

# The Thyroid Lump Pandemic!

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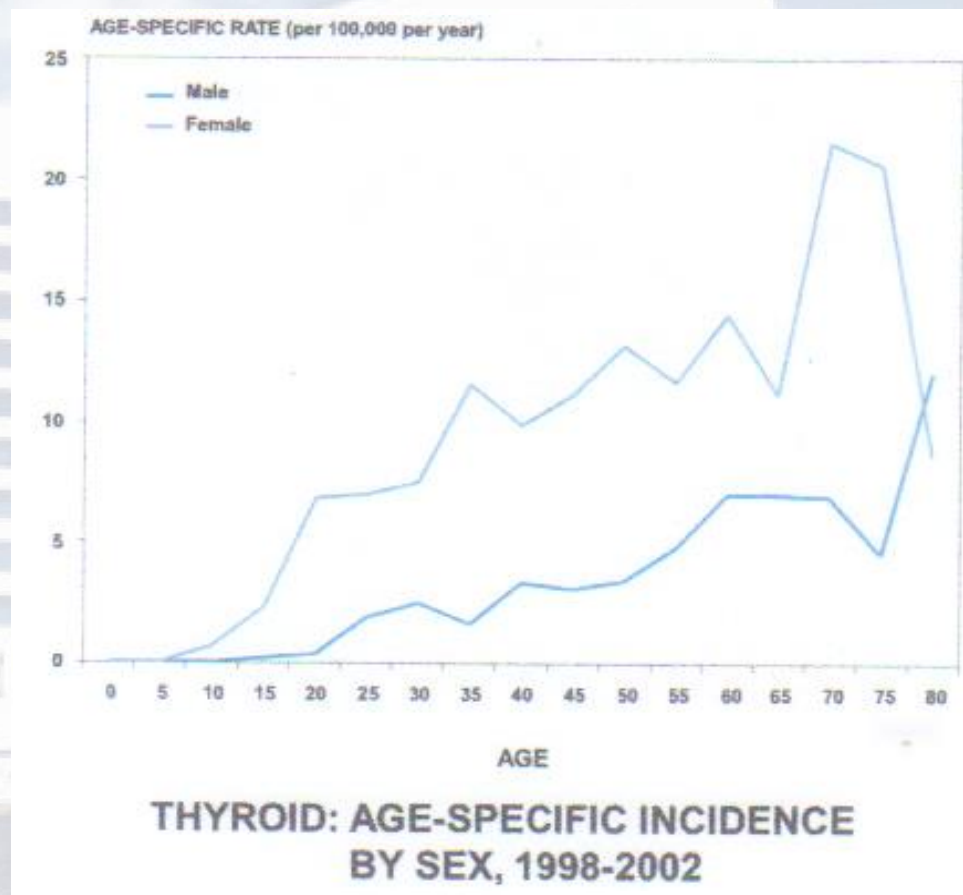
**Department of Otorhinolaryngology**

**TTSH**

# Thyroid cancer is on the rise!

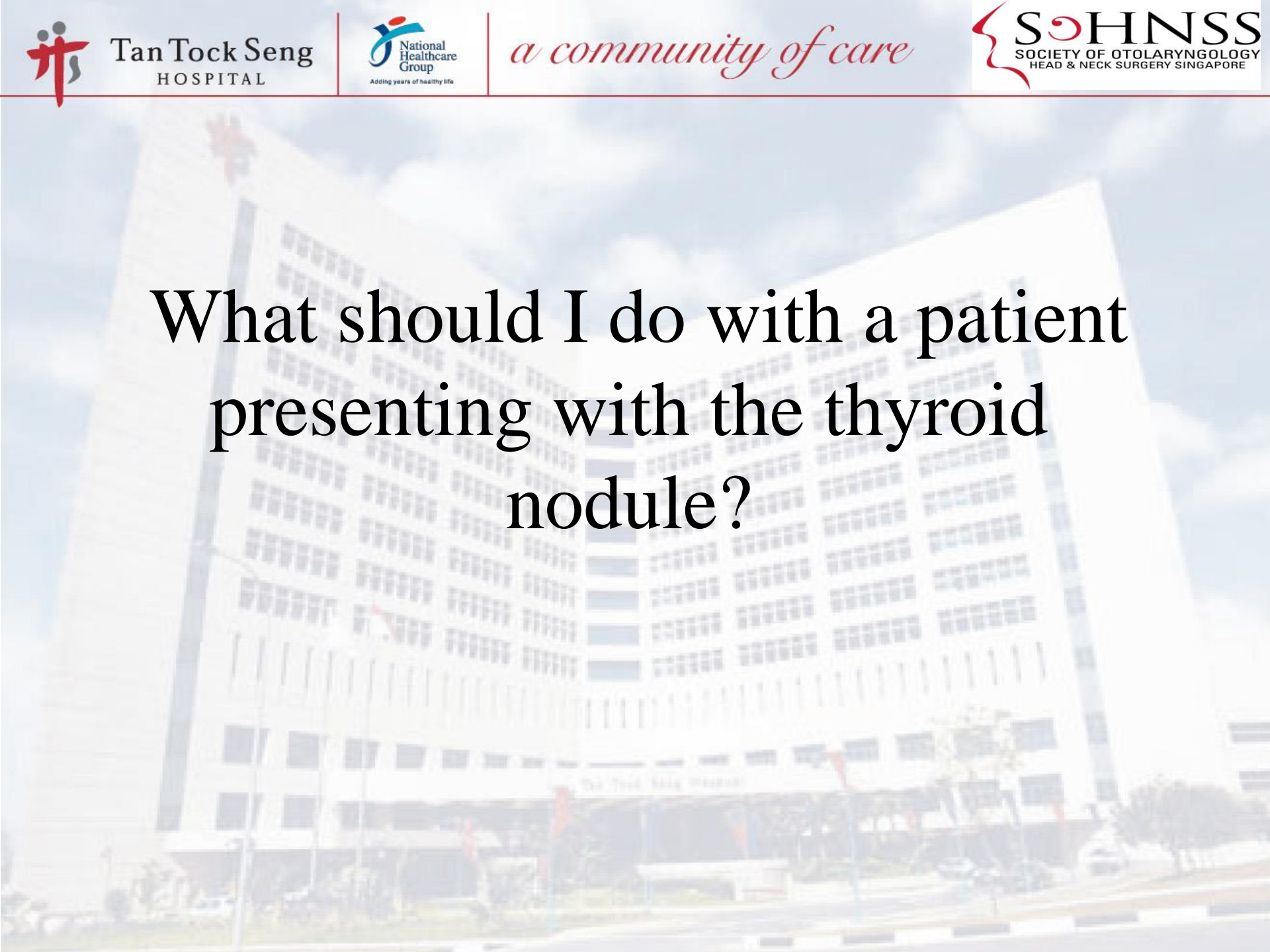
(in women)

- 828 cases between 1998-2002
- Female to male ratio is 3.5:1
- Age-standardised ratio in females is 6.5 per 100,000 up from 4.3 (1968-72)
- No ethnic difference



# Thyroid nodules

- Palpable in 5% of women and 1% of men
- High resolution ultrasound can detect in 19-67% of people
- 5-10% will be cancers
- The risk of cancer in a solitary nodule = multinodular goitre



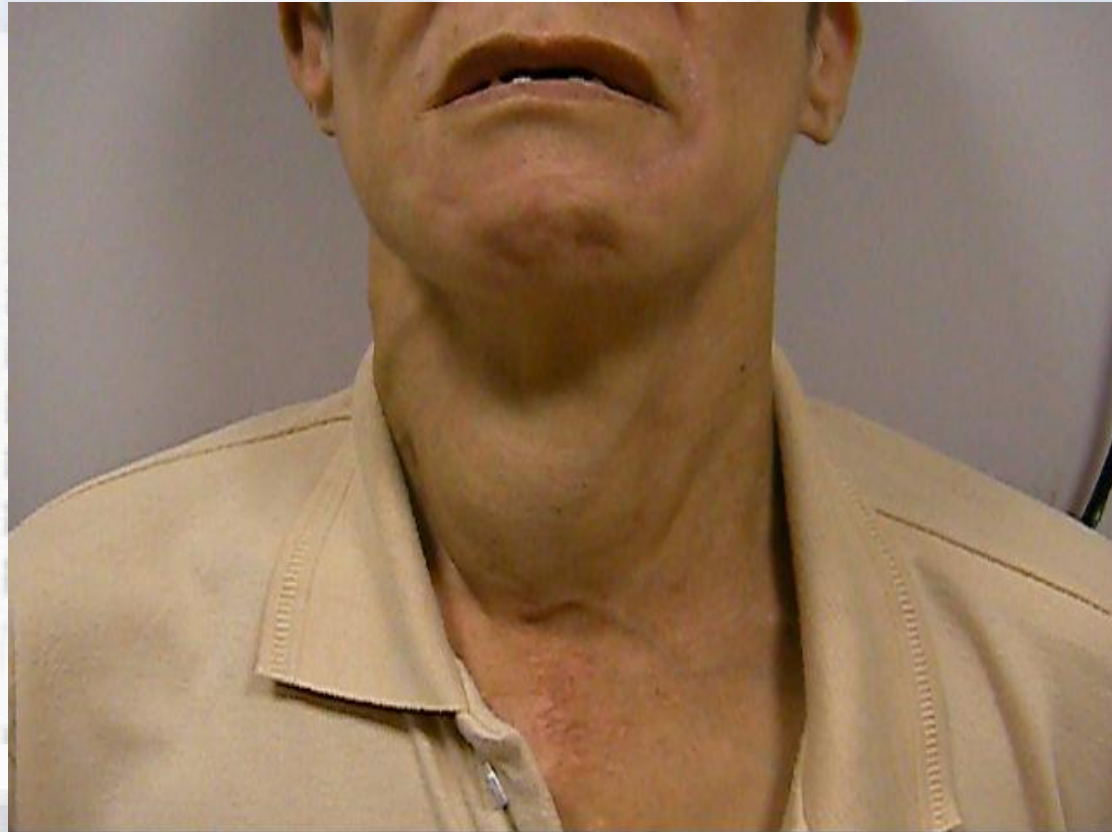
What should I do with a patient  
presenting with the thyroid  
nodule?

# History – key points

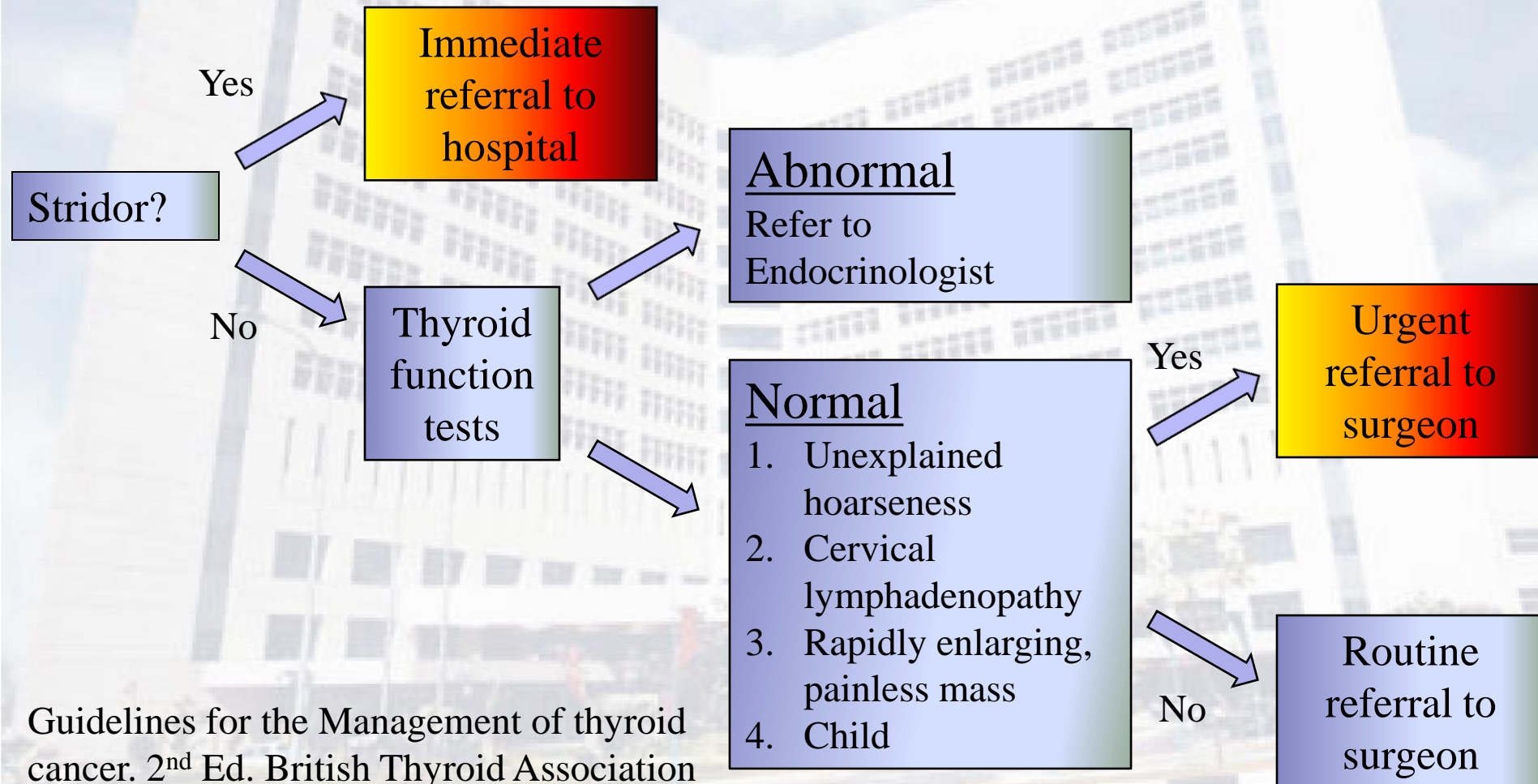
- Duration
- Growth
- Pain
- Compressive symptoms
- Voice change
- Thyrotoxic symptoms
- Family history of thyroid cancer
- Neck irradiation
- Long-standing goitre
- Hashimoto's thyroiditis
- Cowden's Syndrome
- Familial adenomatous polyposis

# Examination

- Palpation of the neck and thyroid
  - rises with swallowing
  - cervical nodes?
- Assess thyroid status
- Record pulse and BP



# Thyroid nodules – a primary care algorithm





What can my patient expect at  
TTSH?

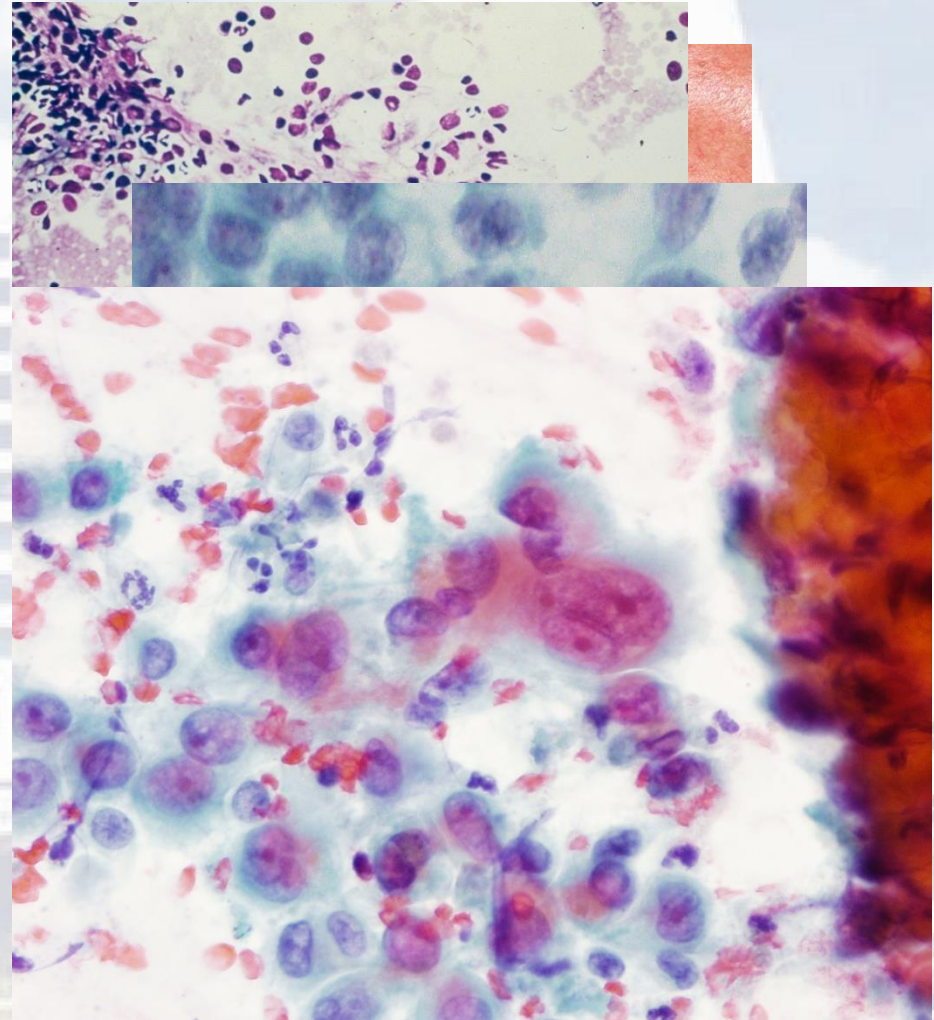


# Managing thyroid nodules

- All patients receive a thorough clinical examination including flexible nasal endoscopy
- A third of patients with vocal cord palsies will have no symptoms!

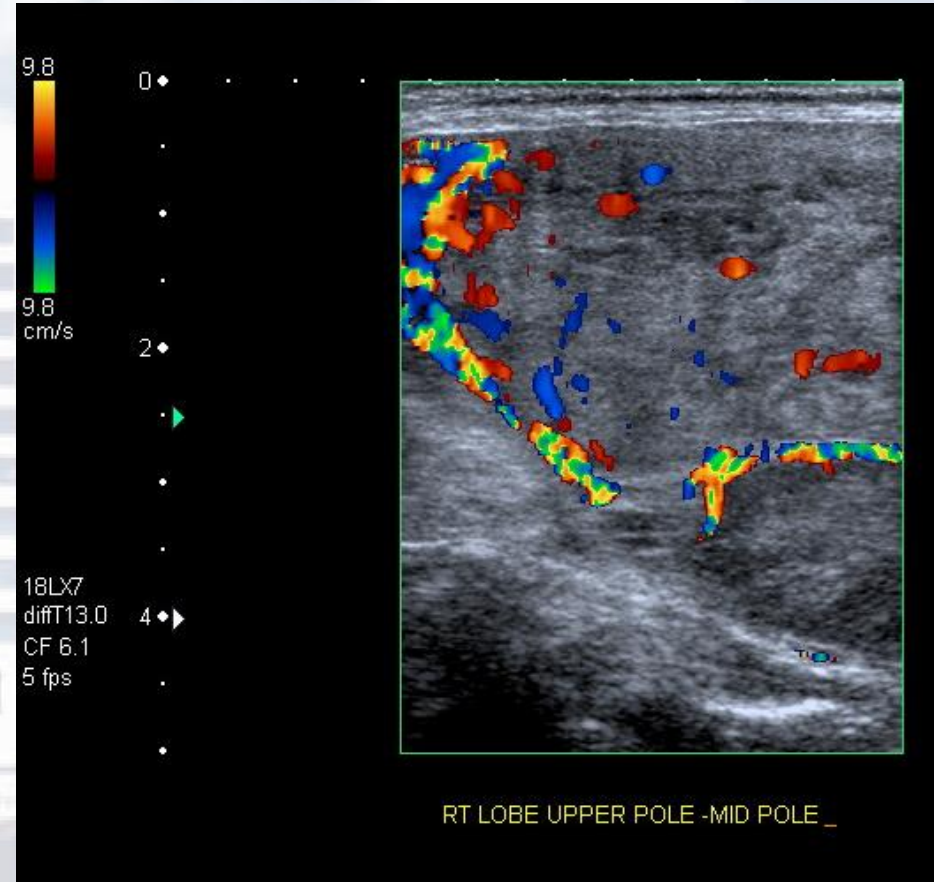
# Managing thyroid nodules

- Fine needle aspiration cytology at TTSH is technician assisted
- Safe
- High yield rate
- Rapid answer
- False negative rate of 5%

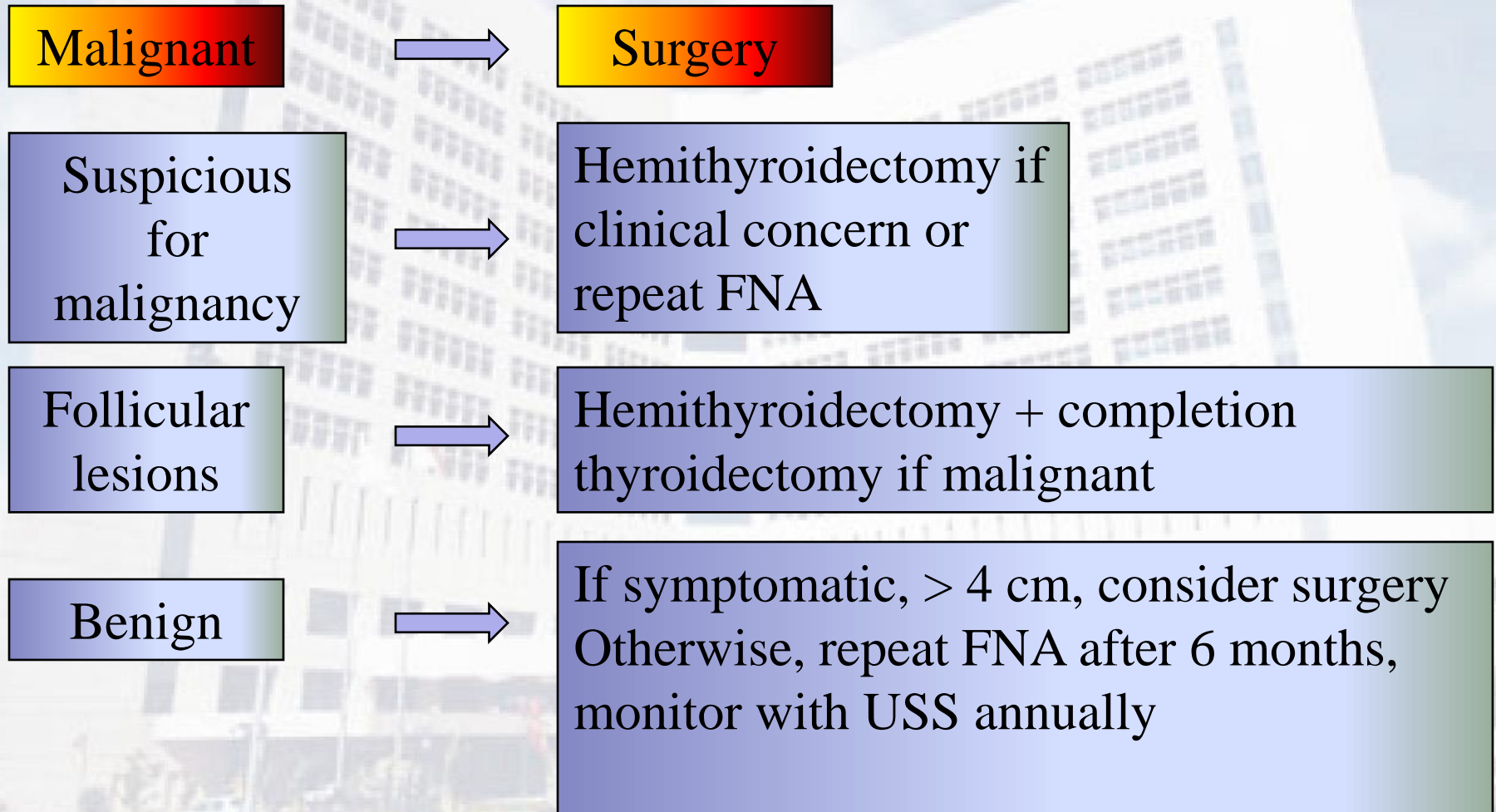


# Managing thyroid nodules

- Ultrasound assessment yields useful diagnostic information
- Nodules with irregular margins, microcalcification, hypoechogenicity, and abnormal vascular flow are suspicious for cancer
- Ultrasound can direct FNA

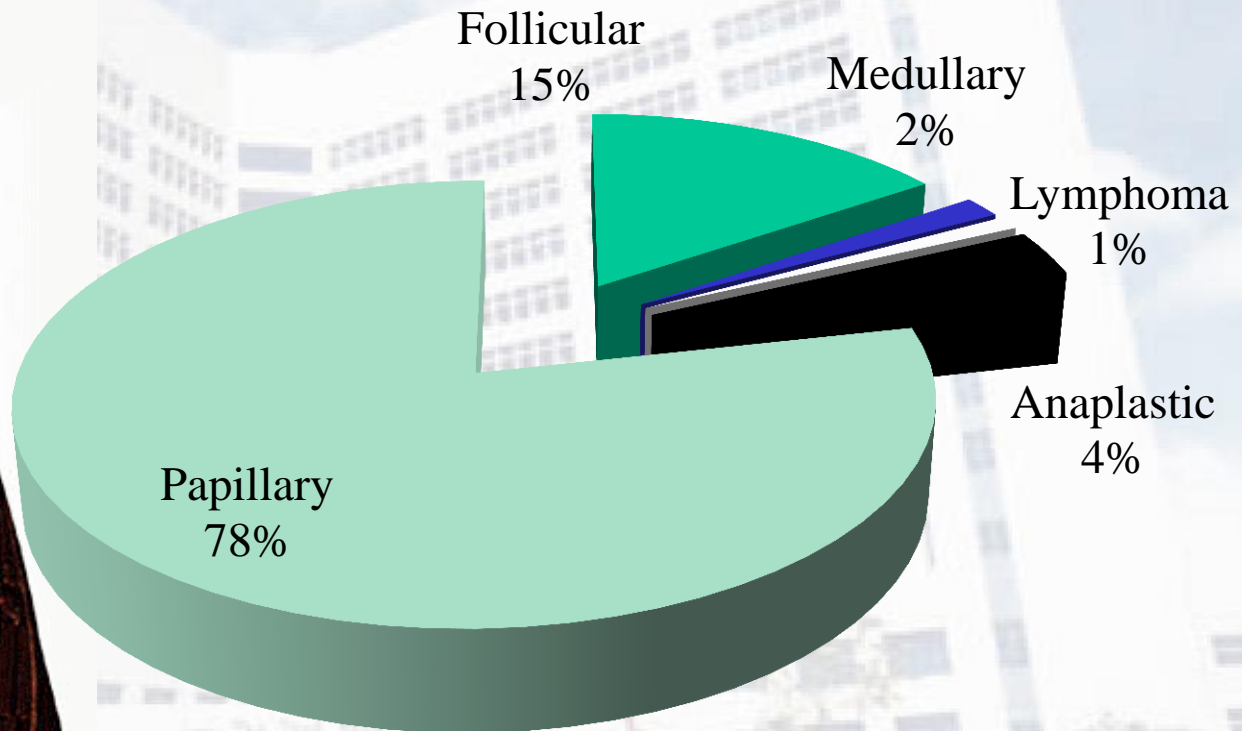


# Managing thyroid nodules



# Thyroid cancer – some facts

## Thyroid cancers in Singapore (1998-2002)



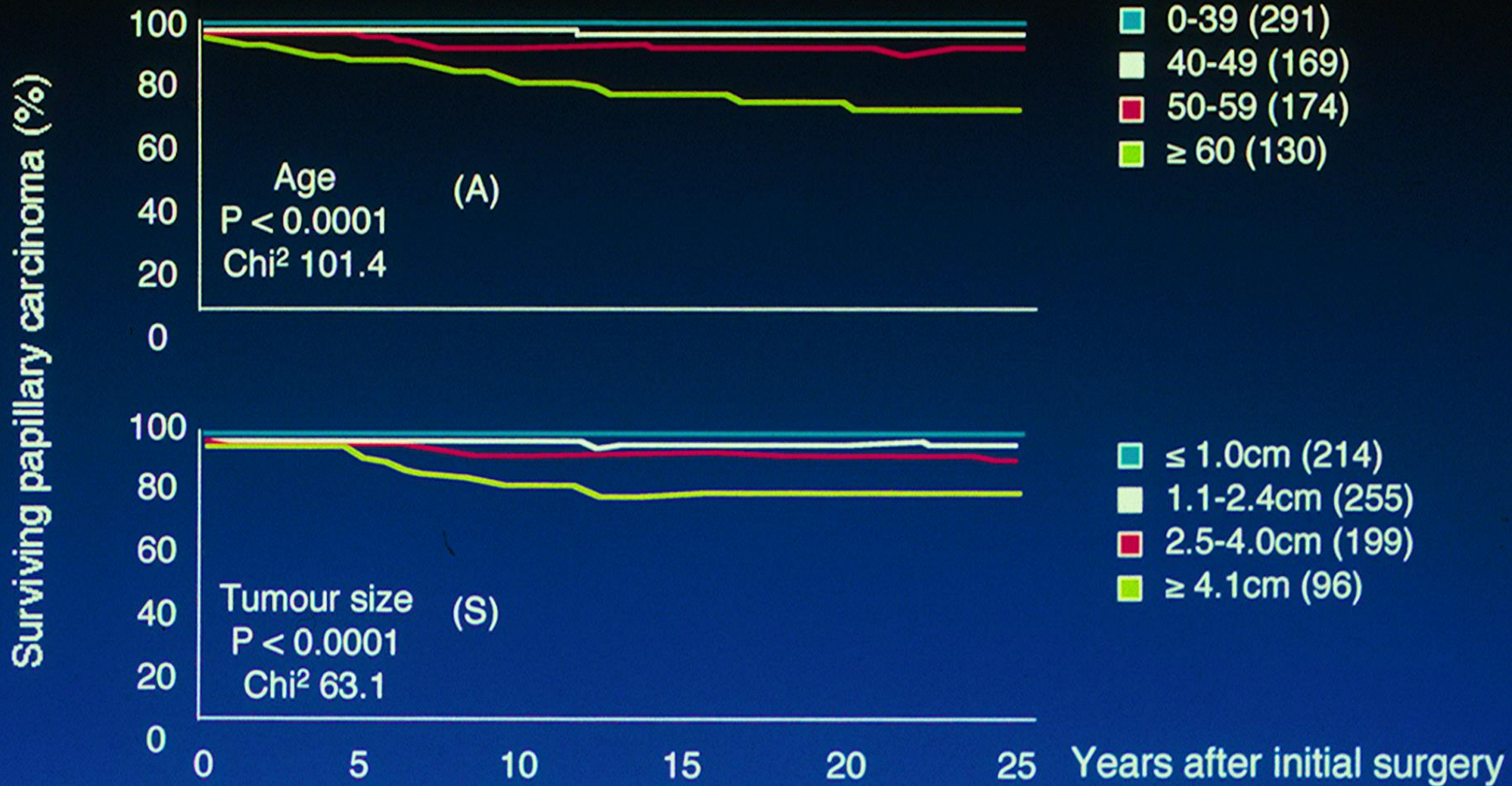
Source: Singapore Cancer Registry Report No. 6: Trends in Cancer Incidence in Singapore 1968-2002. A Seow et. al.



# Thyroid cancer – some facts

- Differentiated thyroid cancers have a 90% survival rate
  - 5-20% develop local recurrence
  - 10-15% develop distant metastasis
- Anaplastic thyroid carcinoma have very poor prognosis with average survival of 6 months
- Surgery first, then radioactive iodine

# Papillary Thyroid Cancer



Cause-specific survival from PTC plotted by patient age group (top) and tumour size (bottom). Numbers in parentheses in this and subsequent figures represent numbers of patients in each group.

*Hay et al, 1993*

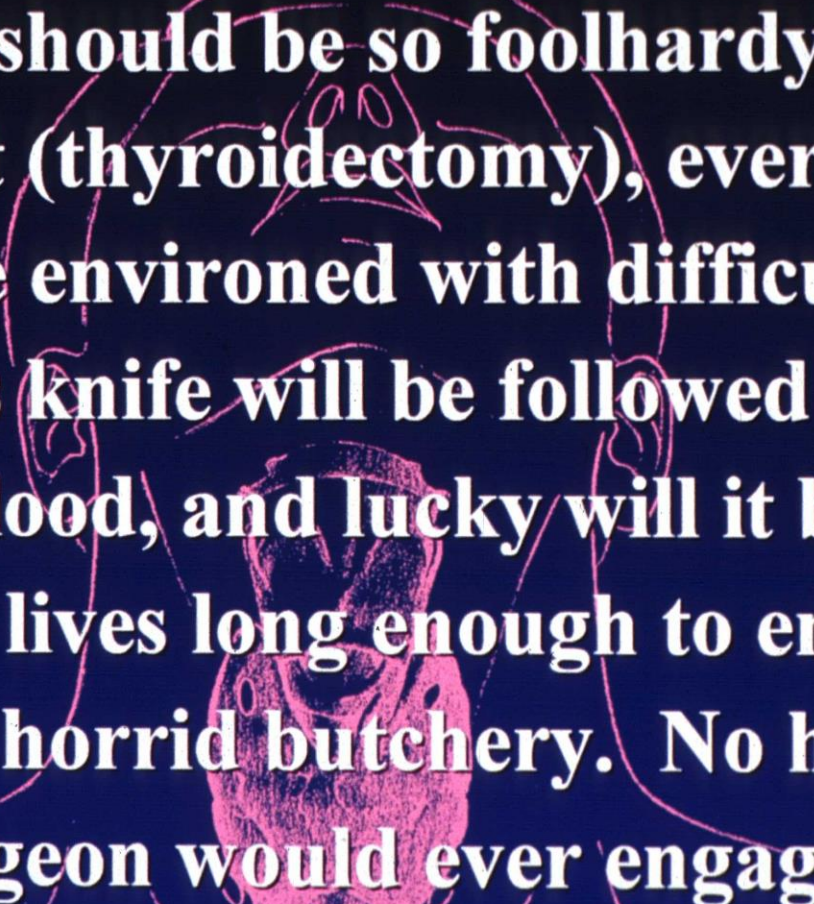
# Thyroid surgery



Theodor Billroth (1829–94).

- Father of thyroid surgery
- Performed 20 (1861-67)
- 8 died (40%)
- Gave it up briefly!
- When he resumed surgery, *‘his clinic was cursed by post operative tetany, and 30% cord paralysis rate’*





**“If a surgeon should be so foolhardy as to undertake it (thyroidectomy), every step he takes will be envired with difficulty, every stroke of his knife will be followed by a torrent of blood, and lucky will it be for him if his victim lives long enough to enable him to finish his horrid butchery. No honest and sensible surgeon would ever engage in it”**

**- Samuel Gross, M.D., Philadelphia 1870**



Tan Tock Seng  
HOSPITAL

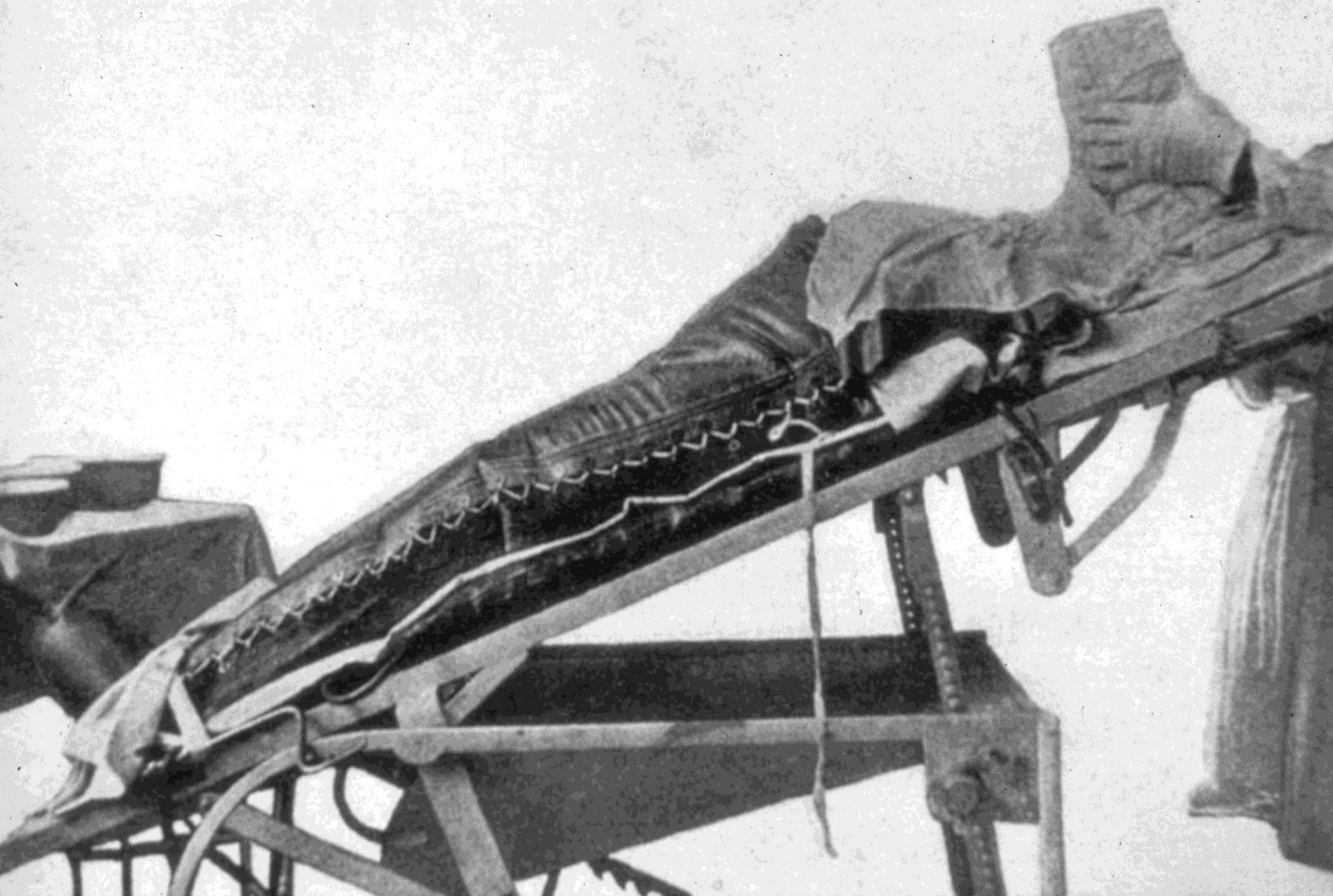


National  
Healthcare  
Group  
Adding years of healthy life

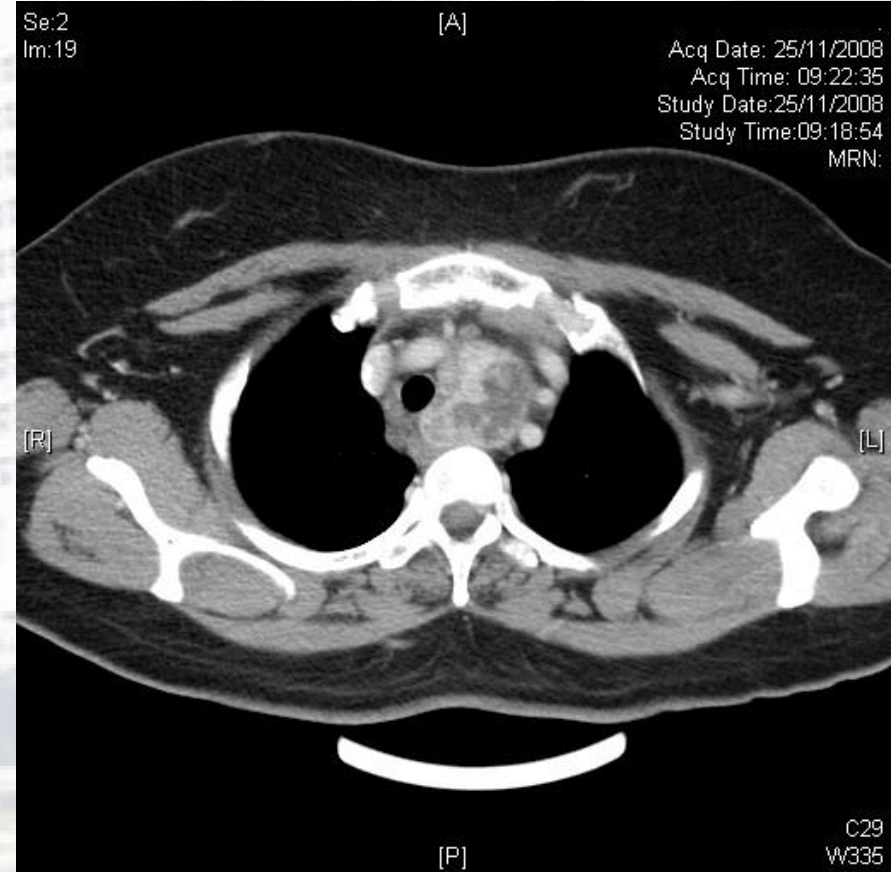
*a community of care*



SOHNSS  
SOCIETY OF OTOLARYNGOLOGY  
HEAD & NECK SURGERY SINGAPORE



# Multinodular goitre



# Multinodular goitre



# Post-op scars



# Graves' disease

- Failed medical therapy
- Patient opts for surgery
- Patients are referred to us from Endocrinology



# Thyroid surgery at TTSH ENT

Original Article

## Thyroid Surgery—The Tan Tock Seng Hospital Otolaryngology Experience

J C Y Lee,\**MBBS, FRCS*, J K Siow,\*\**FAMS, MBBS, FRCS*

- 91 patients between Jan 1995 – December 2000
- 1% complication rate
- Hypocalcaemia (44% transient, 0% permanent)
- Vocal cord paralysis (10.3% transient, 1.1% permanent)
- Ave length of stay – 3 days (benign), 4.5 days (malignant)
- Currently, 150 thyroids a year
- 218 malignant cases (2000-2008)

Source: Thyroid surgery--the Tan Tock Seng Hospital otolaryngology experience. Lee JC & Siow JK. Ann Acad Med Singapore 2002 Mar;31(2):158-64

# Thyroid surgery – surveillance and aftercare in the community?

- After 2 benign FNAs, surveillance of benign nodules can be managed by serial ultrasound scans
- After surgery for benign disease, thyroxine and/or calcium supplementation can be monitored in primary care
- Thyroid cancer requires life-long follow-up with TSH suppression ( $TSH < 0.1$ )
- Risk of AF, osteoporosis with prolonged treatment
- 0.5% patients following radioiodine treatment developed secondary cancers (leukaemia)



# Useful resources

## Professionals:

[www.thyroid.org](http://www.thyroid.org)

Management guidelines. Cooper DS et.  
al. Thyroid 2006. 16(2)

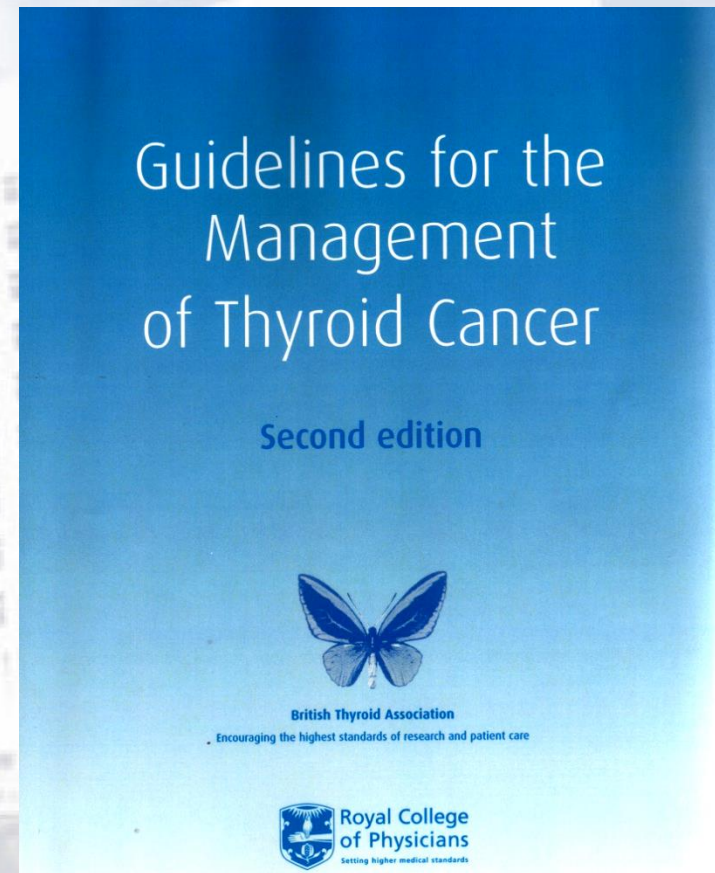
[www.british-thyroid-association.org](http://www.british-thyroid-association.org)

[www.nccs.com.sg](http://www.nccs.com.sg)

## Patients:

Thyroid Cancer Survivors'  
Association

([www.thyca.org](http://www.thyca.org))



Chapter 16: Guide for GPs