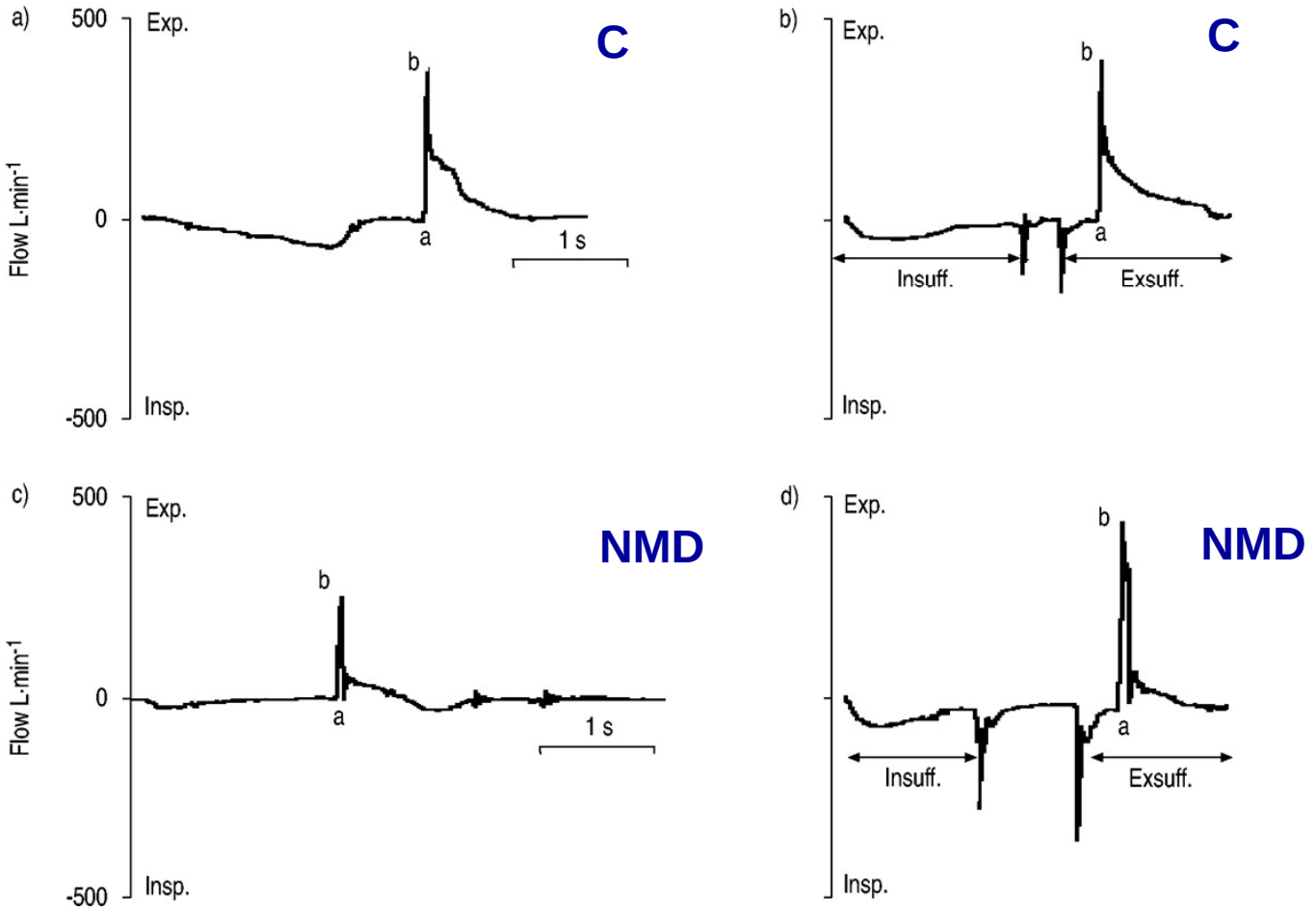
# Management

- Airway clearance
  - Ineffective airway clearance can accelerate the onset of respiratory failure [Bach et al 1997]
  - Peak cough flows < 160 L/min → ineffective airway clearance [Bach and Saporito 1996]
  - DMD: Peak cough flow < 270 L/min or MEP < 60 $cmH_2O$ [ATS consensus 2004]
  - 3 types
    - Manual techniques – glossopharyngeal breathing, air stacking [Kang and Bach 2000]
    - Mechanical techniques – Insufflator-exsufflators [Bach 1994]
    - Mucus mobilization devices – High frequency chest wall oscillator, intrapulmonary percussive ventilation

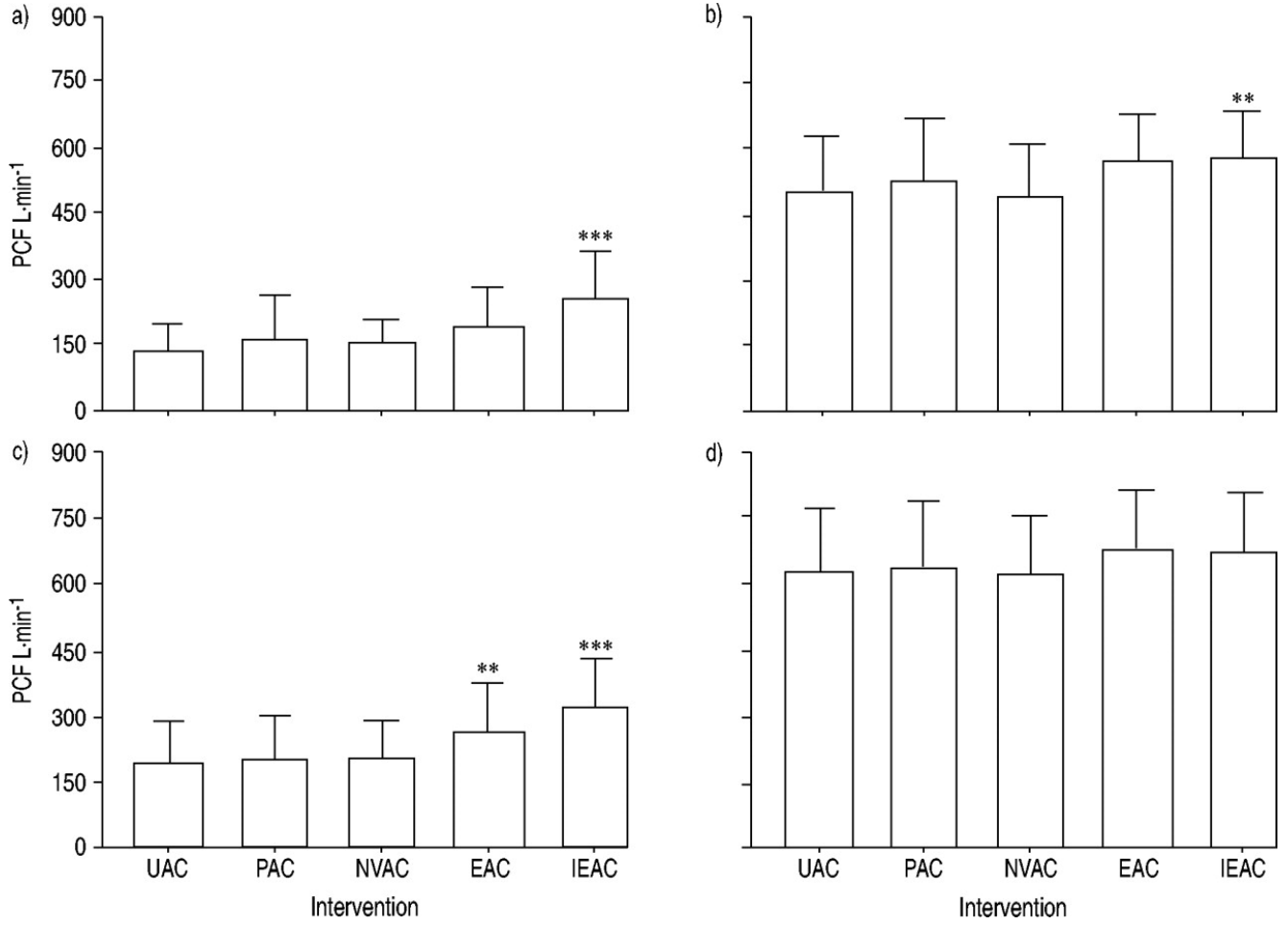
# Peak cough flow in NMD children




a,c = unassisted cough
b,d = insufflation/exsufflation cough

**Chatwin et al 2003**

**Chatwin et al 2003**




UAC = unassisted cough
PAC = physiotherapy assisted cough
EAC = exsufflation assisted cough
IEAC = insufflation-exsufflation assisted cough

**a=ped NMD**
**b=ped control**
**c=adult NMD**
**d=adult control**

# Patient with SMA using the MI-E via a mouthpiece

**Miske, L. J. et al. Chest 2004;125:1406-1412**