

# Flexible Video Laryngoscope

Contents

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Clinical application

## Endoscope

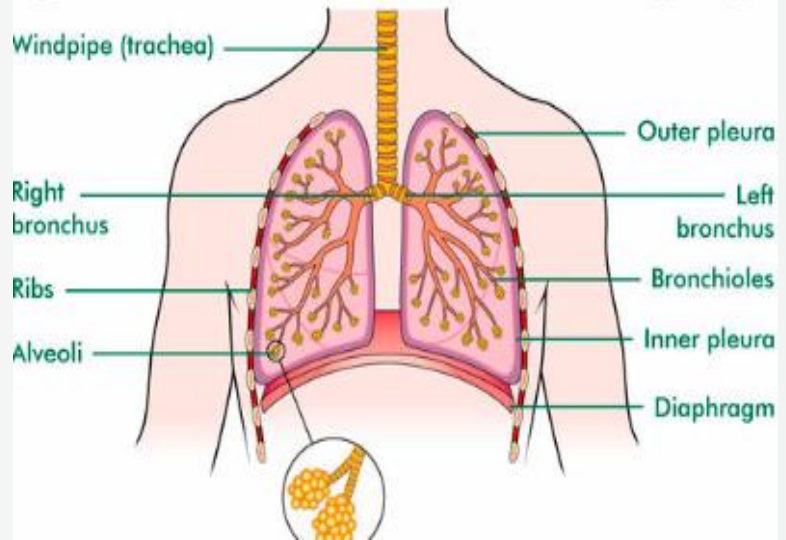
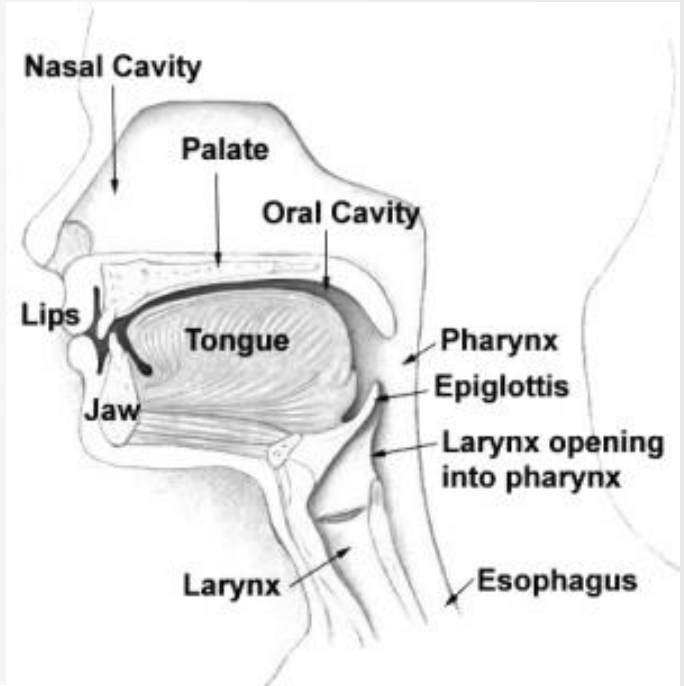
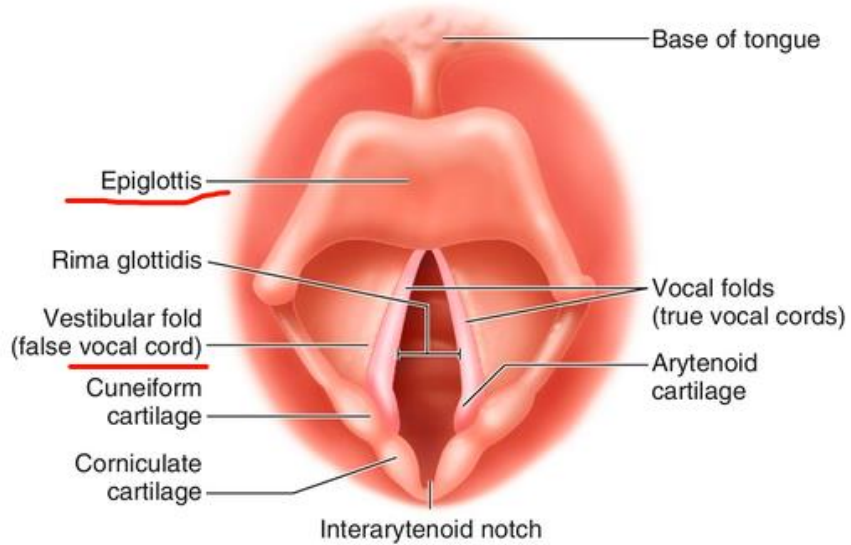
Greek language endo- means "within, inside"

Greek language Greek skopos; "to watch, look at"

**bronchoscope is a scope** that doctor use to examine airways. through nose or mouth and down throat to reach your lungs.

**Bronchoscopy is a procedure** that lets doctors look at your lungs and air passages.

During bronchoscopy, a thin tube (bronchoscope) is passed through your nose or mouth, down your throat and into your lungs.



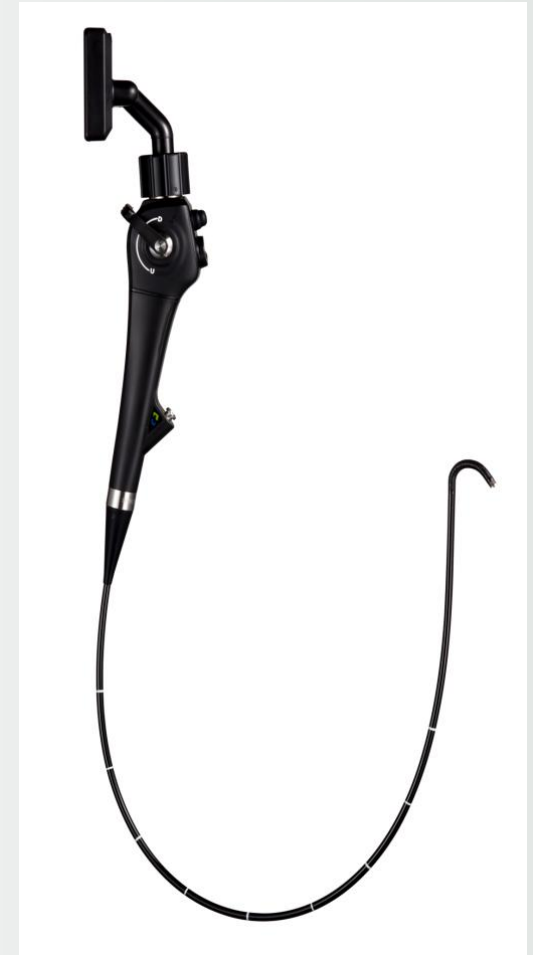
# VL3S

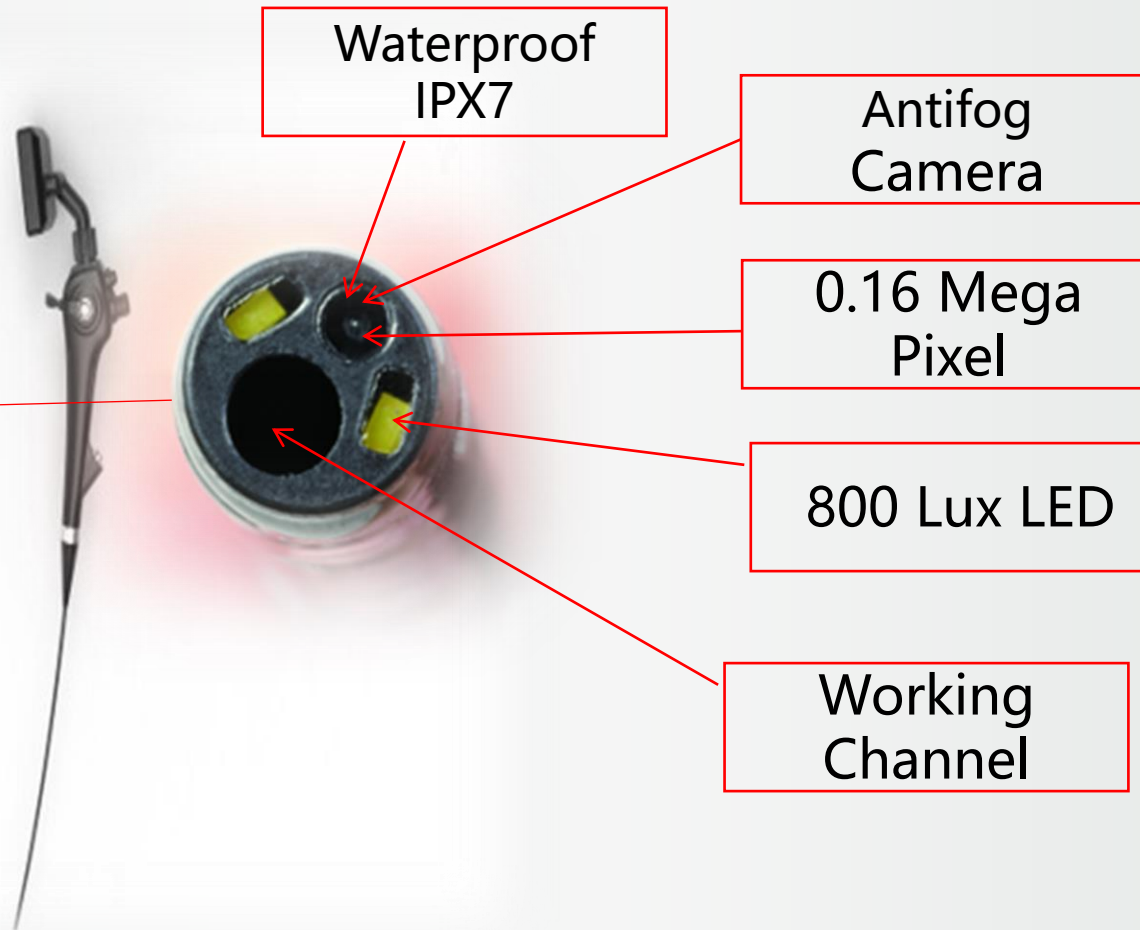
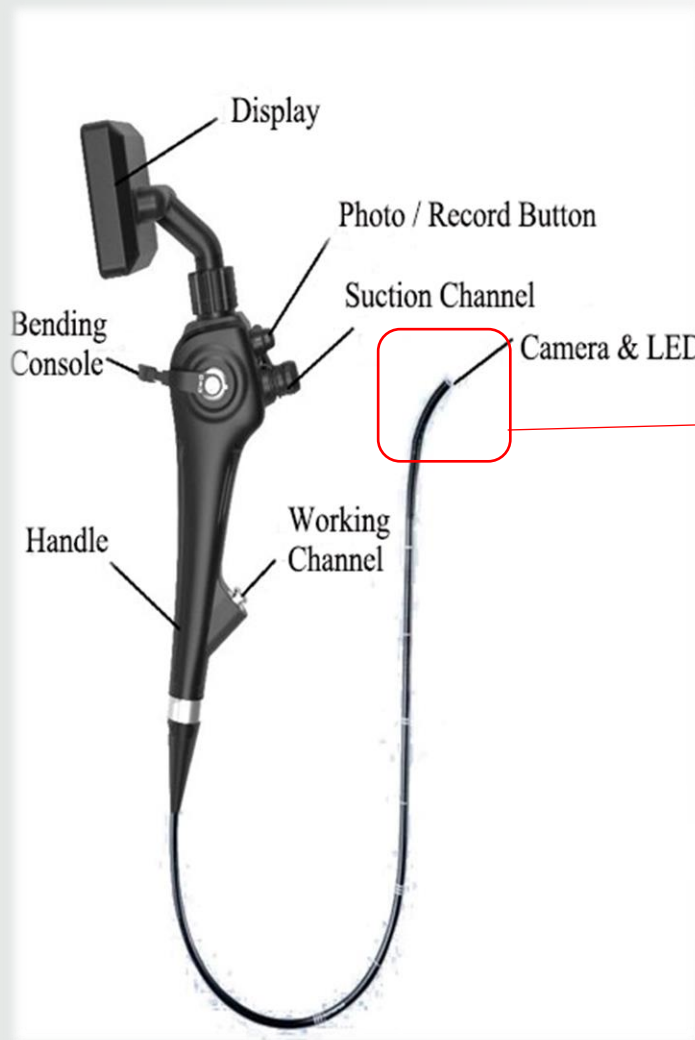
Size		M58	M52	M39	M28
Scope Body	Illumination	LED			
	Joint Outer Diameter	5.8mm	5.2mm	3.9mm	2.8mm
	Instrument Chanel Inner Diameter	2.6mm	2.2mm	1.2mm	0mm
	Working Lenth	650mm			
	Anti-Fog	Anti-fog when it's on, no need for preheating.			
Operating system 、 Software System upgrades are free for life					
Display	Size	3.5inch/8inch			
	Storage	8GB SD Card			
	Shoot	Support			
	Video Record	Support			
	White Balance	Support			
	Freeze/Backwards	Support			
	Video Synchronous Out put	Support			

Note: \* M28/M39 is not applicable for endoscopic diagnosis and treatment accessories.

\* M28/M39/M52/M58 is not suitable for high-frequency electrotherapy surgery and laser hemostasis.

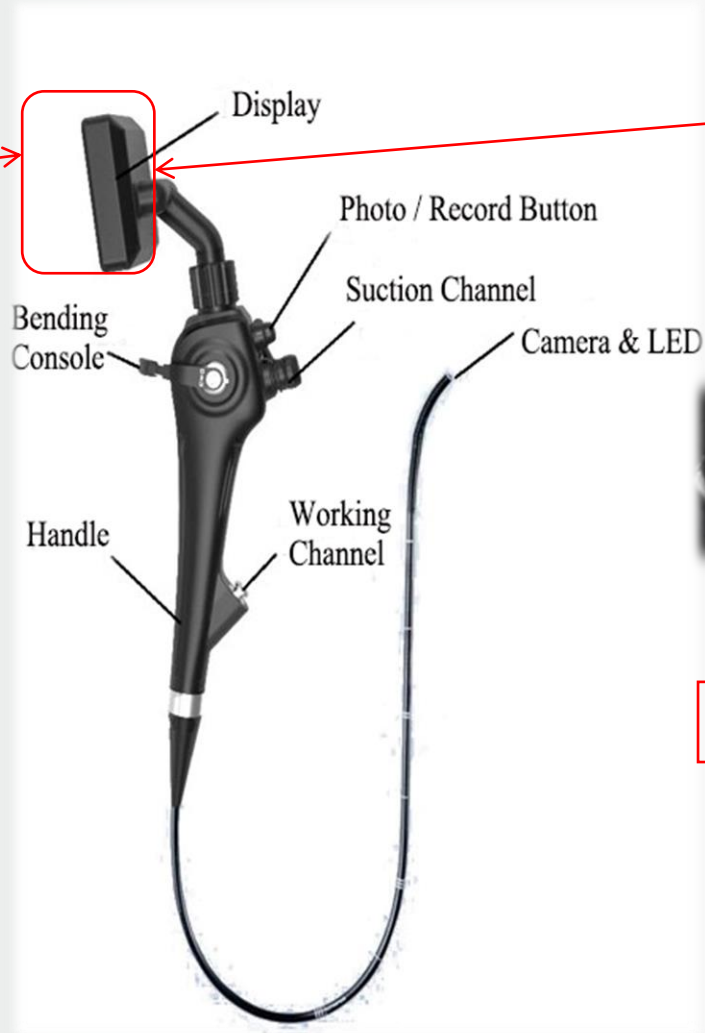
\* Continuous working time in more than two hours, but it depends on ambient temperature and battery condition.





640×480 Resolution

3.5 inch full view



CMOS Image Collection

White Balance



Return / Freeze

Down

Up

Menu

Power

Options:

- 8" display
- Trolley





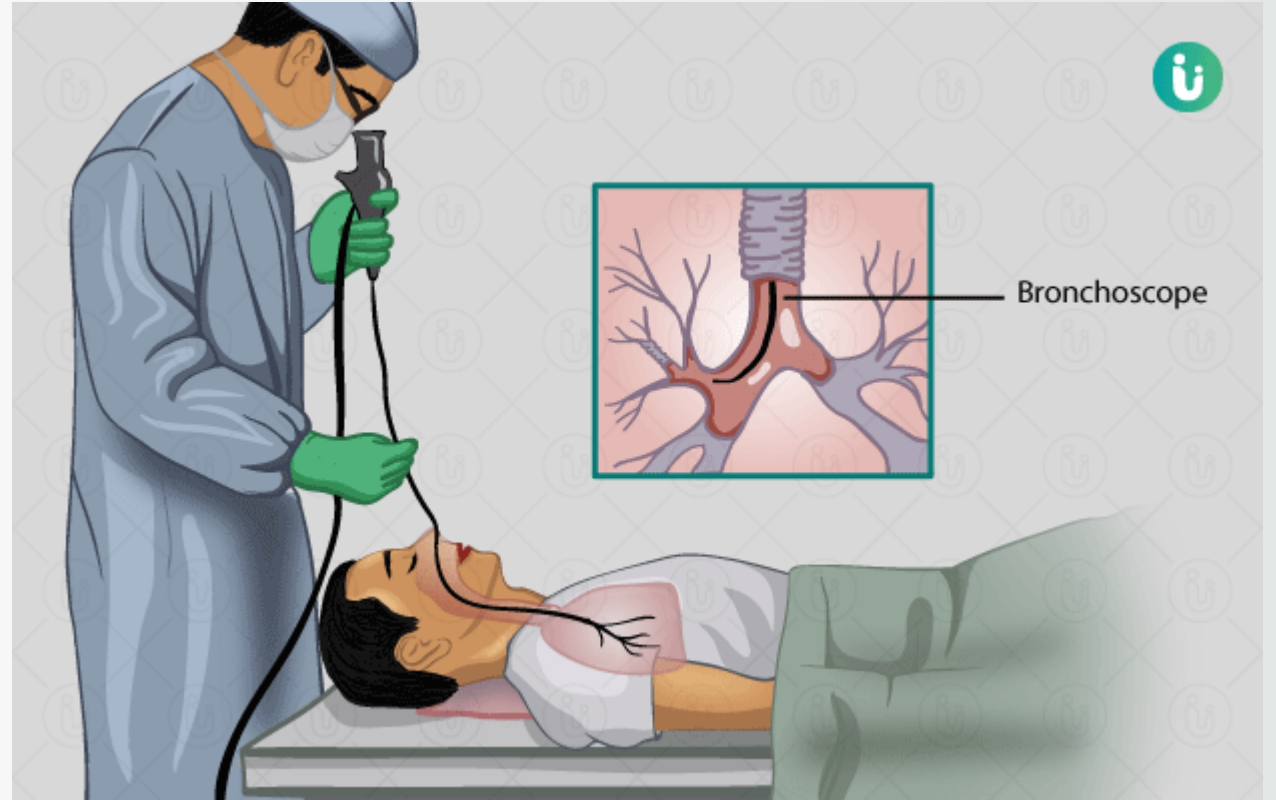
Model	Image	Pentax			HugeMed				Olympus	
		Model No.	10 BS	13 BS	16 BS	VL3S				LF-GP
Optical system	Field of view	85°	95°	95°	90°				90°	
	Depth of field	30-50mm	30-50mm	30-50mm	3-50mm				4-50mm	3-50mm
Insertion tube	Distal end outer diameter	Φ3.4mm	Φ4.1mm	Φ5.1mm	Φ2.8mm	Φ3.9mm	Φ5.2mm	Φ5.8mm	Φ4.1mm	Φ5.2mm
	Insertion tube outer diameter	Φ3.5mm	Φ4.2mm	Φ5.2mm	Φ2.8mm	Φ3.9mm	Φ5.2mm	Φ5.8mm	Φ3.8mm	Φ5.1mm
	Insertion section working length	300mm	600mm	600mm	650mm	650mm	650mm	650mm	600mm	
	Flectional	/	/	/	Yes	Yes	Yes	Yes	/	
Working channel	channel inner diameter	Φ1.4mm	Φ1.8mm	Φ2.6mm	0	Φ1.2mm	Φ2.0mm	Φ2.2mm	Φ1.5mm	Φ2.6mm
Bending section	up/down	130°/130°	160°/130°	160°/130°	160°/130°				120°/120°	180°/130°
	left/right									
Waterproof		IPx7							IPx7	
Display part	Resolution	/	/	/	320*240				/	/
	Screen	/	/	/	3.5" TFT LCD screen				/	/
	Color				True color					
	Shoot Image/Video	/	/	/	Yes				/	/



- ◆ Airway check (pulmonary)
- ◆ Intubation (anesthesia/ ICU/ ER)
- ◆ Placement and positioning of DLT & BB (anesthesia/ ICU/ OR)
- ◆ BAL & BW (pulmonary)
- ◆ Management of retained secretion (ICU)
- ◆ Biopsy (pulmonary)
- ◆ PDT (anesthesia/ ICU)

## Airway check (pulmonary)

- Foreign body
- Abnormal bleeding
- Tumor
- Post surgery recovery evaluation

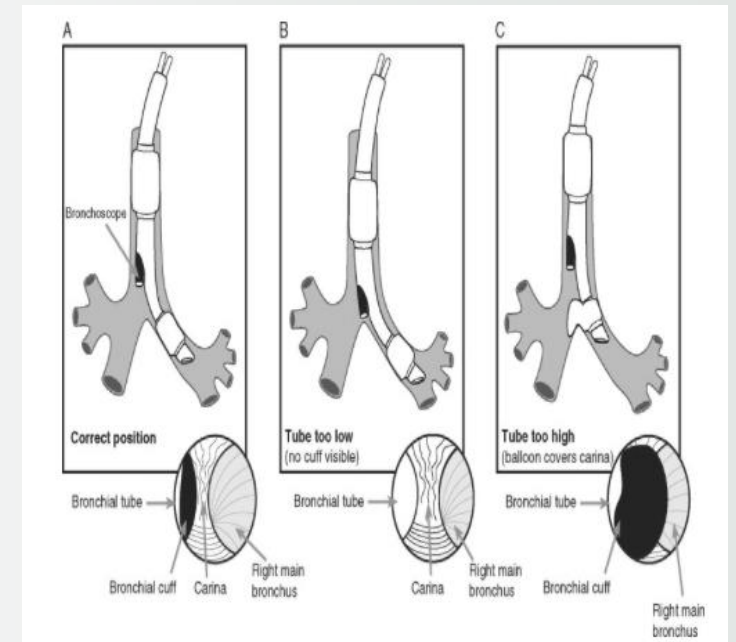




## Placement and positioning of DLT & BB (anesthesia/ ICU/ OR)

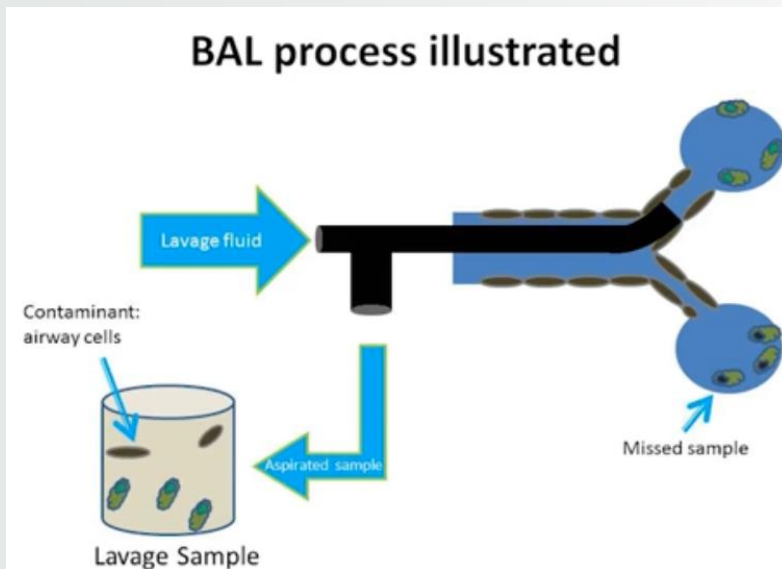
- double-lumen tube (DLT) bronchial blocker

Unilateral lung patients with severe disease, or need to unilateral lung resection treatment, you will need to double lumen endotracheal intubation, to the patients with single lung ventilation, make the contralateral lung in patients with preserved, and make the side relatively isolated lung, such as patients treated for specialist requires the right lobectomy, can give patients with double lumen endotracheal intubation, left lung one-lung ventilation



## BAL & BW (pulmonary & ICU)

- Bronchoalveolar lavage and bronchial wash?
- Remove alveolar deposits and inflammatory secretions, improve respiratory function
- Bacterial culture can provide diagnostic value for infectious tumors



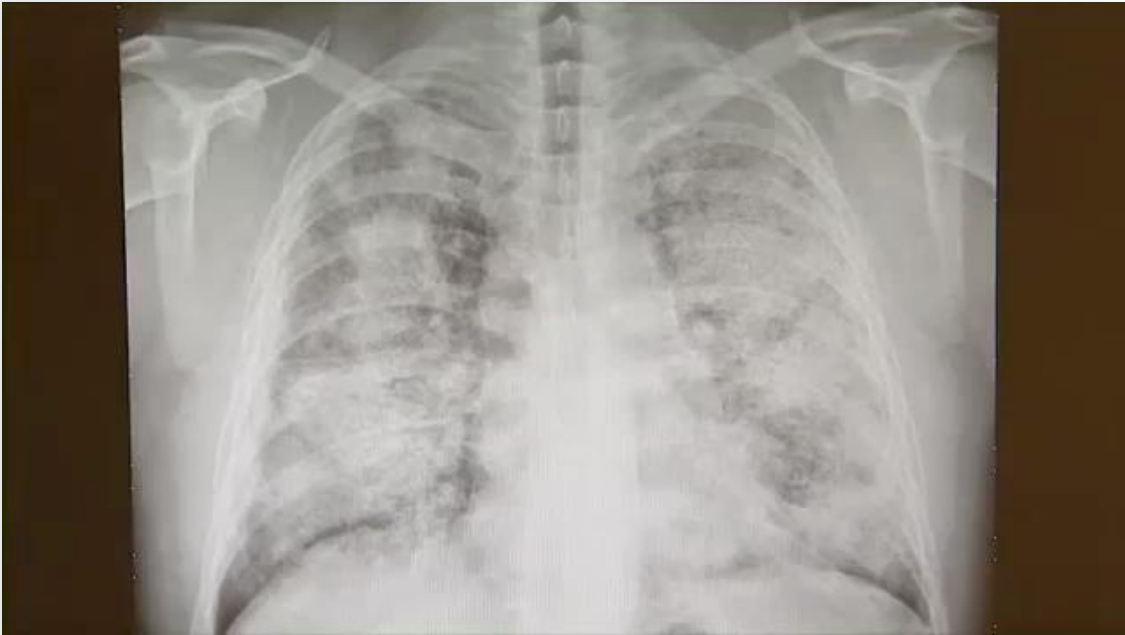
Module 5

## Bronchoalveolar Lavage (BAL) In The ICU

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Rosemary Adamson, MB BS

## Management of retained secretion (ICU)

- Sputum
- Portable





## Biopsy (pulmonary)

Lung biopsy is suitable for the diagnosis of tumors located at the periphery of the lungs. When the lung biopsy finds tumor cells in the pathological examination, it can be confirmed as tumor; when the pathological examination shows tuberculosis granuloma, it can be confirmed as tuberculosis; when the pathological examination shows inflammatory lesions, it is considered as pneumonia



## **Percutaneous dilational tracheostomy (PDT)**

Laryngeal obstruction, removal of foreign body

Clinical significance: Visualized, the atmospheric duct can be monitored throughout the whole process. The puncture depth of the puncture needle, the insertion depth of the skin expander, the direction of the guide wire, the entry depth of the tracheotomy forceps and the expansion degree can be seen throughout the whole process.

## Why single use bronchoscope

- Always available
- Eliminate cross contamination
- Cost effectiveness
- Improve workflow

## Occasion to use?

- Infectious disease
- Reusable inaccessible
- Personnel shortage
- Anticipated damage

**THANKS**