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### **Therapeutic efficacy in acute bronchiolitis: salbutamol or adrenaline?**

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**Background & Aim:** Acute Bronchiolitis (AB) is a common health related issue potentially serious with little therapeutic window. This is an infection from the lower respiratory tract that affects children under 2 years old. The main cause is the Sincitial Respiratory Virus (around 60% a 80% of the cases). The therapeutic measures with nebulized salbutamol in the A&E is controversial in what refers to the children clinical score.

**Method:** Literature search and PubMed databases of review papers published in the last 10 years in portuguese, spanish and english with the following search MeSH terms: “salbutamol bronchiolitis”, “epinephrine bronchiolitis” and “treatment Acute Bronchiolitis”.

**Results:** 25 papers matched the criteria selection and out of these 7 were included for this work. An adequate treatment can reduce the symptoms and numbers of hospital admissions. Despite the fact that it is not the frontline treatment, bronchodilators are the type of therapy used the most for the relief of crises in infants. The physiopatological mechanism of obstruction in the airways is related to the edema from respiratory mucosa and with the production/accumulation of secretions, more than bronchoconstriction. This explains the downfall of the treatment. The studies are controversial. The use of short-acting B-2-agonists does not show any therapeutic efficacy. However it was verified opposing findings in specific subpopulations like children over 6 months or with atopy. Nebulized adrenaline used in selected patients showed some clinical improvement. Despite the facts, the main therapy for AB are the main general ones.

**Conclusions:** The short-acting B-2-agonists and adrenaline are drugs used as therapeutic efficacy in Acute Bronchiolitis but their efficacy is uncertain. However, nebulized adrenaline showed an improvement in children treatment efficacy.