



Scand-Ankle: Cost-effectiveness of Alcohol Cessation Intervention in Acute Fracture Surgery

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Patients with hazardous alcohol intake are at increased risk of general postoperative complications, prolonged hospital stay and admission to the intensive care unit compared to abstainers or low-risk drinkers (1). It has been estimated that the annual extra costs of alcohol-related complications in surgery is about €29 to 48 per capita in Denmark (2). No studies have previously investigated the cost and cost-effectiveness of alcohol cessation intervention in acute fracture surgery. This PhD thesis concerned a larger Scandinavian research project "Scand-Ankle". One of the aims of the project is to evaluate the effect of a new Gold Standard Programme for alcohol cessation intervention (GSP-A) for patients in acute fracture surgery regarding postoperative complications, alcohol intake and cost-effectiveness in a randomised design (RCT).

The thesis was based on three studies; a systematic review of the efficacy of disulfiram for patients with alcohol use disorders (3), an interview study on patient approaches to the GSP-A in relation to surgery (4) and a cost-effectiveness study of the GSP-A at the time of acute fracture surgery (5).

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Eleven RCTs were included in the systematic review with a total of 1,527 patients. Most studies showed that supervised disulfiram had a significant effect on short-term abstinence, whereas the long-term effect on abstinence was unknown. The results suggested a need for more homogenous and high-quality studies regarding the efficacy of disulfiram.

The interview study was conducted prior to the RCT and included patients with a hazardous alcohol intake undergoing fracture surgery. The study clarified that all patients

found alcohol cessation intervention relevant in relation to surgery, and about half of the patients were ready or partly ready to participate in the GSP-A. Findings from review and interview study - and existing evidence from GSP for smoking cessation intervention (6;7), - were used to describe the 6-week GSP-A; a structured education programme with weekly visits supported by disulfiram, B vitamins and alcohol withdrawal prophylaxis.

The GSP-A has been showed to increase the number of abstainers in the 6-week perioperative period (8). The health economic evaluation was based on the first 46 randomised ankle fracture patients from two university hospitals in Copenhagen, Denmark. The analysis included both direct and indirect costs in the 6-week perioperative period, and the results showed that the GSP-A was less expensive than treatment as usual, but the difference was not significant. The difference was mainly due to lower hospital costs in the GSP-A group. Thus, adding the comprehensive GSP-A to the patient pathway in acute fracture surgery did not increase the total perioperative costs in the intervention group compared with treatment as usual.

Future data collection in the Scand-Ankle study will conclude on the cost-effectiveness of the GSP-A on postoperative complications, alcohol intake on long-term as well as health-related quality of life.

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