

**MODERN VIEW OF ASTHMA: FOCUS ON THE GINA GUIDELINES (2020)****T. O. Pertseva***Dnipropetrovsk medical academy, Dnipro, Ukraine*

**Background.** According to data on 06.09.2020, COVID-19 pandemics led to the death of 880.000 people globally and 2.846 people in Ukraine. Coronavirus infection is important not only as it is, but also as a cause of bronchial asthma exacerbations (BAE). Apart from the viral infections, causes of BAE include allergens' influence, atmosphere pollutions, seasonal weather and lifestyle changes, low adherence to the treatment by the inhaled corticosteroids (ICS). However, viral infections cause about 80 % of BAE. It is caused by the fact that respiratory infections, including coronavirus infection, increase the amount of proinflammatory cytokines (interleukins -1, -6, -8, -21) and chemokines. **The aim.** To identify the peculiarities of BA management during COVID-19 pandemics according to the latest guidelines of Global Initiative on Asthma (GINA). **Materials and methods.** Analysis of scientific publications on this topic. **Results and discussion.** The first scientific publications stated that BA is not a risk factor of coronavirus disease. However, the later studies have revealed that the impaired lung function, uncontrolled asthma, frequent exacerbations and usage of oral corticosteroids (OCS) increase the risk of COVID-19. According to the GINA position, BA treatment must be continued in the usual regimen with the obligatory administration of ICS for basic therapy. Patients with severe BA must continue biologic therapy and must not interrupt administrated OCS. Physicians must ensure that the patients have the written instruction for BAE or other similar situations. During COVID-19 pandemics nebulization should be avoided if possible to avoid the risk of virus dissemination among other patients and healthcare professionals (possibly, it is said about nebulizers of common usage). Spirometry should also be avoided in suspects for COVID-19. Abuse of short-acting  $\beta_2$ -agonists (SABA) can be a cause of the additional mortality from BA. In case of monotherapy  $\beta_2$ -agonists and viruses have a synergetic action, as first ones increase the production of interleukin-6 and other proinflammatory mediators and proteins, increasing the airways' mucous layer edema, mucin production and bronchial hyperresponsiveness. New recommendations of GINA (2020) advice early usage of ICS together with formoterol. The fast effect (in 1-3 min) is an advantage of formoterol above the other long-acting  $\beta_2$ -agonists (LABA). Bufomiks Easyhaler («Orion Pharma») is a combination of formoterol with budesonide. It can be used for the basic treatment of asthma. At the moment changes in its instruction are planned: Bufomiks will be able to be administrated for symptomatic BA treatment and symptomatic treatment of chronic obstructive pulmonary diseases. Bufomiks Easyhaler can be used on all stages of BA treatment. Usage of this drug improves BA control both in primary administration and in switching from the other inhalers. It is worth mentioning that in Ukraine we also have other effective drugs for BA treatment. Particularly, Budesonide Easyhaler («Orion Pharma») – the most available dry powder inhaler, which is included into the program «Accessible drugs», and also Formoterol Easyhaler («Orion Pharma») — the only ready-to-use formoterol in metered dry powder inhaler. **Conclusions.** 1. Up to 80 % of BAE have a viral nature. 2. During COVID-19 pandemics ICS treatment must be continued. 3. SABA monotherapy has a few unfavorable influences, which are absent in combination of ICS and LABA. 4. Bufomiks Easyhaler, Budesonide Easyhaler and Formoterol Easyhaler are reasonable to use in BA treatment.

**Key words:** inhalational corticosteroids, bronchial asthma exacerbation, long-acting  $\beta_2$ -agonists, budesonide, formoterol.