TITLE: Funding Smoking Cessation Pharmacotherapy in the Workplace: Effectiveness and Cost-Effectiveness

DATE: 12 April 2012

RESEARCH QUESTIONS

1. What is the effectiveness of funding smoking cessation pharmacotherapy in the workplace for adult smokers to increase smoking cessation rates?

2. What is the cost-effectiveness of funding smoking cessation pharmacotherapy in the workplace for adult smokers?

KEY MESSAGE

One clinical study and three economic evaluations were identified regarding the effectiveness and cost-effectiveness of funding smoking cessation pharmacotherapy in the workplace for adult smokers.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 3), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and abbreviated lists of major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, and economic studies. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2007 and March 28, 2012. 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

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and economic evaluations.

One non-randomized study and three economic evaluations were identified regarding the effectiveness and cost-effectiveness of funding smoking cessation pharmacotherapy in the workplace for adult smokers. No health technology assessments, systematic reviews, meta-analyses, or randomized studies were identified. Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One non-randomized study\(^1\) evaluated the health and economic impacts of providing a workplace smoking cessation benefit and found that coverage of a cessation benefit resulted in greater numbers of successful cessations and decreased rates of smoking-related diseases. The total savings due to decreased healthcare and workplace costs exceeded costs of providing coverage within 4 years.

Two economic evaluations\(^2,3\) analyzed the cost of varenicline and compared it to other smoking-cessation aids. One study\(^2\) used a decision-analysis model to evaluate health and economic effects of varenicline compared with other smoking-cessation aids and found that varenicline increased the number of successful smoking cessations compared with bupropion and nicotine patches. The combined savings in health care usage plus workplace costs associated with varenicline due to decreased absenteeism and increased productivity was $165 to $457 per smoker over two years.\(^2\) The second study\(^3\) employed a cost-benefit analysis for varenicline versus bupropion and found that varenicline was more cost beneficial than bupropion despite the increased initial cost of varenicline.

A third study\(^4\) described the use of a new insurance benefit for smoking-cessation pharmacotherapy and its costs to a large public employer over the course of three years. The annual benefit use among smokers ranged from 6% to 7% with a three-year rate of approximately 17%. The cost to employers of providing insurance coverage for smoking-cessation pharmacotherapy was found to be low.

Overall, evidence suggests that funding smoking cessation pharmacotherapy in the workplace results in increased smoking cessation rates and cost savings due to decreased absenteeism and increased productivity, at a low cost to employers. Varenicline, a pharmacotherapy for smoking cessation, appears to be more effective and cost-effective than other smoking-cessation aids such as bupropion and nicotine patches, according to results from two studies.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials
No literature identified.

Non-Randomized Studies


Economic Evaluations


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APPENDIX – FURTHER INFORMATION:

Systematic Reviews and Meta-Analyses – non-workplace coverage


Non-Randomized Studies – non-workplace coverage


Review Articles


Additional References

Strategies for funding pharmacotherapy in the workplace


Coverage - real life examples


Surveys