Title of metanalysis : Elective high frequency oscillatory ventilation versus

conventional mechanical ventilation on the chronic lung

disease or death in preterm infants administered surfactant: a systematic review and meta-analysis

PubMed ID of metaanalysis: 39623024

**Search terms**:

Pubmed (January 1, 1980 - June 01, 2023)

#

1 preterm

2 preterm labor

3 prematurity

4 premature

5 infant

6 neonate

7 newborn

8 neonatal

9 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8

10 high-frequency oscillation ventilation

11 high-frequency oscillatory ventilation

12 HFOV

13 oscillatory high-frequency ventilation

14 #10 OR #11 OR #12 OR #13

15 RCT

16 random

17 randomized

18 randomised

19 random controlled trial

20 #15 OR #16 OR #17 OR #18 OR #19

21 calfactant

22 infasurf

23 survanta

24 beractant

25 exosurf

26 surfactant

27 curosurf

28 poractant

29 #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28

30 #9 AND #14 AND #20 AND #29

31 limit 30 to yr="1980 -2023"

**Inclusion Criteria:**

The criteria for trials to be included in the meta-analysis were as follows: (1)

randomized controlled trials in ventilated preterm infants, (2) trial

comparing elective HFOV and CMV, (3) surfactant was used.

**Exclusion Criteria:**

Not given

Search Date: (January 1, 1980 - June 01, 2023)

Included studies: 11 RCTs

|  |  |
| --- | --- |
| Study title | Pubmed ID of included study |
| Courtney SE, Durand DJ, Asselin JM, Hudak ML, Aschner JL, Shoemaker CT. Highfrequency  oscillatory ventilation versus conventional mechanical ventilation for  very-low-birth-weight infants. N Engl J Med. 2002;347:643–52. | * **12200551** |
| Dani C, Bertini G, Pezzati M, Filippi L, Pratesi S, Caviglioli C, et al. Effects of  pressure support ventilation plus volume guarantee vs. high-frequency oscillatory  ventilation on lung inflammation in preterm infants. Pediatr Pulmonol.  2006;41:242–9. | * **16397875** |
| Durand DJ, Asselin JM, Hudak ML, Aschner JL, McArtor RD, Cleary JP, et al. Early  high-frequency oscillatory ventilation versus synchronized intermittent mandatory  ventilation in very low birth weight infants: a pilot study of two ventilation  protocols. J Perinatol. 2001;21:221–9. | * **11533838** |
| Gerstmann DR, Minton SD, Stoddard RA, Meredith KS, Monaco F, Bertrand JM,  et al. The Provo multicenter early high-frequency oscillatory ventilation trial:  improved pulmonary and clinical outcome in respiratory distress syndrome.  Pediatrics. 1996;98:1044–57. | * **8951252** |
| Moriette G, Paris-Llado J, Walti H, Escande B, Magny JF, Cambonie G, et al. Prospective  randomized multicenter comparison of high-frequency oscillatory ventilation  and conventional ventilation in preterm infants of less than 30 weeks  with respiratory distress syndrome. Pediatrics. 2001;107:363–72. | * **11158471** |
| Ogawa Y, Miyasaka K, Kawano T, Imura S, Inukai K, Okuyama K, et al. A multicenter  randomized trial of high frequency oscillatory ventilation as compared  with conventional mechanical ventilation in preterm infants with respiratory  failure. Early Hum Dev. 1993;32:1–10. | * **8462430** |
| Plavka R, Kopecký P, Sebron V, Svihovec P, Zlatohlávková B, Janus V. A prospective  randomized comparison of conventional mechanical ventilation and  very early high frequency oscillatory ventilation in extremely premature newborns  with respiratory distress syndrome. Intensive Care Med. 1999;25:68–75. | * **10051081** |
| Rettwitz-Volk W, Veldman A, Roth B, Vierzig A, Kachel W, Varnholt V, et al. A  prospective, randomized, multicenter trial of high-frequency oscillatory ventilation  compared with conventional ventilation in preterm infants with respiratory  distress syndrome receiving surfactant. J Pediatr. 1998;132:249–54. | * **9506636** |
| Salvo V, Zimmermann LJ, Gavilanes AW, Barberi I, Ricotti A, Abella R, et al. First  intention high-frequency oscillatory and conventional mechanical ventilation in  premature infants without antenatal glucocorticoid prophylaxis. Pediatr Crit Care  Med. 2012;13:72–9. | * **21499177** |
| Schreiber MD, Gin-Mestan K, Marks JD, Huo D, Lee G, Srisuparp P. Inhaled nitric  oxide in premature infants with the respiratory distress syndrome. N. Engl J Med.  2003;349:2099–107. | * **14645637** |
| Sun H, Cheng R, Kang W, Xiong H, Zhou C, Zhang Y, et al. High-frequency  oscillatory ventilation versus synchronized intermittent mandatory ventilation  plus pressure support in preterm infants with severe respiratory distress syndrome.  Respir Care. 2014;59:159–69. | * **23764865** |