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Title: Pre-flight hypoxic test in hospitalized children with acute asthma exacerbation. How long should they delay the travel?

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Body: Any guidelines give us some evidence-based recommendations about fitness to fly in patients with respiratory illness but we haven't specific data about how long patients who had been hospitalized due to acute asthma exacerbation should wait to fly. Objective: We aim to determine how long it takes a pediatric patient with asthma after a severe respiratory exacerbation to overcome the pre-flight hypoxia test. Material and methods: Observational prospective study. We included patients admitted due to an asthma attack and planned to take a trip by plane after that period. Epidemiological and clinical data were recorded. Informed consent was obtained. During the first 24 hours after oxygen therapy was finished a spirometry and pre-flight hypoxic test was performed. Patients were selected as "fit to fly" if SatO2 remained above 90%. Results: We included a total of 21 patients (13 male). The mean age was 7.3 years (2.5-12.2). The means of the different clinical characteristics were: hospital stay 5.2 (3-10), oxygen therapy 4.1 days (1-9), maximum FiO2 0.4 (0.28 to 1, FEV1 88% (42-130), FVC 91% (53.7 to 148) FEF50 62% (33.7-117) and pre-test SatO2 95.5% (92 - 99).17 patients (81%) passed the test during the first 24 hours after removing the O2, and the remaining 4 (19%) within the next 24. No significant correlation was found between FEV1 and the minimum SatO2 during the test. Any previous data (including previous SatO2) were related with the test results. Conclusions: All the children hospitalized for asthma exacerbation pass the hypoxia test 48h after removing the oxygen so we conclude that concerning oxygen they could fly safely after this period.