

Development of Inhalation Therapies to Reduce Acute Lung Injury and Acute Respiratory Distress Syndrome

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In recent years, we have witnessed the utilization of chemical weapons and other dangerous substances by armies and terrorist organizations. These substances lead to severe respiratory injuries, resulting in the appearance of Acute Lung Injury (ALI) and Acute Respiratory Distress Syndrome (ARDS), that are often fatal. To date, the relevant field medical response is relatively poor and needs to be improved. Many clinical trials testing locally administered drugs or systemic treatments against these clinical conditions have failed. In this review we will present various developments in inhalation therapies (e.g. delivery of drugs using inhalers) to treat injuries such as Acute Lung Injury (ALI) and Acute Respiratory Distress Syndrome (ARDS), which may be relevant for pre-hospital treatment in the future. ●

Keywords: Acute Lung Injury (ALI); Acute Respiratory Distress Syndrome (ARDS); Chemical weapons; Hazardous materials; Inhalation therapy.