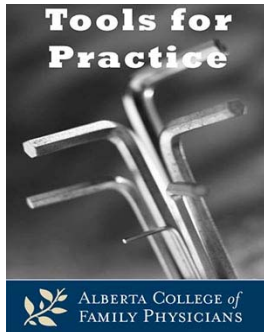


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Pharmacotherapy for Smoking: What works and what to consider (PART I)?

Clinical Question: In patients ready to make a smoking cessation attempt, how effective are registered first-line medications and what are the potential concerns?

Evidence:

Part I reviews Nicotine Replacement Therapy (NRT) and related issues
Part II will discuss antidepressants and varenicline

- NRT: Cochrane systematic review¹ of 132 randomized controlled trials (RCT):
 - o Overall Risk Ratio (RR) of abstinence: 1.58 (1.50 to 1.66).
 - Gum: 1.43 (1.33 - 1.53, 53 trials)
 - Patch: 1.66 (1.53 - 1.81, 41 trials)
 - Inhaler: 1.90 (1.36 - 2.67, 4 trials)
 - Lozenge: 2.00 (1.63 - 2.45, 6 trials)
 - o Some evidence combining rapid-acting NRT with patch can offer small advantage over monotherapy.
 - o Adverse events:
 - Local irritation relates to the type of product.
 - No evidence that NRT increases myocardial infarctions.
- Assuming placebo cessation rates of 10% (mean across studies), the number needed to treat (NNT) for NRT therapy is approximately 16 or 17 (range 10-23).

Context:

- Smoking cessation is the most effective preventive maneuver for conditions including COPD, cancer and cardiovascular disease.
 - o For example, an RCT² of aggressive smoking cessation intervention for 209 patients after CCU admission 2 years later resulted in;
 - 39% quitting versus 9%.
 - 3% mortality versus 12%, for a 9% absolute reduction (NNT 11).
 - For comparison, ASA provides a 1.4% reduction (NNT 72) in mortality in a similar population and time frame.³
- Pharmacotherapy is safe and effective in a broad range of populations, including the mentally ill.
- Combining counseling and support with pharmacotherapy improves outcomes.¹

Bottom-line: There are 4 first-line options of nicotine replacement therapy (gum, patch, lozenge or inhaler) and all improve the chance of abstinence from smoking. Adverse events are low but supportive follow-up will allow monitoring and can improve cessation.

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1. [Cochrane 2008; 1:CD000146](#)
2. [Chest 2007; 131\(2\): 446-52](#)
3. [Am J Med 2008; 121\(1\): 43-49](#)

Tools for Practice is a biweekly article summarizing medical evidence with a focus on topical issues and practice modifying information. It is coordinated by G. Michael Allan, MD, CCFP and the content is written by practising family physicians. Archived articles are available on the Toward Optimized Practice and ACFP websites.

This communication reflects the opinion of the author and does not necessarily mirror the perspective and policy of the Alberta College of Family Physicians.