

The SNAP trial: a randomised placebo-controlled trial of nicotine replacement therapy in pregnancy – clinical effectiveness and safety until 2 years after delivery, with economic evaluation

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Declared competing interests of authors: Neil Marlow reports personal fees from Novartis, personal fees from Elsevier, outside the submitted work. Tim Coleman reports personal fees from Pierre Fabre Laboratories, France, outside the submitted work.

Published August 2014

DOI: 10.3310/hta18540

Plain English summary

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Health Technology Assessment 2014; Vol. 18: No. 54

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Smoking in pregnancy harms developing babies, but stopping smoking before childbirth improves infants' health. Nicotine replacement therapy (NRT) helps non-pregnant smokers quit but, in pregnancy, women's bodies process nicotine faster. Therefore, we cannot assume that NRT will help pregnant smokers and previous research studies have not shown that it does. We tested whether or not NRT patches help pregnant women stop smoking and looked at effects on their newborn babies and when they reached 2 years of age.

A total of 1050 smokers joined the study and were randomly allocated to a 2-month supply of either NRT or identical dummy patches. Women's smoking was monitored 1 month after joining the study, at childbirth and at 6, 12 and 24 months afterwards. Babies' health was monitored at birth and their development and breathing problems were assessed when they were 2 years old.

Effects on smoking were modest. Those using NRT were twice as likely to stop smoking for 4 weeks immediately after joining the study; however, at childbirth and until 24 months, although there were slightly fewer smokers in the NRT group, this small difference would not usually be considered important. Babies' health at birth was very similar no matter which patches mothers had been allocated. However, 2-year-old children born to women in the NRT group were more likely to have no development problems and there was no difference in the frequency of breathing problems between groups.

We need further research to find out if higher doses of NRT could help pregnant women to stop smoking.

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 5.116

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the ISI Science Citation Index and is assessed for inclusion in the Database of Abstracts of Reviews of Effects.

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This report

The research reported in this issue of the journal was funded by the HTA programme as project number 06/07/01. The contractual start date was in February 2006. The draft report began editorial review in June 2013 and was accepted for publication in October 2013. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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