



Letter to the Editor

Physicians' perceptions regarding effectiveness of tobacco cessation medications: Are they aligned with the evidence?*Keywords:*

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Tobacco dependence is a chronic disease causing considerable death and disease. Recent advances, including newer non-nicotine medications and nicotine replacement therapies (NRT), have bolstered physicians' pharmacotherapy options to assist patients in quitting. Unfortunately, numerous factors that may not be fully aligned with the supporting scientific evidence could influence physicians' perceptions regarding the effectiveness of these medications.

We examined data from the self-administered, anonymous 2008 New Jersey Health Care Provider Tobacco Survey. A total of 1408 physicians who provide direct patient care responded for a response rate of 56.2%. Respondents were primarily internists (55%) and family practitioners (26%); 70% were male; 83% were between the ages of 36 and 64 years; and 70% were Caucasian.

The large majority of respondents perceived varenicline (93%), bupropion/NRT combinations (80%), and bupropion alone (78%) to be effective. More than half perceived NRT combinations (62%) and nicotine patch (61%) to be effective, while less than half perceived nicotine gum (42%), nicotine inhaler (39%), lozenge (35%) and nasal spray (33%) to be effective. Family practitioners were more likely than internists to believe bupropion was effective for smoking cessation and perceived effectiveness of bupropion decreased with increasing physician age. Female physicians believed medications were effective more so than male physicians. Physicians who smoked at least 100 cigarettes in

their lifetime tended to be less likely than never smokers to perceive medications to be effective.

Discrepancies existed between physicians' perceptions and evidence-based US Public Health Services Guideline data (Table 1) (Fiore et al., 2008). Consistent with the evidence, physicians did feel that varenicline and bupropion/NRT combinations were effective. However, contrary to the evidence, physicians' perceptions skewed away from the effectiveness of single and combination NRT's. Additionally, there is little evidence to support the higher perceived effectiveness of bupropion compared with other single pharmacotherapies. The intensity of pharmaceutical marketing strategies for the non-nicotine pharmaceuticals may bias physicians' beliefs against the effectiveness of the less heavily marketed NRT options and the impact of pharmaceutical sales representatives and direct-to-consumer advertising on prescribing habits remains controversial (Mizik and Jacobson, 2004; The Henry J. Kaiser Family Foundation, 2008; Chimonas et al., 2007).

These data illustrate gaps between providers' perception of pharmacologic efficacy and actual efficacy rates for tobacco treatment medications. Given that pharmacologic support is a critical component of comprehensive tobacco treatment, further research is needed to determine the factors that influence the full implementation of clinical practice guidelines. Educational interventions for physicians at all levels of training should be employed to ensure that clinical decision-making for tobacco treatment remains evidence-based.

Conflict of interest statement

M.S., M.Z., D.G., and C.D. report no conflicts of interest. C.H. reports previous financial interests with Altria, Phillip Morris, Reynolds American and Pfizer.

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Table 1

Perceived effectiveness and actual abstinence rates from meta-analyses of pharmacotherapies, New Jersey 2008.

Cessation medication	% Physicians believing medication is effective	% Abstinence rates from PHS guideline
NRT combinations	62	37
Varenicline	93	33
Bupropion/NRT combinations	80	29
Nicotine nasal spray	33	27
Nicotine inhaler	39	25
Bupropion	78	24
Nicotine patch	61	23
Nicotine gum	42	19
Nicotine lozenge	35	No data

Fiore et al. (2008).

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