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| **Study reference** | **Study characteristics** | **Patient characteristics 2** | **Intervention (I)** | **Comparison / control (C) 3** | **Follow-up** | **Outcome measures and effect size 4** | **Comments** |
| Faten, 2014 | Type of study:  RCT  Setting and country:  - Inpatients  - Tunis  Funding and conflicts of interest:  Not reported | Inclusion criteria:  Eligible infants included all previously well infants aged between one month old and 12 months old with a clinical diagnosis of first acute viral  bronchiolitis and who are hospitalized during the study period.  Exclusion criteria:  Children were excluded from the study if they had a gestational age at birth <34 weeks, or underlying chronic cardiac or pulmonary disease (eg, broncho-pulmonary dysplasia, cystic fibrosis), recurrent wheezing, severe respiratory distress, as evidence by apnea, heart rate> 200 beats per minute, respiratory rate >80 breath/minute, profound lethargy, duration of illness exceeding 15 days.  N total at baseline:  97 infants were randomized to the study protocol  94 patients achieved the study.  Intervention:  - Group 1: 31 patients received 5% hypertonic saline  - Group 2: 37 a mixed 5% hypertonic  saline and standard epinephrine  Control:  - 26 received normal saline (placebo)  Important prognostic factors2:  *age ± SD:*  I: Group 1: 3,76±2,8  Group 2: 3,28±2,53  C: 3,06±2,47  *Sex % M:*  I: Group 1: 71%  Group 2: 59%  C: 54%  *Baseline Wang Severity score:*  I: Group 1: 5,35±1,4  Group 2: 5,76±1,84  C: 4,28±1,53  Groups comparable at baseline?  No | Group 1: nebulized 5% hypertonic saline  (4ml)  Group 2: mixed 5% hypertonic saline with standard epinephrine ( 2ml  standard epinephrine + 2 ml 5% hypersaline) | Control: normal saline placebo (4ml of normal saline) | Length of follow-up:  Infants were only monitored until hospital discharge; no follow-up.  Loss-to-follow-up / incomplete data:  Three patients were excluded from statistical analyses: Two patients were withdrawn by the pediatric inpatient team because of worsening clinical status during the first 24 hours. These patients had been  randomized to receive placebo. Another patient was withdrawn at  parents’ request because the parents refused the hospitalization.  **NB: Only those who completed the study were included in the analyses.** | Wang clinical severity score, 30, 60, and 120 minutes after start treatment, mean (SD)  T30  Intervention:  Group 1: 4,74±1,3  Group 2: 4,54±1,53  Control: 4,42±1,8  p=0,74  T60  Intervention:  Group 1: 4,42±1,4  Group 2: 4,3±1,45  Control: 4 ± 1,55  p=0,56  T120  Intervention:  Group 1: 4±1,48  Group 2: 3,68±1,25  Control: 3,76±1,56  p=0,63  The mean time for discharge (SD) days  Intervention:  Group 1: 3,6± 1,7  Group 2: 3,5±1,973  Control: 4,48±3,81  p=0,32 | No patients in either treatment group experienced clinically significant adverse side effects (tachycardia, flushing, tremor or bronchospasm)  Criteria of discharge from the hospital included: no need for supplemental oxygen, Wang severity score less than 3 and adequate fluid intake.  NB:  Patients in control group were less often male and had a lower severity score at baseline than intervention groups.  Article conclusion: Nebulized 5% hypertonic saline or mixed 5% hypertonic  saline with epinephrine are safe but do not appear effective in treating moderately ill infants with the first acute bronchiolitis. |