

# Fine

## Needle







**Khoo Teck Puat** 

**Hospital** 

**National Healthcare Group** 

Pulickal Geoiphy George, Raymond Chung, Vijayadwaja Desai, Wong Yen Lee, Michael Chin Department of Diagnostic Radiology Khoo Teck Puat Hospital

## Background

- Ultrasound (US) guided FNAC is a minimally invasive, accurate and cost-effective sampling technique used most commonly in the evaluation of thyroid lesions.
- Scheduled together with normal diagnostic US appointment lists
- Requires cyto-technician to ensure sufficient sampling is taken



### **Problems faced**

- Limited to 4 slots per week due to availability of cyto-tech
- Long appointment wait time for FNAC 
   anxious
   longer wait for TCU for results
- Disrupt diagnostic lists as FNAC procedure takes longer to perform

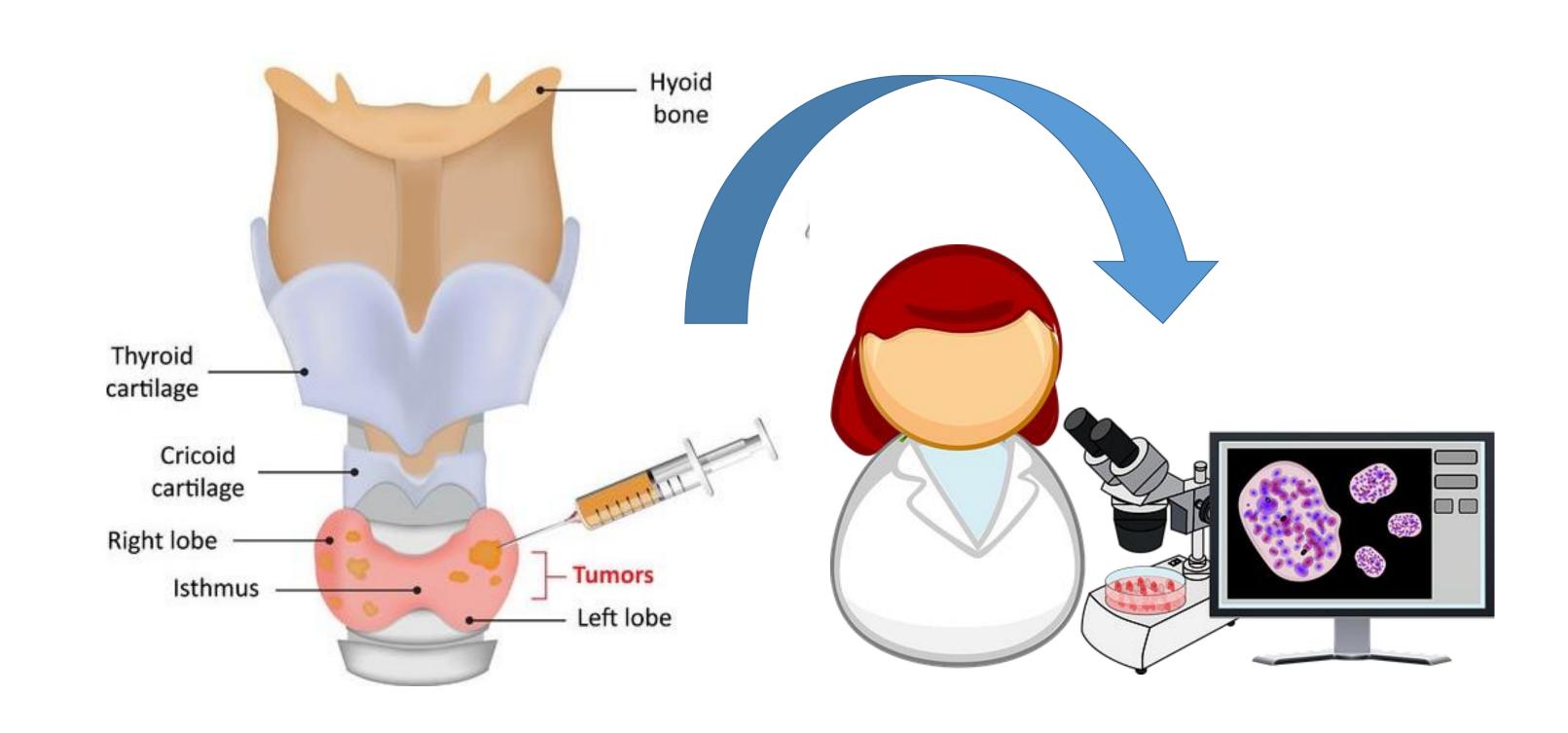
## **Aims**

- To expedite sampling of suspicious thyroid lesions same-day or next-day appointment
- To streamline operation workflow in diagnostic US rooms – reduce patients' waiting time
- To reduce manpower requirement by enhancing productivity while maintaining quality of care



## Methodology

- Dedicated FNAC Clinic created in May 2017
- 4 weekdays with 4 slots per day from 8:30am to 11:30am (16 slots per week!)
- Located in Interventional Radiology Suite using separate US machine
- New technology in Laboratory Medicine Liquid Based cytology using PreserCyt Solution
- Cyto-tech not required allowing the staff to be deployed to other areas
- Only one radiologist, one nurse and one radiographer required



#### Results

- Appointment lead time for FNAC reduced from 4-6 weeks to 1-2 days
- Adhoc walk-in cases accepted!
- Turn-around-time reduced from clinical suspicion to diagnostic imaging to histo-path confirmation
- Earlier definitive treatment plans for patients
- Reduction in manpower requirement



## **Project Impact**

- More diagnostic US slots made available (12 slots per week!)
- Reduced appointment lead time for diagnostic US
- Win-win situation for all

## Future expansion

- Whole day clinic with 8 slots per day to match demands if necessary
- Future advancement in Lab Med to allow sampling without presence of cyto-tech increase scope of FNAC clinic for other lesions

#### Conclusion

- Patients receive critical sampling tests at a faster rate –
  shorter wait time between diagnosis and treatment
- Hassle-free pathway for patients without extra resource expenditure