HUFF & FORCED EXPIRATION TECHNIQUE

AIM

To safely and effectively teach and supervise a service user undertaking Huff or FET as a means of airways clearance (or as part of ACBT).

BACKGROUND

Huff
A huff is a forced expiration performed with an open glottis. It results in lower intra-thoracic pressures than a cough. Mid lung volume huffs are aimed at sputum clearance within lobar and segmental bronchi while low volume huffs are more effective in clearance of peripheral airways.

Forced Expiration Technique (FET)
The forced expiration technique utilizes both the huff and breathing control. It comprises 1-2 huffs from mid to low lung volume followed by relaxed controlled breathing. The forced expiration technique utilizes the huff to move secretions combined with a recovery phase to reduce the possibility of airway closure, desaturation or fatigue. Breathing control (Webber 1988), is gentle breathing with normal tidal volume and rate, using the lower chest. Relaxation of the upper chest and shoulders is encouraged, and expiration is not forced. The service user may need to adopt positions which help them use the lower chest and relax the shoulder (see competency on breathing control).

Procedure

1. **Check plan** for length of treatment and any variations (e.g. position). Identify whether any observations need to be taken and do this prior to commencing the technique (as per the relevant competencies).
2. **Explain the reason for the technique**: e.g. ‘this is to help you clear secretions from your upper airways or throat, which will make your breathing easier. It consists of a short sharp breath out through your open mouth followed by breathing control’.
3. **Position of Service User**: check plan. The service user position is important as ACBT may be carried out with postural drainage to aid secretion removal. The service user may have preferred or more effective relaxed breathing positions.
4. **Position of Rehabilitation Assistant**: in front and to side of service user, so you can clearly observe their face and respiratory action throughout.
5. **Explain how to perform the exercise**: ‘from a medium breath in you need to do a short sharp ‘huff’ out of your mouth as if you are blowing down a tube or steaming up a mirror – use your chest and tummy muscles to force the air out. If you do this 1-2 times it should help clear any secretions in your upper airway. Then recover by..."
breathing gently with your lower chest so your tummy rises as you breathe in. Try to keep your shoulders loose’. Demonstrate the technique.

6. **Ready …** ‘take a medium breath in and do a short sharp breath out through your open mouth as if steaming up a mirror, using your tummy muscles to force the air out. Now repeat and recover by breathing gently so your abdomen rises and falls and your shoulders stay loose’. Observe the service user and correct their technique as necessary. If they become wheezy or very breathless **STOP and seek advice from team leader/senior**. If the service user has difficulty with the technique, try again with an alternate description e.g. as if blowing down a tube – if they still cannot do it **STOP and seek advice from registered practitioner**.

7. **On completion** seek feedback from service user re how they found the technique. Ensure the service user is comfortable and not in distress.

8. **Document** in the Service User’s notes

9. **Feedback** clearly to the Registered Practitioner who delegated the task.

**References**


### SUPERVISED TASKS/EXERCISES CARRIED OUT BY REHABILITATION ASSISTANT – COMPETENCIES

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1. Read plan, identify exercises and any variations (e.g. need for observations, position)
2. Decide where to undertake technique (e.g. in sitting, with PD or with relaxed breathing positions)
3. Appropriate explanation of the reason for the exercise/technique to Service User
4. Start position of Service User
5. Position of Rehab Assistant relative to Service User
6. Verbal explanation & demonstration of how to perform the exercise/technique, including number of repetitions and any warnings.
7. Supervision of exercise/technique
   i. Verbal prompts and encouragement
   ii. Appropriate correction
   iii. Correct timing of repetitions and rest periods
   iv. Appropriate use of touch
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<td>Completion of exercise/technique – seek feedback from &amp; give appropriate feedback to service user</td>
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<td>Feedback to Registered Practitioner</td>
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