

Role and models for compensation of tobacco use prevention and cessation by oral health professionals

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Appropriate compensation of tobacco use prevention and cessation (TUPAC) would give oral health professionals better incentives to provide TUPAC, which is considered part of their professional and ethical responsibility and improves quality of care. Barriers for compensation are that tobacco addiction is not recognised as a chronic disease but rather as a behavioural disorder or merely as a risk factor for other diseases. TUPAC-related compensation should be available to oral health professionals, be in appropriate relation to other dental therapeutic interventions and should not be funded from existing oral health care budgets alone. We recommend modifying existing treatment and billing codes or creating new codes for TUPAC. Furthermore, we suggest a four-staged model for TUPAC compensation. Stages 1 and 2 are basic care, stage 3 is intermediate care and stage 4 is advanced care. Proceeding from stage 1 to other stages may happen immediately or over many years. Stage 1: Identification and documentation of tobacco use is part of each patient's medical history and included into oral examination with no extra compensation. Stage 2: Brief intervention consists of a motivational interview and providing information about existing support. This stage should be coded/reimbursed as a short preventive intervention similar to other advice for oral care. Stage 3: Intermediate care consists of a motivational interview, assessment of tobacco dependency, informing about possible support and pharmacotherapy, if appropriate. This stage should be coded as preventive intervention similar to an oral hygiene instruction. Stage 4: Advanced care. Treatment codes should be created for advanced interventions by oral health professionals with adequate qualification. Interventions should follow established guidelines and use the most cost-effective approaches.

Key words: Tobacco use cessation, oral health professionals, compensation

Tobacco use and oral diseases have a strong link¹. Tobacco addiction is a chronic disease and tobacco users require ongoing support from health care providers rather than one-off interventions to quit.

Oral health professionals are often in the unique position of seeing patients regularly starting from a young age allowing them to detect the early signs of tobacco related diseases in the patient's mouth. Seeing patients throughout their lives allows oral health professionals to monitor patient's progress and provide regular and ongoing tobacco use prevention and cessation

(TUPAC); which is particularly important considering the early onset of tobacco use, lengthy latency of related diseases and the importance of the level of exposure to tobacco. Oral health teams are well experienced in providing successful health promotion and in encouraging positive behaviour change. Patients seeking oral health care typically have a more stable health status than those seeking other medical care. Patients may have more energy to address their tobacco dependence and undergo treatment when they are not being treated for other illnesses at the same time.

To increase oral health professionals' involvement in TUPAC, they should be provided with resources comparable with those of other dental therapies and those of other TUPAC providers. Additionally, tobacco addiction should be formally recognised and categorised as a chronic disease rather than coded as a mental and behavioural disorder (ICD F17). In this paper we examine the role of, and options for, compensating oral health professionals' interventions in tobacco use prevention and cessation. The paper begins with a general overview of how healthcare is funded and who provides healthcare services. The paper reviews existing literature, compares compensation models, and identifies gaps in the research. We then recommend a simple four-stage compensation model, followed by a discussion of the issues involved in integrating, monitoring and evaluating such a model.

Background: how is healthcare funded and provided

Before beginning to think about compensation, it is important to understand who pays for healthcare. Healthcare is funded by a variety of different sources; primarily through public funds administered by local or national governments (tax), private health insurance, employers/unions, or by consumers/patients themselves (out of pocket). Most European health care systems are funded through a mixture of all or several of these sources.

Next, it is important to examine who provides healthcare. Healthcare can be provided by publicly employed healthcare professionals, private practice healthcare professionals, non-governmental organisations, universities (medical and dental schools), unlicensed providers, and even by individuals themselves. It must then be determined which of these healthcare providers are currently, or could effectively and efficiently be, involved in providing TUPAC information and treatment.

In many countries, nicotine replacement therapy (NRT) products are available to consumers without a prescription (over the counter, OTC). In other countries NRT must be prescribed by some or all of the following: physicians, dentists, pharmacists, nurses, or dental hygienists. Bupropion and varenicline can only be prescribed by physicians in some countries, while in others dentists may also prescribe them. Compensation

of pharmacotherapy for tobacco use cessation as well as the laws governing the sale of such products and tobacco are integral parts of reducing tobacco use. If, for example, the sale of tobacco is limited in a given retail setting, this limitation could be compensated by allowing the same retail location to sell NRT.

The focus of this paper is on oral health professionals. However, other healthcare providers, such as dental, medical and dental hygiene schools, may be able to adapt the findings presented here to their own situations. The recommendations for involving and compensating oral health professionals in TUPAC will also require compensation and changes in the medical and dental educational systems in order to assume that new oral health professionals are adequately trained to provide TUPAC.

Options for compensation: what, how and how much

Once a healthcare system has been examined and those who fund and provide healthcare including TUPAC have been identified, the question can then be explored of for what to compensate. Generally, compensation can take two forms: monetary and non-monetary. The options can be divided into three categories: compensation for time, actions, and results.

For what to compensate?

Compensating healthcare providers for the time spent on TUPAC is a relatively straightforward concept and the amount of compensation can be derived as a percentage of professionals' regular compensation (e.g. hourly or daily billing rate). Compensating healthcare professionals a fixed amount for TUPAC interventions, such as: the identification of tobacco users, providing a brief intervention or recommending/prescribing NRT, is a further concept. However, determining the amount to compensate is somewhat more complex as it is not time based and may encourage oral health professionals to rush interventions, which may impact on their quality and efficacy. The problem with both time and action based compensation is that they do not ensure effectiveness and possibly even discourage efficiency.

Compensation based on results is also difficult because there is no knowing how long it will take a patient to stop using tobacco or if they will relapse later. Results-based compensation is further complicated by the potential for more than one healthcare professional to be involved in helping any given person to quit. There are further difficulties in deciding who to count as a quitter and how to deal with relapse; which tobacco users are apt to do.

Other options for compensation include a staged model of compensation, providing increased compensation as higher levels of tobacco cessation or treatment

are reached. Such a model can help to encourage success and efficiency. TUPAC compensation may be limited to healthcare professionals who have received specialised training as a means of ensuring quality care. Involving health insurance providers and/or government oversight and auditing bodies in TUPAC compensation can help address the issue of ‘double dipping’ (multiple healthcare providers claiming compensation for the same quitter or the same quitter claiming compensation for quitting more than once), and cost effectiveness.

How to compensate

Monetary compensation can take the form of fixed payments, moving up the salary scale, bonuses, vouchers, or discounts (e.g. reduction of professional licensing fees). Non-monetary compensation options have yet to be tested but could take the form of TUPAC education and diplomas, recognition of specialisation (special logo or list for TUPAC trained oral health professionals), providing equipment or supplies. Non-monetary compensation could also take the form of points, which could be used by oral health professionals for national or international recognition, continuing education, licence renewal training, or to fulfil contractual obligations. Points could also be exchanged for supplies, equipment, prizes, or journal subscriptions.

How much to compensate

The amount of compensation for TUPAC, both monetary and non-monetary, may be based on the time and/or cost of the treatment provided or may be related to the estimated cost savings of the intervention (i.e. future treatment avoided or life years gained). While either of these two general methods for determining the amount to compensate oral health professionals for their work in TUPAC are valid; neither is simple and both must also be balanced against the general cost of treatment. Political and economic pressure should help to prioritise cost effective interventions over time.

Treatment and billing codes

To compensate oral health professionals’ TUPAC interventions, existing treatment and billing codes will need to be modified and/or expanded. The variety and complexity of healthcare systems make specific recommendations for the modification of treatment and billing codes impossible, however some guiding principles and general considerations will be outlined below.

Compensation of TUPAC as part of preventive oral care in Finland

A model for the compensation of TUPAC as part of preventive oral care has been available in Finland for

more than a decade. Private oral care in Finland covers about half of the adult population. Patients are supported through National Health Insurance by 60% of the tax confirmed by the government. In practice, patients are supported with 40% of the real cost of all treatment but orthodontic and prosthetic care.

Preventive oral health care measures in private practices can be compensated to patients by either one code: 1: CODE SCA01, At least 10 minutes preventive care in connection with oral treatment, and 2: CODE SCA02, At least 20 minutes in a separate visit without further treatment. In this model, preventive care must include at least two procedures from the following list:

- Health counselling/education including TUPAC
- Oral hygiene instruction
- Dietary counselling
- Fluoride treatment
- Professional plaque removal.

Combining several preventive procedures under the same code appears to be practical since patients quitting tobacco often need dietary counselling when replacing it with possibly eating sweets; they may also need professional tooth cleaning.

Patients seem to be more willing to pay for comprehensive preventive care than TUPAC counselling alone. In Finland, misuse and overuse of preventive care compensation codes have not been an issue to the insurance system as reported by the National Health Insurance. However, multiple uses of preventive care procedures need to be explained when billing the treatment with an oral diagnosis (chronic periodontitis, mucosal lesion, etc.). The diagnosis of tobacco use dependence alone for the compensation of TUPAC is not sufficient for legal reasons since dentists are allowed to only treat diseases of the masticatory system.

Current scientific literature

Dentists’ attitudes towards TUPAC have been examined in various studies. The EU Working Group on Tobacco and Oral Health conducted interviews in 12 EU-countries. Response rate varied from 1-74% in different countries, with a total of 4,534 respondents. Almost all were aware of the adverse effects of tobacco use on general and oral health, while only two thirds felt that tobacco counselling was their duty. Only a third of dentists reported routinely asking their patients about smoking, with wide variations between the countries. Two thirds reported that in principle there should be no barrier to incorporate tobacco cessation activities into their practice. However, the majority felt that the lack of time (83%), assumed patient resistance (73%), lack of patient education materials (70%), and lack of reimbursement mechanisms (64%) might be influencing barriers². The results suggest that oral health profession-

als' involvement in TUPAC could be increased through the provision of additional time and financial resources.

A thorough review of the published literature revealed a lack of information about compensating oral health professionals' TUPAC activities. Different options for compensating physicians have been studied however; these results can help to provide some information about the likely outcomes and effectiveness of compensating oral health professionals for TUPAC. Two studies found that physicians increased their identification of tobacco users and advice to quit as a result of the introduction of fee-for-performance compensation scheme^{3,4}. Millett *et al.*⁴ performed a population-based longitudinal study using records of patients with diabetes. In 2005, after the introduction of fee-for-performance, physicians recorded significantly more patients' smoking status than in 2003. The proportion of patients with documented smoking cessation advice increased from 48 to 83%, and the smoking prevalence decreased significantly from 20 to 16%.

Two other studies found evidence that the introduction of bonuses and incentives also increased physicians' tobacco use identification and advice to quit. Amundson *et al.*⁵ studied 14,489 patient records and found that the introduction of bonuses increased tobacco use identification from 49 to 73%, and advice to quit increased from 32 to 53%. Roski *et al.*⁶ compared clinics provided with printed smoking cessation guidelines and other clinics provided with financial incentives plus guidelines. The incentives increased the identification of tobacco use, but did not affect cessation rates.

Twardella⁷ provided physicians with two-hour group courses in smoking cessation methods. One group of physicians received payment for every patient not smoking after 12 months, while the other group had the possibility of providing patients with free NRT or bupropion. Free medication for patients increased the smoking cessation rate from 3% to 12-15%, while the incentives for physicians had no effect on cessation rates.

Reimbursing smoking cessation treatment to smokers has been shown to be effective in several six-month studies. Abstinence after two years was reported by Kaper *et al.*⁸. A group which was informed of, and could apply for, reimbursement reached 4.3% abstinence, compared with 1.6% in the control group.

In many European countries health systems do not offer any compensation for physicians or dentists to provide TUPAC, with the exception of patient payments or by some insurance companies on a voluntary basis. Tobacco cessation medications are mostly classified as 'lifestyle drugs' and thus excluded from compensation as well. These policies result in a low level of physician and dentist provision of TUPAC. In a recent study 32% of German primary healthcare physicians stated that the lack of financial incentives was a reason for not offering TUPAC services^{9,10}. Additionally, more than 80% felt that the lack of adequate training was the key barrier.

There is need for further research comparing the efficiency and effectiveness of various TUPAC compensation models for health care providers in general and oral health care providers in particular.

Recommended compensation model

After examining the various ways in which healthcare, oral healthcare and TUPAC are funded and provided, as well as examining the complexity and variety of compensation models, we recommend a simple four-stage model for compensating oral health professionals' TUPAC interventions. The recommended model is purposefully generic and will need to be modified in order to fit into each country's unique healthcare system. The model is designed to be realistic, modest and transparent in order to increase the involvement of oral health professionals in TUPAC. Our model does not make recommendations about the amount or best way to compensate oral health professionals for TUPAC as these details are best left to local experts and decision makers.

Before presenting and explaining the model in detail, the following general points should be noted:

TUPAC should be introduced into existing dental practice and billing codes in order to facilitate the compensation of interventions conducted by oral healthcare professionals

Because oral health professionals are often legally restricted to treating diseases and disorders of the masticatory system, the suggested billing codes are labelled as prevention of oral diseases and as treatment of tobacco-related oral diseases

TUPAC compensation for oral health professionals' interventions should be equal to that of other TUPAC providers and funded from the general health care budget, as tobacco use affects general health

Based on the best available evidence, oral health professionals should be free to determine the most cost effective and effective way to implement TUPAC within their own practice

The role of dental hygienists and dental nurses in TUPAC should increase. Where present, they may provide a cost efficient way to deliver TUPAC and other preventive treatments. Hygienists and other members of the dental team should be supported and supervised by dentists and receive TUPAC training.

If oral health professionals have not been adequately trained or do not feel confident to provide TUPAC, they should refer patients to a specialist. There should be no additional compensation for referrals.

It may be necessary to fast track heavily tobacco dependent patients or complicated cases after brief intervention directly to advanced care. Proceeding from the first stage to the next stages may happen immediately or over many years, depending on the patient's motivation and the grade of his/her tobacco dependence and/or

tobacco related diseases. Patients may periodically move between advanced care and basic care due to relapses. Follow-up needs to continue throughout a patient's life and should be compensated according to the level of care given. Compensation for follow-up visits or interventions and their annual frequency can be regulated by each country's health care system.

TUPAC should be included in the educational curriculum for oral health professionals and be made available to currently practicing oral health professionals

We recommend that countries offer an advanced TUPAC training and accreditation programme for oral health professionals. Providing oral health professionals with free or reduced cost training as well the implementation of a diploma or other system to recognise and advertise advanced TUPAC training are both forms of non-monetary compensation. Additional training, diplomas or ability to advertise with an advanced TUPAC certification logo may help trained oral health professionals stand out from their peers and make it easier for patients to find the help they need.

Recommended four-stage model for involving and compensating oral health professionals for tobacco use prevention and cessation

Stage 1: Identification and documentation

Content (Intervention): Identification and documentation of tobacco use and relating it to patient's oral health condition(s) where possible. Asking patients if they have ever tried to quit and / or if they would request help to quit. A patient asking the oral health professional for help or advice for quitting tobacco will pass from stage 1 to stage 2.

Justification: The identification and documentation of tobacco use over time is a necessary part of patient's medical history for quality care, informed consent and a proper treatment plan. Patients, who are not ready to quit tobacco, should not be coerced.

Compensation (Code): Stage 1 should be included in regular oral examinations with no additional compensation to oral health professionals and no additional charge to patients and would not significantly affect the time needed for the examination.

Stage 1 will not need to be separately coded, but should rather be included within regular oral examinations, the description of which may need to be modified to reflect the addition of TUPAC.

Stage 2: Brief intervention

Content (Intervention): A motivational interview and assessment of the level of tobacco dependency and a discussion of past quit attempts and relapses. Patients should be informed of existing support services, such as quit lines and support groups, advised how to use medication if needed, and offered follow-up support.

Justification: An assessment of motivation to quit and the challenges patients foresee is necessary for a more accurate diagnosis and treatment plan. Patients may be followed up at their scheduled oral examinations and encouraged to contact the oral health professional if they should require additional advice or support. If the aforementioned services do not seem sufficient, an appointment can be scheduled for intermediate care (stage 3). Heavily addicted patients or complicated cases can be fast tracked directly to stage 4 advanced care.

Compensation (Code): Stage 2 can be provided to patients during an additional 10-15 minutes of the original appointment or during a newly scheduled appointment, depending on the structure and staffing of the particular oral health professional's office.

Stage 2 consists mostly of secondary prevention and should be coded for compensation as such, in the same way as oral hygiene instruction or dietary advice.

Stage 3: Intermediate care

Content (Intervention): A detailed motivational interview, an assessment of tobacco dependency level and a review of past quit attempts. The most appropriate support services should be recommended, dietary advice offered, pharmacotherapy should be provided and its proper use explained where appropriate. Follow-up (phone calls or other electronic communication) should be considered as options.

Justification: More time may be necessary for more heavily dependent patients or for those who have unsuccessfully attempted to quit previously. National healthcare systems may limit the number of compensated interventions. The number and effectiveness of interventions could be monitored by an audit of patient records.

Compensation (Code): Stage 3 will require 20-30 minutes during a separate appointment or in connection with oral treatment and may require follow-up appointments. We recommend that the optional follow up be compensated separately. In most countries, new treatment and billing codes may need to be added for this stage of TUPAC and can be classified as secondary or tertiary prevention or a part of treatment of an oral disease.

Stage 4: Advanced care

Content (Intervention): Patients with severe tobacco addiction, complicated circumstances, special needs patients, or patients who have failed to quit or relapsed require advanced tobacco addiction treatment focused on behaviour change. This will most likely involve individual or group sessions and should be accompanied by long-term support and follow-up. Pharmacotherapy and dietary advice may also be necessary at this level of care, with assuring the proper use of these drugs by patients.

Justification: Only specially trained oral health professionals should be involved and compensated for advanced care, as specific behaviour change and addiction knowledge are necessary. If an oral health professional has not been trained, patients should be referred to a specialist without additional charge. Special needs patients such as the disabled, institutionalised or mentally compromised may require treatment from specially trained oral health professionals.

Compensation (Code): In most countries, new treatment and billing codes may need to be developed for stage 4, which could be classified as prevention or treatment.

Discussion

The scope of this paper is limited to exploring the role of compensation for oral health professionals' involvement in TUPAC, however other healthcare providers, such as dental, medical and dental hygiene schools, may be able to adapt the findings presented to their own situations.

Economic and organisational issues

A realistic and transparent model for compensation could increase the involvement of oral health professionals in TUPAC; an area where we believe we can be particularly effective. A generic model needs to be adjusted to fit into each country's unique healthcare system. The amount and form of compensation should be open to change, as the cost of all treatments and supplies are determined by the market and may change over time. The amount, form, and frequency of compensation can best be decided by national governments.

Standardised documentation and administration are needed for any compensation to be effective. Healthcare systems should think about, and plan for, documentation, administration, monitoring, and evaluation of TUPAC compensation before designing such compensation schemes. New or modified TUPAC billing and treatment codes will need to be integrated in IT-systems and electronic records. Because tobacco use negatively affects not only oral health but also general health, compensation for TUPAC and TUPAC training should come from the general health budget or other sources of funding and not from the oral health budgets. This would also help to further integrate oral health professionals into the larger healthcare system.

Ethical issues

If there is consensus that oral health professionals are both ethically and legally required to provide TUPAC, with which our group agrees, they should be provided with adequate training to ensure they can provide quality care. There is a need to better diagnose the level of

tobacco addiction in order to better provide treatment. The recommended four-stage model for treatment and compensation is a step in this direction.

It should be noted that there might be ethical issues related to deciding when to start asking children about tobacco use. There may also be ethical issues related to asking children if their parents or the adults they live with use tobacco.

Ways to provide oral health and TUPAC care to disadvantaged groups need to be improved. These individuals are the most likely to use tobacco and least likely to see oral health professionals on a regular basis. For both of these reasons they are the most at risk for developing oral lesions. Special approaches should be developed for mentally compromised, disabled and institutionalised persons.

Asking and advising about tobacco should be discrete, and the patient's opinions should be respected. Behaviour change is challenging and difficult if patients are not interested in change. Shame, stigma, or fear can result in denial or physiological distancing from the dangers of tobacco use, inhibiting patients' ability and likelihood to quit. These ethical issues may have to be debated by local stakeholders and locally adapted solutions should be created.

Conclusion

Oral health professionals, when properly educated and compensated, can be effective providers of interventions in tobacco use prevention and cessation. To encourage them to offer TUPAC services these interventions should be compensated similarly to other dental interventions. Existing treatment and billing codes will need modification and expansion. Tobacco addiction should be recognised as a disease entity rather than a behavioural disorder or merely a cause of other diseases.

We hope that the suggested simple, transparent four-staged model can help health systems to increase the involvement of oral health professionals in TUPAC activities in order to curb the growing epidemic of tobacco addiction worldwide.

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