



SECTION: 2 RESPIRATORY PROBLEMS AND MANAGEMENT

RESPIRATORY PHYSIOTHERAPY

To assist with clearance of secretions in specific pulmonary conditions. The decision to use chest physiotherapy is individualised, commenced and performed by a physiotherapist on referral from a consultant or SR.

INDICATIONS

Lung collapse on CXR or Aspiration on CXR

CONTRAINDICATIONS

- Unstable infant, low blood pressure, apnoeas, bradycardias or severe desaturation on handling.
- Recent IVH
- Hypothermia
- Recent pneumothorax and risk of reoccurrence
- PIE
- Pulmonary haemorrhage
- Thrombocytopenia
- Evidence of osteopenia on Xray

KEY POINTS

The physiotherapist will liaise with the nurse caring for the infant to organise the appropriate time for treatment.

A nurse must be in attendance at all times during physiotherapy to attend to the infant's needs and make ventilator changes.

PROCEDURE (To be performed by physiotherapist)

- If infant is on continuous feeds, turn feed off 10 minutes prior to treatment.
- Observe HR and oxygen saturation.
- Observe ventilator settings and modality: if on SIPPV/PSV reduce the sensitivity of trigger from 1.0 to 1.6 to avoid triggering due to artefacts like manual vibration.
- Auscultate and perform suction as necessary.

Respiratory physiotherapy may include:-

- **Vibration**
- **Percussion**
- **Gravity assisted drainage position**

If the physiotherapist leaves instructions for gravity assisted drainage. Position infant according to instructions and diagrams.
Ensure positioning is documented.

REFERENCES

Beeby PJ, Henderson-Smart DJ, Lacey JL, Rieger I. Short and long term neurological outcomes following neonatal chest physiotherapy. *Journal of Paediatrics and Child Health*. 1998.

Button BM, Heine RG, Catto-Smith AG, Phelan, PD. Postural drainage in cystic fibrosis: is there a link with gastro-oesophageal reflux? *Journal of Paediatrics and Child Health*. 1998;34:330-4.

De Moraes dos Santos ML, De Svoza LA, Bastiton AP, Palhares DB. Results of airway clearance techniques in respiratory mechanics of preterm neonates under mechanical ventilation. *Rev.bras.ter.intensiva*. 2009; 21(2)

Gallon A. Evaluation of chest percussion in the treatment of patients with copious sputum production. *Respiratory Medicine*. 1991;85:443.

Harding JE, et al. Chest physiotherapy may be associated with brain damage in extremely preterm infants. *Journal of Paediatrics*. 1998; 132: 440-4.

Hough JL, Flenady V, Johnston L, Woodgate PG. Chest physiotherapy for reducing respiratory morbidity in infants requiring ventilator support. *Cochrane Database of Systematic Reviews*. 2008;

Hough JL, Johnston L, Brauer S, Woodgate P, Schibler A. Effect of body position on ventilation perfusion in ventilated preterm infants. *Pediatric Critical Care Medicine*. 2013 Feb;14(2):171-7

Hough JL, Johnston L, Brauer SG, Woodgate PG, Pham TM, Schibler A. Effect of body position on ventilation distribution in preterm infants on continuous positive airway pressure. *Pediatric Critical Care Medicine*. 2012 July;13(4):446-51.

Lewis JA, Lacey JL, Henderson DJ. A review of chest physiotherapy in neonatal intensive care units in Australia. *Journal of Paediatrics and Child Health*. 2008;

National Standards – 1- Care provided by the clinical workforce is guided by current best practice
 Legislation
 Related Policies - Nil
 Other related documents – Nil

RESPONSIBILITY

Policy Sponsor	Neonatology Clinical Care Unit
Initial Endorsement	June 2006
Last Reviewed	May 2011
Last Amended	June 2015
Review date	June 2018

Do not keep printed versions of guidelines as currency of information cannot be guaranteed. Access the current version from the WNHS website