

## Bronchoscopy



Figure. Bronchoscopy being performed

### *What is this procedure?*

Bronchoscopy is a procedure that a thin and flexible endoscope is passed through the nose or mouth or through a breathing tube (endotracheal tube or tracheostomy tube) directly into the major airway. It enables the doctor to perform examination of the trachea and bronchus under direct vision.

### *Why there is a need to do it?*

#### **Here are some common reasons in ICU settings:**

- For treatment: Remove blockage by foreign object or retained sputum in the airway, stop bleeding from airway
- For diagnosis: To obtain sputum specimen or lung tissue for testing (e.g. looking for bacteria, virus or malignant cells), to locate site of bleeding, to evaluate abnormal chest X-ray findings, to assess hoarse voice, to confirm suspicion of obstruction of breathing tube
- Others: to locate the position of breathing tube, to assist in the procedure of tracheostomy

### *How is it done?*

#### **Before the procedure:**

- Eating or drinking might not be allowed for certain period of time before the procedure according to patient's condition; dentures should be removed if it was not done already. Blood tests including blood gases will be checked by blood taking.

**During the Procedure:**

- Patient's vital signs (e.g. blood pressure, pulse rate and oxygen saturation) are closely monitored. Patient is kept in face-up position. Supplementary oxygen is given.
- Depending on the route of insertion of the bronchoscope, nostrils and throat may be sprayed with local anaesthetic agent before the procedure to reduce discomfort. Sedative drugs may be administered when necessary.
- The bronchoscope is inserted through the nose, mouth or breathing tube, and passed into the windpipe then the bronchial tree for examination.
- Airway irritation resulting in coughing may happen.

**After the Procedure:**

- Depending on the doctor's decision, there would be a period of fasting after the procedure.
- Chest x-ray might be taken after the procedure to look for any complication related to the procedure.
- Feeling of sleepiness or dizziness may occur if sedation is given during the procedure. Bed rest for a few hours is recommended.
- Mild sore throat and coughing with blood stained sputum may be expected for a short period of time.

***Risks and complications*****General risks:**

- Discomfort during procedure (e.g. cough, sore throat)
- Side effect of sedative drugs (e.g. sleepiness, dizziness, drop in blood pressure) or local anaesthetic agent

**Specific risks:**

- Pneumothorax
- Bleeding from lung/trachea/bronchus
- Worsening of patient's respiratory condition
- Risk of infection
- Abnormal heartbeat and triggering heart attack occasionally

***Possibility that the procedure cannot be carried out***

There is a possibility that we are unable to perform the procedure, e.g. patient intolerant to the procedure or occurrence of side effects or complications. The doctor may terminate the procedure.

### ***Other treatment options***

If the patient chooses not to perform this procedure, it may affect the overall condition. The change of the condition is affected by a variety of clinical factors, including the individual patient's physical condition before the onset of illness, the type of disease, the response to treatment and the progress, etc. Your doctor will explain other suitable options to you.

### ***Disclaimer***

The information provided in this booklet is for general reference only. The risks and complications listed above are not exhaustive. Please consult your attending doctor for details.