Tobacco Dependence Treatment in Japan: Challenges in Mental Health Patients

Grant ID: 35677819

Educational grant request developed by Medscape Education Global and delivered by Medscape Education Global and CareNet.com

Abstract: The goal is to highlight the issue of tobacco dependence treatment challenges in mental health patients in Japan and to provide evidence-based guidance to optimally manage tobacco dependence in Japanese mental health patients. The program aims at increasing knowledge regarding tobacco dependence treatment strategies and barriers to their effective implementation in Japanese patients with mental health disorders, as well as improving competence in the application of treatment strategies in patients with mental health disorders. The initiative includes an online, enduring "Spotlight" panel discussion activity, which is targeted at a primary audience of psychiatrists and a secondary audience of primary care physicians, pulmonologists, and other healthcare professionals. Outcomes will be assessed using activity participation (user metrics); satisfaction (evaluation results and learner feedback); and knowledge and competence (posttest results data) to determine the impact of the education.

Keywords: tobacco dependence, smoking cessation, mental health disorders, psychiatrists, pharmacotherapy, varenicline, EAGLES

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Proposal

Overall Goal and Objectives

Medscape Education Global is proposing to develop an enduring educational initiative for clinicians, including psychiatrists, primary care physicians (PCPs), pulmonologists, and other healthcare professionals(HCPs) concerned with tobacco dependence treatment strategies for Japanese patients with mental health disorders.

Overall Goal: To highlight the issue of tobacco dependence treatment challenges in mental health patients in Japan and to provide evidence-based guidance to optimally manage tobacco dependence in patients with mental health disorders. The overall learning objectives include:

Increased knowledge regarding:

- Treatment strategies for tobacco dependence in Japanese patients with mental health disorders
- Barriers to effective implementation of tobacco dependence treatment strategies in Japanese patients with mental health disorders

Greater competence in the:

- Application of smoking cessation strategies with respect to tobacco dependence in patients with mental health disorders

Physicians, including psychiatrists lack knowledge in devising treatment strategies for tobacco dependence. This program employs an educational activity format which allows the multidisciplinary faculty to offer an in-depth exploration of issues and access to expert opinions regarding the adoption of evidence-based tobacco dependence treatment in Japan for patients with mental health disorders. It will also build the network of health care professionals in Japan providing evidence-based treatment of tobacco dependence by providing practice-level support to learners to translate evidence into clinical practice and develop new perspectives.

Current Assessment of Need in Target Area

Smoking & mental health disorders: an often-missed association

Smoking is a major public health challenge. According to a recent report by the World Health Organization (WHO), approximately 18% of the Japanese adult population (men, 30.1%; women, 7.9%) are current cigarette smokers.[WHO 2017] The benefits of quitting smoking are well documented and include a reduction in the risk of cancer (eg, lung, liver, colorectal), respiratory disease, cardiovascular disease, and premature mortality.[Alberg 2014] Data from the Tobacco Atlas indicate that every year, more than 161,000 Japanese people are killed by tobacco-related diseases.[Eriksen 2015] Evidence has shown that patients with mental health disorders are prone to smoking, and prevalence of smoking among this population is 2 to 3 times higher than in the general population.[Miyauchi 2017] The disproportionately high rates of smoking in this

Figure 1: Mental disorder and nicotine-addiction related features

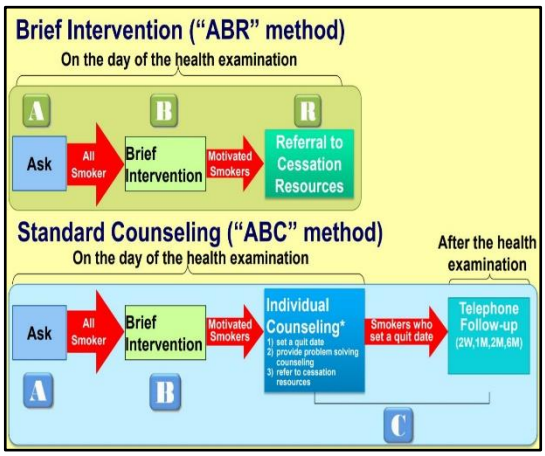
Major depression	↗ smoking and risk of nicotine dependence ↘ likeliness to quit ↘ odds of smoking abstinence
Depression symptoms	↗ smoking initiation ↗ progression to regular smoking
Anxiety disorders	↗ smoking rates ↗ nicotine dependence ↗ resistance to pharmacotherapy for abstinence ↘ rates of abstinence ↗ withdrawal symptoms
PTSD symptoms	↗ tobacco dependence ↘ rates of quitting and time to relapse after quitting ↗ nicotine withdrawal symptoms
Schizophrenia	↗ tobacco smoking, nicotine dependence and difficulties to quit

population are likely due to a combination of biological, psychological, and social factors that together create a unique vulnerability for tobacco dependence.[Ando 2013; Besson 2016] Additionally, smokers are more likely than nonsmokers to meet current diagnostic criteria for mental health conditions, such as mood disorders, anxiety disorders, and psychosis.[Minichino 2013] Although Japan ratified the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC) in 2004, in the 2017 WHO report on the global tobacco epidemic[WHO 2017] Japan was scored "No or weak policy" for smoke-free policies and mass media and advertising bans; "Minimal policy" for health warnings; and "Moderate policy" for cessation program and taxation. There is clear need for evidence-based guidance for physicians and HCPs to accelerate tobacco cessation, especially in special populations like patients with mental health disorders.

Tobacco dependence treatment in Japan: guidance for patients with mental health disorders

Japan has clinical practice guidelines devised by consortium of 9 academic societies (although directly involved in smoking-related problems, they do not involve academic societies representing psychiatrists/mental health professionals) to provide guidance to encourage smokers to stop smoking and prevent individuals from starting smoking.[JCS 2012] The guidelines recommend adopting the "5 A's" approach (Ask, Advise, Assess, Assist, and Arrange) as used in many countries as a simple smoking cessation treatment available in the general practice setting. For patients who are willing to quit, it is recommended to adopt the ABR (Ask, brief intervention, referral)/ABC (ask, brief intervention, counseling) method (Figure 2).[Nakamura 2013] Multidisciplinary approaches involving various HCPs have been shown to be effective but not widely practiced. It has been proven effective for clinicians to inform patients of the health risks of tobacco use and benefits of smoking cessation and prescribe drug therapy, whereas other HCPs provide psychosocial and behavioral therapies. Varenicline and nicotine replacement therapy have been shown to be effective in improving abstinence rates, and should be prescribed unless they are contraindicated.[JCS 2012]

Figure 2: The Methods of Smoking Cessation Intervention



Although there are guidelines available for tobacco cessation in general practice and most allied cospecialties, there is lack of awareness of standardized guidance for the subgroup of patients with mental health disorders.

Tobacco dependence treatment in Japan: barriers to QUITTING, focus on mental health patients

- **Desire to quit**: Despite the increased morbidity and mortality associated with smoking, only a small proportion of Japanese smokers express a desire to quit smoking or report making an attempt to quit. In a 2014 National Health and Nutrition Survey, only 26.5% men and 38.2% women expressed desire to quit smoking.[Ministry of Health, Labour and Welfare 2014]

Additionally, only 23% of current Japanese smokers reported making ≥1 quit attempt during a 12-month period.[Hagimoto 2010]

- **Desire to quit among mental health patients**: There is a general perception that mental health patients do not wish to quit smoking. A survey conducted in 2013 showed that among mental health patients who were current smokers, 43.4% had experienced smoking cessation, and only 26.1% were not interested in smoking cessation.[Umene-Nakano 2013]
- **Unmet need of treating patients with mental health disorders**: Only 1 out of 5 people with any mental disorder seek treatment in Japan.[Ishikawa 2016] This treatment rate is lower than that in most other high-income countries included in the World Mental Health surveys. The lower treatment rate is partly due to the stigma of mental illness.[Ando 2013]
- **Inadequate treatment support from physicians and other HCPs**: Only 37% of Japanese physicians or other HCPs offer tobacco cessation advice, which is among the lowest in high-income countries.[Nakamura 2013] Since clinicians can make a difference with even minimal (less than 3 minutes) intervention, the treatment of tobacco dependence in the general clinical practice setting is important. If physicians who talk with smokers during their practice begin intervention routinely, a significant number of patients may be able to quit smoking.[JCS 2012]
- **Smoking cessation among physicians and other HCPs**: Smoking among HCPs, especially among physicians, is problematic as it is perceived as promoting smoking, which thus undermines smoking cessation programs, especially that of smoke-free hospitals.[JCS 2012]
- **Smoke-free hospitals, especially mental health hospitals:** While both people with and without mental disorders should be protected from smoking-related harm, the implementation of total smoking bans in mental health hospitals in Japan is suboptimal compared with that of general hospital settings. This suggests that there are unique attitudinal barriers to the implementation of total smoking bans within mental health settings in Japan. A survey conducted in 2013 revealed that only 1 in 4 of the participating mental health hospitals had implemented total smoking bans when the survey was conducted.[Hoshimoto 2015] The results indicated that directors of Japanese hospitals were concerned that an introduction of a total smoking ban would exacerbate patients' psychiatric symptoms. In addition, the results showed staff opposition to implementing a total smoking ban.[Hoshimoto 2015]
- **Misconceptions about effect of tobacco cessation on mental health**: Another common misconception is that smoking has mental health benefits and helps patients cope with their psychiatric symptoms.[Prochaska 2011] On the contrary, smoking is associated with poor outcomes in mental health disorders, such as greater depressive symptoms, greater likelihood of psychiatric hospitalization, and increased suicidal behavior.[Khaled 2012; Minichino 2013; Miyauchi 2017] A large body of clinical research has shown that patients can quit without worsening their psychiatric symptoms, if they are given the appropriate support (eg, behavioral counseling, smoking cessation medication, and monitoring of psychiatric symptoms).[Tidey 2015]
- **Lack of confidence in providing smoking cessation care among physicians, including psychiatrists and other HCPs**: JCS guidelines in 2012 highlighted that currently only a limited number of HCPs can provide effective smoking cessation treatment and support to patients

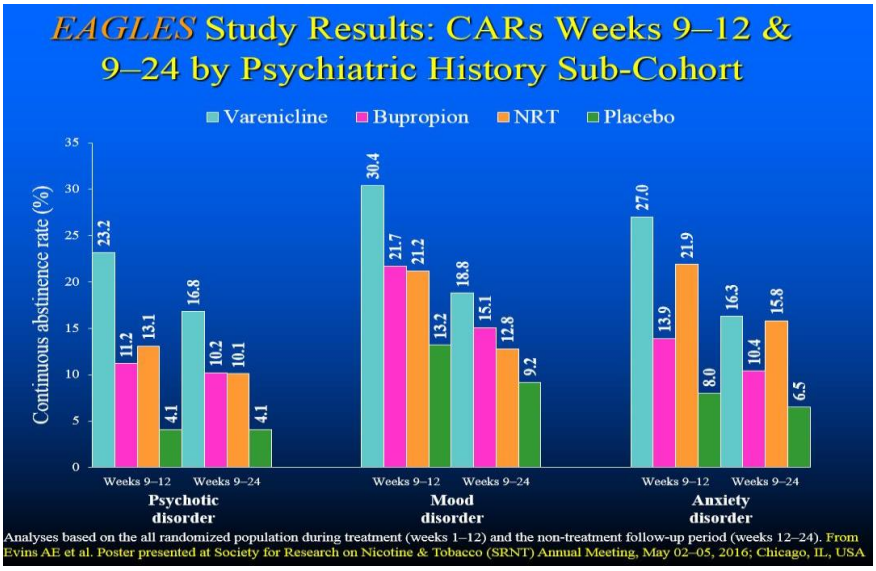
who smoke. It is further inhibited by the belief held by some mental health professionals that the patient's mental health will worsen if they quit smoking. For this reason, mental health professionals may not encourage attempts to quit.[Sharma 2016] This belief is inconsistent with the evidence that smoking cessation reduces depression, anxiety, and stress in people with serious mental illness.[Sharma 2016] Specialists in smoking cessation treatment and patient support must be fostered.[JCS 2012] It has also been observed that HCPs such as nurses and pharmacists lack confidence in supporting tobacco cessation, thus requiring continuous training.[Ishii 2017; Yano 2015]

Tobacco dependence treatment in Japan: addressing specific mental health disorders

Smokers are more likely than nonsmokers to meet current diagnostic criteria for mental health conditions, such as mood disorders, anxiety disorders, and psychosis. Furthermore, individuals with psychiatric disorders are more likely to smoke cigarettes than the general population. The mechanisms linking mental health conditions and cigarette smoking are complex and are believed to differ across each of the various disorders.[Minichino 2013] The most common belief is that patients with mental health conditions smoke in an effort to regulate the symptoms associated with their disorder. However, findings from a recent a meta-analysis suggest that quitting smoking may actually improve mental health compared with continuing to smoke. The effect estimates are equal to or larger than those of antidepressant treatment for mood disorders.[Taylor 2014] This is particularly true if the tobacco cessation intervention is integrated into the context of ongoing mental health treatment. However, more serious psychiatric disorders may require a more intensive intervention with frequent and long-term treatment sessions.[Minichino 2013] It is thus believed that a combination of behavioral counseling and pharmacotherapy are likely to be effective in patients with mental health disorders, although abstinence rates may be slightly lower.[Minichino 2013] It is important to be consider that smoking cessation may be more difficult for smokers with mental health conditions vs those without these disorders.[Anthenelli 2017] Medical staff and patients need to remember that tobacco dependence is a chronic relapsing condition and that may take a number of attempts to successfully stop smoking.

Schizophrenia: Findings from many studies demonstrate an improvement in mental health with smoking cessation.[Tidey 2015] In a long-term smoking cessation study among inpatients with schizophrenia in Japan, cessation was shown to be associated with not only a decrease in required doses of antipsychotics and antiparkinsonian drugs, but also improved autonomic nervous system (ANS) activity.[Miyauchi 2017] The pharmacotherapeutic interventions varenicline, bupropion, and nicotine replacement therapy (NRT) have been shown to be more effective than placebo in helping smokers achieve abstinence, with varenicline being more effective than bupropion and NRT (Figure 3).[Anthenelli 2016]

Figure 3: EAGLES study results



Anxiety disorders, including posttraumatic stress disorder (PTSD): The prevalence of tobacco dependence is higher among individuals with any anxiety disorder than in the general population. There are important neurobiological and genetic mediators between tobacco dependence and anxiety disorders, especially PTSD.[Minichino 2013] It has been documented that people with anxiety disorders may initiate and maintain smoking behavior in an attempt to self–regulate or cope with emotional distress. There is currently insufficient evidence for definitive recommendations regarding how best to promote smoking cessation among patients with other anxiety disorders (eg, generalized anxiety disorders, social phobia, panic disorder).[Minichino 2013] However, a combined approach of pharmacotherapy and behavioral counselling can have favorable outcomes.[Anthenelli 2017]

Major depressive disorders: Smoking cessation is associated with reduced depression and improved positive mood and quality of life compared with continuing to smoke.[Taylor 2014] However, most antidepressants do not assist smoking cessation, and there is thus an educational need to address tobacco dependence with specific treatment. Physicians should review the dosage of antidepressants and evaluate the side effects of these drugs before, during, and after tobacco cessation.[Minichino 2013]

Tobacco dependence in Japan: Medscape survey results

Medscape Education Global conducted a survey, commencing on the September 1, 2017, to better understand HCPs' views on unmet needs specific to tobacco dependence in Japan (both from a multidisciplinary approach in the general patient population and additionally in the mental health population.[Medscape Education Survey 2017] Medscape received responses from dentists, nurses, pharmacists, PCPs, pulmonologists, psychiatrists, and other HCPs. Survey results highlighted that:

- PCPs have an important role in tobacco dependence treatment strategies for mental health patients, with a psychiatrist highlighting that "...Intervention solely by psychiatrists is not sufficient."
- One of the psychiatrists said, "Low recognition of tobacco (nicotine) dependence in general population as well as mental health population," is a potential barrier in providing tobacco dependence treatment in mental health patients.

Tobacco dependence treatment in Japan: bridge the gap

As discussed above, it is clear that there is an urgent need to educate Japanese physicians and HCPs to manage tobacco dependence in mental health patients. Medscape Education is currently providing 2 global programs on smoking cessation on its platform, and recent metrics indicate that 9865 learners have benefitted from these programs. An overwhelming 95% learners of the program have indicated they will change their clinical practice as a result of the activity.[Schroeder 2017; West 2017] Educational programs with the following goals would facilitate Japanese physicians to effectively manage tobacco dependence in mental health patients:

- Expand awareness and acceptance of tobacco dependence in mental health patients among physicians, including psychiatrists and PCPs
- Break barriers to treat tobacco dependence in mental health patients
- Create integrated treatment strategies
- Promote treatment utilization, especially showing the merit of treatments covered by insurance
- Establish new treatment protocols, especially for challenging subgroups of patients such as patients with mental disorders

Training physicians, staff, and HCPs on the effective application of evidence into practice would facilitate physicians in Japan to not just manage tobacco dependence in mental health patients, but also contribute to the larger goal of successfully adopting tobacco dependence treatment elements of MPOWER and FCTC Article 14, and the commitment to tobacco-free Olympics and Paralympics 2020.

Target Learner Audience

The target audience for this initiative is psychiatrists, PCPs, pulmonologists, and other allied HCPs who are involved in devising and implementing treatment strategies for tobacco dependence in Japanese patients with mental health disorders. Medscape Education Global's unique site design customizes content by the clinician's specialty and geography, allowing for maximum exposure to its Japanese physician membership. Additional distribution of the activity through the Medscape partnership agreement with CareNet.com will provide the educational reach and access beyond standard activity recruitment. Therefore, Medscape Education Global and CareNet.com are uniquely poised to reach the Japanese target audience.

SPECIALISTS	COMBINED REACH OF MEDSCAPE AND	MEDSCAPE JAPAN PHYSICIAN	CARENET.COM JAPAN MEMBERSHIP

	CARENET.COM	MEMBERSHIP	
Psychiatrists	5659	573	5086
PCPs	33,101	2072	31,029
Pulmonologists	3712	452	3260
Residents	3617	1182	2435
Total Physicians	137,477	15,214	122,263

Project Design and Methods

Medscape Education will collaborate with faculty in the design and implementation of this enduring internet-based initiative, which includes a panel discussion. The educational intervention will reach practitioners who potentially manage patients with mental health tobacco dependence. The activity will be hosted on the Medscape Education website as well as CareNet.com to increase audience reach in Japan.

Activity: **Tobacco Dependence Treatment in Japan: Challenges in Mental Health Patients**
Activity Format: **"Spotlight" Panel Discussion enduring online activity**; 0.5 hour IME credit
Proposed capture: Japanese Respiratory Society 58th Annual Meeting, April 27–29, 2018, Osaka, Japan
Proposed Content: The panel will address the following topics:

- Barriers to the successful implementation of tobacco dependence treatment strategies in Japan for patients in the mental health setting
- The role of PCPs in Japan with respect to tobacco dependence treatment strategies among mental health patients
- Tailored approaches to tobacco dependence treatment strategies in specific mental health patient subpopulations in Japan (eg, differences in approach to patients with schizophrenia as opposed to patients with major depressive disorder or PTSD)
- Issues with smoking cessation and mental health patients in Japan (eg, potential worsening of psychiatric conditions in the short term and potential mitigation strategies)

Proposed faculty and specific topics:

- *Introduction and background to tobacco dependence in mental health patients in Japan.* Masakazu Nakamura, MD, Health Promotion Research Center, Institute of Committee Medicine, Japan Association for Development of Community Medicine, Tokyo, Japan – Chair
- *Schizophrenia and bipolar disorder patients and tobacco dependence treatment in Japan.* Masatoshi Miyauchi, MD, Department of Psychiatry, Yokohama City University School of Medicine, Japan

- *Patients with major depressive disorder and substance use disorder and tobacco dependence treatment in Japan*. Kazumichi Hashimoto, MD, Department of Psychiatry, Faculty of Medicine, Nara Medical University, Japan
- *Patients with posttraumatic stress disorder and generalized anxiety disorder and tobacco dependence treatment in Japan.* Wakako Umene-Nakano, MD, Department of Psychiatry, School of Medicine, University of Occupational and Environmental Health, Yokohama City University School of Medicine, Japan

The discussion would be moderated and closed by Dr Nakamura.

Instructional Design and Rationale: This 30-minute video activity is hosted by a faculty moderator with 3 expert panelists. This format is an effective teaching approach that allows faculty to offer an in-depth exploration of issues and access to expert opinions and identify practical strategies. The faculty will provide examples, expert feedback, and practice-level support to the audience. A deck of 20 to 25 slides will be developed to enhance the discussion and highlight key points for the learner. Interactive, multiple-choice questions will be included to augment and gauge learner engagement and provide feedback on the program. An abridged transcript and embedded slides and downloadable slide deck are provided for offline reference. The activity will remain live for 12 months.

Production in Japanese

This activity will be wholly recorded and produced in Japanese to increase its relevance to the local audience.

Evaluation Design

An outcomes assessment plan will determine whether the activity effectively met the needs of the target audience. In alignment with the Royal College of Physicians' continuing professional development standards, measures of educational effectiveness, in addition to participation metrics, will be collected for each activity, based on Moore's 2009 expanded outcomes framework: participation, satisfaction, knowledge, and competence.[Moore 2009]

The following data are available for reporting:
Activity participation: user metrics
Satisfaction: evaluation results and learner feedback
Knowledge and competence: posttest results

Completed by the learner immediately after participating in the activity, one can be assured that self-reported satisfaction and intent-to-change metrics are directly related to the intervention. Based on experience with prior programs on smoking cessation for a global physician audience, we expect that more than 90% of learners will expect to change their clinical practice as a result of the activity

Dissemination Plan

This initiative will be distributed via Medscape Education's global platform and CareNet.com to recruit learners. A variety of methods may be employed, which include site integration and placement into Medscape desktop and mobile platforms. Audience generation efforts include deploying onsite and offline announcements; a fully integrated recruitment plan executed throughout the entire Medscape desktop and mobile platform; using onsite placement in relevant specialty home pages and directories; and e-newsletters, as well as optimization within Medscape's internal search engine and external search engines (eg, Google). Medscape Education Global's unique site design customizes content by the clinician's specialty, allowing for maximum exposure to its global physician membership.

CareNet.com Add-on

Distribution for the Japanese in-language **"Spotlight" Panel Discussion enduring online activity** through the Medscape partnership agreement with CareNet.com will provide reach and access above and beyond normal activity recruitment. CareNet.com will actively recruit physicians to the education, but does not incentivize members to consume education content. The promotional campaign tactics will vary according to need, but include an email blast at launch and featured placement of the education on the dedicated MEDuLiTe site, which is linked to from the overarching CareNet site. Reporting will be provided on participation across both networks.

Detailed Workplan and Deliverables Schedule:

Content Development: Medscape will organize a planning meeting to develop the activity in this proposal. The activity will be codesigned by the Medscape Scientific Director and selected expert faculty.

Content Launch: The activity will be hosted on Medscape Education and MEDuLiTe, CareNet's education site.

Outcomes Dissemination: Outcomes results will be considered for presentation at professional meetings; manuscript submission to peer-reviewed journals, and publication as free-access articles on www.medscape.org.

Initiative Timeline: Contingent upon the timing of approval, Medscape Education Global will immediately commence work on this initiative. If recorded in April 2018 as planned, the activity will be live and accessible to learners by early summer 2018 for 12 months.

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