

# New ultrasound technology for Groote Schuur Hospital

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Groote Schuur Hospital patients who have been diagnosed with lung cancer, lymphoma or tuberculosis can now be biopsied without being physically cut, after the division of pulmonology at the hospital received a R2 million endobronchial ultrasound (EBUS) machine.

Professor Keertan Dheda, the head of pulmonology at Groote Schuur, and the University of Cape Town (UCT), said the equipment was bought by UCT from a Department of Education training fund, for Groote Schuur Hospital.

Before this technology was introduced, the traditional method for sampling lymph glands was mediastinoscopy – an open surgical procedure.

With the new EBUS bronchoscopy, glands can be sampled from within the windpipe or major airways, using real-time ultrasound guidance. This technology allows for quicker diagnosis without the pain and discomfort of surgery, or the cost and inconvenience of admission

to hospital.

The procedure takes place under local anaesthesia or with conscious sedation, as an outpatient service. The procedure lasts about 45 minutes and patients are able to go home on the same day, usually within two hours.

"There will be no complications of bleeding, infection and wound healing," said Professor Dheda.

"Patients will leave hospital earlier, thus minimising time off work. It will also be less expensive for the hospital. The procedure is highly accurate and has minimal adverse events. Thus, it's the safest and most cost-effective way to diagnose diseases causing enlarged lymph nodes in the chest," he said.

"The procedure is ultrasound-guided aspiration of mediastinal lymph nodes, and this is a technology that diagnoses a whole bunch of diseases causing enlarged lymph glands in the chest. Common causes of such diseases include tuberculosis, sarcoidosis, lung cancer, lymph node cancer and other types of cancers."

## Sighs of relief at Groote Schuur Hospital

ELSABÉ BRITS

INSTEAD of a painful operation to examine glands and tumours, Groote Schuur Hospital patients can now undergo a modern procedure.

The University of Cape Town (UCT) sponsored an endo-bronchial ultrasound scanner to the hospital, making it only the second hospital to have the machine in the country – in both the private and public sector.

The instrument can be used to examine

lymph nodes, or any tumour or growth, near or in the trachea, said Professor Keertan Dheda head of pulmonology at UCT and Groote Schuur Hospital.

It uses an ultrasound to form an view through a small camera at the front of an endoscope.

It acts as a guide for the doctor to determine where a biopsy must be conducted. The biopsy is a small sample of the affected tissue which will be analysed.

So the affected phase in lung cancer can be diagnosed accurately and quicker.

The patient is placed under a light sedation which does not require anaesthesia. The procedure is only 45 minutes and the patient can be discharged the same day.

It can also be used to diagnose TB and sarcoidosis – a disease which causes chronic infection in the lungs and lymph nodes.

Up to 90% of patients will no longer have to undergo surgery, but be examined with the instrument. Dheda said the instrument has already been used to diagnose, among others, lung cancer, TB and sarcoidosis in three patients.