

# Alcohol and Other Drug Screening & Assessment

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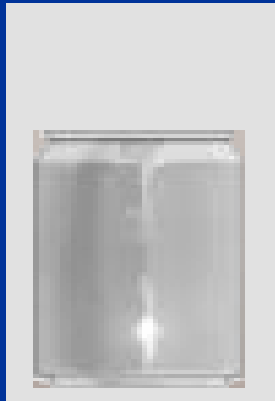

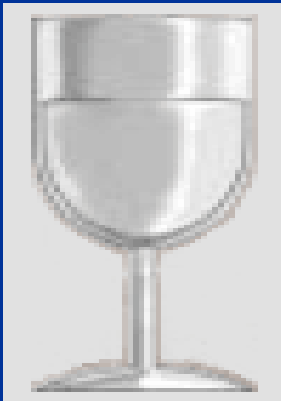

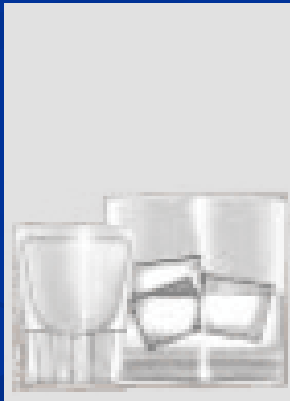
Boston Medical Center

# Case

A 36 year old resident enjoys 2-3 beers 2-3 times a week after work



# The Standard Drink

<b>12 oz. of beer or cooler</b>	<b>8-9 oz. of malt liquor</b>	<b>5 oz. of table wine</b>	<b>2-3 oz. of cordial, liqueur, or aperitif</b>	<b>1.5 oz. of liquor</b>
				

1 ounce=30 ml

# Risky Use

- Risky drinking (NIAAA, USDA)
  - Men
    - >14 drinks per week, >4 per occasion
  - Women,  $\geq 65$ 
    - >7 drinks per week, >3 per occasion
- Risky drug use? (Any?)

# The Spectrum of Alcohol Use



# Prevalence in Primary Care

## ■ Alcohol

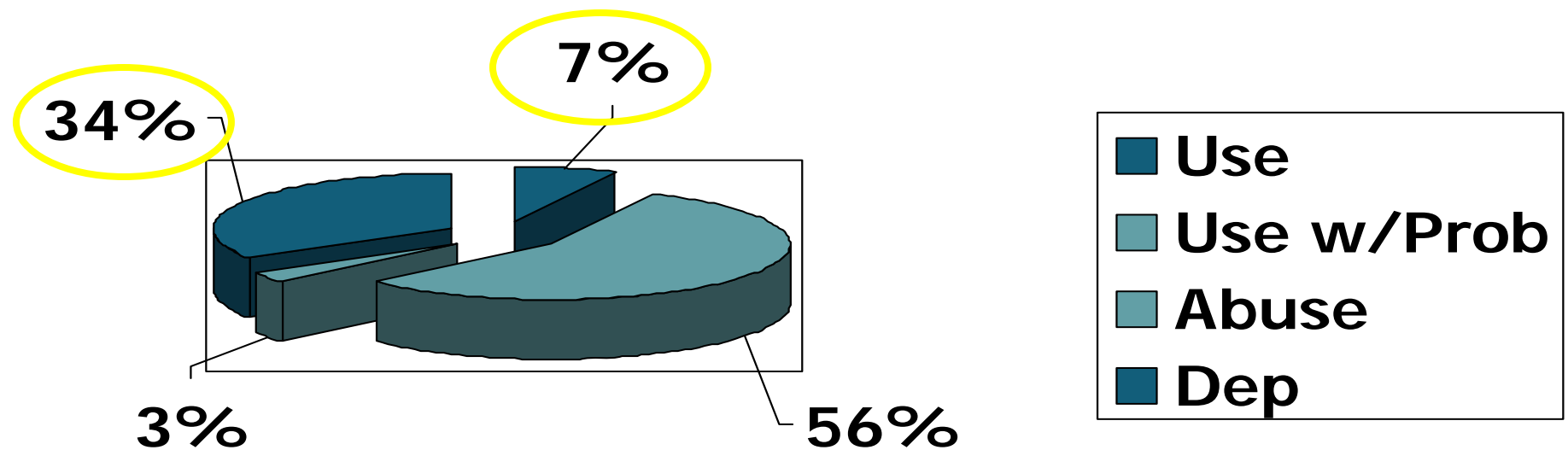
- $>1/3$  Abstinent
- $>1/3$  Low risk
- $<1/3$  Unhealthy
  - $>1/5$  dependent
  - $<2/5$  problem use (nondependent)
  - $<2/5$  risky use

## ■ Drugs

- 3%

# SCREENING: PREVALENCE IN PRIMARY CARE (USA), OTHER DRUGS

- 3%
  - 34% of those have dependence, 7% use with no problems (Smith et al)





# Screening Tests

- Best choices all around
- 1 for alcohol, 1 for drug
  - DRUG
    - Single-item
  - ALCOHOL
    - Single-item (episodic limit)
    - AUDIT-C
    - AUDIT
- Other choices (some limits)
  - ASSIST
  - CAGE, CAGE + consumption
  - CRAFFT (adolescents)
  - POSIT (adolescents)
  - TWEAK (pregnancy)
  - T-ACE (pregnancy)
  - MAST
    - B-MAST, S-MAST, G-MAST
  - DAST
  - AUDIT-R
  - CAGE-AID
  - 2-item conjoint
  - Consensus single item (CSAT)
  - Laboratory tests
    - Hair, saliva, urine, serum
    - BAC, CDT, GGT, AST, HDL, MCV

# AUDIT

- How often do you have a drink containing alcohol?
- How many drinks containing alcohol do you have on a typical day when you are drinking?
- How often do you have 6 (4/5) or more drinks on one occasion?
- How often during the last year have you found that you were not able to stop drinking once you had started?
- How often during the last year have you failed to do what was normally expected from you because of drinking?
- How often during the last year have you been unable to remember what happened the night before because you had been drinking?
- Have you or someone else been injured as a result of your drinking?
- How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
- How often during the last year have you had a feeling of guilt or remorse after drinking?
- Has a relative, friend, doctor, or other health worker been concerned about your drinking or suggested that you should cut down?

# AUDIT score $\geq 8$

- Unhealthy alcohol use
  - Sensitivity 57-95%
  - Specificity 78-96%
- Abuse or dependence
  - Sensitivity 61-96%
  - Specificity 85-96%

# ‘Single’ Item

- **NIAAA: “Do you sometimes drink beer wine or other alcoholic beverages? How many times in the past year have you had 5 (4 for women) or more drinks in a day?”**
  - **+answer:>0**
  - **82% sensitive, 79% specific**

*NIAAA. Clinicians Guide to Helping Patients Who Drink Too Much, 2007. Smith PC, Schmidt SM, Allensworth-Davies D, Saitz R. J Gen Intern Med 2009 24:783-8 and erratum. DOI: 1007/s11606-009-0928-6 .*

## CAGE

- 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 taken a drink first thing in the morning (Eye-opener) to steady your nerves or get rid of a hangover?

## CAGE-AID

- Or drug use?
- Or drug use?
- Or drug use?
- Or used drugs?

# CAGE

For current...	Sensitivity	Specificity
Unhealthy alcohol use ( $\geq 2$ )	53-69	70-97
Alcohol abuse or dependence ( $\geq 2$ )	77	79
Alcohol abuse or dependence ( $\geq 1$ )	89	81

*Maisto & Saitz Am J Addict 2003;12:S12-25.*

# CAGE & Consumption

- All patients
  - Do you drink alcohol, including beer, wine or distilled spirits?
  - CAGE
- 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 is the maximum number of drinks you had on any given *occasion* during the last month?

NIAAA. *Physicians Guide to Helping Patients With Alcohol Problems*, 1995.

Friedmann PD et al. *J Stud Alc* 2001;62:234-8.



# DAST-10

1. Have you used drugs other than those required for medical reasons?
2. Do you abuse more than one drug at a time?
3. Are you unable to stop using drugs when you want to?
4. Have you ever had blackouts or flashbacks as a result of drug use?
5. Do you ever feel bad or guilty about your drug use?
6. Does your spouse (or parents) ever complain about your involvement with drugs?
7. Have you neglected your family because of your use of drugs?
8. Have you engaged in illegal activities in order to obtain drugs?
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?
10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding)?

*Skinner HA. Addict Behav 1982;7:363-71, Bohn MJ et al. NIDA Res Monogr 119, 1992, Gavin DR et al. Br J Addict 1989;84:301-7, Maisto SA et al. Psychol Assess 2000;12:186-92.*



# Single Item

- “How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?”
  - If asked to clarify the meaning of “non-medical reasons”, add “for instance because of the experience or feeling it caused”
  - a response of  $\geq 1$  is considered positive
  - 100% sensitive, 73.5% specific for drug use disorder, similar to 10-item DAST (n=286)(12.9%)
  - 92.9% and 94.1% for past-year drug use (35.3%)
    - 81.8%, 96.1%, respectively, for saliva test or self-report

*Smith PC, Schmidt SM, Allensworth-Davies D, Saitz R. Arch Intern Med 2010;170:1155.*

# SCREENING: TOOLS

# NIDAMED

18

6/21/2011

  
**SCREENING FOR  
DRUG USE IN  
GENERAL MEDICAL  
SETTINGS**  
*Resource Guide*

  
**SCREENING FOR  
DRUG USE IN  
GENERAL MEDICAL  
SETTINGS**  
*Quick Reference Guide*

**HELP YOUR  
DOCTOR  
READ  
BETWEEN  
THE LINES.**

## WITHOUT THE WHOLE PICTURE, YOU MIGHT NOT GET THE WHOLE TREATMENT.

To give you the best possible care, your doctor needs to know about any and all drugs you are taking, including tobacco, alcohol, illicit drugs, and over-the-counter and prescription medications—even those not prescribed for you.

**Tell Your Doctor About ALL  
The Drugs You Use.**

[www.drugabuse.gov/NIDAMED](http://www.drugabuse.gov/NIDAMED)

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[www.nida.nih.gov/nidamed/](http://www.nida.nih.gov/nidamed/)

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# SCREENING: TOOLS, ASSIST

19

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## STEP 1

### Ask the patient about past drug use.

Which of the following substances have you used in your lifetime?

- |   |  |
|---|--|
| <b>a. Tobacco products</b><br>(cigarettes, chewing tobacco, cigars, etc.)                     | <b>h. Sedatives or sleeping pills</b> (Valium, Serepax, Xanax, etc.)   |
| <b>b. Alcoholic beverages</b><br>(beer, wine, liquor, etc.)                                   | <b>i. Hallucinogens</b> (LSD, acid, mushrooms, PCP, Special K, ecstasy, etc.)  |
| <b>c. Cannabis</b> (marijuana, pot, grass, hash, etc.)  | <b>j. Street opioids</b><br>(heroin, opium, etc.)  |
| <b>d. Cocaine</b><br>(coke, crack, etc.)  | <b>k. Prescription opioids*</b><br>(fentanyl, oxycodone, hydrocodone, methadone, buprenorphine, etc.)                  |
| <b>e. Prescription stimulants*</b> (Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.) | <b>l. Other—Specify</b>  |
| <b>f. Methamphetamine</b><br>(speed, ice, etc.)   | <small>* Please report nonmedical use only: do not record medications that are used as prescribed by a doctor.</small> |
| <b>g. Inhalants</b> (nitrous, glue, gas, paint thinner, etc.)                                 |  |

**Patient reports no lifetime drug use:**  
Reinforce abstinence. Screening is complete.

Alcohol, Smoking and Substance Involvement Screening Test. WHO ASSIST Working Group (2002). *Addiction*, 97 (9): 1183-1194



# SCREENING: TOOLS, ASSIST

20

6/21/2011

Patient reports lifetime use of one or more substances: Ask the following questions for each drug mentioned (scores will be tallied at the end). For Tobacco and Alcohol, go to page 6.		Never	Once or Twice	Monthly	Weekly	Almost Daily or Daily		
1. In the past 3 months, how often have you used each of the substances you mentioned [first drug, second drug, etc.]?		0	2	3	4	6		
<b>If the answer to Question 1 is "Never," skip to Question 5. Otherwise, continue: In the past three months...</b>								
2. How often have you had a strong desire or urge to use?		0	3	4	5	6		
3. How often has your use of [first drug, second drug, etc.] led to health, social, legal, or financial problems?		0	4	5	6	7		
4. How often have you failed to do what was normally expected of you because of your use of [first drug, second drug, etc.]?		0	5	6	7	8		
<b>For each substance ever used (i.e., those mentioned in the "lifetime" question):</b>		<b>NO</b>	<b>YES, but not in the past three months</b>		<b>YES, in the past three months</b>			
5. Has a friend or relative or anyone else ever expressed concern about your use of [first drug, second drug, etc.]?		0	3	6				
6. Have you ever tried and failed to control, cut down, or stop using [first drug, second drug, etc.]?		0	3	6				
7. Have you ever used any drug by injection? (nonmedical use only)			Recommend HIV/ Hepatitis B & C Testing		Ask about pattern of injecting. Recommend HIV/ Hepatitis B & C Testing			

Alcohol, Smoking and Substance Involvement Screening Test. WHO ASSIST Working Group (2002). *Addiction*, 97 (9): 1183-1194



# SCREENING: TOOLS, ASSIST

21

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## Tobacco and Alcohol

For any frequency of use in the past 3 months:

### TOBACCO USE

Any current tobacco use places a patient at risk.

**Advise** all tobacco users to quit.

For more information on smoking cessation, please see "Helping Smokers Quit: A Guide for Clinicians" at <http://www.ahrq.gov/clinic/tobacco/clinhlpsmksqt.htm>.

### ALCOHOL USE

Question the patient in more detail about frequency and quantity of use:

**How many times in the past year have you had:**



**For men:** 5 or more drinks in a day?



**For women:** 4 or more drinks in a day?

**If the answer is:**

☐ **None—Advise** patient to stay within these limits:

✓ For healthy **men** under the age of 65:

No more than 4 drinks per day AND no more than 14 drinks per week.

✓ For healthy **women** under the age of 65:

No more than 3 drinks per day AND no more than 7 drinks per week.

✓ Encourage talking openly about alcohol and any concerns it may raise and rescreen annually.

☐ **One or more times of heavy drinking—**

Patient is an at-risk drinker.

Please see "Helping Patients Who Drink Too Much: A Clinician's Guide" at [http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians\\_guide.htm](http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm) for information to help **assess, advise, and assist** at-risk drinkers or patients with alcohol use disorders.

Alcohol, Smoking and Substance Involvement Screening Test. WHO ASSIST Working Group (2002). *Addiction*, 97 (9): 1183-1194



# SCREENING: TOOLS, ASSIST

22

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## STEP 2

### Determine Risk Level

For *each* substance (except tobacco and alcohol), add up the scores for questions 1 through 6. To determine patient's risk level and the respective recommendations, see below:

Do this for EACH substance

High risk  
Score  $\geq 27$



- ✓ Provide feedback on the screening results
- ✓ **Advise, Assess, and Assist**
- ✓ **Arrange** referral
- ✓ Offer continuing support

Moderate risk  
Score 4-26



- ✓ Provide feedback
- ✓ **Advise, Assess, and Assist**
- ✓ Consider referral based on clinical judgment
- ✓ Offer continuing support

Lower risk  
Score 0-3



- ✓ Provide feedback
- ✓ Reinforce abstinence
- ✓ Offer continuing support

Alcohol, Smoking and Substance Involvement Screening Test. WHO ASSIST Working Group (2002). *Addiction*, 97 (9): 1183-1194

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# Lab testing

- More costly than questionnaires
- Need to ask questions anyway. Is there trust or not?  
Consequences to reporting or not?
- Identifies use
  - Alcohol
    - Blood/breath alcohol
    - Carbohydrate deficient transferrin, GGT (insensitive for risky use amounts)
  - Other drugs
    - Urine drug tests – varying timeframes, the serum/urine “drug screen”\*
    - Hair, saliva, nails, sweat
- Complex interpretation and chain of custody issues
- Useful for overdose/intoxication; less so in preventive care

\*Opiates (less often ‘-oids’), Cocaine, Benzodiazepines, Barbiturates, Alcohol, ACTM,

# Risky use & consequences

## symptoms and signs

- Abscess
- Burns, injuries
- Heartburn
- Gastrointestinal upset
- AM cough or HA
- Anxiety, stress
- Insomnia
- Concentration
- Memory
- Tachycardia
- Hypertension
- Skin track marks
- Nasal congestion, perforation
- Tremor
- Pupil dilation or constriction
- Menstrual irregularity
- Ecchymosis/purpura
- Palmar erythema
- Scars from trauma
- Gynecomastia
- Hepatomegaly
- Spiders
- Uric acid, glucose
- MCV, AST, HDL, GGT



# Assess for risky use and consequences

- Medical history
  - Cellulitis, phlebitis
  - STD/HIV
  - Endocarditis
  - Blackouts
  - Depression
  - Hypertension
  - Trauma
  - Chronic abdominal pain
  - Liver disease
  - Sexual dysfunction
  - Sleep disorders
- Use in high risk situations?
- Medical condition
- Medications
- How often maximum?
- Personal or family history?
- Pregnancy
- Interpersonal or work problems
  - Family
  - Work/school
  - Accidents/injuries

# Assess for dependence symptoms

- Impaired control/Preoccupation
  - A great deal of time getting, using, recovering
  - Activities given up or reduced
  - More or longer than intended
  - Cannot cut down or control
  - Use despite knowledge of health problem
- Withdrawal
  - Symptoms, using to relieve symptoms
- Tolerance
  - Increased amounts to achieve effect
  - Diminished effect from same amount

# ASSESSMENT

- CAGE-brief, alcohol
- CAGE-AID-brief, alcohol and drug
- ASSIST-good for risk stratification (alcohol and drug)
- AUDIT-good for risk stratification (alcohol)
- Dependence checklists or questions-to identify disorder
- Vinson et al. 2-item-brief, identify alcohol/drug disorder

# Disorder Checklist as Questions

- Questions that ask abuse and dependence symptoms. In the past year, have you...
  - ...had times when you ended up drinking more, or longer, than you intended?
  - ...more than once wanted to cut down or stop drinking, or tried to, but couldn't?
  - ...more than once gotten into situations while or after drinking that increased your chances of getting hurt (such as driving, swimming, using machinery, walking in a dangerous area, or having unsafe sex)?
  - ...had to drink much more than you once did to get the effect you want? Or found that your usual number of drinks had much less effect than before?
  - ...continued to drink even though it was making you feel depressed or anxious or adding to another health problem? Or after having had a memory blackout?
  - ...spent a lot of time drinking? Or being sick or getting over other aftereffects?
  - ...continued to drink even though it was causing trouble with your family or friends?
  - ...found that drinking—or being sick from drinking—often interfered with taking care of your home or family? Or caused job troubles? Or school problems?
  - ...given up or cut back on activities that were important or interesting to you, or gave you pleasure, in order to drink?
  - ...more than once gotten arrested, been held at a police station, or had other legal problems because of your drinking?
  - ...found that when the effects of alcohol were wearing off, you had withdrawal symptoms, such as trouble sleeping, shakiness, restlessness, nausea, sweating, a racing heart, or a seizure? Or sensed things that were not there?

<http://rethinkingdrinking.niaaa.nih.gov/WhatsTheHarm/WhatAreSymptomsOfAnAlcoholUseDisorder.asp>

# 2-items identify disorders

Sensitivity and Specificity of the presence of either—  
Recurrent drinking in physically hazardous situations or Drinking more or for longer than  
intended—  
for Alcohol Use Disorders (abuse/dependence)

Group	Sensitivity	Specificity
Subjects in the development sample	96%	85%
Subjects in the 3 validation samples	72% to 94%	80% to 95%
Screen-positive subjects in the 3 validation samples	77% to 95%	62% to 86%

Vinson DC et al. *Alcohol Clin Exp Res*. 2007;31(8):1392–1398.

# Summary

- Screen to identify the spectrum of unhealthy use
  - Includes (risky) use, problem use (and abuse), dependence
- Validated questions best
- Incorporate into health history, ask “matter of fact”
- Assess after a positive screening test
  - To confirm unhealthy use
  - To identify dependence (and consequences not meeting criteria)