

# An initial inquiry into cost-effectiveness of surfactant in India: a pilot randomized control trial

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## Abstract

**Background:** Exogenous surfactant is used for surfactant deficient lung disease in premature neonates. The cost-effectiveness in terms of cost per life saved by the intervention has not been studied in India.

**Aim:** The present study was done to evaluate the cost of surfactant therapy per life saved

**Setting:** Neonatal unit in a tertiary referral hospital.

**Design:** Prospective randomized controlled trial.

**Material & Methods:** 20 neonates with gestational age between 27 and 30 weeks with respiratory distress were recruited for the study and randomized for treatment with surfactant or to act as controls. All costs of hospitalization were totaled in both groups and differences in mortality, duration of hospitalization and costs were investigated.

**Statistical Analysis:** Differences between groups and the standard error of the difference were studied with the 95% confidence intervals.

**Results:** Odds of death were marginally higher in the surfactant group (O.R. 1.02, C.I. 0.39 – 2.7). The duration of hospitalization was significantly lower in the surfactant group. The costs were 20% higher in the surfactant survivors but it did not reach statistical significance.

**Conclusion:** The study did not show benefit in terms of reduced mortality. This is similar to the conclusion of the Cochrane meta-analysis. The cost per life saved could not therefore be calculated.

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*Keywords:* Surfactant, cost effectiveness, cost per life year gained