Hopeful evidence – smoking cessation medication

Megan Harker, Member of PHASA editorial team, honours degree in Health Journalism, undergraduate in Communication Science and Philosophy. meganharker@gmail.com

His patient quit smoking, using medication but relapsed when his shack burnt down…

When a smoker with limited funds approached the public health care system for help to quit smoking, Motivational Interviewing (MI) was the only treatment available to them. However, costly curative care would be provided when smokers got illnesses and diseases linked to smoking.

Moreover, there were recommended non-prescription medications on the market such as patches, gum and spray, known collectively as Nicotine Replacement Therapies (NRTs) (1-3). Additionally, there were prescription medications known as Nicotine Receptor Agonists (NRAs) such as Varenicline- sold as Champix at pharmacies and antidepressants such as Bupropion, sold as Zyban (1).

Megan Harker investigates the intricacies.

The motivated milestone

At Tygerberg hospital in Cape Town, apart from talking to patients and motivating them, as best as specialists can, they have no smoking cessation medication to offer the patients. “We would like to offer patients smoking cessation therapies,” said Professor Elvis Irusen, the head of the division of Pulmonology at the Stellenbosch University Department and Head of Pulmonology at Tygerberg Hospital (4).

The Western Cape Department of Health spokesperson, Sithembiso Magubane said: “Motivational Interviewing strategy is mostly used as Nicotine Replacement Therapy isn’t on the Essential Drug List (EDL) - smokers who find it difficult to quit after the MI strategy, buy NRTs, such as Nicorette and the patch, at their own expense (5).”

What is the EDL? The EDL is the list that public health practitioners prescribe patient medication from- also referred to as the Essential Medicine List (EML) (6) - sometimes for the patients account and where medication is fully state funded the patient receives free health care (7).

Motivational interviewing includes establishing the smoker’s readiness to quit smoking. The aim is to move the individual from a non-motivated state to a motivated one before considering medication. When a smoker reaches the motivated milestone, counsellors can consider behavioural therapy and medication. “Smokers who are motivated, have supportive networks and are ready to change, have higher success rates,” said Dr Richard van Zyl-Smit et al (1,3). Van Zyl-Smit is the head of the Lung Clinical research Unit at the University of Cape Town Lung Institute, consultant pulmonologist and head of Groote Schuur Hospital’s smoking cessation programme.

According to researchers Masego Rantao and Bukola Olutola, MI required self-effort. “Self-effort alone, however, doesn’t guarantee successful quitting. MI had to be done alongside counselling and or pharmacotherapy,” they said (8).

Holistic smoking cessation health care

In an ideal situation, a complimentary tobacco control and prevention strategy could include an integrated smoking cessation approach. This approach could incorporate state financed smoking cessation medication such as NRTs, NRAs and the accompanying specialist and administrative costs.

“All the counselling, support and medication in the world will not prevent withdrawal symptoms, nor change the social stressors, work place and relationship issues, or concerns about one’s weight,” said van Zyl-Smit (2, 3).

To illustrate this point, he tells a story about one of his patients who successfully stopped smoking by using medication, but when his shack burned down, due to the trauma, he relapsed (2).

Van Zyl-Smit et al. said smoking cessation medications ‘have little or no effect on the underlying addiction and doesn’t address the psychosocial factors associated with habitual smoking (1).’

“We cannot expect smoking cessation pharmacotherapy to fix psychosocial problems - psychosocial factors are addressed in behavioural therapy,” said Professor Irusen. (9).

Medication isn’t a quick solution, but part of an entire system and cycle. According to researchers Rantao and Olutola there are three approaches to treatment: ‘pharmacotherapy addresses the physiological part, counselling addresses the psychological aspects and self-management addresses the behavioural pattern associated with tobacco use’(8). A compliment of all three of these treatments could be the basis of holistic smoking cessation health care.

Relying on medication isn’t a fool-proof plan, but the same can be said for the smoking prevention and control policy which predominantly rests on legislation, public health interventions like education and health care, rooted in MI. It seems a task akin to pouring water into a leaking jug and hoping for the best.

The bottom line

“Smoking cessation pharmacotherapy is about cost versus benefit,” said van Zyl-Smit. According to him, the basic approach to how items get chosen is: less expensive medication saving many lives get preference over expensive medication saving fewer lives - they have a fixed budget with limited money for expensive pharmaceuticals (3).

When the idea of state financed comprehensive care and costs meet, it comes down to the economic bottom line. Providing preventative care such as specialist assistance, MI, medication and behavioural therapy compared to curative care such as specialist assistance, surgery, medical machinery and lifelong medication seem less expensive and beneficial in the long term. “I have little doubt in my mind - it’s cost effective,” said Irusen (4).

If a smoker gets a smoking related disease, the state will provide curative care. “I can’t understand if someone who smokes gets a heart attack, needs a bypass and surgery costing tens of thousands of rands - all of those are supported, but to help people kick the habit there’s no help,” Irusen said.“ If people get lung cancer, emphysema, coronary diseases and strokes - all of those diseases are treated at a cost from between R10 000 and R 100 000 (4).”

In van Zyl-Smit’s conversations with the pharmacotherapy community, the general question is: why should the state spend R500 per month on drugs when people are spending R600 to

smoke each month? (2, 3) “Free availability of smoking cessation medication is not affordable, cost effective or recommended,” said van Zyl-Smit (1, 2).

Still, despite this, a smoker can be compelled by their nicotine addiction, to buy cigarettes and smoke, knowing it’s unaffordable and detrimental to their health. Additionally, according to Debbie Bradshaw’s, social determinants of health, the environmental conditions in which smoking South Africans live and work are stressful, filled with inequality, a culture of violence and poverty (10). Also, some smokers may be self-medicating psychological and psychiatric comorbidities linked to stress, with nicotine (1). A statement made by van Zyl-Smit encapsulates reasons for this form of self medication: “There are very good reasons why people smoke: Nicotine induces relaxation, affects metabolism by keeping weight down and is associated with improved cognitive functioning (2, 3).”

The evidence

NRTs, NRAs and antidepressants have to meet certain criteria before making it onto the National EDL. “A medicine is included or removed from the list using an evidence-based medicine review of safety and effectiveness, followed by consideration of cost and evidence-based readiness of pharmacotherapy ,” says the 2012 Adult, Hospital Level, Standard Treatment Guideline and EDL (6).

Van Zyl-Smit said, “Smoking cessation medication isn’t 100% effective, compared to a blood pressure pill that is ‘guaranteed’ to lower your blood pressure.”

In addition, a shortage of independent drug efficacy research prevails. “I‘m not aware of a study comparing Champix and a combination of patch and gum nor one looking at the best option for smokers smoking less than 10 cigarettes per day,” said van Zyl-Smit (1, 3).

There is enhancing evidence showing that some ‘smokers have approximately double the risk of developing Tuberculosis (TB) and of dying than non-smokers. To boot, the risks from smoking in HIV include inter alia pneumonia, TB and lung cancer’. “Smoking cessation for people with active TB is a feasible, effective intervention and important for individuals living with HIV,” said van Zyl-Smit et al. (1).

To add, In 2011, Olutola and Rantao said “At the community level, smaller, cost effective efforts by community based organisations, clinics or health centres could promote smoking cessation by financing tobacco dependence treatments for those who can’t afford it.” Additionally they said, “Decreasing out-of-pocket expenses for tobacco cessation may be more favourable towards tobacco users and render them more likely to quit (8).”

In 2009, the National Council Against Smoking Director, Yusuf Saloojee said NRTs and antidepressant Bupropion, ‘worked best with behavioural support.’ According to Chris Bateman, the Cochrane reviews showed that ‘with behavioural support, the one-year success rate of pharmacotherapy increased smoking cessation from 15% to between 28 and 30%.’ “These are not magic mushrooms but they do increase the success rates,” said Saloojee (11).

In the event that smoking cessation pharmacotherapies become available at no charge - to patients at public health facilities – professional (trained nurse or counsellor) monitoring and prescription would be imperative. “Smoking is common in individuals with mental illness and some smokers are at higher risk of suicide than non-smokers,” said van Zyl-Smit et al., therefore, “adequate management of any underlying psychiatric illness is key to successful smoking cessation in these patients (1).”

Applying for smoking cessation medication for the Essential Drug List

According to van Zyl-Smit, there aren't very many people campaigning for treating people with medication. "I'm not aware that anyone ever formally applied to the state for smoking cessation medication - somebody has got to go to the government, to the relevant committee and say, 'We need these drugs, can we have them please?' (3)

Lastly, If you wish to access the guidelines for the motivation of a new medicine on the national Essential Medicine List and the application form, it can be found on page xxix-xxxii of the 2012 Hospital Level, Standard Treatment Guideline and Essential Medicine List (6).

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