Brief Interventions for Problem Drinking in a General Hospital Setting

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Effect of Brief Interventions for Problem Drinking in the Medical Setting

- Primary health care setting:
  - A variety of intervention studies are performed
  - Positive results are reported in different reviews and meta-analyses (Poikolainen et al., 1999; Ballesteros et al., 2004)

- General hospital setting
  - Less intervention studies are performed
  - No review or meta-analysis was available

Brief Alcohol Interventions Should Be Also Effective in the Hospital Setting

- Excessive drinking highly prevalent (8-33%)
- Medical specialists struggle with the detection and treatment of problem drinking
- Patients, all referred to specialists, have mostly severe medical conditions or diseases:
    - Specialists can use stronger arguments when the medical conditions are related to alcohol
    - Patients can be more ready to change their drinking

Systematic Review

- ## Research question:

  Are opportunistic brief interventions for problem drinkers in a general hospital setting effective in reducing alcohol consumption? (Emmen et al, BMJ 2004;328:318-320)

- ## Literature search

- Search in Medline and PsychInfo databases, reference lists of relevant reviews and in the Cochrane library
- Titles and abstract reviewed by single reviewer format

Inclusion Criteria

- Randomised controlled trials and other well controlled trials
- Opportunistic brief intervention for problem drinking
- Including a control group receiving no intervention
- Hospital setting or specialist outpatient clinic
- Not medical but psychosocial intervention
- Alcohol consumption was an outcome measure

Validity Assessment and Data Abstraction

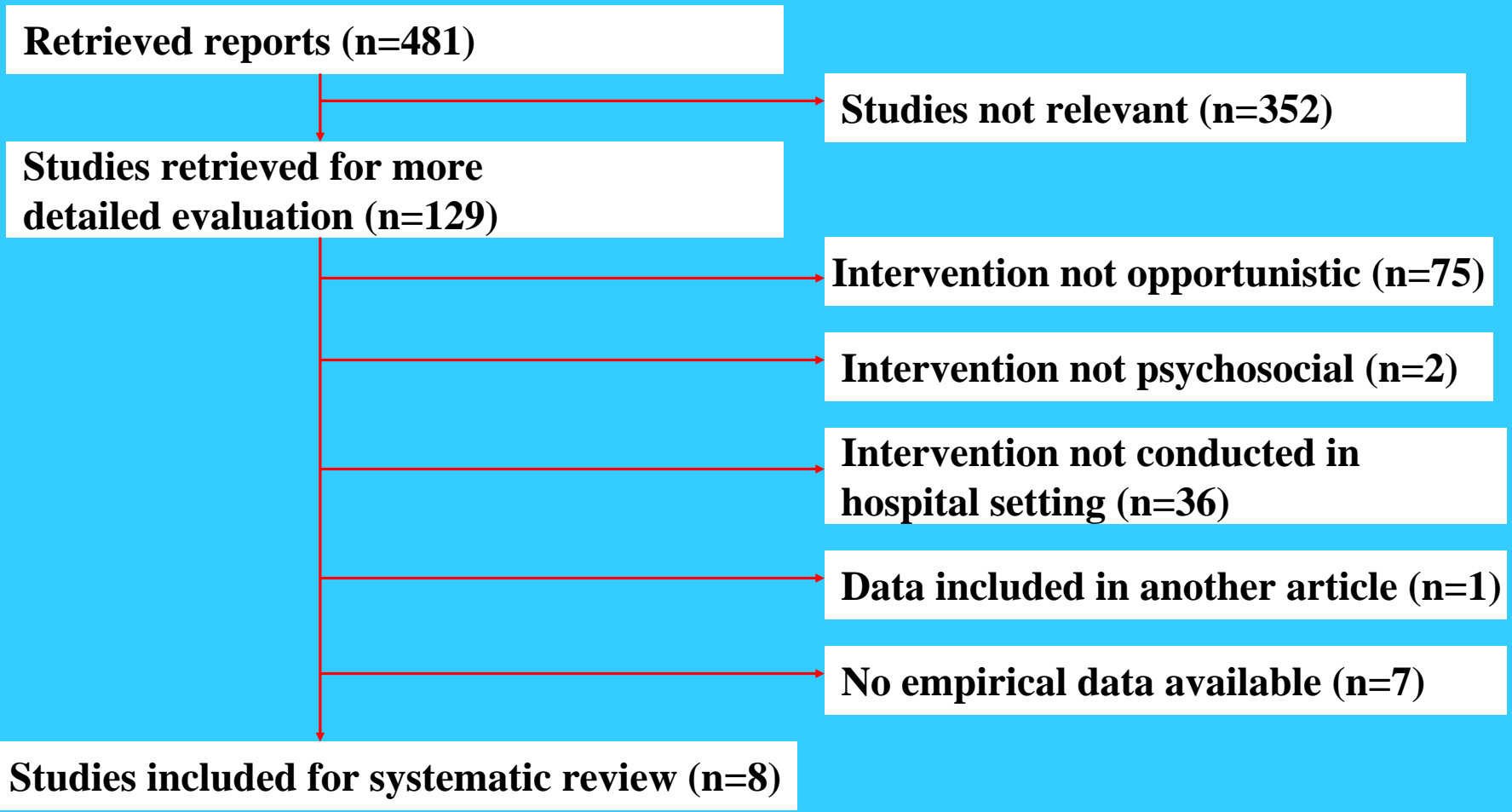- **Validity assessment**
  - Randomisation status
  - Blinding of those assessing outcomes
  - Loss to follow up
- **Data abstraction**
  - Study characteristics (number and type of patients, type of intervention and duration and outcome measures)

Methods

- Mean differences (95% confidence interval) were calculated as the difference in outcome between intervention and control group

- Outcome: the difference between consumption at baseline and follow up

- The study designs and study outcomes were too heterogeneous to allow pooling of data

Inclusion of Studies

Retrieved reports (n=481)

→ Studies not relevant (n=352)

Studies retrieved for more detailed evaluation (n=129)

→ Intervention not opportunistic (n=75)

→ Intervention not psychosocial (n=2)

→ Intervention not conducted in hospital setting (n=36)

→ Data included in another article (n=1)

→ No empirical data available (n=7)

Studies included for systematic review (n=8)

Study Characteristics

- Trials varied in population, intervention, people performing the intervention and follow up periods

- Methodological quality:
    - 3 trials were individually randomised, 4 cluster randomised and 1 trial non-randomised
    - 3 trial reported blind assessment of outcome
    - Loss to follow up ranged from 9-50%; all trials excluded these patients from analysis

Alcohol Consumption Difference Scores in the Hospital Setting Studies (grams alcohol/week)
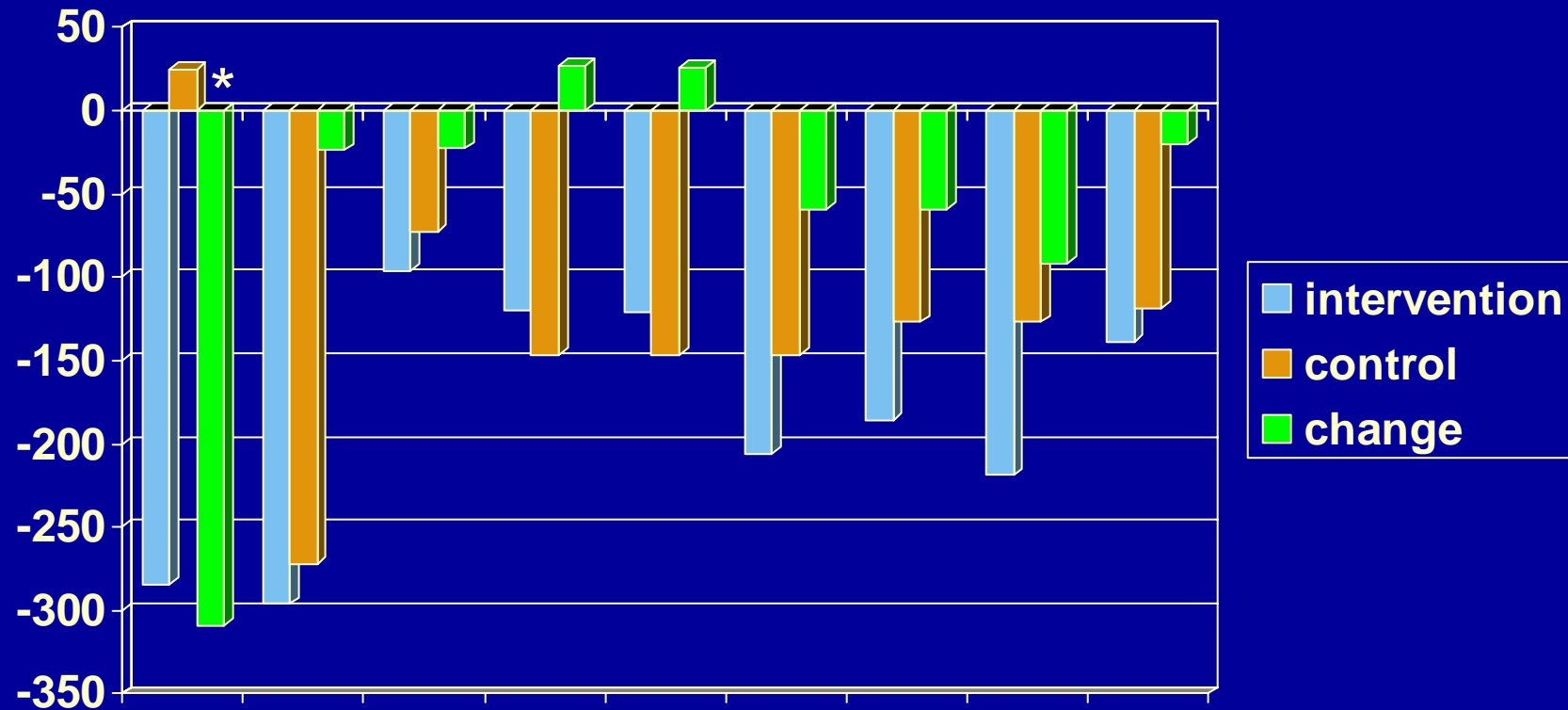

* significant diference

Discussion

- Evidence for the effectiveness of opportunistic brief interventions for problem drinking in a general hospital setting is still inconclusive
- Only one study found a significant effect (maheswaran et al, 1992)
  - A relatively intensive intervention (4 follow ups)
  - Outpatients with hypertension
  - Intervener: highly motivated medical specialist
  - A short follow up period (2 months)
  - Control group was told not to reduce

Discussion

- All other trials found a significant reduction in alcohol consumption for the control group
  - Reactive effect of the research assessment may make patients more aware of the potentially harmful effects of alcohol consumption
  - Regression to the mean
- Strength: only one outcome measure: change in alcohol consumption
- Limitations: small number of studies and most had methodological weaknesses

Alcohol Consumption Difference Scores in Hospital and Primary Care Setting Studies

Hospital
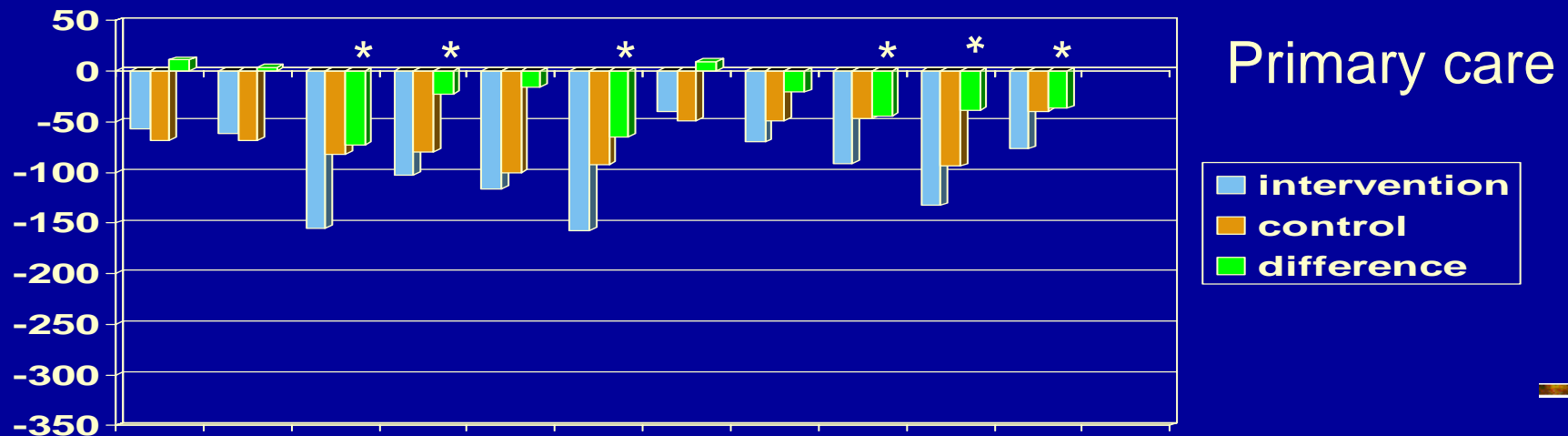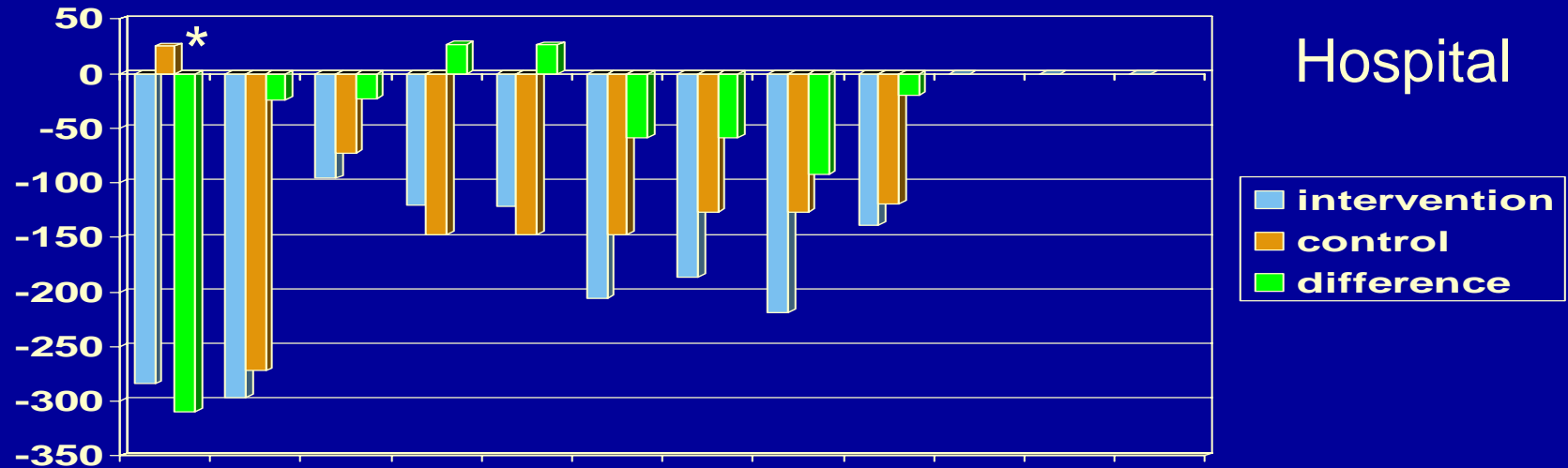
Primary care

Possible Explanations (Differences between Hospital and Primary Care Setting)

- In the hospital setting
  - Patient have mostly more severe medical conditions
    - Larger reactive effect of research assessment
    - If the conditions are alcohol related, alcohol reduction is more urgent
  - Interventions are often not performed by a medical doctor
  - Continuity of care is less than in general practice
  - Personnel is less used to early recognition and treatment of problem drinking
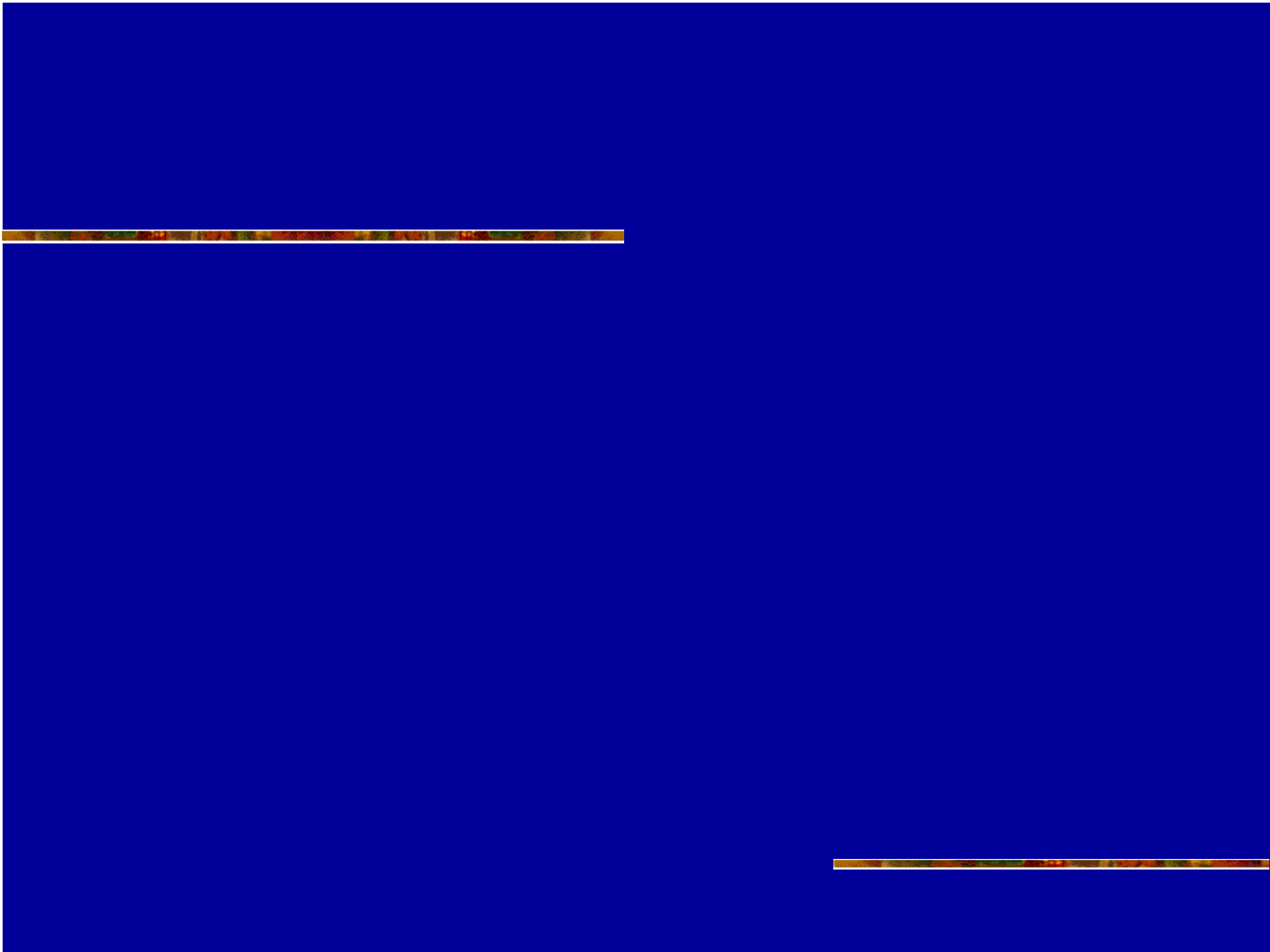
Suggestions for Future Research on Brief Alcohol Interventions in the Hospital

- The large alcohol reduction for the control group, seems to indicate that a small intervention can be enough in the hospital setting
- What are the effects if the medical specialist does the intervention (eventually with involvement of a nurse practitioner)
  - The intervention has to be integrated in usual practice
  - Education and training are needed
- Are effects stronger if interventions are directed only to patients with alcohol related diseases?

- Although evidence for the effects of brief interventions for problem drinking in the hospital setting is still inconclusive, the hospital setting still need to be considered as a valuable setting for brief alcohol interventions.

RCT to examine effect of a brief motivational intervention (DCU) among hospital outpatients

Screening by doctor (n=4728)

Scored positive (n=284)

Baseline assessment (n=177)

Informed consent (n=123)

Control group (n=62)

DCU group (n=61)

Follow up (n=54)

Follow up (n=54)

Grams of alcohol /week

- Baseline
- Follow up
- Change

DCU   Control