ALLIANCE
contre le tabac

Press release

COVID-19 and smoking :

the hypothesis of a protecting effect of nicotine to take with extreme precaution

Paris, 04/17/2020 - For several days and following various declarations by scientific personalities, many inaccuracies avec been reported by the media and on social networds about a possible protective effect of nicotine on the disease's development. The French Alliance against Tobacco wants to warn against any hasty resumption of such remarks tending to confusion between tobacco and nicotine and their respective effects on the evolution of patients with COVID-19.

The French Alliance against Tobacco deplores the promotion of a supposed protective effect of "tobacco" against a virus. Indeed, no information related to tobacco - itself responsible for a pandemic leading to the premature death of 8 million people a year worldwide - could possibly suggest that such a product could be a barrier against infections and provide a public health solution. The French Alliance against Tobacco reminds that in a press release[1] dated March 03, referring to a recent study published in the New England Journal of Medecine, smoking would induce a 133% increased risk compared to a non-smoker of developing a very severe form of COVID-19.

Furthermore, **the finding of particularly low rate of smokers in intensive care patients with COVID-19** (rate of 12.6% of smoking patients in intensive care according to a Chinese study[2] for a smoking prevalence of 27.7% in China and 1.3% according to a n American study[3] for a smoking prevalence of 13.4% in the USA) is, for the French Alliance against Tobacco **to handle with great precaution since these studies seem to reveal large inaccuracies in taking this risk factor into account in the saples observed**. Additionally, these very low rates compared to the smoking prevalence of these countries must also be analyzed based on the average age of the patients studied. In France for exemple, the France Public Health Barometer 2018[4] indicates that **the prevalence of smokers in the population over 65 is much lower than the percent average of the general population :** it is 11.3% for men and 8.8% for women aged 65 to 75 against 28.2% for men and 22.9% for women in the general population. This change in prevalence is observed in all countries. However, the serious hospitalized forms of COVID-19 mainly concern elderly people and especially men. It is therefore difficult to relate the smoking rate of this elderly population to the general population and associate it with a form of protection whatever the arguments put forward. [5] [6]

As a protective effect of nicotine against COVID-19 remains to be proven, **the French Alliance against Tobacco believes that the benefit/risk ratio largely argues in favor of stopping smoking.**

On the other hand, **The French Alliance against Tobacco advises against non-smokers using nicotine substitutes as prevention** and recommends to users of smokeless nicotine (excluding vapers and people in withdrawal) not to expect being more protected than the rest of the population from the COVID-19 epidemic and to strictly observe barrier measures.

Thus, the French Alliance against Tobacco concludes that :

- **There is no evidence to suggest that smokers are more protected than the rest of the population from the coronavirus. On the contrary, they risk being more affected by a severe form of the disease.**
- The current low number of smoking patients in intensive care is probably linked to the fact that consumption of tobacco decreases with age.
- Current epidemiological data do not support the hypothesis of a protective effect of nicotine.

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[1] CP – Alliance contre le tabac - 03/03/20 – Coronavirus COVID-19 : fumer augmente le risque de développer une forme sévère ou très sévère de la maladie - https://www.alliancecontreletabac.org/actualites-blog/2020/3/4/note-dinformation-coronavius-covid19-fumer-augmente-le-risque-de-dvelopper-une-forme-svre-ou-trs-svre-de-la-maladie

[2] Guan W et al. Clinical Characteristics of Coronavirus disease 2019 in China published on February 28, 2020, at NEJM.org. DOI: 10.1056/NEJMoa2002032 - https://www.nejm.org/doi/full/10.1056/NEJMoa2002032

3- MMWR Preliminary Estimates of the Prevalence of Selected Underlying Health Conditions Among Patients with Coronavirus Disease 2019 - United States, February 12–March 28, 2020 – "« ***Missing or unknown status for all conditions*** **(67,277)" (chiffre donné sur un total de 74,439 cas)** https://www.cdc.gov/mmwr/volumes/69/wr/mm6913e2.htm

[4] Andler R, Richard JB, Guignard R, Quatremère G, Verrier F, Gane J, Nguyen-Thanh V. Baisse de la prévalence du tabagisme quotidien parmi les adultes : résultats du Baromètre de Santé publique France 2018. Bull Epidémiol Hebd. 2019;(15):271-7. http://beh.santepubliquefrance.fr/beh/2019/15/2019_15_1.html

[5] Vaduganathan M et al. Renin–Angiotensin–Aldosterone System Inhibitors in Patients with Covid-19. published on March 30, 2020, at NEJM.org. https://www.nejm.org/doi/full/10.1056/NEJMsr2005760

[6] Oakes JM et al. Nicotine and the renin-angiotensin system. *Am J Physiol Regul Integr Comp Physiol* 315: R895–R906, 2018. https://www.ncbi.nlm.nih.gov/pubmed/30088946