

# Systematic review:

## Alcohol screening and brief intervention in primary care: no evidence of efficacy for dependence

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# Background

- Alcohol brief intervention (BI) in primary care patients identified by screening (SBI) has efficacy
  - 38 g/week, 12% risk reduction in risky use
- But screening identifies people with the range of unhealthy use, from risky use without consequences through dependence
  - BI is not thought to have efficacy for dependence (particularly in those identified by screening)

*Kaner et al. 2009; Bertholet et al. 2005;  
Whitlock et al. 2004; Beich et al. 2003.*

# Background

- One-fifth of patients identified by screening in primary care have dependence (higher in other settings)
  - In clinical practice, the solution is to perform the BI with a goal of motivating change including referral and treatment
  - Whether BI in such patients identified by screening leads to decreased use, consequences or linkage with alcohol treatment is unknown
- Significance: in clinical practice severity is not known until after screening, screening is universal, and clinicians need something efficacious to offer all identified by screening

# Objective

- Systematic review

- In randomized, controlled trials, does BI, compared with none, in primary health care patients identified by screening who have alcohol dependence, decrease alcohol consumption or problems, or increase initiation of, or engagement with further alcohol treatment?

*Objective includes PICOS, PRISMA Statement item #4,  
[www.prisma-statement.org](http://www.prisma-statement.org) August 2009*

**Can we go from pre-contemplation to entering treatment in a BI in someone with dependence identified by screening?**



# Methods: Eligibility

## ■ Inclusion

- Randomized controlled trials, published in the peer-reviewed literature
- Adults with unhealthy alcohol use identified by screening in primary care setting
- Intervention begins in primary care setting
- Comparing brief intervention to no brief intervention
- Brief intervention=In person\* brief counselling up to 5 times, aimed at reducing drinking or consequences
- English language (sorry! This is preliminary...)

\*Not telephone, mail, computer only

# Methods: Exclusions

## ■ Exclusion

- Hospital, emergency department, trauma and other settings that are not primary care (US IOM definition, 1996\*)
- Active alcohol treatment comparison only
- SBI focused on patients with comorbidities (e.g. gastrointestinal disease, hypertension, pregnancy)
- BI among people not identified by screening
- “Poor methodology” (Whitlock et al. 2004)
  - non-random assignment, non-comparable baseline conditions, attrition >30%, inadequate or unavailable consumption, problem or treatment linkage outcomes

*\*Primary care*-integrated, accessible health care; clinicians accountable for large majority of health care needs; sustained partnership, in the context of family and community.

# Methods: Search

## ■ Search

- Studies selected for inclusion in two recent systematic reviews
  - Whitlock et al. 2004; Kaner et al. 2009 (through 2006)
- Review of studies in 6 other systematic reviews
  - Kahan 1995; Wilk 1997; Poikolainen 1999; Beich 2003; Ballesteros 2004; Bertholet 2005
- Electronic search 2006 through Sept 2009
  - Medline and Cochrane Database of Systematic Reviews (Ovid)
  - Cumulative Index to Nursing and Allied Health Literature (CINAHL)
  - PsycINFO, DARE (Database of Abstracts of Reviews of Effects)
  - ISI Web of Knowledge (Web of Science)
    - Science Citation Index Expanded (SCI-EXPANDED)
    - Social Sciences Citation Index (SSCI)
- Duplicate and multiple reports from same study subjects excluded

# Methods: Search Terms (2006-Oct 2 2009)

- For Medline and Cochrane Database and DARE
  - Setting (combined by "OR"): family pract\$, general pract\$, primary care, primary health, family, community, shared care
  - Intervention (combined by "OR"): brief intervention, alcohol reduction, early intervention, minimal intervention, screening, alcohol therapy, alcohol treatment, harm reduction, counselling, counseling, controlled drinking, brief counseling, brief counselling, physician-based intervention, general practice intervention, secondary prevention, , general practitioner's advice, brief physician-delivered counseling, brief nurse-delivered counseling, identification, intervention
  - Topic (combined by "OR"): alcohol, alcohol (subject heading), drinking (subject heading), ethanol (subject heading), alcohol\$ or alcohol consumption
  - Above three categories of search terms then combined using "AND" and then limited to English language, controlled clinical trial or randomized controlled trial
- For CINAHL, PsycINFO
  - ("alcohol") or (MH "Alcohol, Ethyl") or (MH "Alcohol Abuse (Saba CCC)") or (MH "Alcohol Abuse Control (Saba CCC)") or (MH "Alcohol Drinking") or (MH "Alcohol-Related Disorders") or (MH "Alcoholic Beverages") or (MH "Alcoholism") or (MH "Alcohol Abuse") or (MH "Alcoholics") or (MH "Risk Control: Alcohol Use (Iowa NOC)") or (MH "Substance Abuse Detection")
  - AND primary care, clinical trial
- For SCI and SSCI
  - Alcohol, AND primary care

# Methods: Study Selection

32 studies (Whitlock and Kaner)  
2 studies from other reviews

Exclusions (17):  
not primary care (5),  
quality (8)  
not English (4)

17 studies remain

Medline/Cochrane: 7 ASBI of 227 found  
SCI/SSCI: 234 found; 0 new ASBI  
CINAHL: 21 found; 0 new ASBI  
PsycINFO: 25 founds; 0 new ASBI  
DARE: 66 found; 0 new ASBI

Exclusions (6):  
hypertension focus,  
no inactive control,  
sub-study,  
subgroup analysis,  
telephone,  
not randomized

ASBI = alcohol  
screening and brief  
Intervention trials

18 studies included

# Results

- Of 18 RCTs of alcohol SBI in primary care, 16 excluded some or all subjects with dependence or very heavy drinking
- 1 study (Burge 1997) of 175 Mexican Americans (35% with dependence, 65% with abuse)
  - no difference in alcohol score of Addiction Severity Index. BI was associated with lower family score of ASI, one of multiple outcomes compared.
- 1 study of 24 women (58% dependence, 8% abuse, 21% past disorder; alcohol treatment was an exclusion)
  - No difference in alcohol consumption (Chang 1997)

## 16 primary care SBI studies and severity exclusions

Citation	Exclusion
Anderson, Scott 1992	Heavy use (>105 drinks/week) or advice to cut down in past year
Curry 2003	Dependence (alcoholics, AUDIT >15)
Fleming 1997	Heavy use (>50 drinks per week), alcohol treatment or withdrawal (past year), received physician advice to change alcohol use
Fleming 1999	Same
Fleming 2004	Same
Lock 2006	AUDIT >15 for men, 13 for women or severe dependence
Maisto 2001	Acute alcoholic symptoms or recent substance abuse treatment
Nilssen 1991	Dependence (known alcoholics)
Ockene 1999	In alcohol intervention program
Persson, Magnusson 89	Serious alcohol dependence
Richmond 1995	Severe dependence, alcohol problems, any alcohol treatment
Schaus 2009	>200 drinks in 30 days
Scott, Anderson 90/91	>71 drinks per week or past year advice to cut down or abstain
Senft 1997	Dependent drinkers, AUDIT score $\geq 21$
Wallace 1988	Recent medical advice about drinking or GGT $\geq 150$ U/L
WHO 1996	Known or suspected alcoholics or very high daily consumers, liver damage, treatment, prior health professional warning to abstain

# Limitations

- Review protocol not registered
- Reliance on prior systematic reviews
- Exclusion of non-English language studies
  - BUT--of 4 studies from prior systematic reviews, 2 excluded dependence and patients treated for alcohol problems; 1 excluded treatment; 1 excluded heavy drinking (95 U/wk) and randomization was unclear
- Exclusion criteria sometimes not clearly specified

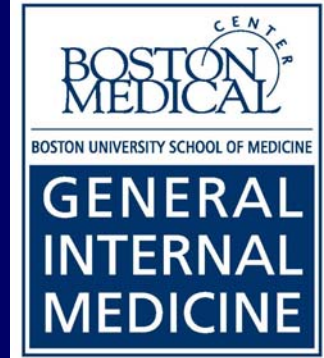
# Conclusions

- Most randomized trials of alcohol SBI in primary care excluded patients with dependence or even heavy drinking
- The efficacy of alcohol SBI for patients with dependence (and even for [very] heavy drinking) is unknown

# Comment

- For people with dependence, ASBI is expected to lead to referral, treatment entry, and then reductions in drinking and problems
- Several ASBI studies that included people with dependence suggest this will be unlikely
  - Elvy GA et al. 1988: problems decreased and increased treatment (14% vs. 4%) but most without dependence
  - Saitz et al. 2007: no difference in drinking, consequences, or treatment (of those with dependence; subgroup analyses promising however for women, younger men)
  - Freyer-Adam J et al. 2008: no difference in drinking, consequences (45% with dependence; better “readiness”)
  - SBIRT programs in the US report few referred actually enter treatment

# Implications



- Alcohol SBI 'works' in primary care for people who drink too much, but not *too* much
- Findings raise questions about efficiency and effectiveness of alcohol SBI (particularly in other settings where dependence is more common among those identified by screening)
- Findings also suggest research is needed to determine what, if anything, may have efficacy for primary care (and other) patients with alcohol dependence identified by screening

# Thank you! And come visit!

