

Manual assisted coughing

Staff

Ensure you have enough people to assist in the procedure.

Consider:

- Spinal stability (does the patient require a shoulder hold?) ^[2]
- The size of the patients' chest (is a second person required?)
- Thickness of the patients' secretions (is a second person required?)
- Whether the patient is in bed or in a wheelchair (will assistance be needed to stabilise the chair)
- The experience of the available staff (is a second person required?)
- The upper body strength of the member of staff (is a second person required?)

Ensure the bed is at a height where you can use your body weight to maximum effect hence minimising effort involved.

- Take care not to lower the bed too far allowing any traction weights to touch the floor. If the patient is sitting in a wheelchair decide on the best technique for yourself and the patient and position yourself accordingly.

Patients performing self-assisted cough without supervision should have been assessed as competent to perform this and should possess relevant knowledge and skills ^[1] related to:

- Proper technique
- Possible hazards and complications
- Technique modification in response to outcomes of therapy
- Assessment of outcomes of cough with regard to sputum, quantity, colour and other relevant characteristics
- Appropriate response to changes in sputum production

Method

There are many techniques that can be used to assist a patient's cough. The principle of a coordinated forceful well timed effort replacing absent or weak expiratory muscles should be followed. The following list is not exhaustive and experienced staff may develop their own techniques for maximum effectiveness.

Staff wishing to develop their own method should ensure the exceptions and contraindications are taken into account so that the general principles of assisted coughing are adhered to.

Illustrations of techniques		
	Patient in bed	Patient in wheelchair
One person techniques	Method 1 Method 2 Method 3	Method 8 Method 9 Method 10
Two people techniques	Method 4 Method 5 Method 6 Method 7	
Self-assisted coughing techniques	In Bed.	Appendix 5

Method 1

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Place the heels of your hands underneath the ribs as illustrated.
2. As the patient attempts to cough push inwards and upwards.



Method 2

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Place one forearm across the upper abdomen of the patient with your hand curved around the opposite side of the chest. Your other hand is placed on the near side of the chest. As the patient attempts to cough, push simultaneously inwards and upwards with your forearm, squeezing and stabilising with the other hand.



Method 3

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Spread your hands anteriorly around the lower rib cage so that the heels of your hands are on the upper abdomen. With your elbows extended push the heels of your hands inwards and upwards with both arms as the patient attempts to cough. Arms must be kept extended for this technique to work effectively - it may therefore not be appropriate to use if the patient's bed does not lower to a suitable height.



Method 4

Appendix 5

Illustrated methods for assisted coughing – in bed. Two person techniques:

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

Method 4:

Stand on either side of the bed. Each person should place one forearm across the upper abdomen of the patient with your hand curved around the opposite side of the chest. Your other hand is placed on the near side of the chest. As the patient attempts to cough, push simultaneously inwards and upwards with your forearms, squeezing and stabilising with the other hand.



Method 5

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Stand on either side of the bed. Place your forearms across the patient's chest with your hands curved around the opposite side of the chest wall. Your arms should alternate, with the lowest arm positioned over the diaphragm. Squeeze the chest simultaneously as the patient attempts to cough.



Method 6

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Stand on either side of the bed. Each person places their hands on the upper and lower ribs of the same side with their fingers spread and pointing upwards and centrally. As the patient attempts to cough push upwards and inwards simultaneously.

Caution! This method may not be suitable for a patient who has an unstable spine as it introduces rotation of the thorax. See method 7.



Method 7

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Stand on either side of the bed. Each person places their hands on the upper or lower ribs of both sides of the chest, with their fingers spread and pointing upwards and centrally. As the patient attempts to cough push upwards and inwards simultaneously.
2. This two person method is preferred if spinal stability is a consideration as both people are pushing bilaterally which will minimise rotational forces.



Method 8

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Lock the brakes on the wheelchair. Stand behind the wheelchair and put your arms around the patient linking your hands together in front over the lower rib cage and upper abdomen. As the patient attempts to cough pull your hands up and inwards to assist them.



Note the helper's position: leaning against the wall with a wide stance.

Method 9

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. Back the wheelchair up against a wall so that it won't tip backwards and lock the brakes. Position yourself in front of the patient and place your hands over the lower ribs / upper abdomen. Push upwards and inwards as the patient attempts to cough.



Note the helper's position: at a comfortable level to provide pressure needed without excessive bending.

This technique can be used when it is not possible to reach around the patient from behind.

Method 10

Clear verbal direction and co-ordination between the person helping and the patient is essential for techniques to be successful.

1. As an alternative to technique 9:
2. Back the wheelchair up against a wall so that it won't tip backwards and lock the brakes.
3. Stand to one side of the patient with a wide stance and straight back.
4. Place your forearm across the patients' lower chest and your hands on their lower ribs. As the patient attempts to cough push upwards and inwards with a scooping action with your forearm and hands.

