

- 4) To aid expectoration
- 3) Local analgesia - to relieve dyspnea in some terminally ill such as those suffering from alveolar carcinoma

### Articles

- Nebulizers
- Pressurized gas source
- Flow meter
- Oxygen tubing
- T-piece mouthpiece or mask
- Sterile normal saline
- 5ml syringe of water
- Prescribed medication
- Sputum tray
- Kidney tray
- Stethoscope
- B.P. apparatus, TPR tray.

### Procedure

- Place pt in sitting or high Fowler's position to facilitate lung expansion and aerosol dispersion.
- Attach free end of the oxygen tubing to pressurized gas source.
- Turn on the gas source & check outflow port, usually a setting of 5-6 ltr/min.
- Instruct the pt to breathe slowly deeply & evenly through his mouth.
- After about 3 deep breaths he should breathe gently using his lower chest (breathing control) & encouraged to breathe

deeply throughout the entire treatment the pt suffer from effect of hyperventilation.

- If possible, remain c the pt during treatment (usually 15-20 mins)
- Take vital signs to detect adverse txns to medications

### Care of patient

- Make sure the pt is comfortable
- Provide a spudum meg for sputing the expectoration
- Encourage & assist the pt to cough & expectorate
- Briefly stop the treatment if he needs rest
- Instruct pt to report any comfort.
- Check water level frequently to prevent complications from inhaling hot air.

### ORO-NASAL SUCTION

(Oropharyngeal & Nasopharyngeal Suctioning)

It is the removal of secretion from the oral cavity or nasal cavity & pharynx through the suction.

### Purposes

- Removing the secretion from the airway.
- Facilitating the ventilation

- obtaining the secretion for diagnostic purposes.
- preventing the infection

### Articles

#### A Clean Tray

- Sterile suction catheter
- Normal saline or sterile water in a container
- Sterile gloves
- Mask, face shield
- Alcohol swabs
- Suction cape

#### A Sterile Tray

- Sterile bowl
- Bowl
- Gauze pieces

- Suction source: portable suction wall suction unit.
- Suction catheter of different sizes.

### Procedure

- Assemble the equipments & check the functioning of suction apparatus.
- Explain the procedure to pt or his relatives.
- Assess the base line data of respiratory status of pt i.e., breath sound, ABG value etc.
- Provide semi Fowler's position to patient.

- wear the mask & wash the hand properly.
- place towel or water proof pad across the patient chest.
- Apply gloves.
- Connect the suction catheter to suction tubing connected to suction device.
- Turn on the suction.
- Remove oxygen device.
- Insert catheter to mouth or nasal cavity move catheter in cavity until suction are cleared.
- Replace the mask or oxygen device.
- Rinse the catheter in water until the secretion is cleared from suction tubing.

#### After Care

- evaluate the respiratory status
- Remove the towel & gloves
- Reposition the client in comfortable position
- wash & clean the articles used in suction
- Replace the articles
- wash hands
- Document the procedure, finding & condition of pt pre & post suction

#### COLLECTION OF SPECIMEN OF SPUTUM FOR EXAMINATION

##### quantity

Normally no sputum is expectorated. The amount of sputum coughed up in 24 hrs varies in the diseases.

Consistency  
The sputum may be classified into various types according to its consistency & appearance, e.g., serous, frothy, mucoid, purulent, haemorrhagic.

Odour  
Normally the sputum is odourless. In acute diseases the sputum is odourless, in chronic infection when the sputum is retained inside the lung it has undergone some decomposition. The odour becomes foul. In case of lung abscess, carcinoma the sputum will be foul smelling.

Colour  
When sputum consists largely of mucus it may be colorless & transparent. Presence of pus may give rise to yellowish color. A blackish contains a lot of carbon pigments as seen in excessive smoking. Presence of blood in the sputum is called as haemoptysis & may appear as bright as red. Bright red or frothy sputum indicates fresh bleeding from the lungs. Dark red shows that it was in the lungs for sometimes. Rusty color of the sputum is due to the altered haemoglobin as seen in pneumonia.

Appearance  
If sputum is examined microscopically

a few WBC & epithelial cells may be seen. eosinophils are found in such conditions such as asthma. RBC is found only when there is haemoptysis. The main organisms that are looked for in a stained sputum are tubercle bacilli (AFB). Others are strept. cocci, pneumococci & dysenteria bacilli.

method of collecting sputum specimen  
waterproof disposable sputum cups are used to collect sputum specimen. A large container is required, if the physician desires to have the total sputum expectorated in 24 hrs. If sterile specimens are desired, a wide-mouthed sterile glass bottle & a blue cap can be used.

The client should be given the container on the previous evening & is instructed to raise the material from the lungs by coughing & not simply expectorating the saliva or discharge from the nose or throat. The sputum should be collected in the morning before brushing the teeth & taking the food. Mouth can be rinsed w/ plain water & not w/ any antiseptic mouth washes.

To collect the sputum from a young child use a cotton applicator & a test tube. When the sputum is coughed up, wipe off the sputum & cotton applicator & is dropped into the clean test tube. Close the tube & a cotton plug.