

<p><b>Status: Standard Procedure:</b> Specifies the procedures to be followed, only in exceptional circumstances should these not be followed.</p>	<p><b>Policy No: CLSP 15</b> <b>Version No: 0</b> <b>Date Approved: 01/03/2011</b> <b>Review Date: 01/03/2013</b></p>
<p><b>Title:</b> Standard Procedure for Administration of medication through Nebulisers, Inhalers, Spacers</p>	
<p><b>Written by:</b> Clinical Practice Project Group</p>	
<p><b>Approved by:</b> National Risk Management Committee</p>	
<p><b>Cross Reference:</b> CLSP01, CLSP02, IG02, IG05</p>	

### 1.0 Purpose

The purpose of this procedure is to ensure the safe administration of medication through nebulisers, inhalers and spacers to Cheshire Ireland service users.

### 2.0 Scope

All Cheshire Ireland services where medication is administered to Cheshire service users

### 3.0 Responsibility

- It is the responsibility of all staff who administers medication to follow this standard procedure.
- It is the responsibility of service managers to ensure staff are familiar with the standard procedure and to monitor compliance.

### 4.0 Definition

**Asthma** is a breathing problem due to widespread narrowing of the airways (bronchial tubes). Airways are the breathing passages that allow air to move in and out of the lungs. These airways can be narrowed due to the accumulation of mucus, spasm of the muscles that surround these airways (bronchospasm), or swelling of the lining of the airways. Airway narrowing leads to shortness of breath, wheezing, cough, and congestion. An asthma attack is caused by the airways becoming swollen and inflamed and because asthma is a chronic disease it can be difficult to cure.

Medications work to either prevent acute flare-ups or to ease the symptoms of an asthma attack. These also can be helpful in service users with **emphysema** and **chronic bronchitis** when symptoms are partially related to spasm of the airways' muscles.

There are two types of medication, Preventers and inhalers .

**Preventers** must be taken regularly, because their aim is to prevent wheezing and breathlessness. They are not meant to give a rapid relief of wheeze. Very often a combination of preventers and inhalers is recommended. Preventers must be taken all the time even if the service user is not wheezy or in distress..

**Inhalers** are preferred over tablets or syrup because they deliver the medicine directly to the air passage where it is needed, a smaller dose is required and reliever inhalers work much faster than tablets.

A **nebuliser** is a device which is used to administer a solution of drug in the form of a fine mist for you to inhale. The pump (compressor unit) forces air through the liquid (drug solution) in the drug chamber (nebuliser chamber). This changes the liquid into a fine mist which you breathe in through a mask or mouthpiece.

A **spacer** is a large plastic or metal container, with a mouthpiece at one end and a hole for the aerosol inhaler at the other. Spacers only work with an aerosol inhaler and they help to get more medicine into the lungs than when just using the inhaler on its own

## 5.0 Procedure

### Equipment

Inhaler, nebuliser, spacer.

Medication

MAR

### 5.1 Procedure

#### Filling the nebuliser

- Plug the compressor unit into the mains. Connect the tubing from the compressor unit to the bottom of the nebuliser chamber.
- Unscrew the top of the nebuliser chamber. Open the vial of drug solution by twisting off the top.
- Measure out the correct amount of drug solution and pour into the nebuliser chamber as is prescribed, following both the doctors and manufacturer's instructions
- Check with G.P. or pharmacist before mixing two or more drug solutions in the nebuliser chamber.
- Sometimes the drug solution needs to be diluted. Add the required amount of normal saline.

- **DO NOT** dilute the drug solution with water. You need around 4-5ml solution in the nebuliser chamber for it to work properly.
- Screw on the top of the nebuliser chamber and attach the face mask or mouthpiece to the top of the chamber.

### Using the nebuliser

- Staff member will engage with the service user and confirm that they are ready
- Apply the 7 rights of medication administration. (CLSP 02)
- Place the facemask over the service user's mouth and nose and place the strap over the service user's head (alternatively, if a mouthpiece is used place it between the service user's lips)
- Support the service user to sit up, in a chair or in bed and keep the nebuliser chamber upright.
- Switch the compressor unit on and ask the service user to breathe in and out as normal. Help the service user to relax whilst using the nebuliser, (perhaps by watching television.)
- Whilst the nebuliser is in use, small drops of drug solution may form on the sides of the nebuliser chamber. Knock these droplets back into the drug solution by gently tapping the side of the nebuliser chamber with a fingernail.
- When the nebuliser starts to 'splutter' the treatment has finished - this will take between 10 and 20 minutes. A small amount of solution may be left in the nebuliser at this stage, but this is normal.
- Switch off the compressor unit and disconnect the nebuliser chamber from the tubing.
- Wash hands
- If at any point the service user is uncomfortable or distressed, stop before starting again
- Medication Administration Record is signed
- If the service user is not getting the usual relief from symptoms advise to contact G.P.
- Report any adverse reactions; itching, changes in hearing, balance, infection or severe pain to lead clinical person/line manager /G.P. Record in Best Possible Health Daily Continuation Sheet

## Trouble shooting

### Cleaning the nebuliser

- Each time it is used, wash the nebuliser chamber in warm soapy water and then rinse thoroughly with clean water. Do not use a brush to clean the nebuliser chamber as it may damage it.
- Reconnect the nebuliser chamber to the tubing and blow air from the compressor unit through it for a few seconds. This will dry the nebuliser chamber and tubing. Disconnect the nebuliser chamber from the tubing and allow it to dry completely. Disconnect the tubing from the compressor unit.
- Once a week, rinse the nebuliser chamber with a dilute solution of Milton or a special nebuliser cleaner. Rinse the nebuliser chamber with clean water and then dry as before.
- Check your tubing regularly for kinking or holes as these may affect the performance of the nebuliser. Tubing should be replaced every six months or so.
- The nebuliser chamber should last for around four months before it needs to be replaced. If it is taking longer than normal to nebulise the drug solution, it may be that a new nebuliser chamber is required. Ask the pharmacist to order one.

### **Note:**

High doses of medication given by a nebuliser can cause side effects depending on the medication. Tremor of the hands, palpitations and muscle cramps are some of the more common side effects.

- Spacers help to reduce the possibility of side effects from the higher doses of preventer medicines by reducing the amount of medicine that is swallowed and absorbed into the body.

## **Appendix 1**

### **Administration of medication through Nebulisers, Inhalers, Spacers Specialised Care Plan**

#### **Protocol for use of Inhaled Medications**

- Date the protocol the time comes into effect and a review date and/or expiration date.
- Possible triggers
- Possible warning signs
- When inhaled medication should be administered
- How much is given
- Whether a repeated dose can be given
- Time interval for a repeated dose
- Maximum dose over a 24 hour period
- When medication should not be given
- When emergency services should be contacted
- Other people to be contacted if appropriate

## Protocol for Inhaled medications

**Service user name:** \_\_\_\_\_ **Cheshire Service:** \_\_\_\_\_

**G.P. Name and contact details:** \_\_\_\_\_

**Consultant: Name and contact details:** \_\_\_\_\_

**Respiratory Nurse Specialist: Name and contact details** \_\_\_\_\_

**Date protocol started:** \_\_\_\_\_ **Review date:** \_\_\_\_\_

**Identify the possible triggers/possible warning signs when inhaled medication should be administered?**

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### Protocol

**Name and strength of medication:** \_\_\_\_\_

**Dose to be administered at any one time:** \_\_\_\_\_

**Maximum dose in a 24 hour period:** \_\_\_\_\_

**Minimum length between doses:** \_\_\_\_\_

**Medication route:** \_\_\_\_\_

**Report any problems to Service Manager/GP, PHN, Nurse /Respiratory  
Nurse Specialist**



### Appendix3;

#### Handy hints for using a spacer for service users



Your doctor, asthma nurse or pharmacist should show you how to use your inhaler and spacer properly

- Make sure that the spacer you have been given fits your inhaler
- Put one puff of your inhaler into the spacer and breathe in deeply through the mouthpiece
- Hold your breath for ten seconds (or for as long as is comfortable) then breathe out slowly
- It is best to take at least two deeply held breaths for each puff of your inhaler
- If you find it difficult to take deep breaths, breathing in and out of the mouthpiece several times is just as good
- Repeat the step above for each dose/puff needed

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