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H-2020-0690

27th April, 2021

To,

Dr. Benedikt Huttner,
The Secretary
WHO Expert Committee on the Selection and Use of Essential Medicines
emlsecretariat@who.int

Forwarded through: Dr. S.M. Manohari, Professor & Head of the Department of Psychiatry

Dear Dr. Benedikt Huttner,

Subject: Application for the inclusion of Bupropion and Varenicline on the WHO Model List of Essential Medicines (EML) for the treatment of nicotine dependence as an aid to stopping smoking and tobacco use.

We would like to recommend inclusion of Bupropion and Varenicline on the WHO Model List of Essential Medicines (EML) for the treatment of nicotine dependence as an aid to stopping smoking and tobacco use. I would like to present all the details if there is a need to present it before your expert Committee.

The rationale for the inclusion has been presented below:

- **Epidemiological information on disease burden**

  Global

  Globally, Smoking is one of the leading causes of preventable death and disease. There are 1.3 billion users of tobacco and 80% of them reside in LMIC. Even though there is a declining trend in the prevalence of smoking globally, the average global smoking rate is significantly high (19.2%) (US CDCP Report 2020; WHO, 2019). Around 8 million people continue to die every year from smoking-related diseases(WHO, 2018).

  India

  India is the second-largest consumer of tobaccoworldwide. The mortality associated with tobaccois estimated to be 1.3 million(Sinha et al, 2014).The age-standardized prevalence of any form of smoking in men at ages 15–69 years was 24% in 2010. Even though there is a modest reduction in the prevalence of smoking, the numbers of male smokers (15–69 years) has increased substantially over the last15 years, and also among the young adult men and illiterate men, bidi smoking is replaced by cigarettes(Mishra et al, 2016).

- **Assessment of current use**

  In a recent survey 28.6% (266.8 million) of adults in India, aged 15 and above currently use tobacco in some form. Among the adults, 24.9 % (232.4 million) are daily tobacco users. Currently, 42.4% of men, 14.2% of women, 32.5% of adults from rural areas, and 21.2% from the urban area use tobacco. khaini (a tobacco lime mixture) is the most commonly used (11.2%) tobacco product in India, while bidi (country made tobacco rolls) (7%) and gutka (a tobacco, lime, areca nut mixture) (6.8%) and betel quid with tobacco (5.8%) rank subsequently (GATS 2 India – Report, 2016-17).

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The prevalence of smoking tobacco was 10.7% (99.5 million), in men it was 19% and among women, it was 2%. The mean age at initiation of daily smoking for daily smokers 18.9 years (age group 20 and 34 years).

The prevalence of smokeless tobacco was 21.4% (199.4 million) currently uses tobacco. The prevalence of smokeless tobacco in men and women was 29.6 % and 12.8 % respectively, while it was 24.6 % in rural and 15.2 % in urban areas. The mean age at initiation of daily use of smokeless tobacco is similar to smoking tobacco.

- **Target population(s)**

The main target population is adults who are 18 years and above. The smoking cessation agents such as Bupropion and Varenicline in the Geriatric population (aged 65–75 years) have been found to efficacious in multiple studies. There have been no significant differences in the safety or effectiveness of them and the younger subjects. However, caution has to be taken when prescribing the medication to the Geriatric population because of decreased renal function, and hence it would be necessary for considering dose selection and monitor renal function (Burstein et al, 2006; Zhao et al, 2011; Pagidipati et a, 2017)

The smoking cessation agents such as Bupropion and Vareniclinehave not been recommended for the paediatric population due to the lack of efficacy studies in this group.

It is preferable to avoid the use of Bupropion and Varenicline during pregnancy and lactation.

- **Likely impact of treatment on the disease**

There are significant benefits of quitting tobacco smoking at any age and those who quit successfully have a reduced risk of dying or developing smoking-related diseases. The short-term benefits of quitting smoking include reduced frequency of cough, shortness of breath, improved lung function, and improved circulation. Long-term studies have found that those who quit smoking for Ten years had only a 50% risk of developing lung cancer and those who quit for more than 15 years had the risk of developing cardiovascular disorders similar to someone who has never smoked. These studies highlight the importance of quitting smoking in improving morbidity and mortality (Forey et al, 2011; Puig-Cotado et al, 2020)

Around 60-68% of the smokers wanted to quit smoking and 40% have attempted to quit smoking in the last 12 months, while most of them the attempts have been unsuccessful. The most common cessation strategy used by smokers is "cold turkey", but only 4 – 8% of them are successful. Many evidence-based guidelines advocate a combination of Pharmacological and behavioural support as an effective way to quit smoking. This combination has been found to double the chances of quitting and either of them is superior to an unaided attempt (US CDCP Report 2020; WHO, 2019).

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- **Recommendation:**

Based on the need to improve quitting rates in our population, we recommend the inclusion of Bupropion and Varenicline on the Model List of Essential Medicines. This will drastically cut the cost of treatment especially since India being a low- and middle-income country. The availability and reduction in the price of these medications will improve the population to access the medications and improve the quitting rates and ultimately improve their health and quality of life.

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Thanking you

Your's Sincerely

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27.4.'21

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