

## SCREENING AND BRIEF INTERVENTION IN PRIMARY CARE: THE RECENT CONTROVERSY

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## TWO RECENT PAPERS BY ANDERS BEICH AND COLLEAGUES

- Beich A, Gannik D, Malterud K. Screening and brief intervention for excessive alcohol use: qualitative interview and study of the experiences of general practitioners. *BMJ* 2002;325:870-2.
- Beich A, Thorsen, T, Rollnick S. Screening in brief intervention trials targeting excessive drinkers in general practice: systematic review and meta-analysis. *BMJ* 2003;327:536-42.

## From Beich et al. (2002)

- "Conclusion: Screening for excessive alcohol use created more problems than it solved for the participating doctors."

## From Beich et al. (2003)

- "Conclusions: Although even brief advice can reduce excessive drinking, screening in general practice does not seem to be an effective precursor to brief interventions targeting excessive alcohol use."
- See <http://bmj.bmjournals.com>

## From "This week in the BMJ"

- **Alcohol screening in general practice is not effective**
- Screening for excessive alcohol use and then providing brief interventions is not effective in general practice. Beich and colleagues conducted a meta-analysis of eight studies that evaluated screening as a precursor for brief interventions and found that the number needed to be screened per success and the workload are impracticably high if the available evidence is transferred into daily practice. For every 1000 patients screened, only 2.6 would benefit. They say that good clinical practice for addressing lifestyle issues like drinking should focus on the communication challenge rather than on implementating (sic) screening programmes with low levels of effectiveness.

## 8 brief intervention RCTs included in Beich et al.'s meta-analysis

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|-------------------------|---------------------------|
| ■ Wallace et al. (1988) | ■ Scott & Anderson (1990) |
| ■ Fleming et al. (1997) | ■ Anderson & Scott (1992) |
| ■ Fleming et al. (1999) | ■ Richmond et al. (1995)  |
| ■ Manwell et al. (2000) | ■ Ockene et al. (1999)    |

## Method of analysis

- Calculate *Absolute Risk Reduction [ARR]* = difference in proportions drinking below limits in intervention and control groups at follow-up [usually 12 months]
- *Number Needed to Treat [NNT]* = 1 divided by ARR
- *Prevalence* = Number admitted for brief intervention divided by total number screened
- *Screening effect* = Prevalence multiplied by ARR

## Summary of results

- Pooling data from 8 studies, for every 1,000 patients screened, 90 screened positive and required further assessment
- Of these, 25 qualified for brief intervention
- After 12 months, 2.6 reported drinking under recommended levels
- "Only 2 to 3 patients per thousand screened will benefit from the laborious activities entailed in screening"

### CRITICISMS OF BEICH ET AL. (1) Their calculations are riddled with errors

- Erratum noting "disturbing errors" posted on [bmj.com](http://bmj.com) by Beich and colleagues
- Of the 8 studies included in the meta-analysis, authors of 7 of them have posted a letter on the Rapid Response pages of [bmj.com](http://bmj.com) to complain that their data have been misrepresented in the meta-analysis
- Beich and colleagues have replied in most cases to dispute this
- See [bmj.com](http://bmj.com)

### CRITICISMS OF BEICH ET AL. (2) Patients are illegitimately excluded in the calculation of prevalence

- This concerns the numerator used in the calculation of prevalence
- Beich et al. write: "We assumed that the reasons for exclusion and dropout after a positive result on screening ... were similar to the reasons for the practitioner or the patient choosing to undergo no further assessment or intervention"

### CRITICISMS OF BEICH ET AL. (2) cont ... Categories of patients excluded by Beich et al. from the prevalence numerator

- those missed by the consent procedure or the research assessment;
- those withholding informed consent to participate in the trial;
- those excluded because they would be difficult to locate at follow-up (e.g. planning to move away);
- those excluded because inappropriate for trial (e.g. high dependence, illness indicating abstinence, current or previous alcohol treatment, pregnancy or planning pregnancy)

### CRITICISMS OF BEICH ET AL. (2) cont ... Effect of alternative assumptions

- If all the above were included, the prevalence would rise from 25 to 90 per thousand (9%) and would result in a substantially higher screening effect
- True effect is likely to be somewhere between these extremes but certainly higher than Beich et al.'s calculation
- More generally, all BI trialists (and others) contributing to the debate have complained about Beich et al.'s inappropriate extrapolation from RCTs to the real-world
- It would be possible to carry out another meta-analysis of the same data based on a different set of assumptions

### CRITICISMS OF BEICH ET AL. (3)

#### They ignore the possibility of selective screening

- The only alternative to “universal” screening for Beich and colleagues is to intervene when consequences of excessive drinking are clinically detectable
- This obviously defeats the whole foundation for *early* intervention
- In Newcastle, we carried out a Delphi study of expert opinion on SBI and ran focus groups with both health professionals and patients
- All three sets of findings were unfavourable towards universal screening but favoured screening among high-risk groups (e.g. hypertension, diabetes clinics) and consultations in which questions about drinking were more acceptable (e.g. new patient registrations, general health checks)
- “In terms of cost, (screening) is likely to be more effective targeted at those at higher risk than universally” (Strategy Unit, *Interim Analytical Report*)

### CRITICISMS OF BEICH ET AL. (4)

#### Alcohol screening as good as others recommended screens

- Title of Rapid Response on bmj.com by Dr. Richard Saitz
- Even if Beich et al.’s results were accepted at face value, they do not prove that screening for alcohol problems should be abandoned.
- Screening is recommended for several medical conditions based on lower screening effects than reported for excessive drinking
- Examples include hypertension and colorectal cancer

### CRITICISMS OF BEICH ET AL. (5)

#### Wider consequences of screening not recognised

- Although widespread screening in primary care can be defended on the basis of benefit to individual patients, it could also contribute to the wider agenda of reducing alcohol-related harm in society
- It could make a crucial contribution to reframing understandings of alcohol problems from “alcoholism” to “risky drinking”
- It could contribute to a social climate in which excessive drinking became less acceptable and control measures more politically feasible

## CONCLUSIONS

- The research reported by Beich et al. is seriously flawed
- Questions arise concerning the motivation of editors of the British Medical Journal in publishing such an article, particularly in view of its obviously destructive effects on the effort to persuade primary health care professionals to implement SBI
- Every effort should be made to limit the damaging consequences of this article for the attempt to reduce alcohol-related harm in the UK