A survey to assess the use of manual hyperinflation by physiotherapists in intensive care units

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Objectives: The objectives were to determine whether or not manual hyperinflation (MHT) is used as a treatment technique by physiotherapists on respiratory compromised patients in intensive care units (ICU).

Methods: A questionnaire was developed by according to the available literature on the use of manual hyperinflation by physiotherapists, Physiotherapists who practice cardiopulmonary physiotherapy in ICUs of hospitals in the private sectors in Karachi were identified then targeted for the study. The self-administered questionnaire was then posted and emailed to the physiotherapists identified for inclusion into the study.

Results: A total of 100 questionnaires were distributed among physiotherapists. Of the 100 questionnaires distributed, the response rate for the questionnaires was 80% The results showed 93% physiotherapist use MHT in ICU. Maximum airway pressure used by 78.8% physiotherapist is 20cmH2O, 80% used manometer, 30% use shaking as combination technique, 76.3% used percussion, 52.5% postural drainage and 48.8% used nebulization, 58.8% give a treatment of MHT for 5 to 10 minutes. An indication of MHT 42.5% physiotherapist gives to increase oxygen saturation, 43% for stimulation of a cough, 63.8% used for secretion dislodge,61.3% used to increase lung compliance and 53.3% used to increase lung volume. There is no physiotherapist who is post graduated in the field of cardiopulmonary rehabilitation.

Conclusion: The survey of 80 physiotherapists, working in ICUs of Karachi, indicated that MHI is a widely used treatment technique. There is a general consensus regarding the benefits, contraindications, and precautions regarding the use of MHI. This has been shown to be in line with current studies conducted in other countries. The survey does show that there is a need for the development of a post-graduation program in cardiopulmonary rehabilitation pertaining to the use of MHT.

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