

Alcohol Intervention: What to Know and Where to go? -Preliminary results of a Cochrane review

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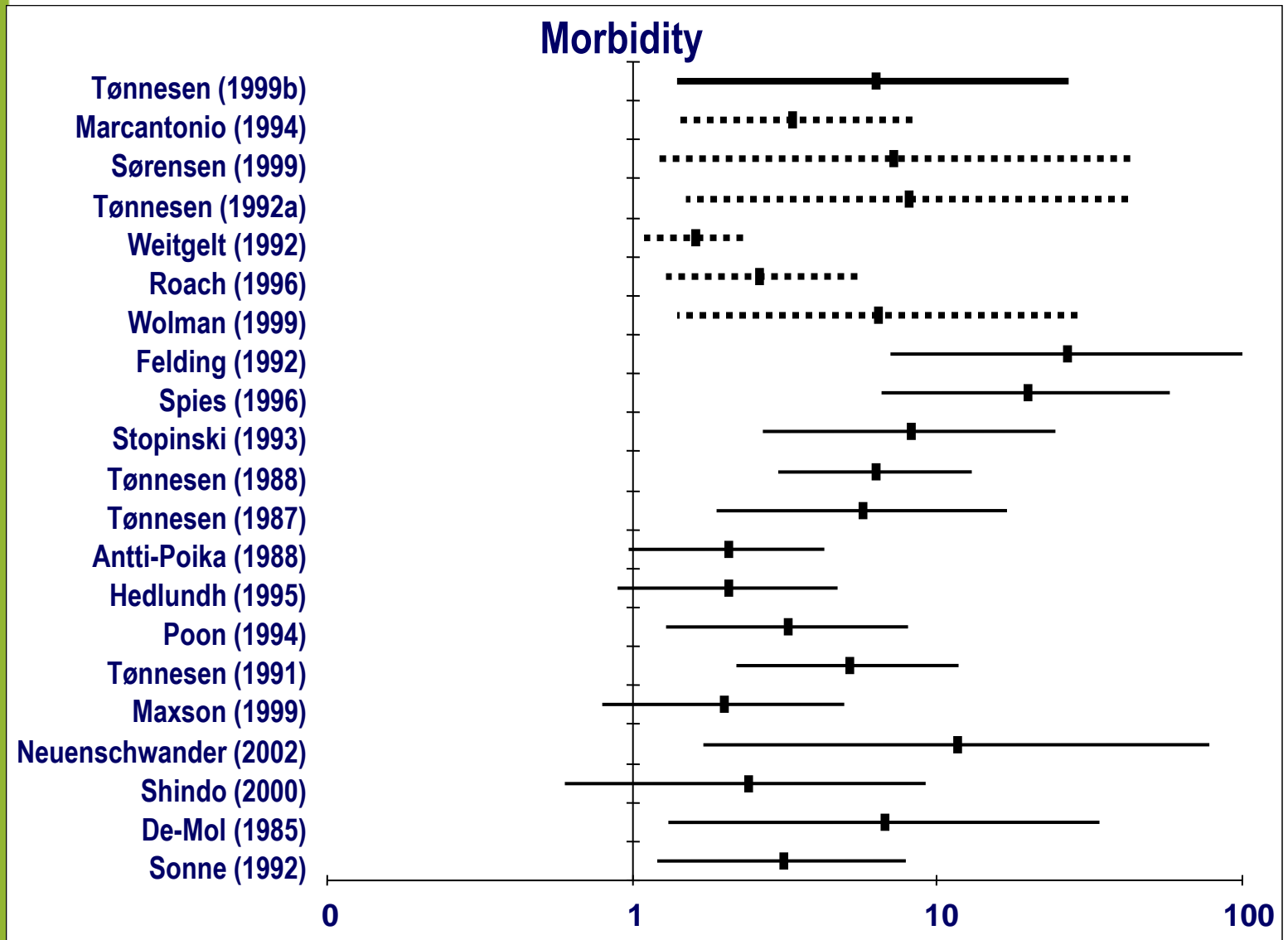
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Background

- Alcohol abuse with heavy or hazardous drinking is a widespread concern internationally
- Hazardous drinking affects human health in several ways, even in patients without an alcohol related disease
- This includes an increased risk of surgical complications.

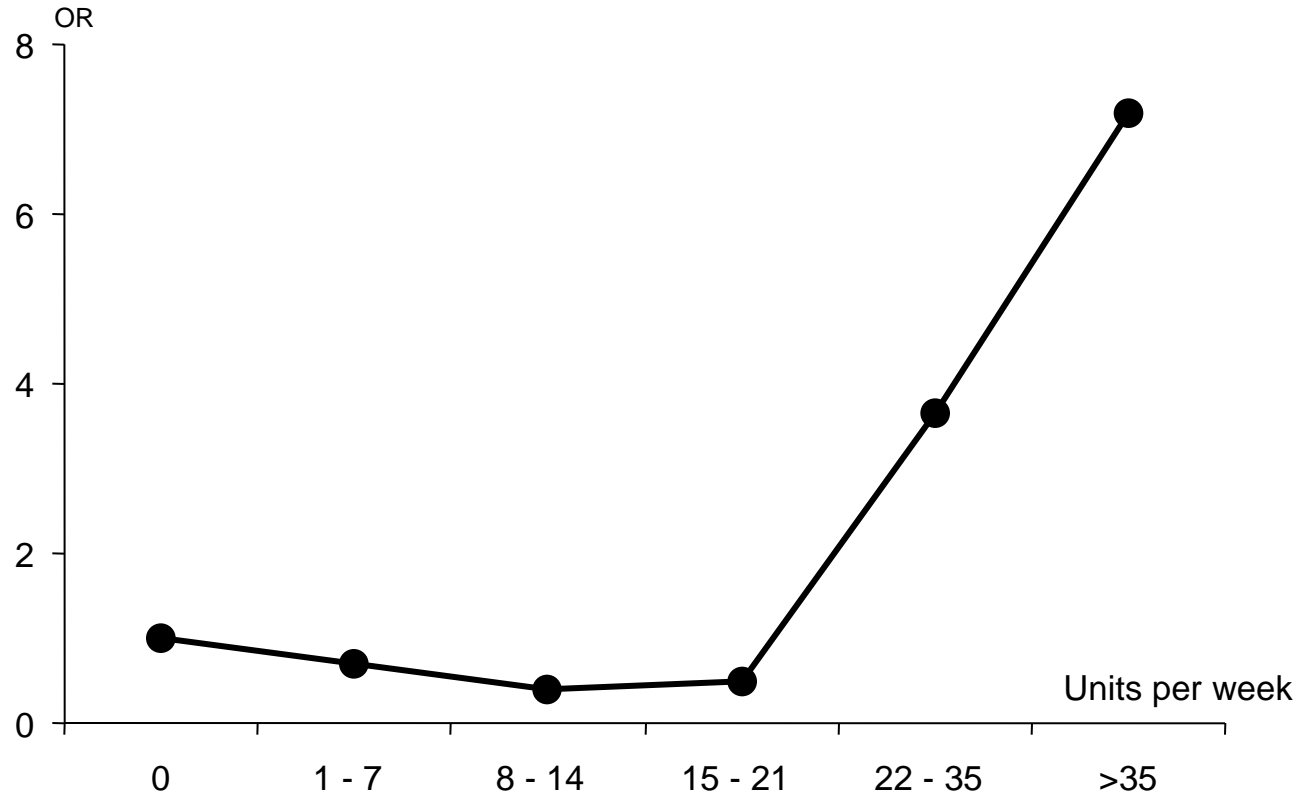
Association: alc & compl

Tønnesen et al. BJA 2009



How much is to much?

Dose response relationship



Sørensen LT: Ann Surg 2002

Complications and Reversibility

- The most frequent complications are
 - Infections
 - Cardiopulmonary complications
 - Wound complications
 - Bleeding episodes

- Reduced immunocapacity 1/2 - 2 m
- Subclinical cardiac insufficiency 1 - 3 m
- Haemostatic imbalance < 1 w
- Delayed wound healing < 2 m
- Delayed osteosynthesis < 6 m
- Muscle dystrophy ?
- Increased surgical stress-response 1 - 7 w

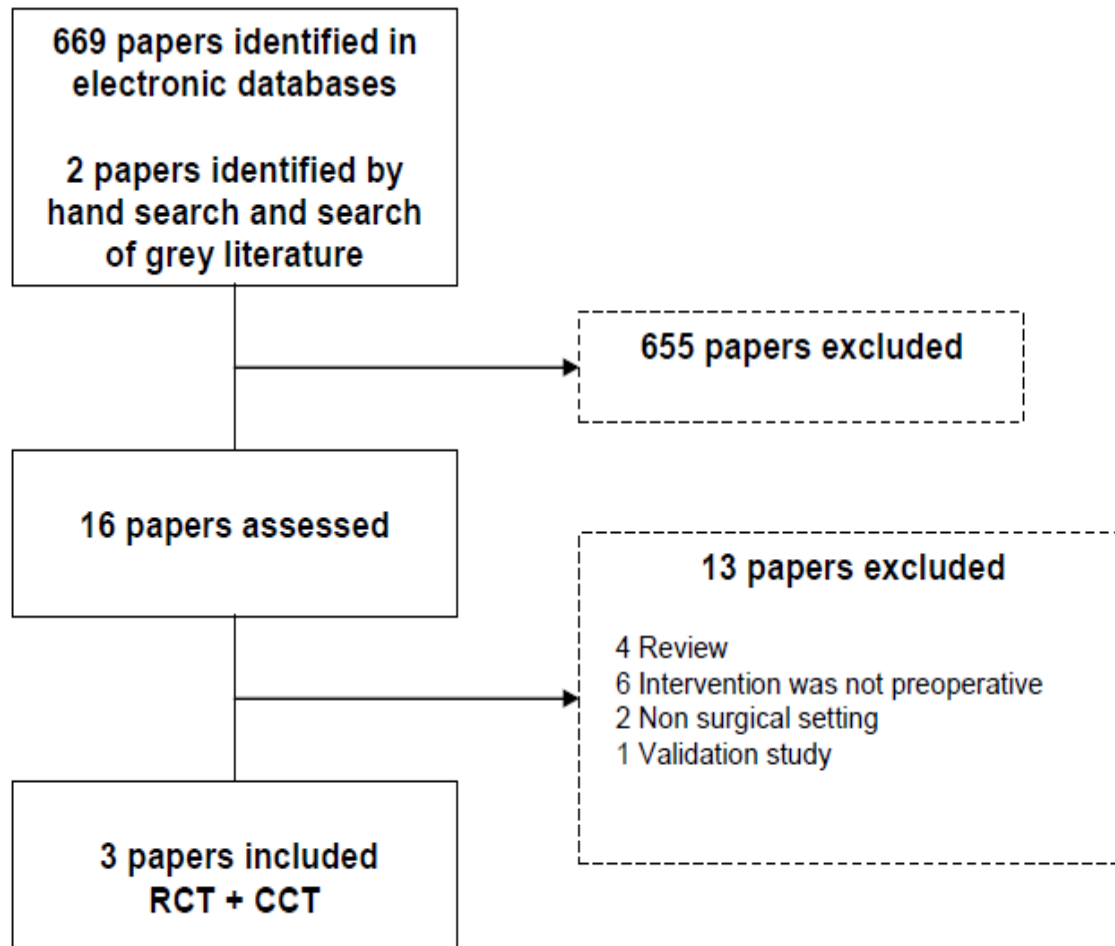
Objective

- The objective in this review was to assess the effect of alcohol interventions on complications following surgery
- Interventions included all alcohol interventions aiming to help patients to quit drinking, or to reduce alcohol consumption before surgery

Methods

- A systematic literature search as described in the Cochrane Handbook for Systematic Reviews of Interventions
- We searched the current Issue of the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, Ovid EMBASE and CINAHL
- We considered all randomized controlled trials (RCTs) and clinical controlled trials (CCTs) that evaluate the effects of a preoperative alcohol cessation intervention

Figure 1: Trial profile



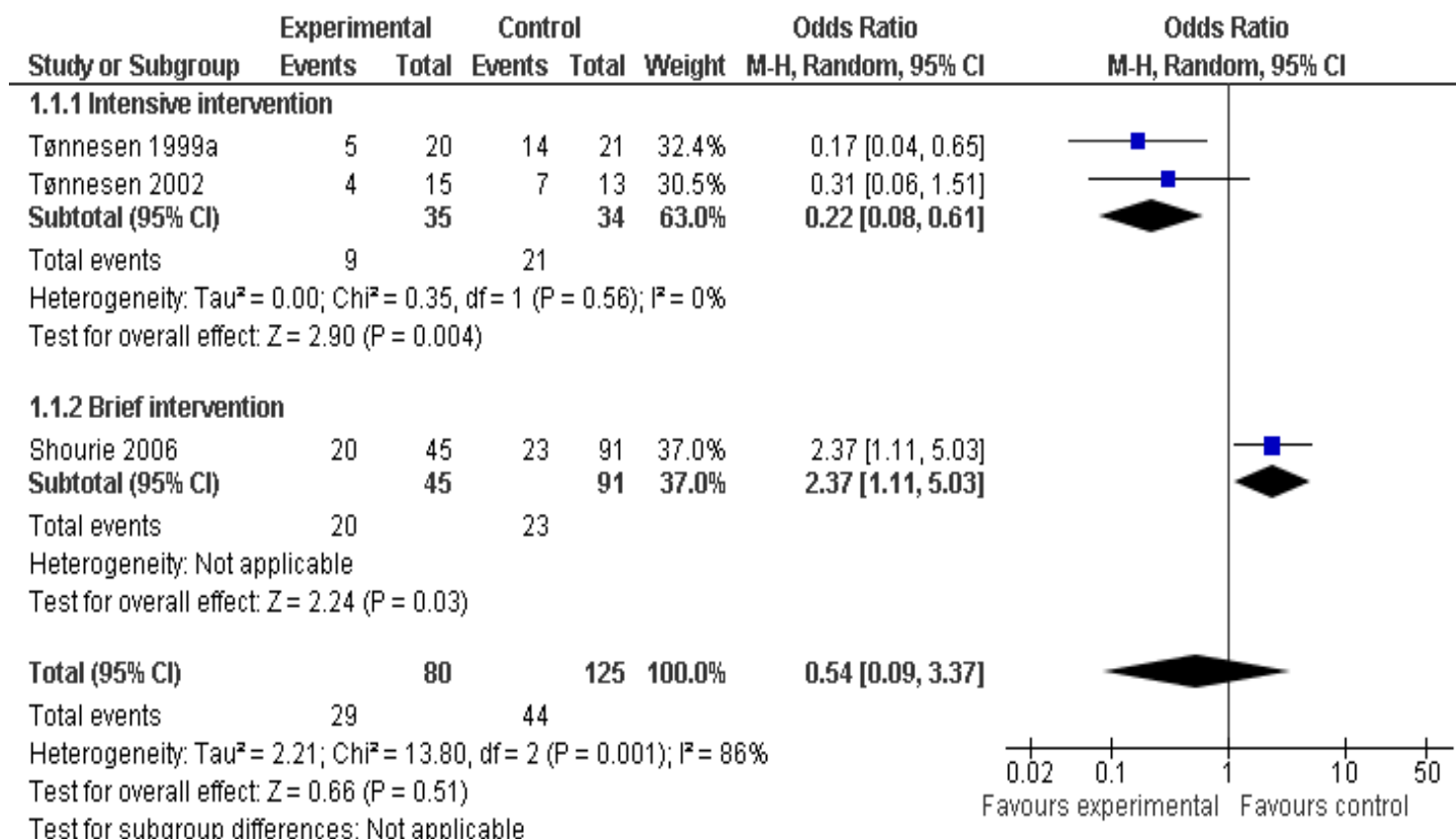
Included studies

- Shourie S, Conigrave KM, Proude EM, Ward JE, Wutzke SE, Haber PS.
 - The effectiveness of a tailored intervention for excessive alcohol consumption prior to elective surgery.. Alcohol 2006;41(6):643-9. [PubMed: 16905552]
- Tønnesen H, Rosenberg J, Nielsen HJ, Rasmussen V, Hauge C, Pedersen IK, et al.
 - Effect of preoperative abstinence on poor postoperative outcome in alcohol misusers: randomised controlled trial.. BMJ 1999;318(7194):1311-6.. [PubMed: 10323814]
- Tønnesen H.
 - Intensive Intervention among Alcohol Patients prior to Elective Hip Replacement-Complications, Life-Quality, Surgical Outcome. Report- Unpublished data 31.07.2002.

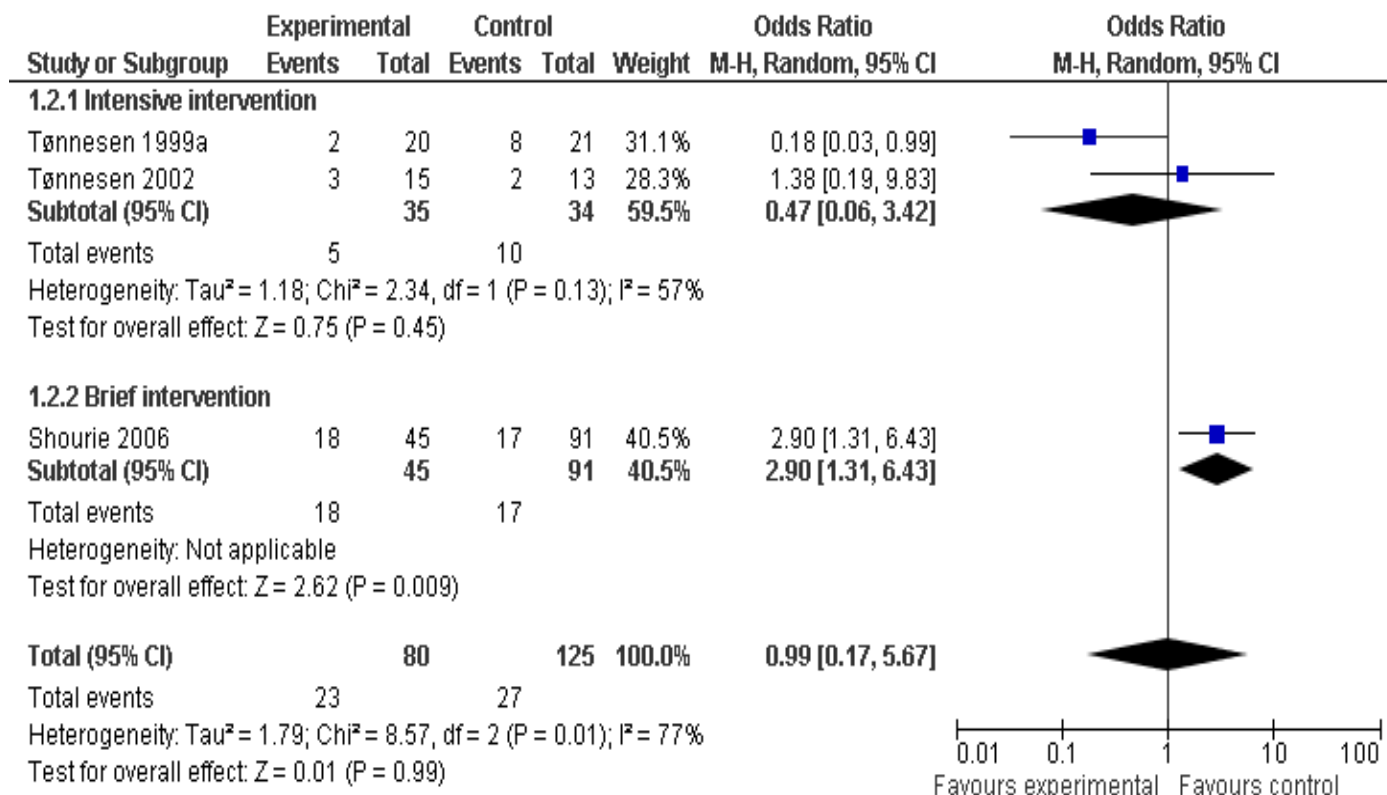
Results

- Meta-analysis showed that compared to control, alcohol cessation interventions did not reduce the complication rate (OR 0.54;CI 0.09-3.37, P 0.51)
- No significant reduction of in-hospital and 30 days mortality was found (P=0.53)
- Subgroup analysis of intensive interventions and sensitivity analysis of studies of high methodological quality showed effect on the overall complication rates (OR 0.22;CI 0.08-0.61;P 0.004)
- When splitting complications into major and minor complications, the effect was persistent only for the minor complications (OR 0.20;CI 0.06-0.70;P 0.01)

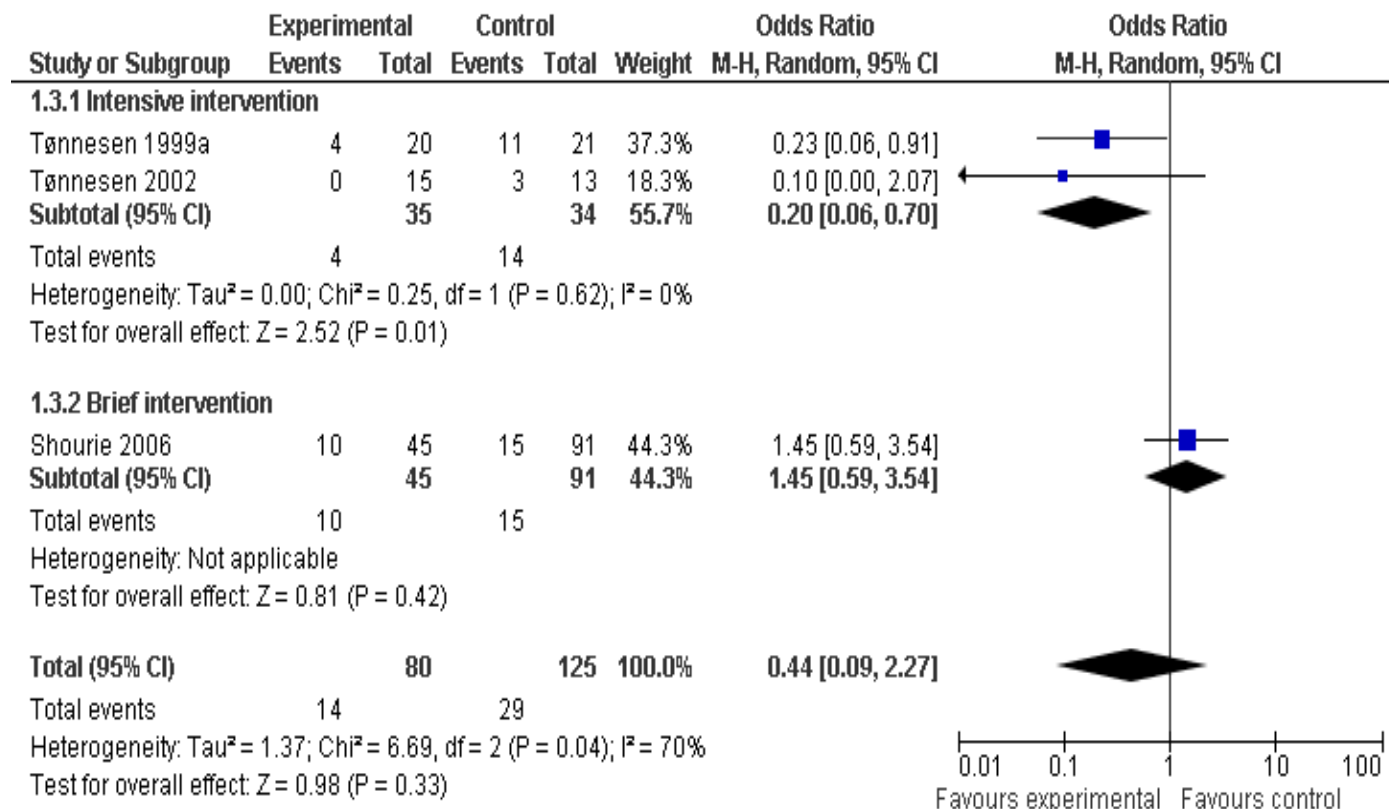
Forest plot of comparison: Preoperative alcohol cessation intervention vs. treatment as usual outcome: Postoperative complications.



Forest plot of comparison: Preoperative alcohol cessation intervention vs. treatment as usual, outcome: Major postoperative complications.



Forest plot of comparison: Preoperative alcohol cessation intervention vs. treatment as usual outcome: Minor postoperative complications.



Methodological quality summary: review authors' judgements about each methodological quality item for each included study.

	Adequate sequence generation?	Allocation concealment?	Blinding?	Incomplete outcome data addressed?	Free of selective reporting?	Free of other bias?
Shourie 2006	-	-	-	+	+	-
Tønnesen 1999a	+	+	-	+	+	-
Tønnesen 2002	+	+	-	+	+	-

Conclusion

- Our results show that alcohol interventions do not affect the overall complication rate or mortality
- However, intensive interventions aiming for complete alcohol cessation reduced the number of minor complications

Perspective

- More knowledge is needed to clarify the most beneficial intervention program. This includes knowledge about the effect of reduced alcohol consumption and the most beneficial length of alcohol interventions