestion

(Djousse & Gaziano, 2008)

Pathophysiology

• Long-term and heavy alcohol use can result in oxidative stress, apoptosis, and decreased contractile protein function which leads to cardiotoxicity and evolution of heart failure.

(Lee, 2015)

Clinical Diagnosis

• Heavy alcohol consumption is associated with alcoholic cardiomyopathy.
• Characterized by left ventricular dilation with increased left ventricular mass, reduced or normal left wall thickness.
• Biventricular dysfunction and dilatation are persistently observed in a heavy drinker in the absence of other known causes for myocardial disease.

(Djousse & Gaziano, 2008; Yancy, et al, 2013)
Findings

• Men ages 30-55 who have been heavy consumers of alcohol for more than 10 years are affected.
• Women are more vulnerable with less lifetime alcohol consumption (takes less).
• 14% of alcoholic cardiomyopathy are women.
• Risk increases for those consuming > 90g of ETOH per day for more than 5 years (7-8 standard drinks per day).
  (Yancy, et al., 2013)

• In the general population, mild to moderate alcohol consumption (up to 2 drinks per day for men or 1 drink per day for women) has been reported to be protective against development of HF.
• These paradoxical findings suggest that duration of exposure and individual genetic susceptibility play an important role in pathogenesis.

Prognosis

• Recovery of LV function after cessation of drinking has been reported.
• Even if LV dysfunction persists, the symptoms and signs of HF improve after abstinence.
  (Yancy, et al, 2013)
Heart Failure Guidelines and Alcohol

- 2010 HFSA
- 2013 ACC/AHA

Avoiding substantial ingestion of alcohol is advisable.
Those with a propensity to abuse alcohol should be counseled to abstain.

(Lindenfeld, et al., 2010)

JACC 2015

Major Lifestyle Risk Factors for Incident Heart Failure in Older Adults: The Cardiovascular Health Study concludes

- Heavy alcohol use (70 g or greater per day of chronic ingestion) increases risk of HF
- Moderate use of ETOH (1-2 drinks a week) can be continued without contraindication

(Del Gobbo, et al., 2015)
HFSA 2010 Comprehensive Heart Failure Practice Guideline

Heart Failure Society of A. (2010). Section 3: Prevention of Ventricular Remodeling, Cardiac Dysfunction, and Heart Failure. J Card Fail, 16(6), e38-e43. doi: http://dx.doi.org/10.1016/j.cardfail.2010.05.012

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Population</th>
<th>Treatment Goal</th>
<th>Strength of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive Alcohol Intake</td>
<td>Men</td>
<td>Limit alcohol intake to 1-2 drink equivalents per day</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>Limit alcohol intake to 1 drink equivalent at day</td>
<td>C</td>
</tr>
<tr>
<td>Those with propensity to abuse alcohol or with alcoholic cardiomyopathy</td>
<td>Abstinence</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Role of the HF Clinician

- Assess the amount of alcohol HF patients are consuming.
- Discuss recommended guidelines for prevention of HF.
- Promote abstinence if indicated (alcoholic cardiomyopathies, propensity for abuse).
- Promote prevention of HF and or worsening heart failure through using recommended consumption guidelines.

SBIRT

(The material included in the following slides are based on the works of previously funded SAMHSA grantees).

SAMHSA SBIRT website
(HTTPS://SBIRT.SAMHSA.GOV/ABOUT.HTM)
WHAT IS SBIRT?

• S = Screening
• B = Brief
• I = Intervention
• R = Referral
• T = Treatment

SBIRT Defined

Screening, brief intervention, and referral to treatment (SBIRT) is a comprehensive, integrated, public health approach to the delivery of early intervention and treatment services. It is used for—

• Persons with substance use disorders
• Those whose use is at higher levels of risk

Primary care centers, hospitals, and other community settings provide excellent opportunities for early intervention with at-risk substance users and for intervention for persons with substance use disorders.

(SAMHSA)

Screening

• Screening quickly assesses the severity of substance use and identifies the appropriate level of treatment.
Brief Intervention

• Brief intervention focuses on increasing insight and awareness regarding substance use and motivation toward behavioral change.

Brief Motivational Intervention for At Risk & Problem Drinkers

• Short counseling sessions (5-15 minutes)
• Single or repeated sessions
• Performed by non-addiction specialists
• Contain advice and/or motivational enhancement

Referral to Treatment

• Referral to treatment provides those identified as needing more extensive treatment with access to specialty care.
National Initiatives

• National Institute on Alcohol Abuse and Alcoholism (NIAAA)
• Substance Abuse and Mental Health Services Administration (SAMHSA)

Strong Research and Substantial Experiential Evidence Supports the Model

• There is substantial evidence for the effectiveness of brief interventions for harmful drinking. There is a growing body of literature showing the effectiveness of SBIRT for risky drug use.
  

Making a Measurable Difference

• Since 2003, SAMHSA has supported SBIRT programs, with more than 1.5 million persons screened.
• Outcome data confirm a 40 percent reduction in harmful use of alcohol by those drinking at risky levels and a 55 percent reduction in negative social consequences.
• Outcome data also demonstrate positive benefits for reduced illicit substance use.
  
  Based on review of SBIRT GPRA data (2003–2011)
Why Is SBIRT Important?

- Unhealthy and unsafe alcohol and drug use are major preventable public health problems resulting in more than 100,000 deaths each year.
- The costs to society are more than $600 billion annually.
- Effects of unhealthy and unsafe alcohol and drug use have far-reaching implications for the individual, family, workplace, community, and the health care system.

Importance of Screening for At Risk Drinking

- Increased health care cost
- Multiple adverse effects from excessive drinking
- Younger Ages of first drink
- Widening the net

Harms Related to Hazardous Alcohol and Substance Use

Increased risk for—

- Injury/trauma
- Criminal justice involvement
- Social problems
- Mental health consequences (e.g., anxiety, depression)
- Increased absenteeism and accidents in the workplace
Effects of High Risk Drinking

- Aggressive, irrational behavior
- Arguments
- Violence
- Depression
- Nervousness
- Cancer of throat & mouth
- Frequent colds
- Reduced resistance to infection
- Increased risk pneumonia
- Liver damage
- Trembling hands
- Tingling fingers
- Numbness
- Painful nerves
- Ulcer
- Impaired sensation leading to falls
- Numb, tingling toes
- Painful nerves
- Alcohol dependence
- Memory loss
- Premature aging
- Drinker’s nose
- Weakness of heart muscle
- Heart failure
- Anemia
- Impaired blood clotting
- Breast cancer
- Vitamin deficiency
- Severe inflammation of stomach
- Vomiting
- Stomach
- Malnutrition
- Inflammation of pancreas

In men:
- Impaired sexual performance
- Risk of giving birth to deformed, mentally disabled, or low birth weight babies

Effects of Excessive Alcohol Intake

- Aggressive Irrational Behavior
- Memory Loss
- Cancer of mouth and throat
- Premature aging: Drinker’s Nose
- Heart Failure
- Anemia
- Breast cancer
- Bleeding risk
- Reduced resistance to infection
- Pancreatitis
- Peripheral neuropathy
- Esophageal Varices
- Gastritis
- GI bleeding
- PUD
- Impaired sexual performance in men
- Risk for birth defects if drink during pregnancy
- Social issues: social, legal, domestic, job and financial issues.
- Early death from drunken-driving
- DUI

Adult Alcohol Abuse and Dependence Influenced by Age of First Use
Age of first alcohol use matters:

Odds of alcoholism as an adult ↓ 14% per year after age 14

Universal Screening Widens the Net

Role of all Practitioners

- Screen
- Identify
- Assess
- Brief Intervention
- Refer
When Screening, It’s Useful To Clarify What One Drink Is!

(SAMHSA)

How Much Is “One Drink”?  

- 5-oz glass of wine (5 glasses in one bottle)
- 1.5-oz spirits (80-proof)
- 12-oz glass of beer (one can)

Equivalent to 14 grams pure alcohol

NIAAA Single Question Screen (NSQS)

- “How many times in the past year have you had x or more drinks in a day?” (x=4 for women, 5 for men)

- Positive answer of 1 or more times detects 98% of at-risk US drinkers

U.S. standard drink 14 grams

NIAAA, 2005
“Healthy” Drinking
NIAAA Recommendations

ASK about Alcohol Use

- Consumption
  - Per week
  - Per occasion

Heavy Drinking Screening Question
(NIAAA, NSQS)

How many times have in the past year have you had...
5 or more drinks in a day? (for men)
How many times have in the past year have you had...
4 or more drinks in a day? (for women)
ASK Current Drinkers

• On average, how many days per week do you drink alcohol?
• On a typical day when you drink, how many drinks do you have?
• What’s the maximum number of drinks you had on a given occasion in the last month?

Positive Screen for At-Risk Drinking

<table>
<thead>
<tr>
<th></th>
<th>Per Week</th>
<th>Per Occasion</th>
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<tbody>
<tr>
<td>Men</td>
<td>&gt;14 drinks</td>
<td>&gt;4 drinks</td>
</tr>
<tr>
<td>Women</td>
<td>&gt;7 drinks</td>
<td>&gt;3 drinks</td>
</tr>
<tr>
<td>Elders</td>
<td>&gt;7 drinks</td>
<td>&gt;1 drink</td>
</tr>
</tbody>
</table>

OR One or more positive CAGE responses


Ask Current Drinkers

CAGE

C → Cut Down
A → Annoyed
G → Guilty
E → Eye Opener

Scoring: Item responses on the CAGE are scored 0 for “no” and 1 for “yes.” A score of 2 is considered clinically significant. Consensus Panel recommends that primary care clinicians lower the threshold to one positive answer to cast a wider net and identify more patients who may have substance use disorders.
A Positive Alcohol Screen = At-Risk Drinker

**Binge drink:**
- ≥ 5 for men or ≥ 4 for women (anyone 65+)
- Or patient exceeds regular limits?
  - Men: 2/day or 14/week
  - Women (anyone 65+): 1/day or 7/week

**NO**
- Patient is at low risk.

**YES**
- Patient is at risk. Screen for maladaptive pattern of use and clinically significant alcohol impairment using AUDIT.

**AUDIT Questionnaire**

![AUDIT Questionnaire](WHO, 1992)

**AUDIT Domain**

<table>
<thead>
<tr>
<th>Domains and Item Content of the AUDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domains</strong></td>
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<tr>
<td>Hazardous Alcohol Use</td>
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<tr>
<td></td>
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<tr>
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<tr>
<td>Dependence Symptoms</td>
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<td>Harmful Alcohol Use</td>
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![AUDIT Domain](WHO, 1992)
Scoring the AUDIT

Assessment for Alcohol Dependence

ASK
- Are there times when you are unable to stop drinking?
- Does it take more drinks to get high?
- Do you feel a strong urge to drink?
- Do you change your plans to be able to drink?
- Do you drink early in the am to relieve the ‘shakes’?

SBIRT STEP REVIEW
Step 1: Raise The Subject

- Establish Rapport
- Raise the subject of alcohol use

“Hello, I am....... Would you mind taking a few minutes to talk with me about your alcohol use?”

Step 2: Provide Feedback

- Review patient’s drinking patterns
- Make connection to NP visit if possible
- Compare to National Norms and offer NIAAA guidelines

“From what I understand you are drinking...”

“What connection do you see between your drinking and today’s visit?”

“These are what we consider to be the upper limits of safe drinking for your age and sex. By safe we mean that you would be less likely to experience illness or injury.”

Step 3: Enhance Motivation

- Assess readiness to change
- Identify areas to discuss
- Use reflective listening

“On a scale of 1-10 (1 being not ready and 10 being very ready) how ready are you to change your drinking patterns?”

<table>
<thead>
<tr>
<th>NOT READY (1 - 3)</th>
<th>UNSURE (4 - 7)</th>
<th>READY (8 - 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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<td>10</td>
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</tbody>
</table>
Step 3: Enhance Motivation

“On a scale from 1-10, how ready are you to change any aspect of your drinking?”

“Why did you choose that number and not a lower one? What are some reasons that you are thinking about changing?”

“What would make this a problem for you?”

Discuss pros and cons.

Step 4: Negotiate and Advise

• Elicit response: “How does all this sound to you?”

• Negotiate a goal: “What would you like to do?”

• Give advice: “It is never safe to drink & drive,...etc.”

• Summarize: “This is what I heard you say...”
  “Thank you...”

  Provide NP follow-up.

Brief Intervention for At Risk & Problem Drinkers

• Advise to cut down
• Set goals
• Provide Primary Care follow-up

Brief Intervention for Dependent Drinkers

• Advise to abstain
• Refer to treatment
Screening Results and Actions

- Abstinence (ask why) → Prevention message
- Low-risk drinker → Prevention message
- At-risk drinker or drug user with otherwise negative screen → Brief intervention
- Positive screen for abuse or dependence → Brief assessment

General Principles for Negotiating Behavior Change

- Respect for autonomy of patients and their choices
- Readiness to change must be taken into account
- Ambivalence is common
- Targets selected by the patient, not the expert
- Expert is the provider of the information
- Patient is the active decision-maker

Rollnick, 1994

CASE STUDY
Summary

- Heavy ETOH use increases risk of HF (>70g/day of chronic ingestion).
- HF Guideline recommendations: 2 drinks/day for men, 1 drink/day for women.
- SBIRT is a skill that can be learned by health care providers of all skill levels and disciplines.
- SBIRT is an opportunity for health promotion and harm reduction.

Internet Resources

SBIRT Pocket Guide for Practitioners

SBIRT Clinical Toolkit
http://sbirt.ireta.org/sbirt/pdf/SBIRT_TOOL_KIT.pdf

SBIRT Guide for Youth Screening & Brief Intervention

SBIRT List of Clinical Tools
http://sbirt.ireta.org/sbirt/clinical_tools.htm

SAMHSA SBIRT website
http://sbirt.samhsa.gov/about.htm

References


Heart Failure Society of A. (2010). Section 3: Prevention of Ventricular Remodeling, Cardiac Dysfunction, and Heart Failure. J Card Fail, 16(6), e38-e43. doi: http://dx.doi.org/10.1016/j.cardfail.2010.05.012


