

Polish Forum for Prevention Guidelines on Smoking: update 2017

Wytyczne Polskiego Forum Profilaktyki Chorób Układu Krążenia dotyczące palenia tytoniu: aktualizacja 2017

Piotr Jankowski¹, Kalina Kawecka-Jaszcz¹, Grzegorz Kopeć², Jakub Podolec³, Andrzej Pająk⁴, Agnieszka Sarnecka², Tomasz Zdrojewski⁵, Danuta Czarnicka¹, Maciej Małecki⁶, Grażyna Nowicka⁷, Anna Członkowska⁸, Maciej Niewada⁹, Jerzy Stańczyk¹⁰, Anetta Undas¹¹, Adam Windak¹², Magdalena Cedzyńska¹³, Witold Zatoński¹³, Piotr Podolec²

¹1st Department of Cardiology, Interventional Electrophysiology, and Hypertension, Institute of Cardiology, Jagiellonian University Medical College, Krakow, Poland

²Department of Cardiac and Vascular Diseases, Institute of Cardiology, Jagiellonian University Medical College at John Paul II Hospital, Krakow, Poland

³Department of Haemodynamics and Angiocardiology, John Paul II Hospital, Institute of Cardiology, Jagiellonian University Medical College, Krakow, Poland

⁴Department of Clinical Epidemiology and Population Studies, Institute of Public Health, Jagiellonian University Medical College, Krakow, Poland

⁵Department of Preventive Medicine and Medical Education, Medical University in Gdansk, Gdansk, Poland

⁶Department of Metabolic Diseases, Jagiellonian University Medical College, Krakow, Poland

⁷Department of Pharmacogenomics, Division of Biochemistry and Clinical Chemistry, Medical University of Warsaw, Warsaw, Poland

⁸2nd Department of Neurology, Institute of Psychiatry and Neurology, Warsaw, Poland

⁹Department of Experimental and Clinical Pharmacology, Medical University of Warsaw, Warsaw, Poland

¹⁰Department of Paediatric Cardiology and Rheumatology, Medical University of Lodz, Lodz, Poland

¹¹Institute of Cardiology, Jagiellonian University Medical College, Krakow, Poland

¹²Department of Family Medicine, Jagiellonian University Medical College, Krakow, Poland

¹³Maria Skłodowska-Curie Memorial Cancer Centre and Institute of Oncology, Warsaw, Poland

NEW IN 2017: UPDATE OF POLISH FORUM FOR PREVENTION GUIDELINES ON SMOKING

1. New data on epidemiology of smoking in the Polish population
2. New system of cardiovascular (CV) risk assessment for the population of Poland
3. New data on efficacy of pharmacological treatment
4. New data and guidelines on electronic cigarettes

1. HARMFULNESS

Smoking is one of the key factors responsible for development of CV, pulmonary, and digestive system diseases as well as a number of cancers. Smoking is responsible for 50% of all avoidable deaths in smokers, half of these due to CV disease, and lifetime smokers have a 50% probability of dying due to smoking. The smoking-related risk is dose dependent: smoking even a few cigarettes daily is related to increased CV risk

by 50%. A lifetime smoker on average will lose 10 years of life [1, 2].

2. PREVALENCE

About 8 million Poles (aged ≥ 15 years) smoke every day (24%). The prevalence in men is 31% and in women 18% [3]. Although the smoking rate has decreased substantially since the early eighties it is still higher compared to Western European countries. The Polish average smoker smokes more cigarettes daily compared to the mean in the European Union (16 vs. 14). Smoking among children and adolescents remains a major problem.

3. PASSIVE SMOKING

The health consequences of passive smoking are qualitatively similar to the effects of active smoking. In Poland, as many as 39% of adults are exposed to tobacco smoke at home

Address for correspondence:

Piotr Podolec, MD, PhD, Department of Cardiac and Vascular Diseases, Institute of Cardiology, Jagiellonian University Medical College, John Paul II Hospital, Centre for Rare Cardiovascular Diseases in Krakow, ul. Prądnicka 80, 31–202 Kraków, Poland, e-mail: ppodolec@interia.pl

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(22% among non-smokers) and 11% at work, including 8% of non-smoking women and 13% of non-smoking men [3]. About 25% of Poles are exposed to second-hand smoke at bus or tram stops. It is estimated that almost 3 million children in Poland are passive smokers. It is also estimated that about 20% of pregnant women are exposed to second-hand smoke at home. Therefore, it is necessary to increase the protection of non-smokers from the harmful effects of tobacco smoke.

4. SMOKING AND CARDIOVASCULAR DISEASES

Smoking tobacco:

- carries a particularly high risk for patients with other risk factors, such as: hypertension, dyslipidaemia, diabetes, obesity, sedentary lifestyle, or positive family history of premature CV disease;
- adversely affects blood vessels, damaging vascular endothelium and impacting vascular homeostasis;
- increases inflammation, activates platelets and induces platelet aggregation, increases the expression of tissue factor, and impairs fibrinolysis; however.

Cardiovascular risk decreases by half during the first year after smoking cessation. Subsequently it decreases gradually and after 15–20 years gets close to the level of never smokers.

5. EXPOSURE ASSESSMENT, THE DEGREE OF DEPENDENCE, AND MOTIVATION TO QUIT SMOKING

The assessment of exposure to tobacco smoke is made on the basis of an interview (small cost, subjective nature), which can be carried out using a questionnaire, and measurement of biomarkers (higher cost, objective measurement). Among others carbon monoxide in exhaled air, carboxyhaemoglobin in the blood, cotinine, nicotine, or thiocyanate in selected body fluids can be measured.

In assessing the degree of tobacco dependence the Fagerström test is useful. It helps to differentiate smokers in whom physical dependence is less important, requiring mainly behavioural support, from smokers with primarily severe biologically dependence. The latter patients need intensive pharmacotherapy for effective smoking cessation. Depending on the number of points scored the addiction may be classified as: low (0–2 points), low to moderate (3–4 points), moderate (5–6 points), or high (≥ 7 points).

Motivation is the most important factor determining the success of any smoking cessation attempt. Those without strong motivation to quit smoking frequently return to it. Assessment of the degree of determination of the patient to make the effort required to process difficult behavioural changes (especially in the case of a behavioural addiction), and tuning of the organism to function in the absence of nicotine (in the case of a significant component of physical addiction) is essential. Although CV risk does not influence the treatment of smoking dependence it can be used to further motivate the patient [4–6]. In the Polish population the

Pol-SCORE 2015 system should be used (also for the heart age estimation) [7, 8].

6. GOAL OF THERAPY

The aim of the treatment is complete smoking cessation. The success of therapy is defined as non-smoking for at least six months. However, many people who have managed to achieve this goal eventually return to smoking.

7. GENERAL STRATEGY OF TOBACCO DEPENDENCE TREATMENT

Each patient must be made aware that addiction to tobacco is a disease that can and should be treated. In routine practice the “Five As” counselling strategy should be followed [1, 4–6]:

- Ask — systematically identify all tobacco users at every opportunity;
- Advise — strongly urge all tobacco users to quit;
- Assess — determine the degree of addiction and readiness to quit;
- Assist — agree on a smoking cessation strategy, including setting a quit date. Aid the patient in quitting (provide counselling-style support and medication);
- Arrange — ensure follow-up contact.

8. NON-PHARMACOLOGICAL TREATMENT

Medical intervention may be limited to brief counselling when directed, mainly to those smoking patients who do not yet take into account smoking cessation. Although the six-month effectiveness of short medical advice is estimated to be 2–3%, if every doctor in Poland gave this advice to all his/her smoking patients about 100,000 persons would stop smoking in Poland yearly [4, 6].

Every smoking patient should be advised to stop smoking during each visit in the doctor’s office. Medical risks related to smoking, as well as medical and personal benefits of breaking the addiction, should always be underlined. Patients should be informed about much more effective smoking cessation attempts if they are supported by pharmacological or behavioural therapy. The physician should remember: the more intense intervention, the greater the chance of smoking cessation. Interventions involving periodic telephone contact, providing practical guidelines for behaviour in the period of cessation, and providing social support are especially effective.

9. PHARMACOLOGICAL TREATMENT

Pharmacotherapy tobacco dependence should be seen in the same way as the pharmacological treatment of other risk factors. Available data indicate that drug treatment of tobacco dependence in Poland is used too rarely. Treatment of tobacco dependence is one of the most cost-effective methods in modern medicine, so it seems reasonable to introduce a partial reimbursement for drugs used for the treatment of tobacco dependence [4–6].

Pharmacotherapy should be offered to anyone planning to stop smoking, especially those with severe dependence or complications of smoking (e.g. coronary artery disease, chronic obstructive pulmonary disease) [1, 4–6].

Pharmacological treatment of tobacco dependence syndrome may consist of a nicotine replacement therapy (NRT), bupropion, cytisine, or varenicline [1, 4–6, 9].

Nicotine replacement therapy may take the form of patches, gums, lozenges, sublingual tablets, inhalers, etc. All available forms of NRT are effective and relatively safe. Combined NRT (patches + NRT in a form that provides a rapid increase in the level of blood nicotine, e.g. gums, inhalers) is more effective than NRT in monotherapy, especially in patients with severe addiction or in those who failed to stop smoking. NRT is available in Poland without a prescription. Other drugs registered in Poland include: bupropion, cytisine, and varenicline. Of these, cytisine is available without a prescription. Cytisine may be a useful alternative to more expensive drugs. The most effective method is a combination of pharmacological treatment with behavioural intervention.

10. ELECTRONIC CIGARETTES

Currently, about 3% of adults use electronic cigarettes in Poland [3]. Although they are less harmful than traditional tobacco products the public should not be encouraged to use them because there is no evidence that they are more effective than traditional methods of tobacco dependence treatment and due to the risk of initiation of smoking (especially in adolescents and young adults). People who smoke traditional cigarettes and intend to use electronic cigarettes as a means of tobacco dependence treatment should be informed of the relatively small evidence of their effectiveness and lack of certainty as to their full safety. At the same time, patients should be encouraged to use methods that are proven to be effective [1, 10, 11].

Conflict of interest: none declared

References

1. Piepoli MF, Hoes AW, Agewall S, et al. Wytuczne ESC dotyczące prewencji chorób układu sercowo-naczyniowego w praktyce klinicznej w 2016 roku. *Kardiologia Polska*. 2016; 74(9): 821–936, doi: [10.5603/KP.2016.0120](https://doi.org/10.5603/KP.2016.0120), indexed in Pubmed: [27654471](https://pubmed.ncbi.nlm.nih.gov/27654471/).
2. Yusuf S, Hawken S, Ounpuu S, et al. INTERHEART Study Investigators. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. *Lancet*. 2004; 364(9438): 937–952, doi: [10.1016/S0140-6736\(04\)17018-9](https://doi.org/10.1016/S0140-6736(04)17018-9), indexed in Pubmed: [15364185](https://pubmed.ncbi.nlm.nih.gov/15364185/).
3. TNS Polska dla Głównego Inspektoratu Sanitarnego. Raport z ogólnopolskiego badania ankietowego na temat postaw wobec palenia tytoniu, Warszawa.
4. Zatoński W, Górecka D, Opolski G, et al. Konsensus dotyczący rozpoznawania i leczenia zespołu uzależnienia od tytoniu. *Med Praktyk*. 2006; 7(supl.): 1–24.
5. Kawecka-Jaszcz K, Jankowski P, Podolec P, et al. Polish forum for prevention guidelines on smoking. *Kardiologia Polska*. 2008; 66(1): 125–126, indexed in Pubmed: [18363227](https://pubmed.ncbi.nlm.nih.gov/18363227/).
6. Zatoński W, Jankowski P, Banasiak W, et al. [Statement on the diagnosis and treatment of tobacco dependence in patients with cardiovascular diseases]. *Kardiologia Polska*. 2011; 69(1): 96–100, indexed in Pubmed: [21267983](https://pubmed.ncbi.nlm.nih.gov/21267983/).
7. Zdrojewski T, Jankowski P, Bandosz P, et al. [A new version of cardiovascular risk assessment system and risk charts calibrated for Polish population]. *Kardiologia Polska*. 2015; 73(10): 958–961, doi: [10.5603/KP.2015.0182](https://doi.org/10.5603/KP.2015.0182), indexed in Pubmed: [26521843](https://pubmed.ncbi.nlm.nih.gov/26521843/).
8. Podolec P, Jankowski P, Zdrojewski T, et al. Polish Forum for Prevention Guidelines on Cardiovascular Risk Assessment: update 2016. *Kardiologia Polska*. 2017; 75(1): 84–86, doi: [10.5603/KP.2017.0009](https://doi.org/10.5603/KP.2017.0009), indexed in Pubmed: [28124785](https://pubmed.ncbi.nlm.nih.gov/28124785/).
9. West R, Zatonski W, Cedzynska M, et al. Placebo-controlled trial of cytisine for smoking cessation. *N Engl J Med*. 2011; 365(13): 1193–1200, doi: [10.1056/NEJMoa1102035](https://doi.org/10.1056/NEJMoa1102035), indexed in Pubmed: [21991893](https://pubmed.ncbi.nlm.nih.gov/21991893/).
10. Brandon TH, Goniewicz ML, Hanna NH, et al. Electronic nicotine delivery systems: a policy statement from the American Association for Cancer Research and the American Society of Clinical Oncology. *Clin Cancer Res*. 2015; 21(3): 514–525, doi: [10.1158/1078-0432.CCR-14-2544](https://doi.org/10.1158/1078-0432.CCR-14-2544), indexed in Pubmed: [25573384](https://pubmed.ncbi.nlm.nih.gov/25573384/).
11. Bhatnagar A, Whitsel LP, Ribisl KM, et al. American Heart Association Advocacy Coordinating Committee, Council on Cardiovascular and Stroke Nursing, Council on Clinical Cardiology, and Council on Quality of Care and Outcomes Research. Electronic cigarettes: a policy statement from the American Heart Association. *Circulation*. 2014; 130(16): 1418–1436, doi: [10.1161/CIR.000000000000107](https://doi.org/10.1161/CIR.000000000000107), indexed in Pubmed: [25156991](https://pubmed.ncbi.nlm.nih.gov/25156991/).

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