Hypocapnia and Pediatric Vehicular Heatstroke: Prevention and Rescue

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According on extrapolation of the data in 2022, there are around 190,000 cases of acute respiratory distress syndrome (ARDS) in the United States each year and the main reason of ARDS is hypercapnia. Also, on the report of Social Science Research Network (SSRN) "Every few days, there are tales of young children dying of heatstroke after being left in cars around the world", the reason for 54% cases is due to the forgotten in-vehicle. This study aimed to examine the effectiveness Safe in Vehicle (SIV) on treating Pediatric Vehicular Heatstroke (PVH) and Hypercapnia especially for who have ARDS. The study methodology contained three phases. First, survey was designed and conducted about how much the treating PVH and Hypercapnia are dangerous and their Epidemiologic around the world. Then, SIV was designed to avoid PVH and hypercapnia by some actions that lead to change the air inside the cars after checking the presence of human in the car in case: 1) Temperature reaches reach dangers average. 2) If the percentage of the carbon dioxide was up the normal average. Firstly, the fan will turn on. Secondly, the windows will open by a few centimeters- to keep the children safe. Lastly, the device will send a message to the phone-number to alert the parents/guardian of the car. Finally, there was statistically significant relationship between decreasing the cases of PVH /Hypercapnia and SIV with efficient above 97%. As a conclusion, high effective method to reduce the level of PVH and Hypercapnia.

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