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# BRONCHIAL ASTHMA INDUCED BY CHEMICAL AIR POLLUTANTS: A CHALLENGE IN THE HOSTILITIES ZONE

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**Abstract.** Bronchial asthma (BA) is one of the most common conditions of the respiratory system that develops in the military and civilian population in war zones, which is caused by the combined exposure of a complex of factors that pollute the environment during the military missions deployment. For Ukraine, the issue of the respiratory system morbidity from exposure to chemical air pollutants in the territory of hostilities is a new challenge.

**Materials and methods.** Analytical review of scientific publications was performed using abstract databases of scientific libraries PubMed, Medline and text databases of scientific publishing houses PubMed, Central, BMJ group and other VIP databases using system and content analysis.

**Results.** A wide range of chemical factors has a combined effect on the respiratory system of the military and civilian population, leading to the development of BA. Among them are components of explosive gases, particulate matter, emissions of diesel fuel, burn pits products, biological factors, consequences of fires, geological dust. According to epidemiological studies, the prevalence of BA among military personnel in combat zones is 3-6 %. During the functional examination of the lungs, 15 % of the examined showed bronchial hyperreactivity, which is a pathogenetic link of such diseases as BA, hypersensitivity pneumonitis, Reactive Airway Dysfunction Syndrome, which are related to DRLD — Deployment Respiratory Lung Diseases.

**Conclusions.** BA is one of the most documented diseases of the respiratory system caused by exposure to chemical pollutants in war zones. In Ukraine, the system of providing medical aid to the military and civilian population in the territory of hostilities needs to be improved, taking into account the experience of other countries. In particular, the issue of approving the presumptive list of conditions recognized to be related to military service during hostilities and including BA should be considered.

**Key words:** bronchial asthma, chemical pollutants, hostilities.