The Impact of Depression in the Workplace in Japan: Strategies and Solutions

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

Abstract: The program *The Impact of Depression in the Workplace in Japan: Strategies and Solutions* is aimed at providing a holistic view of depression in the workplace in Japan and its personal, societal, and economic impact. The overall goal of the program is to provide expert views and perspectives to improve the recognition and treatment of depression in the workplace in Japan. The primary target audience of this educational program is psychiatrists and primary care physicians (PCPs). The initiative includes an online educational activity for the target audience: The format chosen is a Curbside Consult program, which is an online, enduring video discussion between 2 leading experts to review and share their viewpoints and perspectives. The participants of the program will have increased knowledge regarding the impact of workplace depression, as well as screening tools and techniques for identifying depression in the workplace; and greater competence in recognizing and treating workplace depression in Japan. 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: depression, workplace, suicide, Japan

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Proposal

Project Background and Goal

Medscape Education Global is proposing to develop an enduring educational initiative for psychiatrists and PCPs in Japan.

Overall Goal: To improve recognition and treatment of workplace depression in Japan. The overall learning objectives include:

Increased knowledge regarding:

- The impact of depression in the workplace in Japan
- Screening tools and techniques for detecting depression in the workplace in Japan

Greater competence related to:

- Recognizing and treating workplace depression in Japan

There is an unmet need among physicians to improve recognition of the impact of depression in the workplace in Japan and increase competence in managing workplace depression. This program is delivered via an educational format that allows faculty to discuss and provide their expert views and perspectives on the scope of the problem, as well as screening, detecting, and treating workplace depression. It will also build upon the network of physicians in Japan so that they can provide evidence-based screening and treatment of workplace depression.

Project Design and Methods: Medscape Education Global will collaborate with faculty in the design and implementation of this this peer-to-peer "Curbside Consult" video discussion. This educational intervention will reach the range of practitioners who interact with patients with depression. The activity will be hosted on Medscape Education as well as CareNet.com to extend audience reach in Japan.

Activity: The Impact of Depression in the Workplace in Japan: Strategies and Solutions
Activity Format*: Curbside Consult*; Certified for 0.25 hour IME
Proposed Content: The experts will address the following topics to address depression in the workplace in Japan:

- Impact of depression in the workplace—personal, societal, economic
- Stigma of depression in the workplace—how can this be addressed?
- The problem of workplace suicidality in Japan
- Presenteeism and absenteeism in the Japanese workplace setting
- Screening, diagnosis
  - Best practice in the specialist and PCP setting, with particular emphasis on the workplace
  - Screening tools and techniques
- Pharmacotherapy and nonpharmacotherapy approaches available in Japan
- Best practice examples in Japan
- Barriers to successful implementation of strategies to address workplace depression in Japan
- Recommendations for clinical practice and the workplace setting in Japan

Proposed faculty: Potential faculty for this activity, selected by the Scientific Director, will be chosen on the basis of formalized criteria that ensure expertise, credibility, and authority in the field of depression, as well as effective teaching skills. Potential faculty members include but are not limited to:

- **Takashi Yakushi, MD, PhD**, Professor, Department of Neuropsychiatry, Graduate School of Medicine, University of the Ryukyus, Okinawa, Japan
- **Masao Tsuchiya, PhD**, Clinical Psychologist, Health Administration and Psychosocial Factor Research Group, National Institute of Occupational Safety and Health, Kawasaki, Kanagawa, Japan
- **Atsuo Nakagawa, MD, PhD**, Department of Neuropsychiatry; Center for Clinical Research, Keiko University School of Medicine, Tokyo, Japan
- **Hirofumi Oyama, MD, PhD**, Professor of Psychiatry, Department of Social Welfare, Faculty of Health Sciences, Aomori University of Health and Welfare, Aomori, Japan
- **Ichiro Kusumi, MD, PhD**, Department of Psychiatry, Hokkaido University Graduate School of Medicine, Hokkaido, Japan
- **Norio Ozaki, MD, PhD**, Professor of Psychiatry and Chairman of the Department of Psychiatry, Nagoya University School of Medicine, Nagoya, Japan

Instructional Design and Rationale*:* A Curbside Consult features an originally developed 10- to 15-minute video discussion or interview between 2 experts to exchange and explore viewpoints and highlight recommendations for patient care. Multiple-choice questions may be included in the instructional design to deepen learner engagement and provide feedback.

A downloadable deck of approximately 10 slides supports the discussion and highlights key points for the learner. This format has proven extremely effective as a teaching approach given its lively and engaging platform, which allows faculty to provide expert feedback, practical examples, and practice-level support. *An abridged transcript with embedded slides is also made available for offline reference.*

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

Target Learner Audience
The target audience for this initiative is psychiatrists and PCPs in Japan. Medscape Education Global's unique website design customizes content by the clinician's specialty, allowing for maximum exposure to its Japanese physician membership. The Curbside Consult will also be distributed by CareNet, the leading medical education provider in Japan and Medscape's exclusive partner reaching over 120,000 physicians in total. In collaboration, Medscape Education Global and CareNet.com are uniquely placed to reach the Japanese target audience.

SPECIALISTS	COMBINED REACH OF MEDSCAPE AND CARENET	MEDSCAPE JAPAN PHYSICIAN MEMBERSHIP	CARENET JAPAN MEMBERSHIP
PCPs	33,101	2072	31,029
Psychiatrists	5659	573	5086
Residents	3617	1182	2435
Total Physicians (All Specialties)	137,477	15,214	122,263

Project Members

Please find below the nonexhaustive list of key members of the project team, who are/will be involved in the program:

- Dr Yannick Seifert, Global Lead of Program Management, Medscape Education
- Leanne Fairley, Scientific Director, Medscape Education
- Dr Richard Olbrich, Clinical Strategist, Medscape Education
- Caroline Phillips, Director of Global Medical Education, Medscape Education

The **Global Lead of Program Management**, Yannick Seifert, will allocate this program to one of his team of project managers, while overseeing the program through to completion and maintaining established timelines within a Workfront project database system. Dr Seifert or his nominated program manager will organize status meetings and collaborate with both internal editorial teams and external partners during the program's development as needed. Dr Seifert will create and maintain the program's database timeline, providing the strategic tasks required to implement the program onto Medscape.org successfully.

The **Clinical Strategist**, Dr Richard Olbrich, and the **Scientific Director, Leanne Fairley**, will collaborate with faculty to develop the program. The **Director of Global Medical Education**, Caroline Phillips, will also work closely with the Global Lead of Program Management and Scientific Director to ensure the programming continues to meet planned milestones and objectives.

Dr Seifert and Ms Fairley are based in Europe and travel extensively globally to manage and oversee Medscape programming. Ms Phillips is based in the United Kingdom and travels extensively globally to maintain Medscape programming.

Current Assessment of Need in the Target Area

Burden of Depression in Japan: Impact on Work-Life

Major depressive disorder (MDD) is a commonly occurring, serious, recurrent disorder linked to diminished role functioning and quality of life, medical morbidity, and mortality.[Kessler 2013] Lifetime prevalence of depression in Japan is reported to be 6.8% or 8 million, with median age of onset at 30.1 years.[Kessler 2013] Among all medical conditions, depression may have the greatest negative impact on time management and productivity among workers.[Henderson 2011] Depression in Japan is more prevalent in the most highly educated individuals, and as 47% of the working population are highly educated, depression has a magnified effect on the working population.[Evans-Lacko 2016; Kessler 2013] Depression has a significant impact on a country's overall productivity, with absenteeism (unscheduled absence from work) costs reaching USD 14 billion and presenteeism (attending work while unwell) costs reaching USD 8.3 billion.[Evans-Lacko 2016; LSE 2016] Evans-Lacko and Knapp reported that

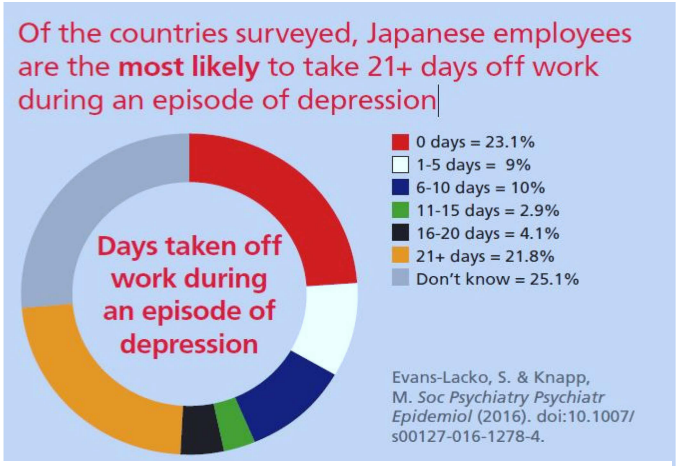

Figure 1. Absenteeism in Japan.

among their study countries (United States, China, South Korea, Canada, Brazil, South Africa, Japan), Japanese employees are the most likely to take 21 days or more off work during an episode of depression (Figure 1). The average cost of absenteeism per person associated with depression was highest in Japan (USD 2674), as a high number of employees took time off of work for at least 10 days.[Evans-Lacko 2016]

A recent survey by Fushimi on depression symptoms and related factors in Japanese employees reported that the mean Center for Epidemiologic Studies Depression Scale (CES-D) score was 16.12, and 44.2% of employees exhibited high CES-D scores (16 or above).[Fushimi 2015] **Sociodemographic and occupation-related factors associated with a high risk of depression were being female, young age, fewer hours of sleep on weekdays, and working over 8 hours per day**.[Fushimi 2015] Another recent survey conducted by Nakata using the CES-D scale reported that 30.3% of the survey population had depressive symptoms, and working 12 hours per day or more and reduced job satisfaction were associated with increased depressive symptoms in a dose-response manner.[Nakata 2017] Additionally, depression severity has been associated with loss of work productivity, even among the undiagnosed.[Asami 2015] Consequently, **there is an unmet need for medical education to improve screening, early detection, referral, and treatment of depression in the workplace and improve overall patient outcomes and well-being and optimize productivity.**

Depression Care: Impact of Stigma

Mental health-related stigma has played an important role as a barrier to development and to access to mental health services in Japan. Japanese people in general have the tendency to regard mental disorders as untreatable diseases, caused by weakness of personality rather than by biological factors.[Ando 2013]

The term “stigma” includes problems related to knowledge (ignorance or misinformation); attitudes (prejudice); and behavior (discrimination). Figure 2 (from a Japanese study) summarizes the current problems associated with the stigma and how it can be addressed.[Ando 2013]

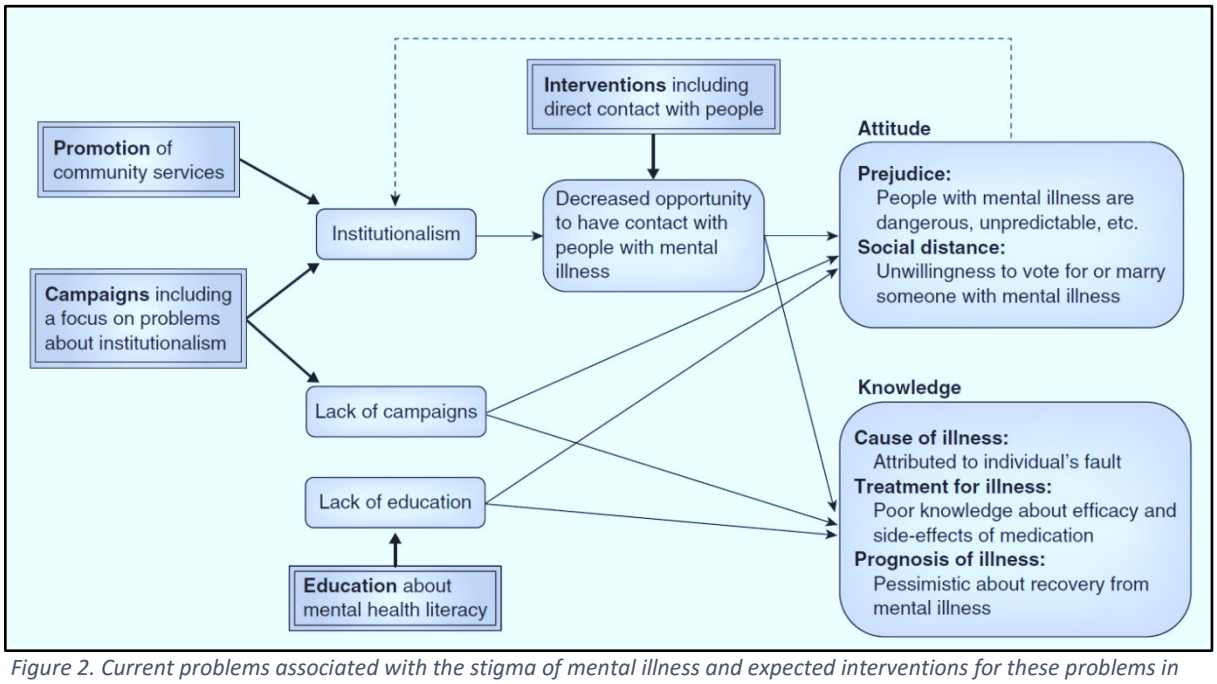

Figure 2. Current problems associated with the stigma of mental illness and expected interventions for these problems in Japan.

The internalized stigma (self-stigma) against mental illness also has a negative impact on self-concept, social relationships, and psychological well-being, which may impede the recovery process from mental illness.[Drapalski 2013] Besides self-stigma, other types of stigma that can exist are personal stigma (one's personal attitudes toward people with mental illness), perceived stigma (one's beliefs about social attitudes toward people with mental illness), and public stigma (social prejudice and discrimination against mental illness).[Yakushi 2017] Studies have consistently shown that Japanese patients feel a low perceived need for care (63.9%), which may be due to lack of awareness as well as people's negative perception of mental health services in Japan. The most common reason for delaying access to help was the wish to handle the problem on one's own (68.8%), while the most common reason for dropping out of care was also a low perceived need (54.2%).[Andrade 2014; Kanehara 2015] Japanese mental healthcare still remains predominantly hospital-based compared with other Organisation for Economic Co-operation and Development (OECD) countries, and people relate mental health with inpatient care and prolonged hospital stays.[Kanata 2016]

Not only patients but even nonpsychiatric physicians have barriers toward providing depression care to the Japanese population.[Ikai 2015; Ohtsuki 2012] Japanese nonpsychiatric physicians believe that depression care is beyond the scope of their duties.[Ohtsuki 2012] Evidence suggests that there is stigma associated with mental illness (primarily depression) among nurses and nurse managers, due to having worked with or supported nurses with mental illnesses.[Tei-Tominaga 2014]

Stigmatization contributes toward absence, delayed treatment, and/or inadequate treatment of depression. It also contributes toward suicide ideation and suicide. **Thus, awareness of the stigma toward depression and adoption of stigma-reduction programs[Yakushi 2017] and education among the public and healthcare professionals may contribute to reducing the burden of the disease.**

Depression, Suicide, and Working Hours

> *"The Prime Minister's Suicide Countermeasures Office and the National Police Agency found 2,323 suicides to be work-related in 2013; and it is not unreasonable to think that work stress was a factor in some of the 13,680 'health-related' suicides (Naikakufu Jisatsu Taisaku Suishinshitsu 2014)."[North 2016]*

Suicide is a major public health concern in Japan, with a staggering 30,000 deaths per year for the past decade and overall rates approximately 60% higher than the global average.[Mitsui 2017; Targum 2012] In 2007, the Japanese government initiated a 9-step plan to decrease suicide rates by 20% over the next 10 years by encouraging the investigation of suicide risk factors, changing cultural attitudes toward suicide, and improving treatment for those who have attempted suicide. Although some progress has been made, the prediction and prevention of suicide remain a high priority in Japan.[Mitsui 2017] Overwork can cause mental health problems as well. Depression and burnout syndrome are examples. Another serious consequence, "karojisatsu," is suicide due to overwork.[Nakata 2017]

In a 2011 white paper on suicide prevention in Japan, depression was identified as a major cause of suicide, with depression present in 7020 suicide cases.[JMA 2013] In a recent study it was found that adult participants from the general population who had depressive symptoms and suicide-related ideation (ie, ideas of suicide or self-harm) exhibited higher scores on the Temperament Evaluation of

the Memphis, Pisa, Paris, and San Diego Auto-questionnaire (TEMPS-A) depressive, irritable, and anxious temperament subscales than those without suicide-related ideation.[Mitsui 2017] **Takeuchi studied the combined effects of working hours, income, and leisure time on suicide in all 47 prefectures of Japan and reported that the rate of suicide in men was significantly correlated with working hours**.[Takeuchi 2014]

Prevention of Depression in the Workplace: Screening and Detection

In 2014, the Japanese government launched a new occupational health policy called the Stress Check Program in order to screen for workers with high psychosocial stress in the workplace. The program was implemented December 1, 2015.[Kawakami 2016] The law mandates use of the Stress Check Program at least once per year in all workplaces in Japan with 50 or more employees. Employers are not informed of the results of the Stress Check for individual employees without employee consent. Employers provide employees with a physician interview at their request. The program uses the Brief Job Stress Questionnaire (BJSQ), as it has been shown that the stress response measured by the BJSQ can demonstrate risk for the onset of depression.[Wada 2013] The rationale behind this program is:

- To decrease the risk of mental health problems in workers by increasing their awareness of their own stress through periodic surveys and feedback;
- To decrease work-related stressors by analyzing group stress survey results and improve the work environment; and
- To prevent mental health problems by screening for high-risk workers and provide them with opportunities to have physician interviews.

However, there is some uncertainty concerning the program's effectiveness in promoting worker mental health. First, no specified procedures are defined for some of the components of the program. In particular, improvement of the work environment, which is one of the evidence-based measures in this program, is not adequately detailed. It is a welcome step toward improving the mental health of workers, but as it is a voluntary program, its implementation and close monitoring would be warranted for it to successfully impact worker mental health.[Kawakami 2016] **Workers, employers and physicians would need education about the program and its benefits to make this program a success.** Studies have also evaluated other screening tools to identify depression and depressive symptoms in the workplace. The Patient Health Questionnaire depression scale and the Generalized Anxiety Disorder Scale have also been used as screening tools for web-based screening for workplace depression.[Isoda 2016] The combined use of Beck Depression Inventory and a 2-question case-finding instrument have been found to adequately identify workers with major depression as well as comorbid psychiatric illnesses.[Adachi 2012] The Occupational Depression Scale has also shown high sensitivity and specificity for major depression in the workplace and can be used as a valid screening tool for current major depression.[Kawada 2013] Another commonly used scale is CES-D, a proven and valid scale for detecting major depression in the working population in Japan.[Wada 2007]

There is an unmet need for physicians to be aware and knowledgeable of the available scales and how to optimally use them in their clinical practice to screen and detect depression and depressive symptoms in their patients.

Management of Depression

Management of depression in the workplace would not just include the treatment of the patient with the optimal therapy (pharmacotherapy or behavioral therapy or both), but also strategies to

address the stigma/barriers to mental healthcare. The management strategies should be able to complement and support the government directives and medical society's guidelines to screen, prevent, and treat depression, as well as step up suicide countermeasures.

- Guidelines in clinical practice: There is a gap between guideline recommendation and clinical practice in Japan, especially in lieu of the recently updated Japan Depression Society Treatment Guidelines for Depression (DSM-5)/major depressive disorder 2016The EGUIDE project (Effectiveness of GUIdeline for Dissemination and Education) is currently being run in more than 30 psychiatric medical institutions in Japan, to educate psychiatrists on the guidelines and conduct research to verify the effectiveness of the guidelines.
- Practice gaps: Studies have been conducted to compare psychiatry clinical practices between Japan and the United States and have revealed stark differences[Nakagawa 2015; Williams 2015]:
  - Japanese psychiatrists have higher patient volumes and shorter consultation times
  - Despite comparable guidelines and postgraduate training, Japanese psychiatrists are more likely to choose pharmacotherapy and fewer Japanese psychiatrists select psychotherapy than US psychiatrists.
  - Japanese psychiatrists prefer benzodiazepine monotherapy. Although guidelines recommend antidepressant monotherapy as an initial treatment, Japanese psychiatrists may have felt inclined to select antidepressants more conservatively as the second-line treatment after successfully establishing rapport with their patients, which is a challenge given the limited time available (ie, an average of 8 minutes), even for patients on their first visit. Furthermore, more than half the patients recently diagnosed with MDD received benzodiazepines and more than one-quarter of those continued benzodiazepine use for more than 1 month.[Onishi 2013]
- Cooperative models between psychiatrists and PCPs: It has been shown that most patients with depression first see a PCP who does not specialize in psychiatry.[JMA 2013] Thus, in order to enhance and strengthen the medical system for depression, it is essential to develop a system of cooperation with specialized medical institutions such as psychiatric hospitals/clinics in addition to improving the ability of PCPs to respond to depression. Models like the Fuji Model Project have been developed to address depression and suicide prevention for the generation in the prime of life.[JMA 2013]
- Education reforms: Most of the education reforms for development of psychiatrists and inclusion of psychiatric ailments in residency programs have been in a positive direction. However, the 2010 application of the new residency rules made psychiatry a restricted elective.[JMA 2013] Furthermore, there are extremely few occupational physicians who are psychiatrists, when the need for such specialized psychiatrists has increased.

As outlined in the needs assessment, there is an imminent need for programs to educate psychiatrists and PCPs to increase their knowledge regarding the impact of depression in the workplace in Japan and on screening tools and techniques for detecting depression in the workplace in Japan. Additionally, there is need for greater competence in recognizing and treating workplace depression in Japan.

Existing Projects

Since 2016, Medscape Education Global has conducted 5 activities in the field of depression globally, with over 24,000 physician learners. Medscape Education published the activity *Major Depressive Disorder: Getting the Patient Back to Work* (http://www.medscape.org/viewarticle/870553) in the field of workplace depression as part of an overall depression series from January 2016 – January

2017 for its global psychiatry and PCP audience. The outcomes study analysis of this highly successful program showed that psychiatrists and PCPs had an overall statistically significant improvement (*P*<.001) in knowledge and competence on concepts related to functional recovery in patients with major depression and its impact on work function. The participation led to improved confidence among 38% of psychiatrists and 53% of PCPs in their ability to identify cognitive dysfunction in patients treated for major depression. Furthermore, the participants of the activity demonstrated an improved ability to recognize the following concepts:

- The prevalence of presenteeism among patients with MDD
- The undertreatment of depression among employed people with moderate or severe MDD
- The importance of the recovery of executive function among patients with MDD who are returning to work

The results also revealed the future education needs in the area of association between functional recovery and presenteeism and undertreatment of moderate or severe MDD among patients who are working.

Evaluation Design and Dissemination of Results

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 the 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.

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 homepages 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 Distribution

Distribution for the Japanese Curbside Consult enduring online activity through the Medscape partnership agreement with CareNet.com will provide reach and access to the Japanese physician audience. 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 the overarching CareNet.com site.

Reporting will be provided on participation across both networks.

Detailed Workplan and Project Timeline:

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 and MEDuLiTe, CareNet.com'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. Once recorded, the activity will be live and accessible to learners for 12 months.

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