

Alcohol and Other Drug Screening & Assessment

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Do substance use disorders meet criteria for universal screening?

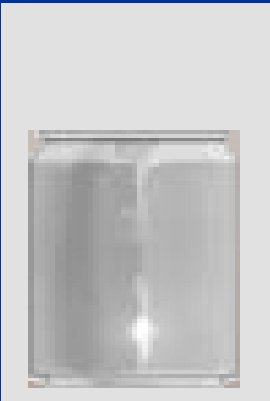

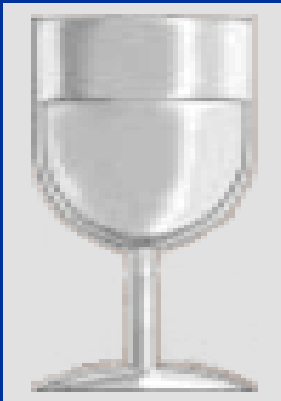

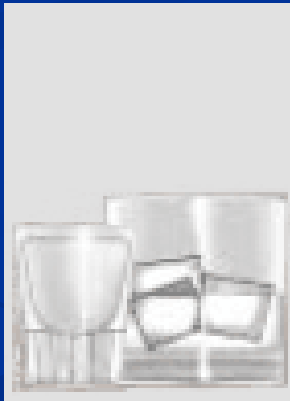
- Significant morbidity/mortality?
- High prevalence?
- Long asymptomatic period?
- Valid, feasible screening test?
- Early intervention better (than later)?

Case

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



The Standard Drink

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

1 ounce=30 ml

Risky Use

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

The Spectrum of Alcohol Use



Prevalence in Primary Care

■ Alcohol

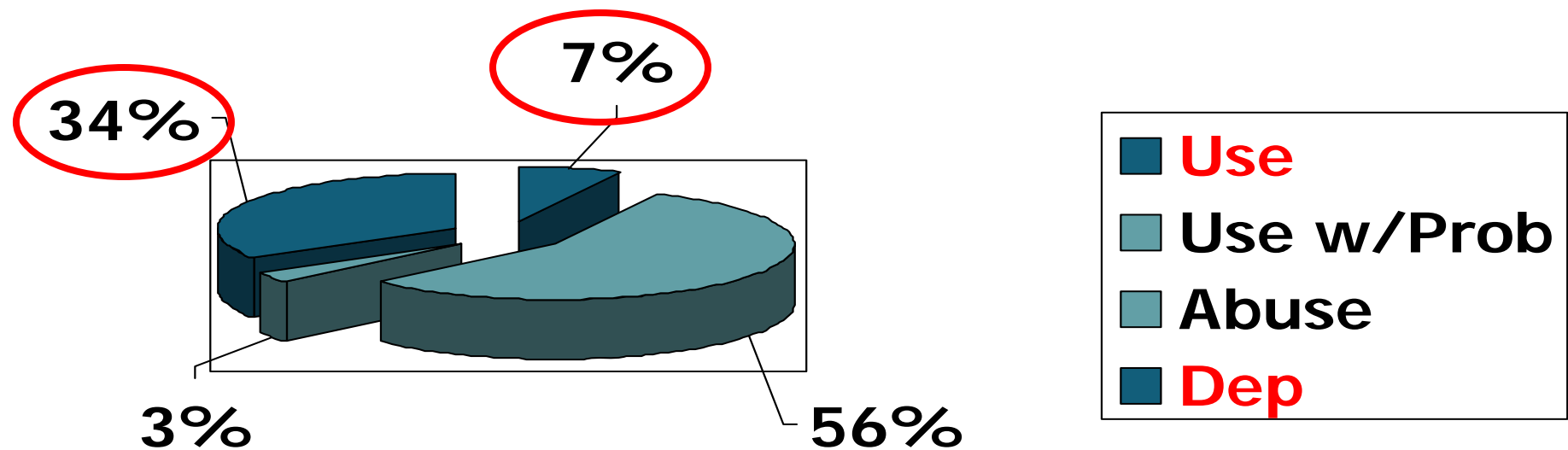
- $>1/3$ Abstinent
- $>1/3$ Low risk
- $<1/3$ Unhealthy
 - $>1/5$ dependent
 - $<2/5$ problem use (nondependent)
 - $<2/5$ risky use

■ Drugs

- 3%, most not with alcohol

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

- 34% of those who screen positive have dependence, only 7% use with no problems (Smith et al Arch Intern Med *in press*)



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)
 - Nm-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 ≥ 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. DOI: 1007/s11606-009-0928-6 .*

***Williams & Vinson. J Fam Pract 2001;50:307.*

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 (≥ 2)	53-69	70-97
Alcohol abuse or dependence (≥ 2)	77	79
Alcohol abuse or dependence (≥ 1)	89	81

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.

2-item conjoint

- In the last year, have you ever drunk or used drugs more than you meant to?
- Have you felt you wanted or needed to cut down on your drinking or drug use in the last year?

A consensus panel recommends...

- “Have you ever used street drugs more than five times in your life?”

Single Item

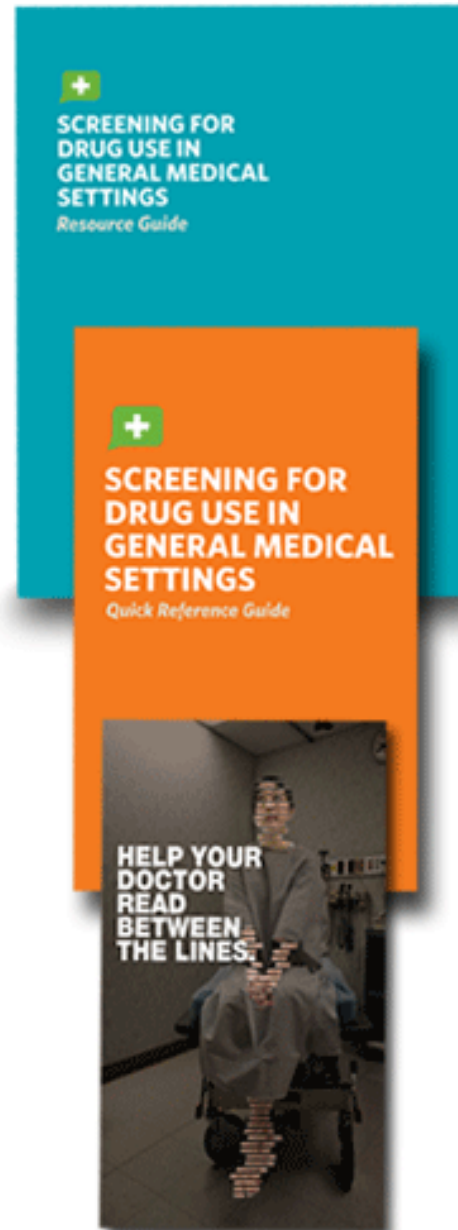
- “How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?”
 - If asked to clarify the meaning of “non-medical reasons”, add “for instance because of the experience or feeling it caused”
 - a response of ≥ 1 is considered positive
 - 100% 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. Alcohol Clin Exp Res 2007; 22(Suppl 1):108.

SCREENING: TOOLS

NIDAMED

www.nida.nih.gov/nidamed/



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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

Comments or inquiries?
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To order free copies, call: 1-877-NIDA-NIH
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SCREENING: TOOLS, ASSIST

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STEP 1

Ask the patient about past drug use.

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

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

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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
If the answer to Question 1 is "Never," skip to Question 5. Otherwise, continue: In the past three months...					
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
For each substance ever used (i.e., those mentioned in the "lifetime" question):		NO	YES, but not in the past three months	YES, in the past three months	
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

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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 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

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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 ≥ 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

Laboratory tests (alcohol)

Test for Unhealthy Alcohol Use	Sensitivity	Specificity
Questionnaire (\$12.48)	69%	98%
CDT (\$291.89)	47%	71%
GGT (\$72.59)	37%	72%
MCV (\$130.92)	32%	71%
AST (\$132.74)	20%	80%

Laboratory tests

■ Useful

- detect (heavy) use (usually recent)
- overdose, intoxication, poisoning
- screening trauma patients
- assessment and monitoring

■ Not so useful

- screening for unhealthy use
- general health care settings
- less sensitive for potent substances like LSD, fentanyl, psilocybin, ecstasy, amphetamines, designer drugs, THC, PCP, etc.

■ “Routine screen” (urine, serum)

- Opiates (less often ‘-oids’)
- Cocaine
- Benzodiazepines
- Barbiturates
- Alcohol
- ACTM
- ASA

■ less available/need to request opioids, other specific drugs

Urine Detection Time

- Up to 30 days
 - Benzodiazepines, long-acting (metabolites)
 - Long-term PCP or marijuana use
- 2-4 days
 - Amphetamine, methamphetamine, short-acting barbiturates, methadone
- 1-3 days
 - Marijuana, heroin, codeine, cocaine, morphine

Possible Utility of Urine Screen

- 415 young adult men urban walk-in clinic (89% uninsured)
- 39% positive urine cocaine
 - 72% denied cocaine use in past 3 days
 - 86% denied “illegal drug use”
 - 61% denied “any form of cocaine use”

McNaghy SE & Parker RM. JAMA 1992;267:1106-8.

Saliva, Sweat, Hair

- Newer less available more costly technologies
- Saliva similar to urine, briefer detection time
- Sweat and hair: risk environmental contamination, longer term/cumulative use

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

2-items

Sensitivity and Specificity of the presence of either—
Recurrent drinking in physically hazardous situations or
Drinking more or for longer than intended—for AUDs

"In the past year, have you sometimes been under the influence of alcohol in situations where you could have caused an accident or gotten hurt?"

"Have there often been times when you had a lot more to drink than you intended to have?"

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. Items from DIS.

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)