**TITLE:**  Disulfiram for Alcohol Dependence: Clinical Effectiveness and Safety  

**DATE:**  19 April 2010  

**RESEARCH QUESTIONS:**  

1. What is the evidence for the clinical effectiveness of disulfiram for the treatment of patients with alcohol dependence?  
2. What is the safety of disulfiram for the treatment of patients with alcohol dependence?  

**METHODS:**  

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 3, 2010), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI (Health Devices Gold), EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between 2004 and 9 Apr 2010. Filters were applied to limit the retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, controlled clinical trials and observational studies. Internet links were provided, where available.  

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.  

**RESULTS:**  

HTIS reports are organized so that the higher quality evidence is presented first. Therefore, randomized controlled trials are presented first, followed by observational studies.  

Twelve randomized controlled trials and two observational studies were identified pertaining to the use of disulfiram for the treatment of patients with alcohol dependence. No relevant health technology assessment reports, systematic reviews, meta-analyses, or controlled clinical trials
were identified. Additional information, including case reports pertaining to safety, has been included in the appendix.

OVERALL SUMMARY OF FINDINGS:

The identified studies evaluated the use of disulfiram in several patient populations and settings. The effectiveness of disulfiram (DSF) was compared to no pharmacological intervention\(^1\) or assessed relative to other pharmacological interventions (naltrexone,\(^3,10,12\) topiramate,\(^2\) acamprosate,\(^4\) and g-hydroxybutyrate\(^8\)). Duration of follow-up ranged from 11 weeks\(^5\) to 119 weeks (2.5 years).\(^4\)

Overall, the evidence from randomized trials suggests that disulfiram is effective in treating alcohol dependence in treatment seeking adults,\(^4,6,11\) individuals with comorbid depression and alcohol dependence,\(^6\) comorbid post traumatic stress disorder and alcohol dependence,\(^9\) as well as other comorbid Axis I\(^7,10\) and Axis II disorders.\(^7\) Disulfiram, in conjunction with family support, was shown to be effective for relapse prevention in both adults\(^2,12\) and adolescents\(^3\) with alcohol dependence. In the included randomized studies, the efficacy of DSF was generally found to be similar or superior to the comparator treatment in terms of abstinence rates at the end of the follow-up period. In patients with comorbid alcohol and cocaine addiction, one study found that DSF treatment, alone or in combination with naltrexone, was associated with abstinence from both cocaine and alcohol.\(^5\) One study found no difference in outcomes between patients treated with cognitive behavioral therapy combined with DSF versus cognitive behavioral therapy alone in patients released from a psychiatric emergency ward following treatment for alcohol withdrawal.\(^1\) Disulfiram was associated with greater reports of craving versus topiramate,\(^2\) naltrexone,\(^3,12\) and acamprosate\(^11\) in patients undergoing DSF treatment for relapse prevention but was associated with fewer cravings than naltrexone in patients with comorbid depression and alcohol dependence.\(^5\) The abstinence rate with DSF was, however, found to be higher than that of topiramate,\(^2\) naltrexone\(^3,12\) and acamprosate\(^11\) at the end of follow-up despite a higher frequency of cravings.

In observational studies, disulfiram was associated with positive outcomes in patients released from inpatient facilities\(^13\) and was shown to be potentially useful in slowing hepatic injury in patients with hepatitis C by eliminating alcohol use.\(^14\)

No adverse events were reported in the included abstracts. Safety data from case series and case reports has been included in the appendix but not summarized.
REFERENCES SUMMARIZED:

Health technology assessments
No literature identified.

Systematic reviews and meta-analyses
No literature identified.

Randomized controlled trials


**Controlled clinical trials**
No literature identified.

**Observational studies**


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APPENDIX – FURTHER INFORMATION:

Case reports - safety information


Review articles

