

# EUROCRINE

## Clinic Benchmark Report

Surgery of the Thyroid Gland  
2023

# EUROCRINE Clinic Benchmark Report on Thyroid Resections performed in 2023



## Investigated Clinic

- Markera alla
- Bröst och Endokrinkirurgiska kliniken, KS Huddinge
- Carlanderska Endokrinkirurgi
- Dubbel - Kirurgiska kliniken, Lund
- Gastro Center Skåne
- Kirurgicentrum Skåne
- Kirurgiska kliniken, Borås
- Kirurgiska kliniken, Danderyd
- Kirurgiska kliniken, Eksjö
- Kirurgiska kliniken, Falun
- Kirurgiska kliniken, Gävle
- Kirurgiska kliniken, Göteborg
- Kirurgiska kliniken, Halmstad
- Kirurgiska kliniken, Helsingborg
- Kirurgiska kliniken, Jönköping
- Kirurgiska kliniken, Kalmar
- Kirurgiska kliniken, Karlskrona
- Kirurgiska kliniken, Karlstad
- Kirurgiska kliniken, Kristianstad
- Kirurgiska kliniken, KS Solna
- Kirurgiska kliniken, Kungälv
- Kirurgiska kliniken, Linköping
- Kirurgiska kliniken, Ljungby
- Kirurgiska kliniken, Luleå
- Kirurgiska kliniken, Lund
- Kirurgiska kliniken, Norrköping
- Kirurgiska kliniken, Nyköping
- Kirurgiska kliniken, Örebro
- Kirurgiska kliniken, Östersund
- Kirurgiska kliniken, Skövde
- Kirurgiska kliniken, Södersjukhuset

## Benchmark Clinics

- Markera alla
- Bröst och Endokrinkirurgiska kliniken, KS Huddinge
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- Kirurgiska kliniken, Södersjukhuset

## Investigated Year

- Markera alla
- 2018
- 2019
- 2020
- 2021
- 2022
- 2023
- 2024

# EUROCRINE Clinic Benchmark Report on Thyroid Resections performed in 2023



Registered Thyroid Resections in Investigated Clinic



Registered Thyroid Resections in the Other EUROCRINE Clinics of Your Country



Color Coding in this Report:

Investigated Clinic

Other EUROCRINE Clinics in Your Country

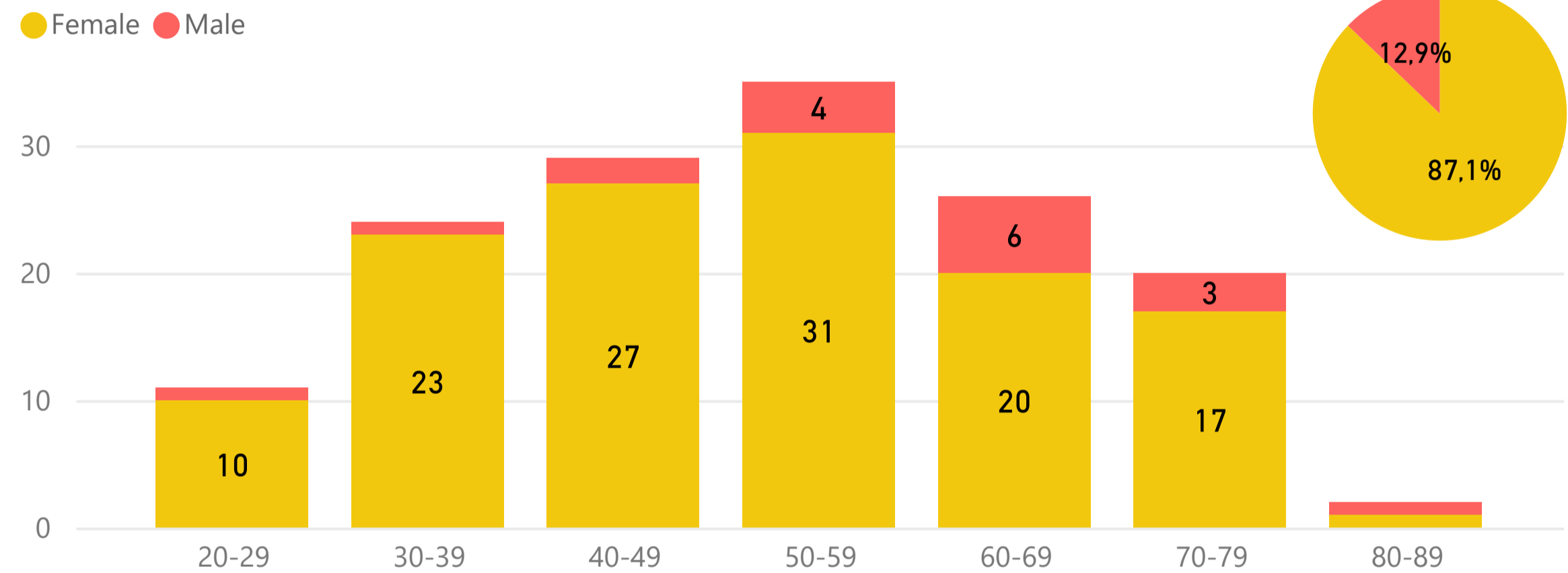
# Thyroid

## Gender and Age Distribution



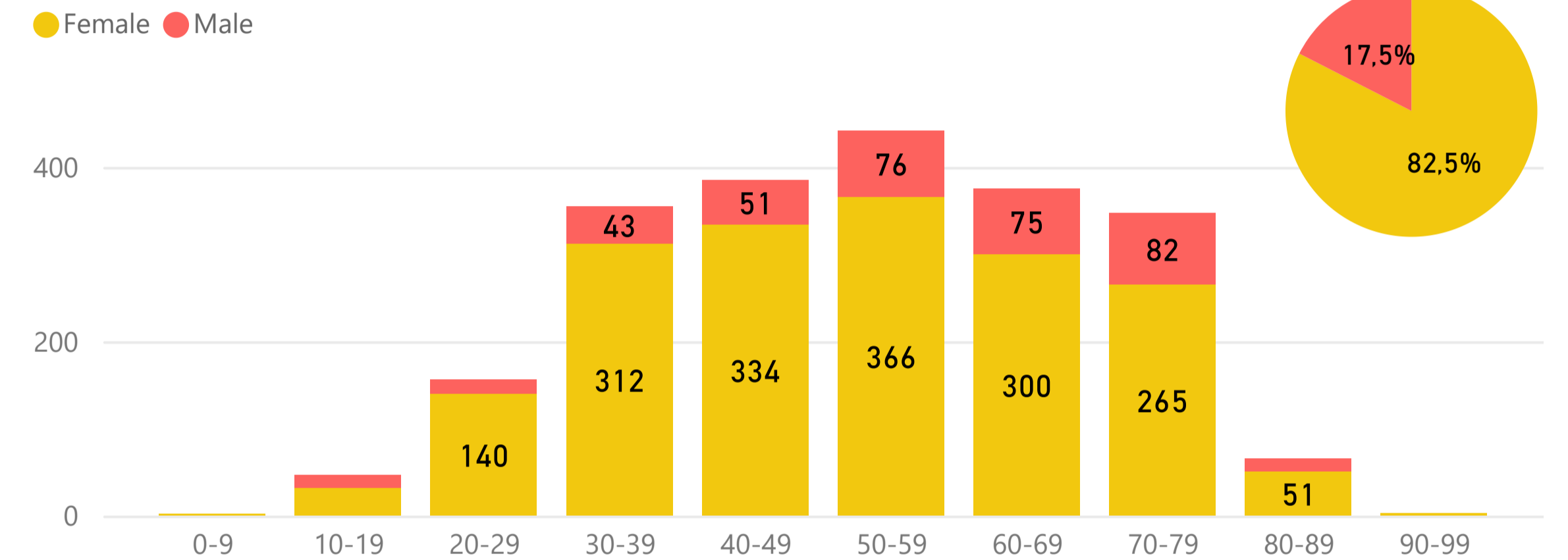
### Investigated Clinic

#### Age Distribution and Gender - Benign Disease at Histology

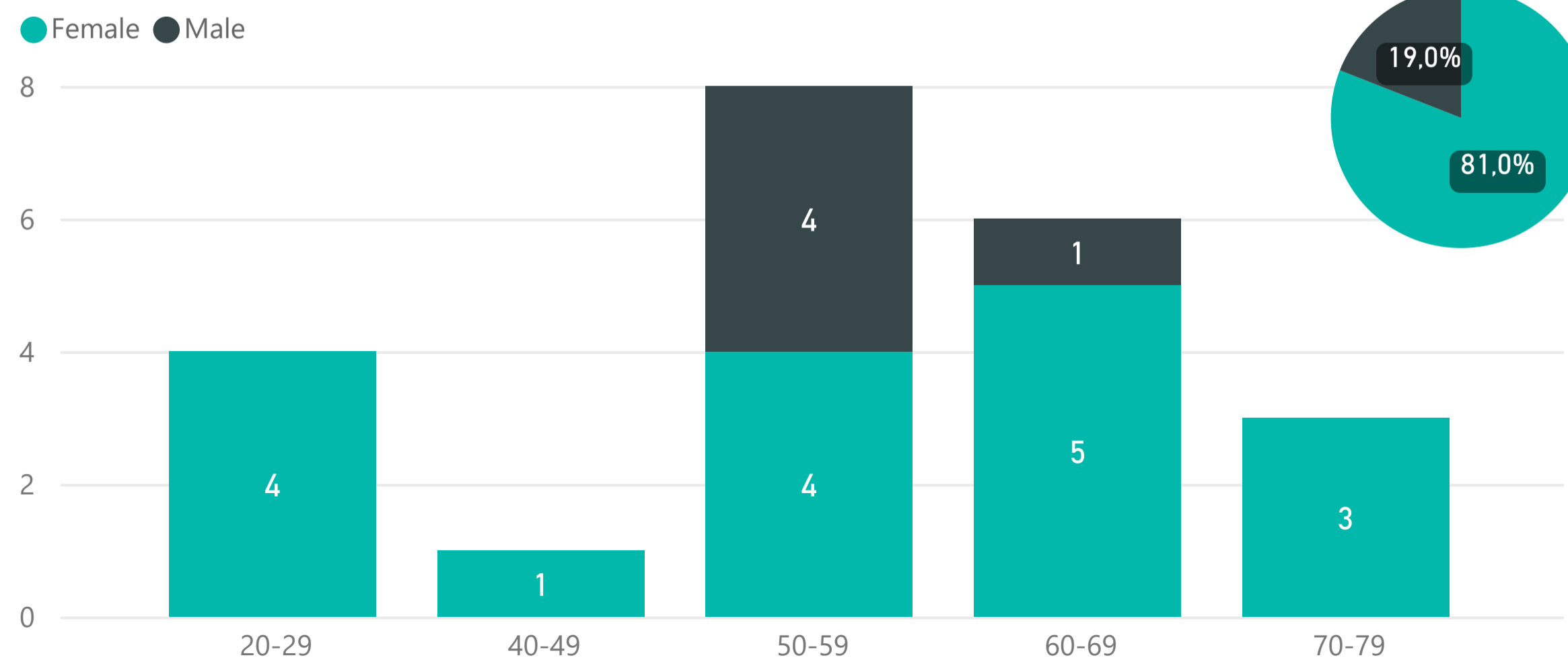


### EUROCRINE Clinics

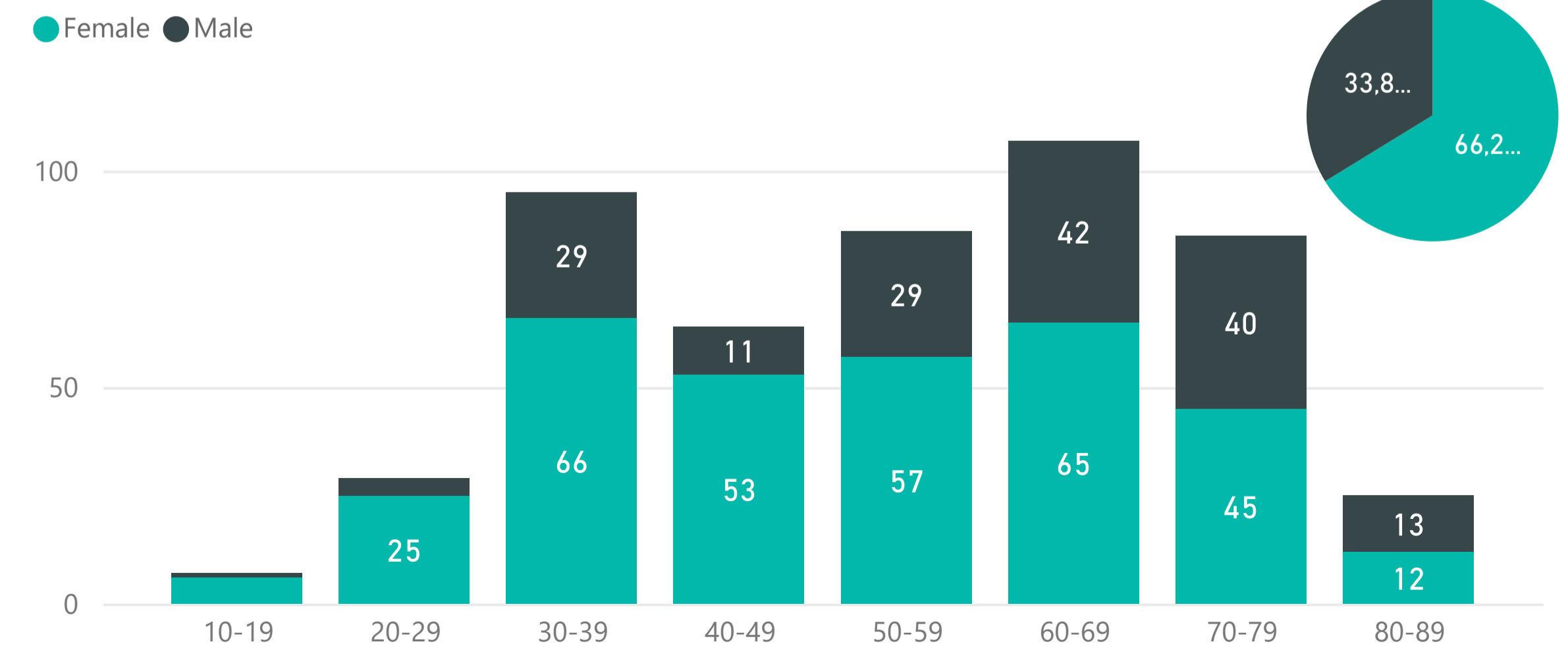
#### Age Distribution and Gender - Benign Disease at Histology



#### Age Distribution and Gender - Malignancy at Histology



#### Age Distribution and Gender - Malignancy at Histology

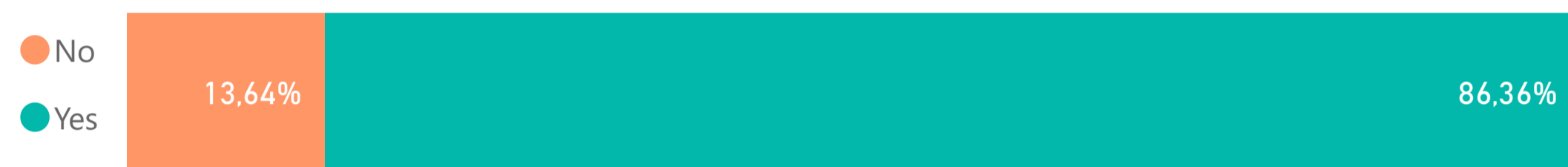


Investigated Clinic

EUROCRINE Clinics

Preoperative Ultrasound of the Thyroid Gland

Preoperative Ultrasound of the Thyroid Gland



Preoperative Ultrasound of Regional Lymph Nodes for Main Indication 'Excluding Malignancy' or 'Malignancy'

Preoperative Ultrasound of Regional Lymph Nodes for Main Indication 'Excluding Malignancy' or 'Malignancy'



FNA: Performed Under Guidance of Ultrasonography

FNA: Performed Under Guidance of Ultrasonography



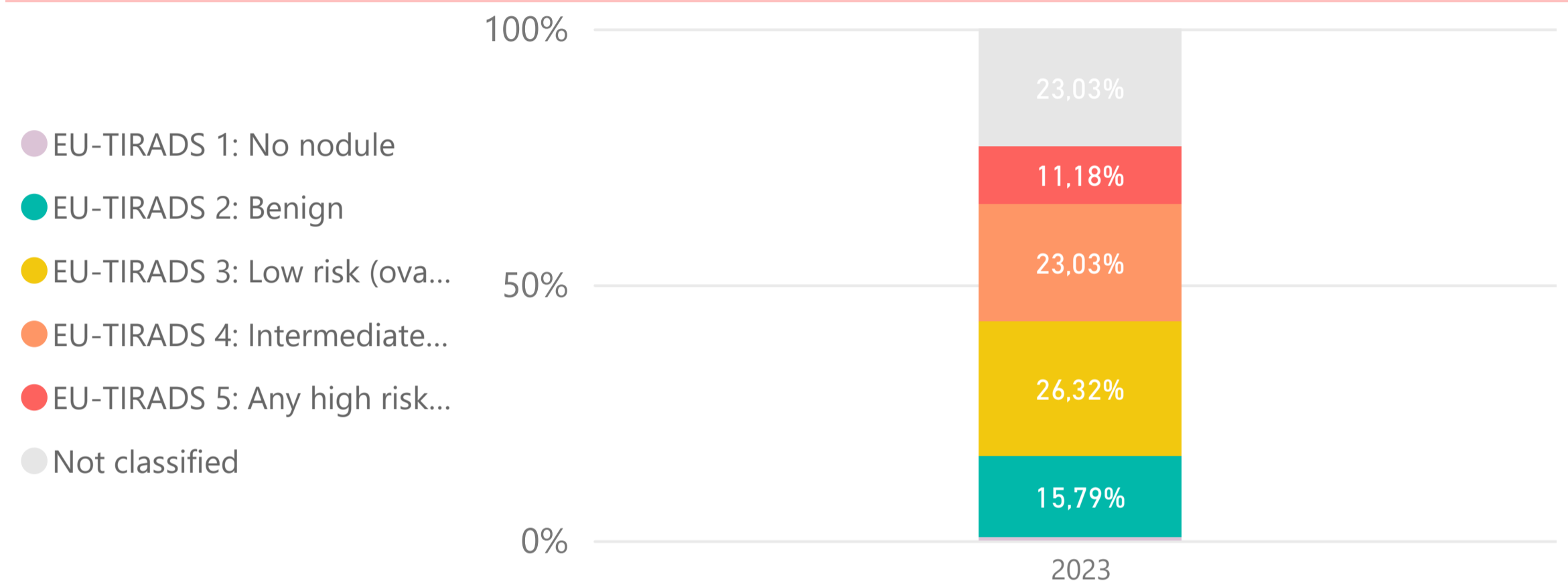
# Thyroid

Preoperative Workup: Ultrasound and EU-TIRADS Classification (variable introduced in 2020)

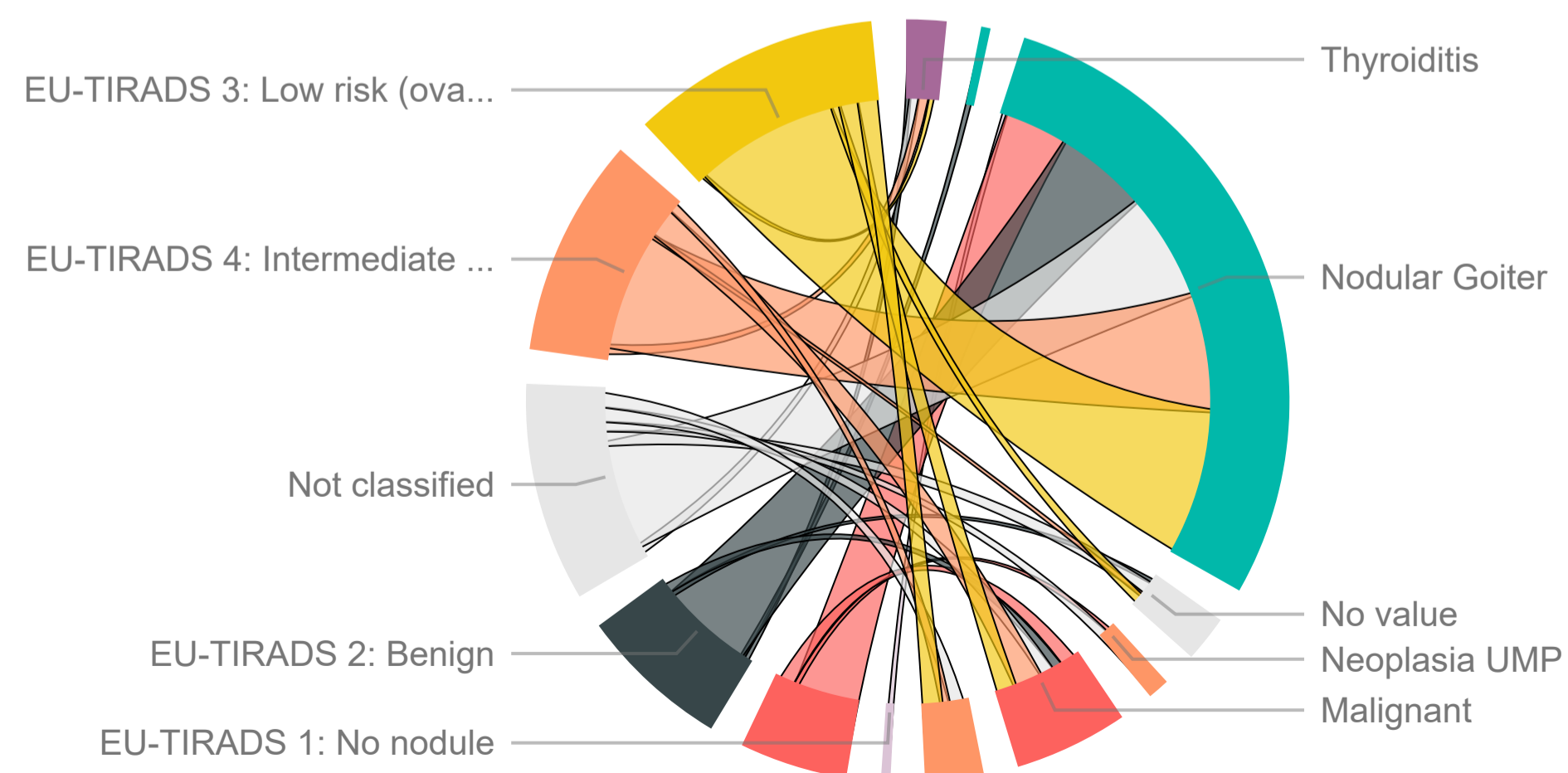


## Investigated Clinic

### EU-TIRADS Classification Distribution

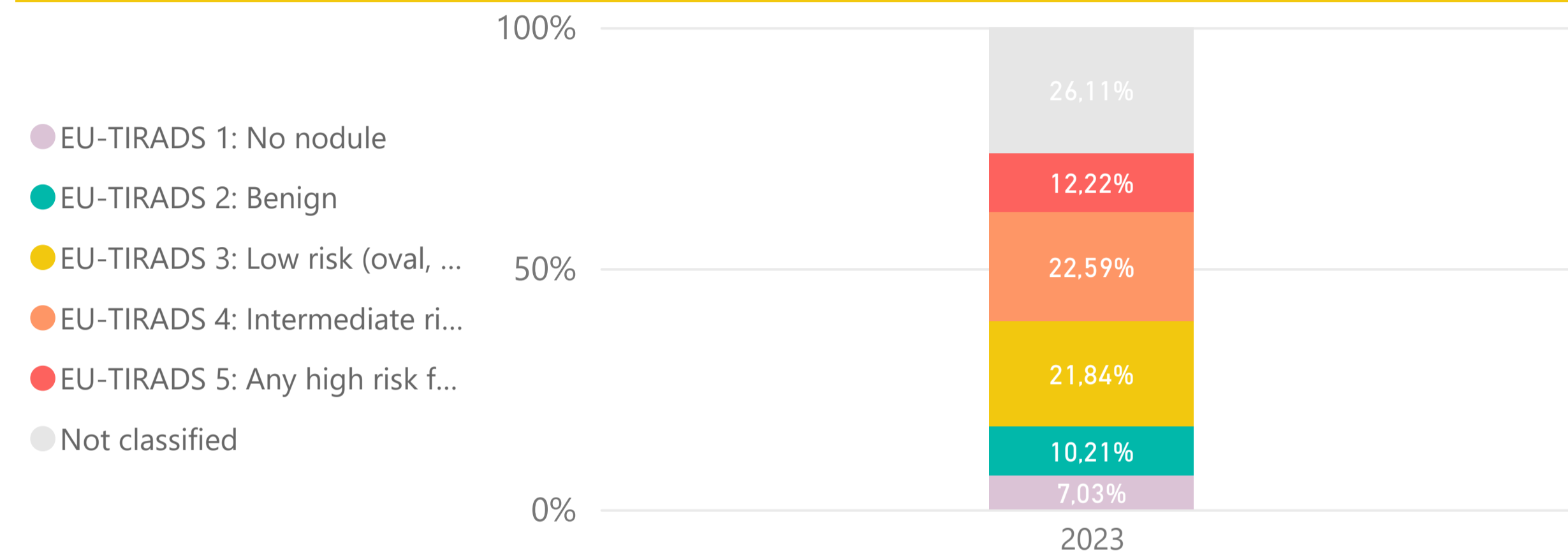


### EU-TIRADS Classification and Final Diagnosis Groups on Histopathology

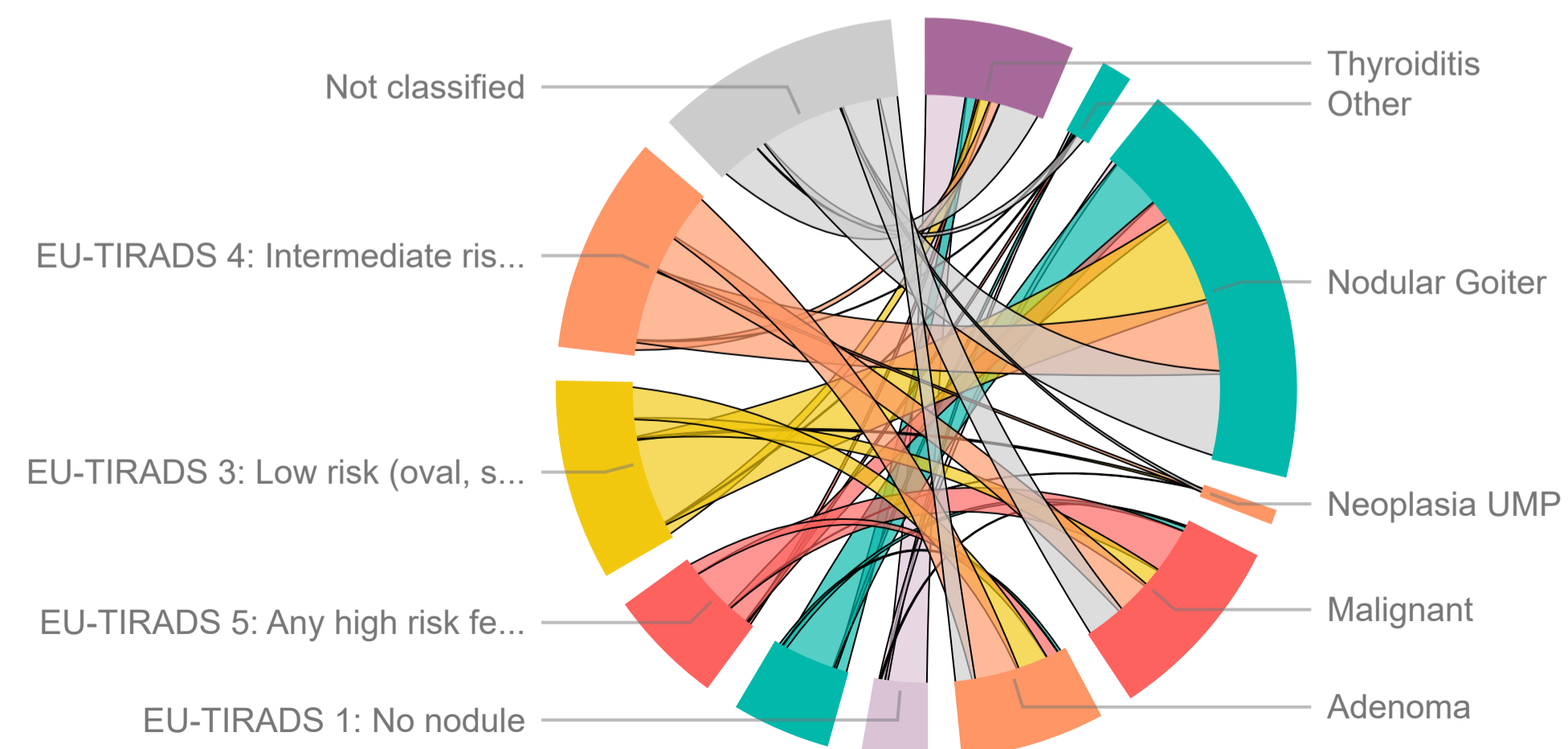


## EUROCRINE Clinics

### EU-TIRADS Classification Distribution



### EU-TIRADS Classification and Final Diagnosis Groups on Histopathology



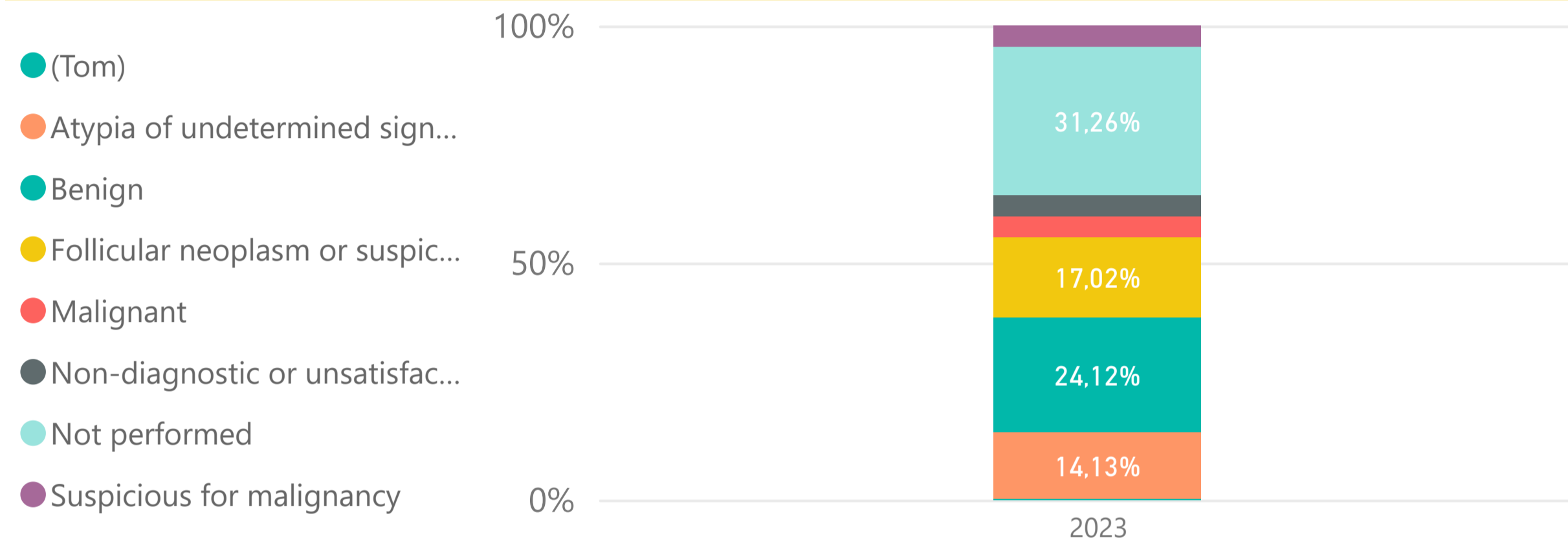
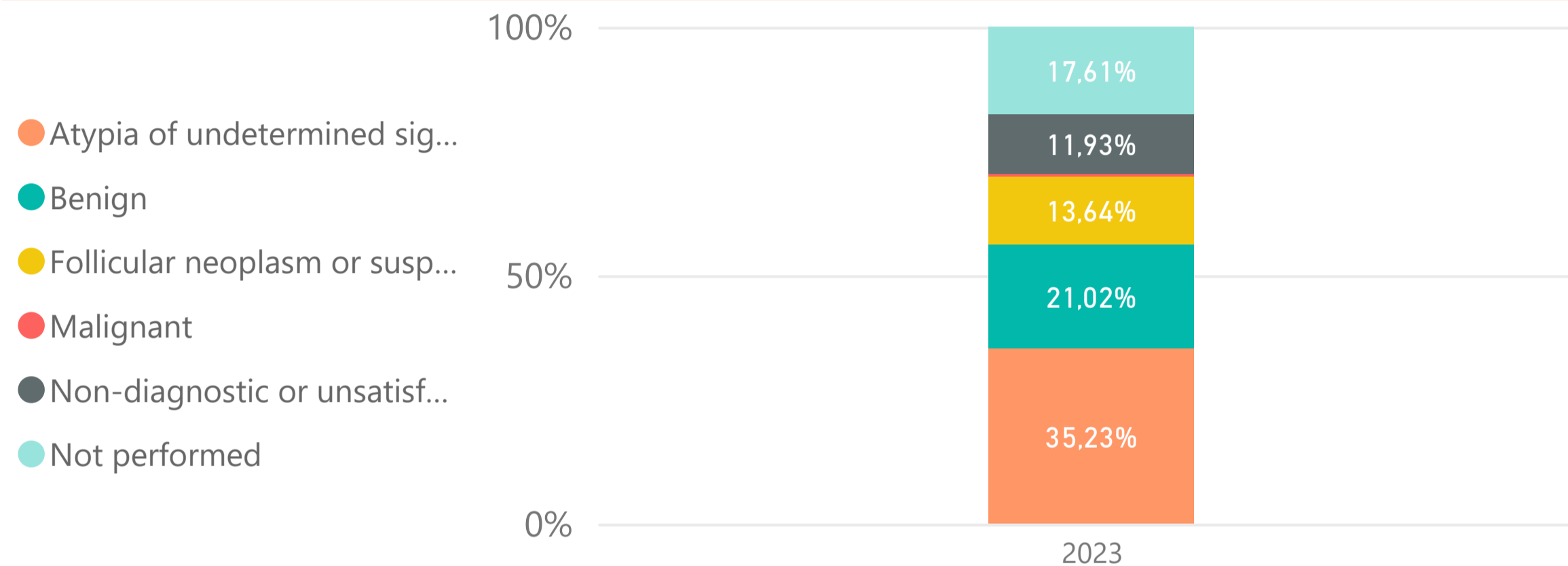


Investigated Clinic

EUROCRINE Clinics

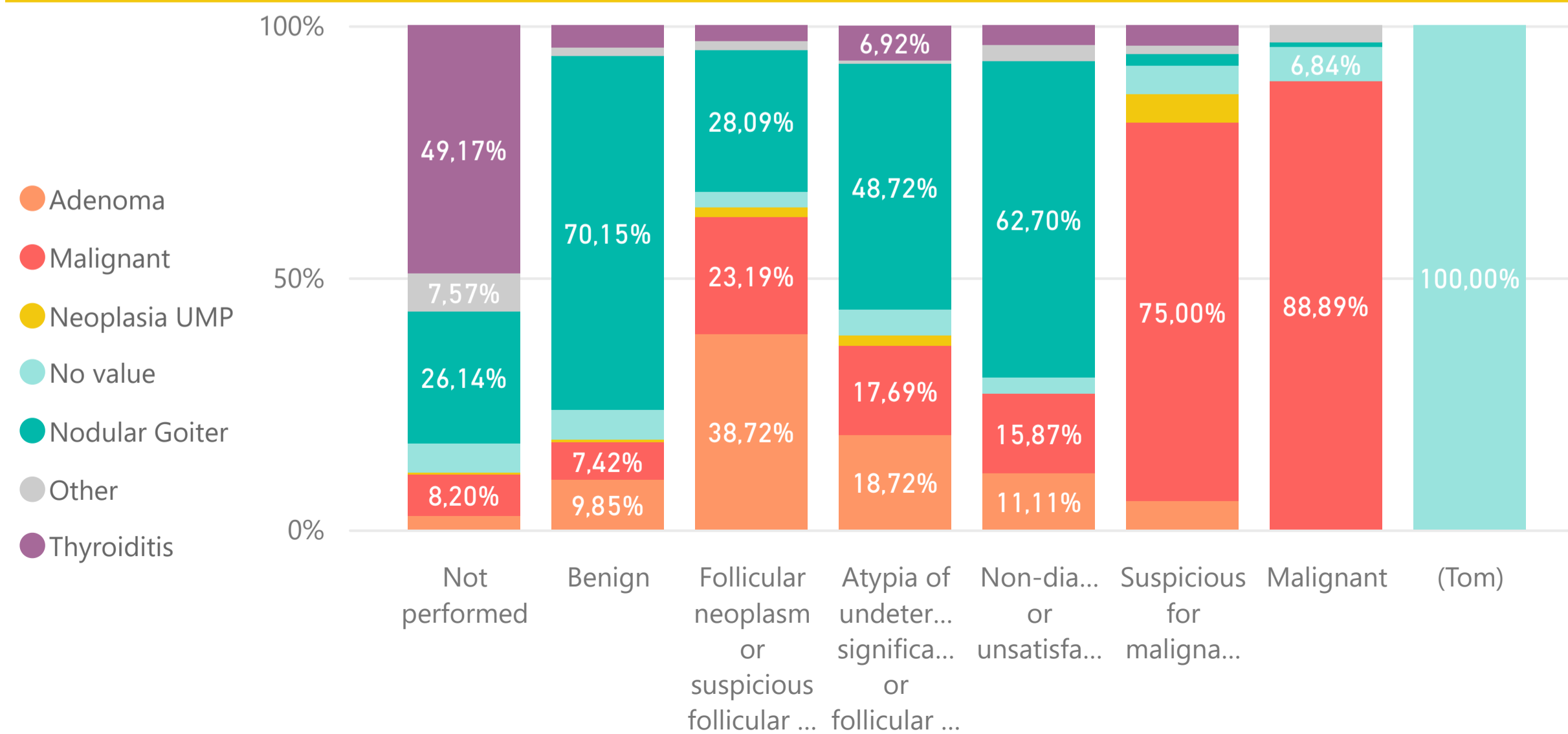
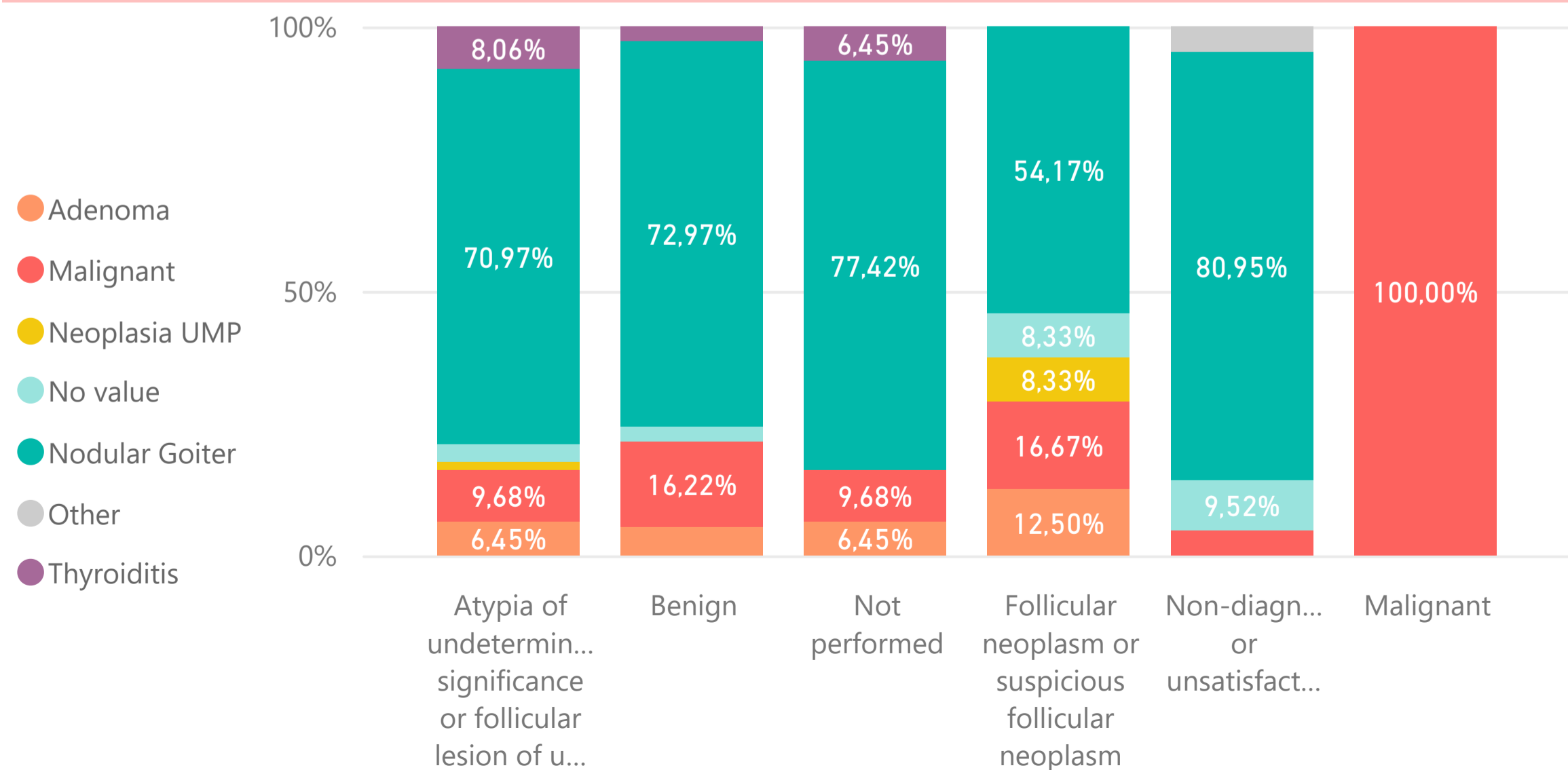
Bethesda Classification Distribution

Bethesda Classification Distribution



Cytology Result and Main Histopathological Diagnosis Group

Cytology Result and Main Histopathological Diagnosis Group



# Thyroid

## Main Indication for Surgery

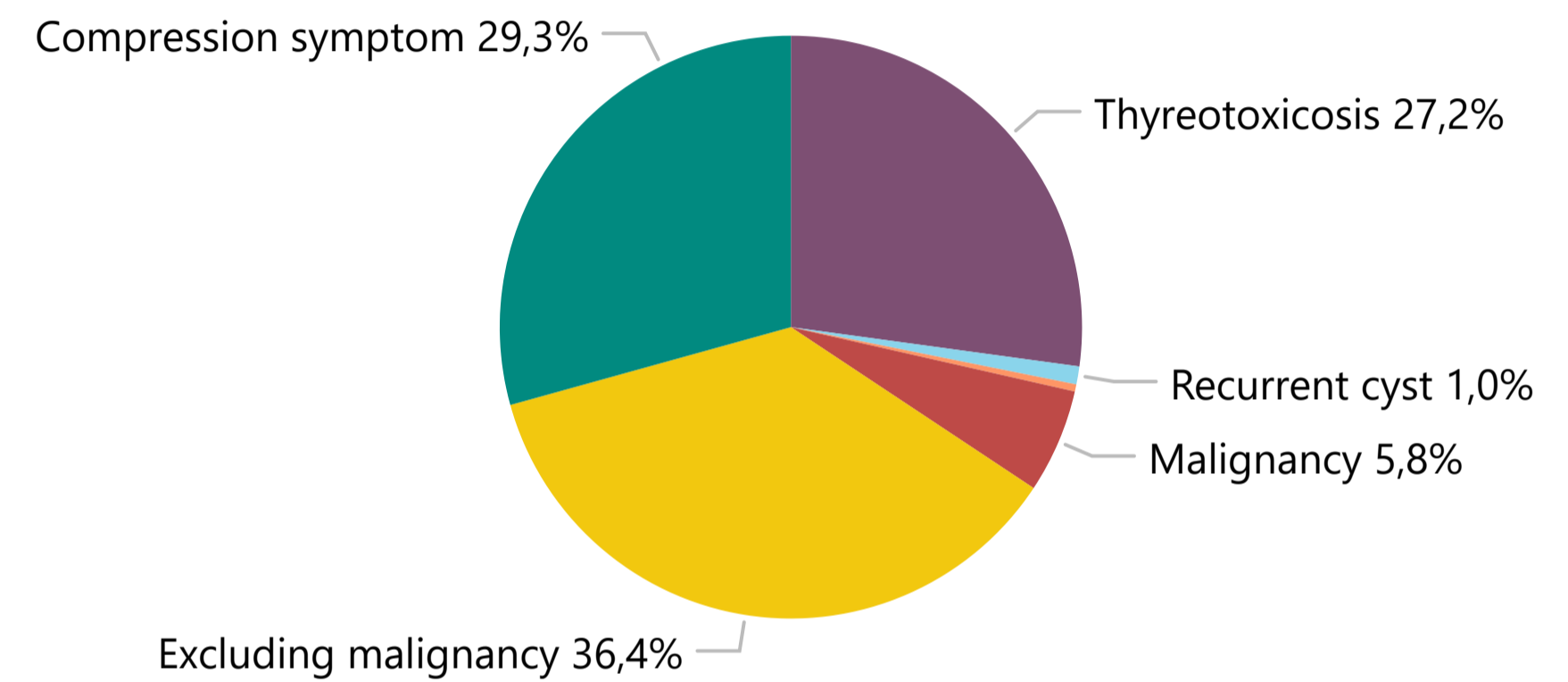
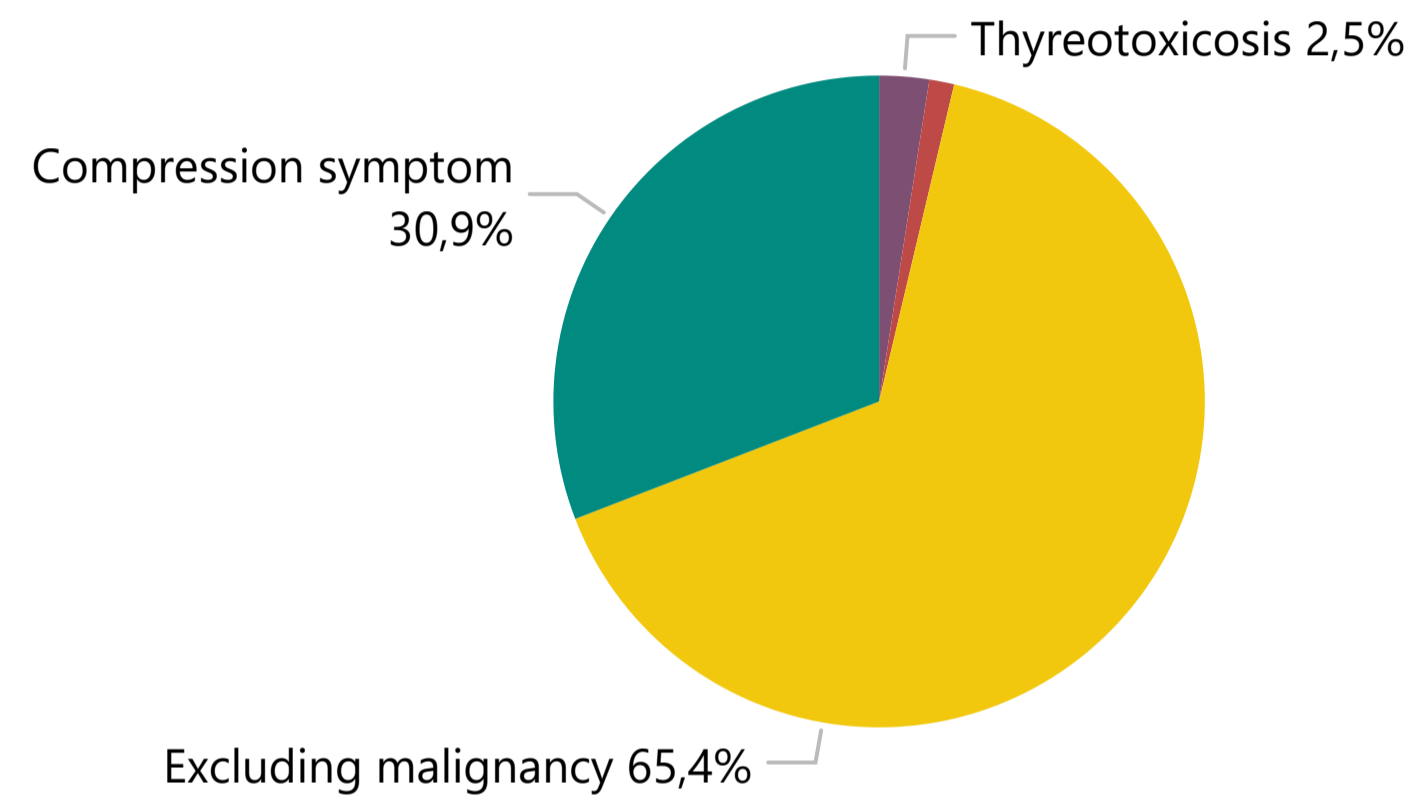


### Investigated Clinic

### EUROCRINE Clinics

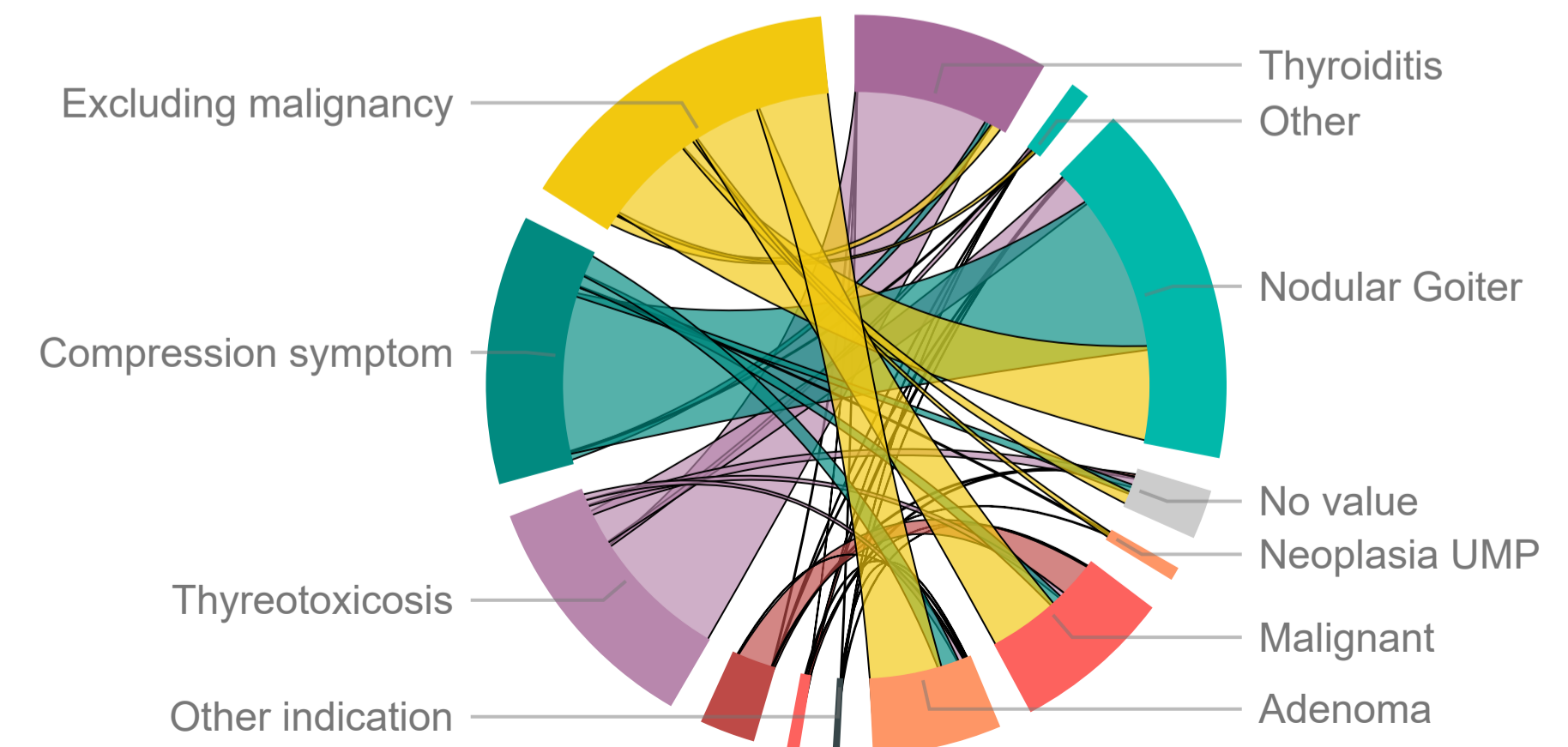
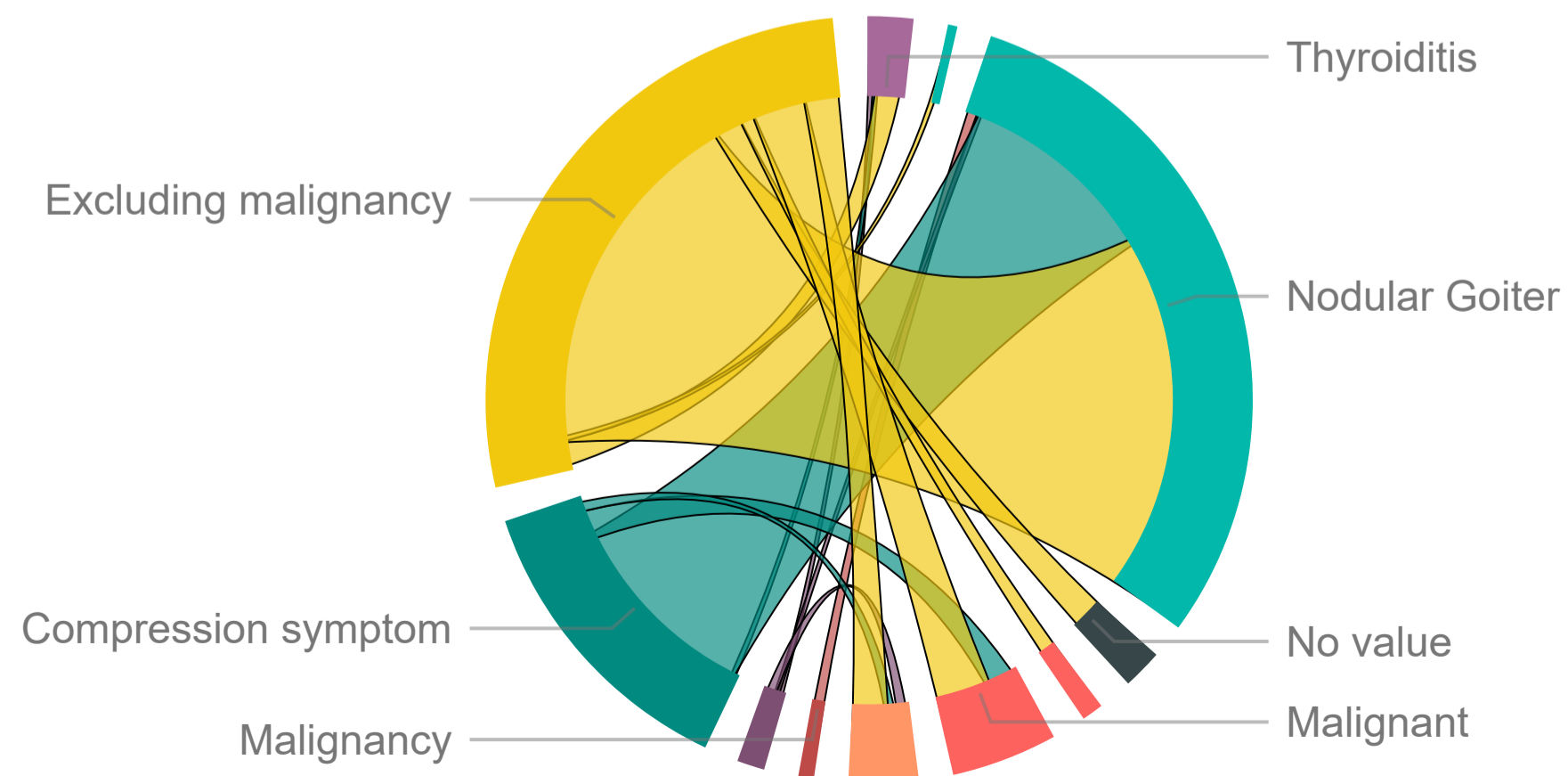
### Main Indication for Surgery (Primary Operations)

### Main Indication for Surgery (Primary Operations)



### Main Indication and Diagnosis at Histology

### Main Indication and Diagnosis at Histology





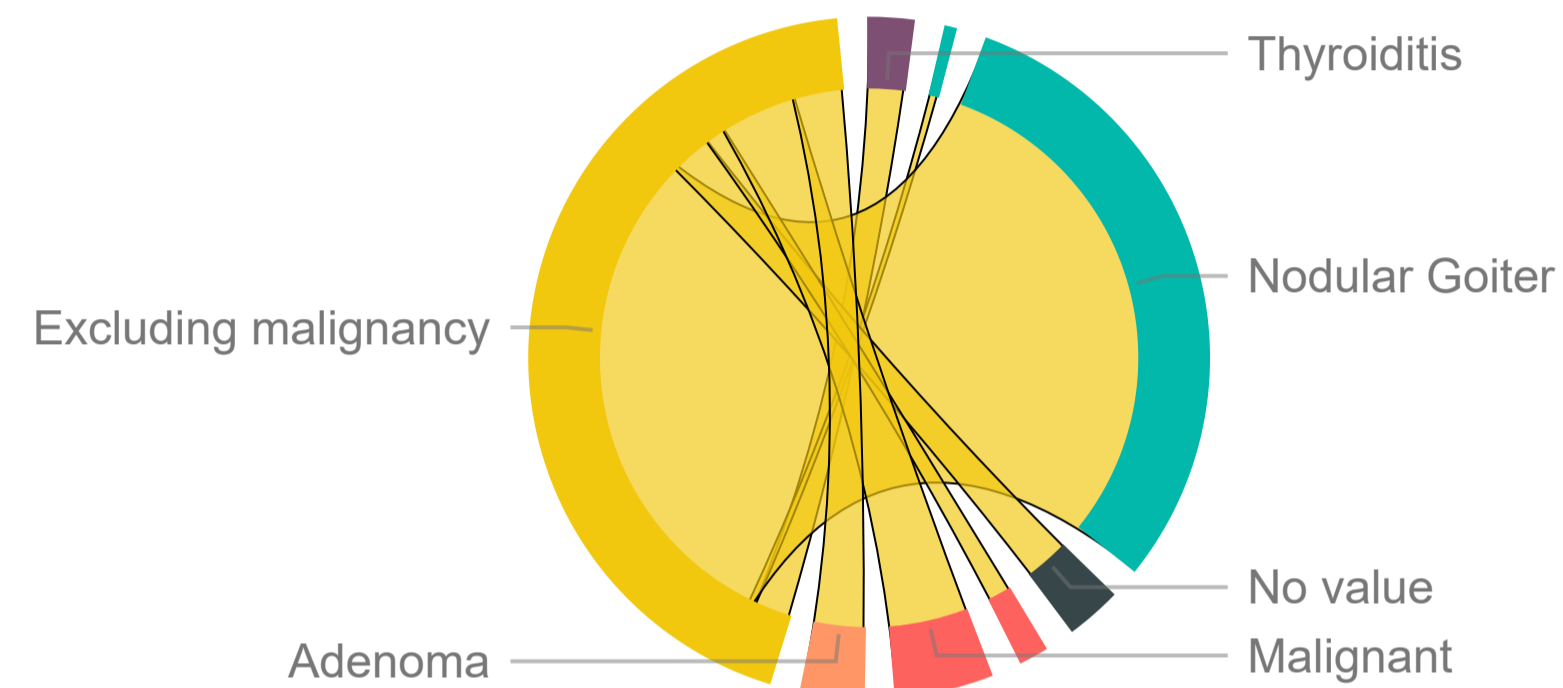
# Thyroid

Main Indication for Surgery: Excluding Malignancy

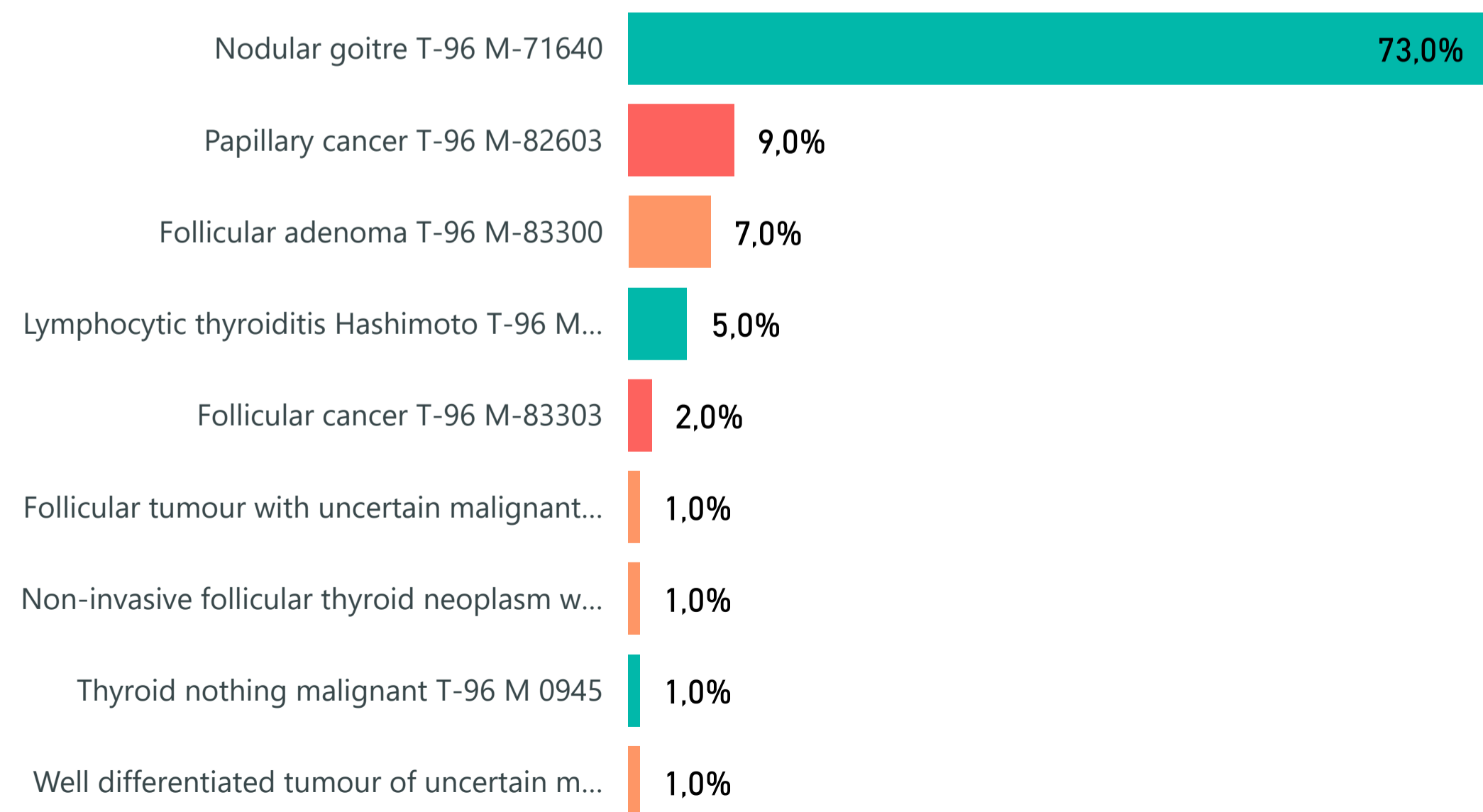


## Investigated Clinic

### Main Indication (Excluding Malignancy) and Final Diagnosis Groups

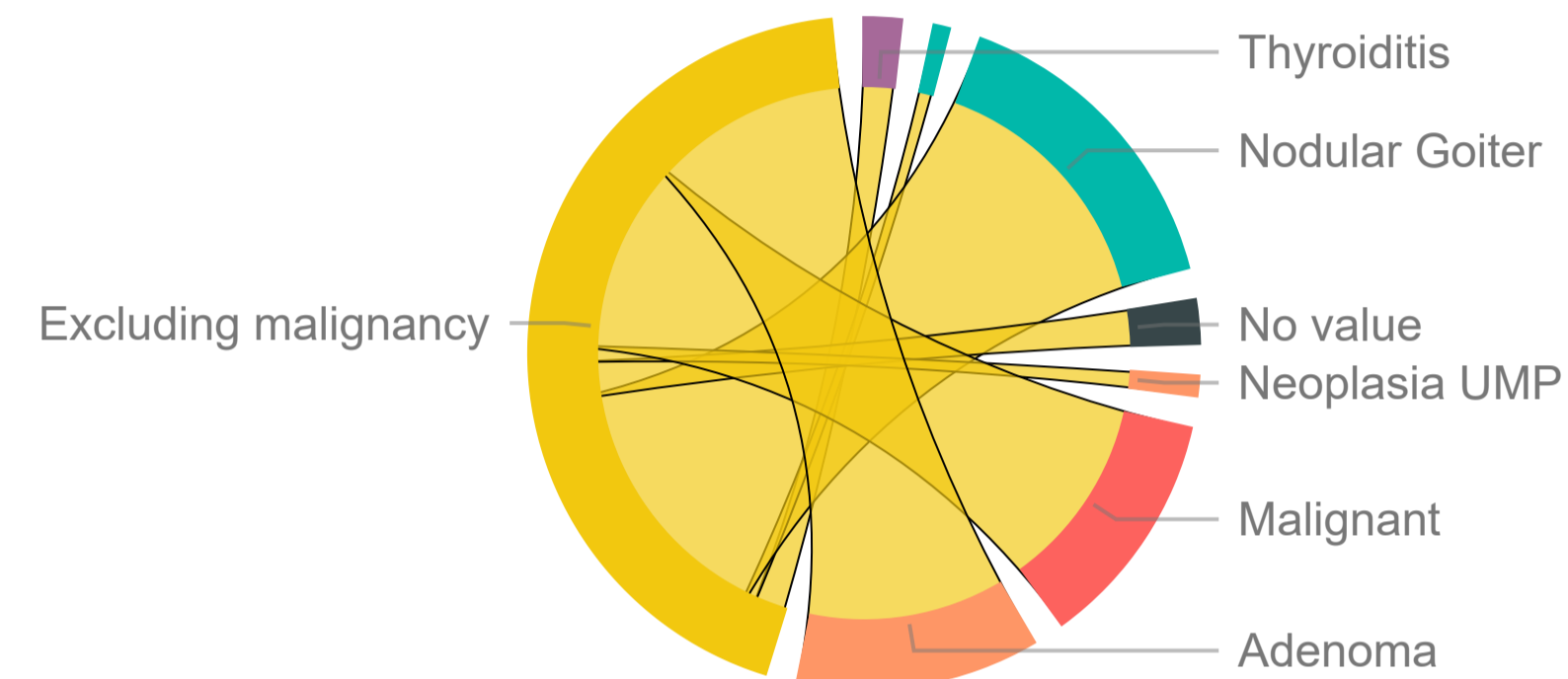


### Main Indication (Excluding Malignancy) and Final Histopathological Diagnosis

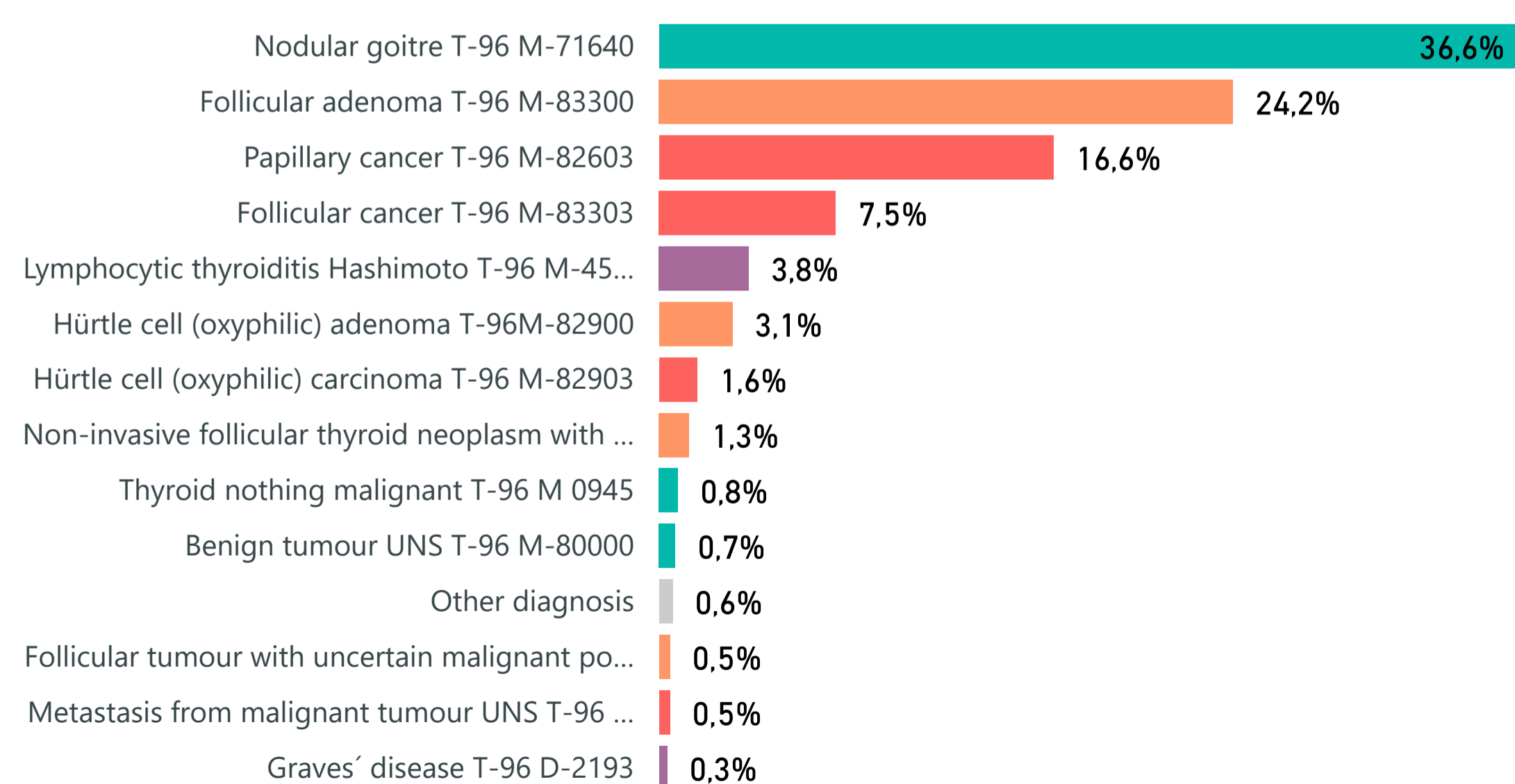


## EUROCRINE Clinics

### Main Indication (Excluding Malignancy) and Final Diagnosis Groups



### Main Indication (Excluding Malignancy) and Final Histopathological Diagnosis



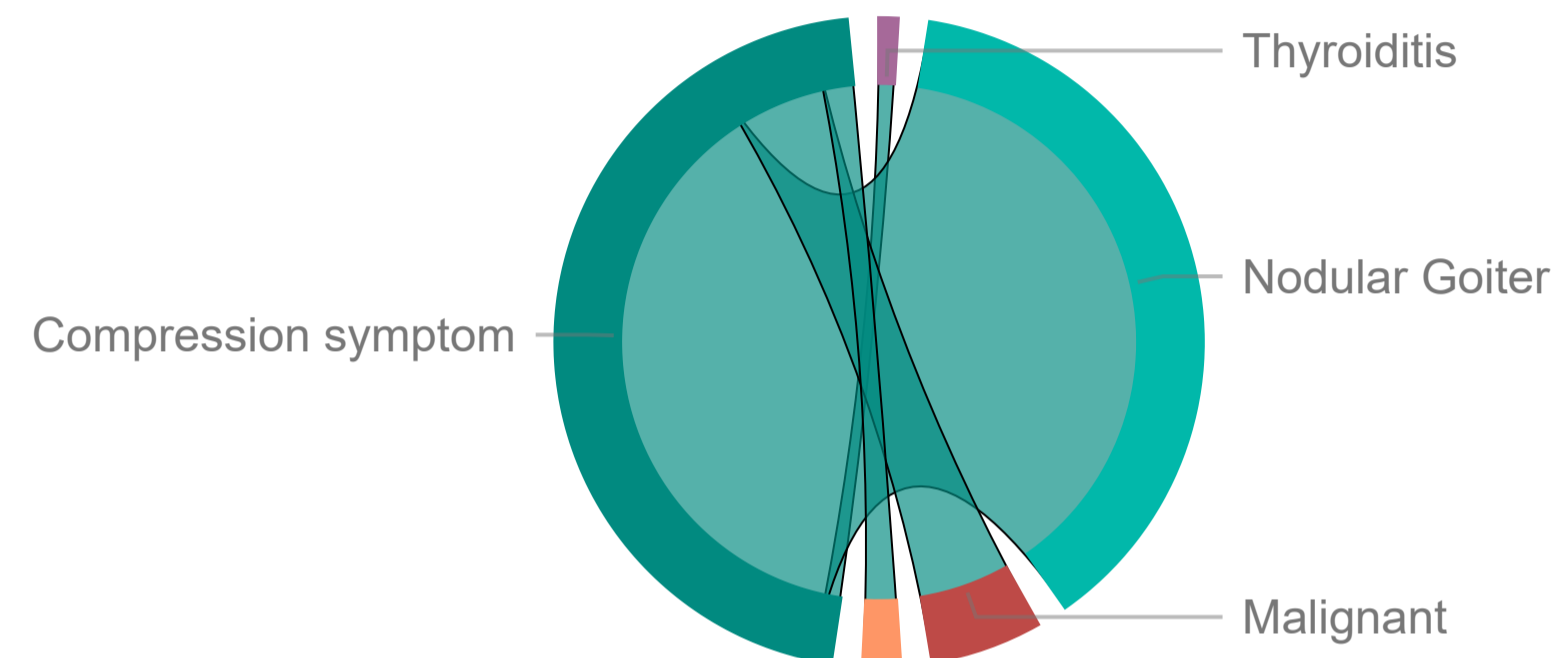
# Thyroid

Main Indication for Surgery: Volume and Compression Symptoms

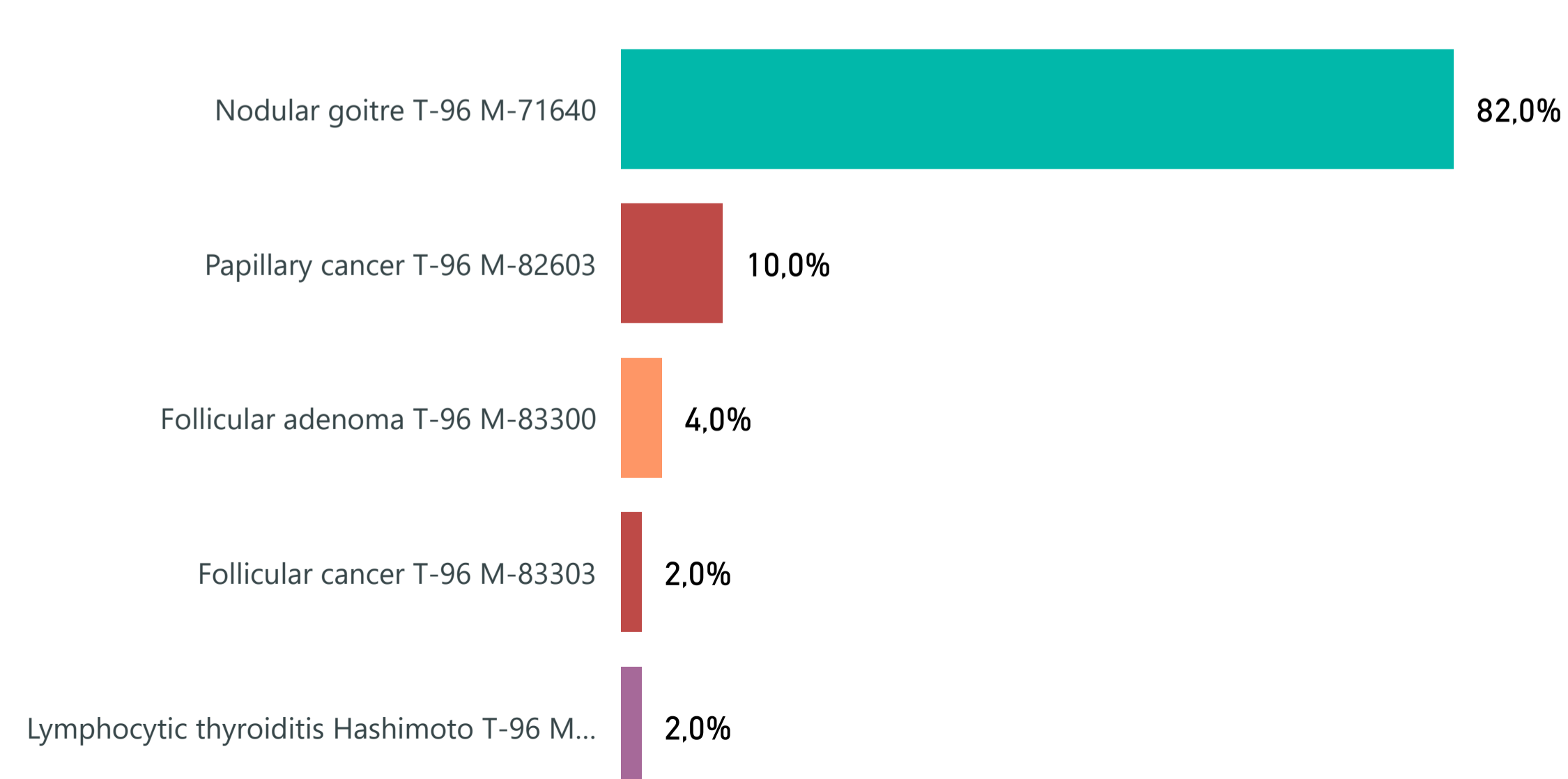


## Investigated Clinic

### Main Indication (Volume and Compression Symptoms) and Final Diagnosis Groups

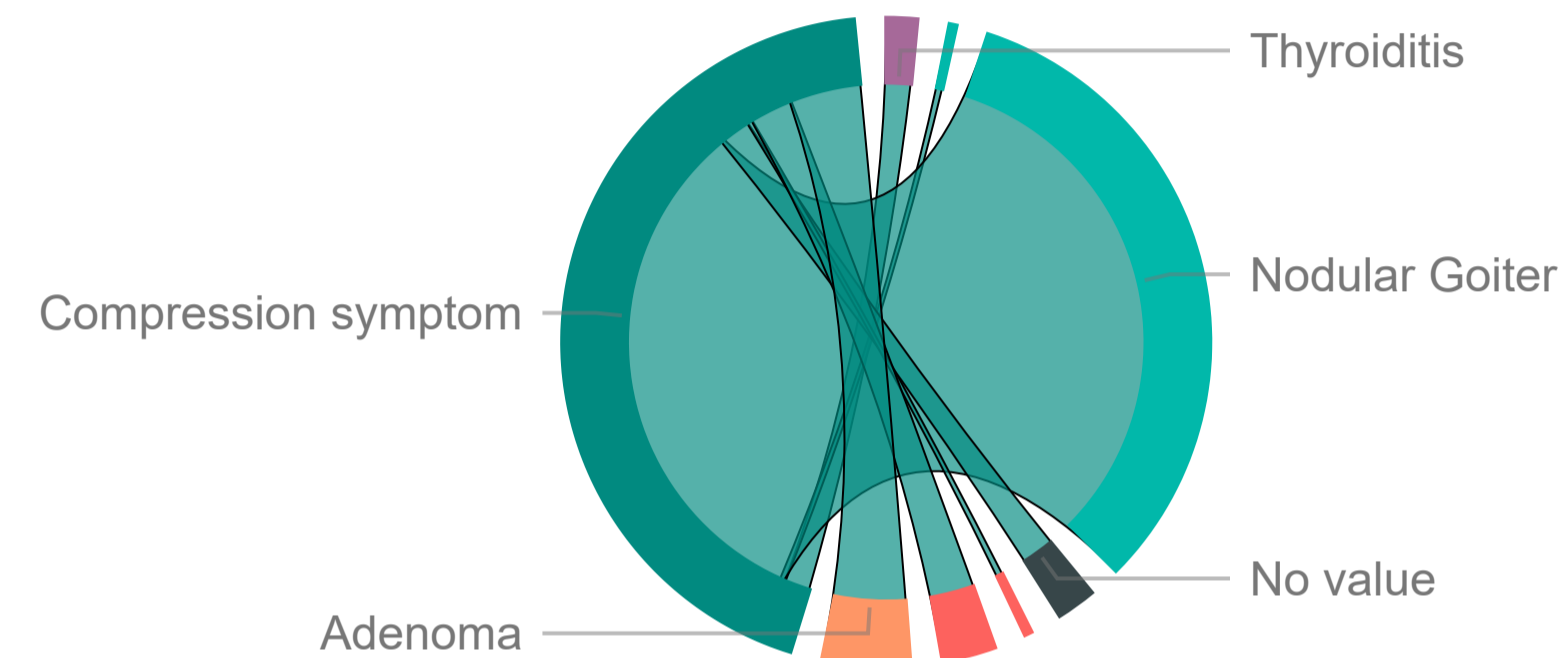


### Main Indication (Compression Symptoms) and Final Histopathological Diagnosis

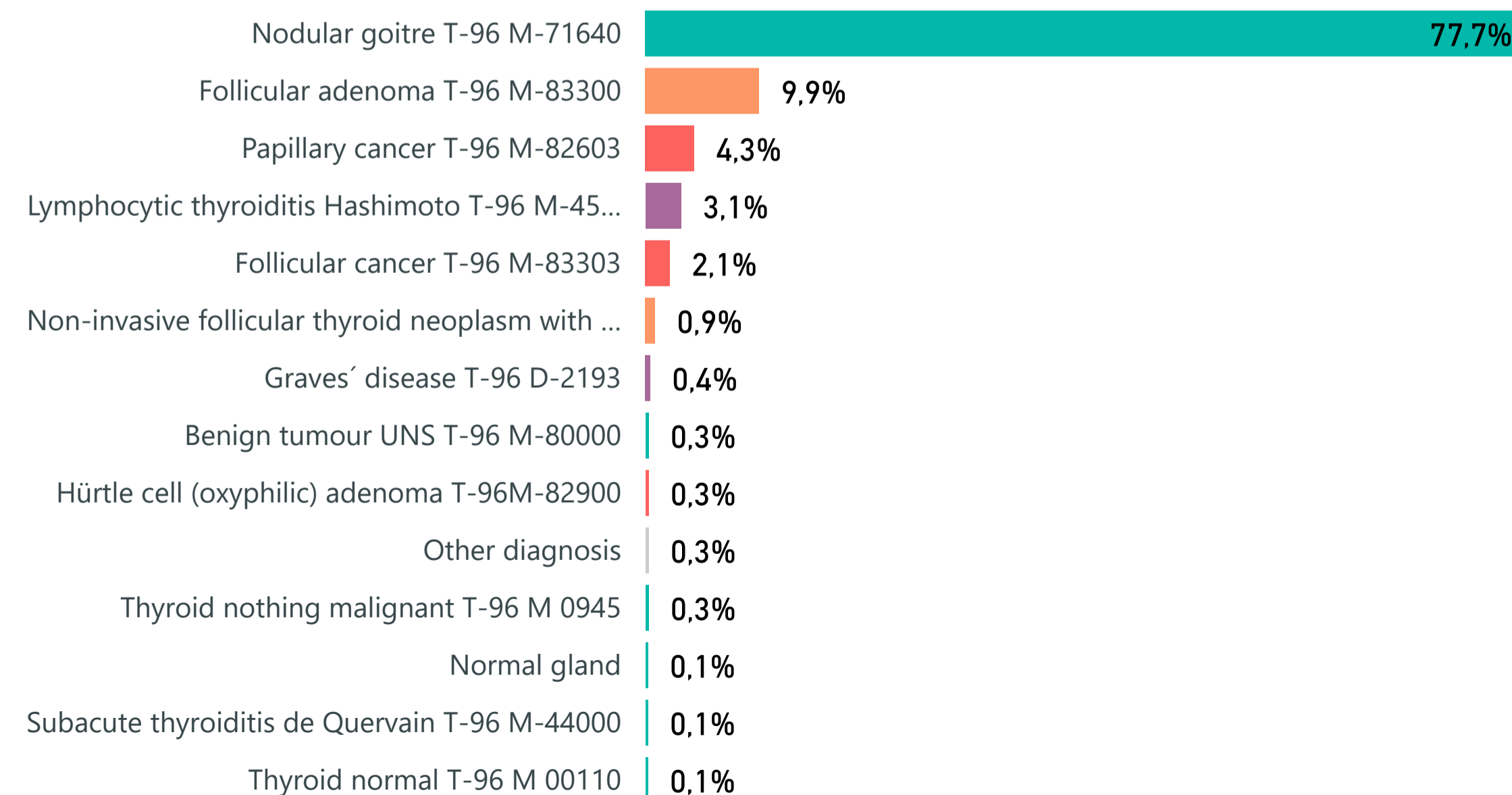


## EUROCRINE Clinics

### Main Indication (Volume and Compression Symptoms) and Final Diagnosis Groups



### Main Indication (Compression Symptoms) and Final Histopathological Diagnosis



# Thyroid

Main Indication for Surgery: Thyrotoxicosis

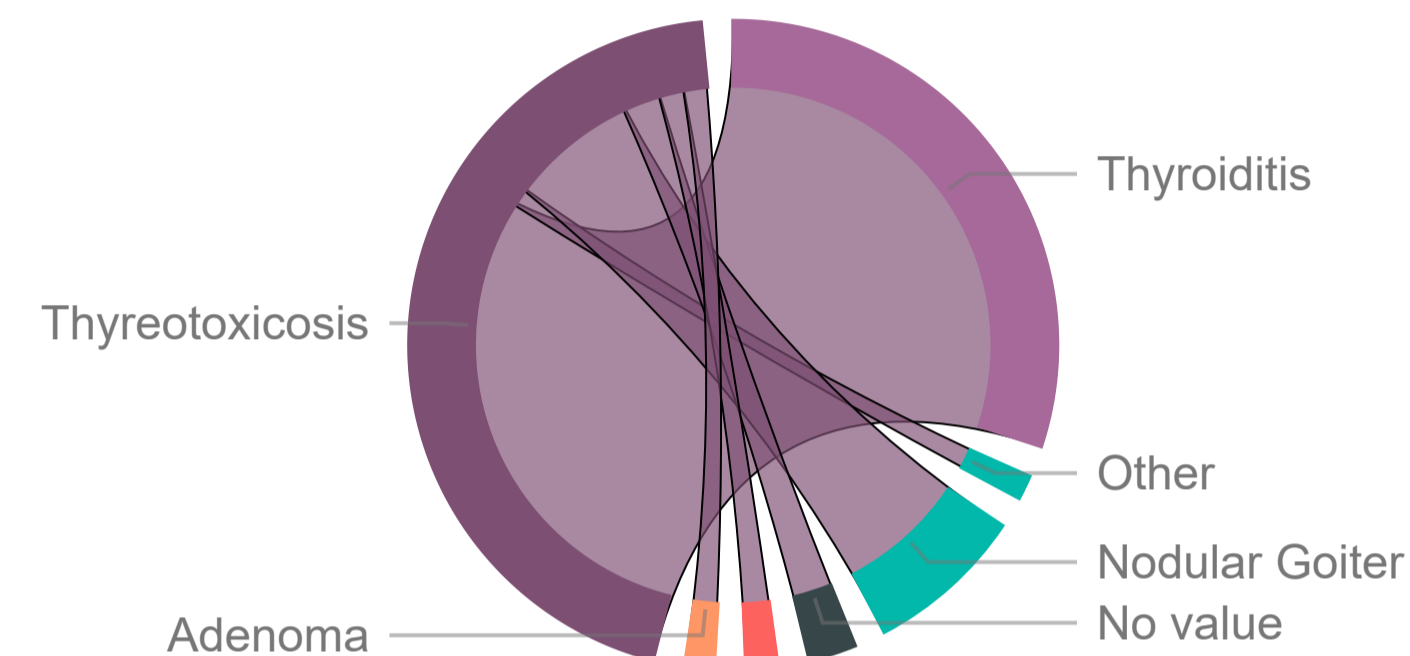
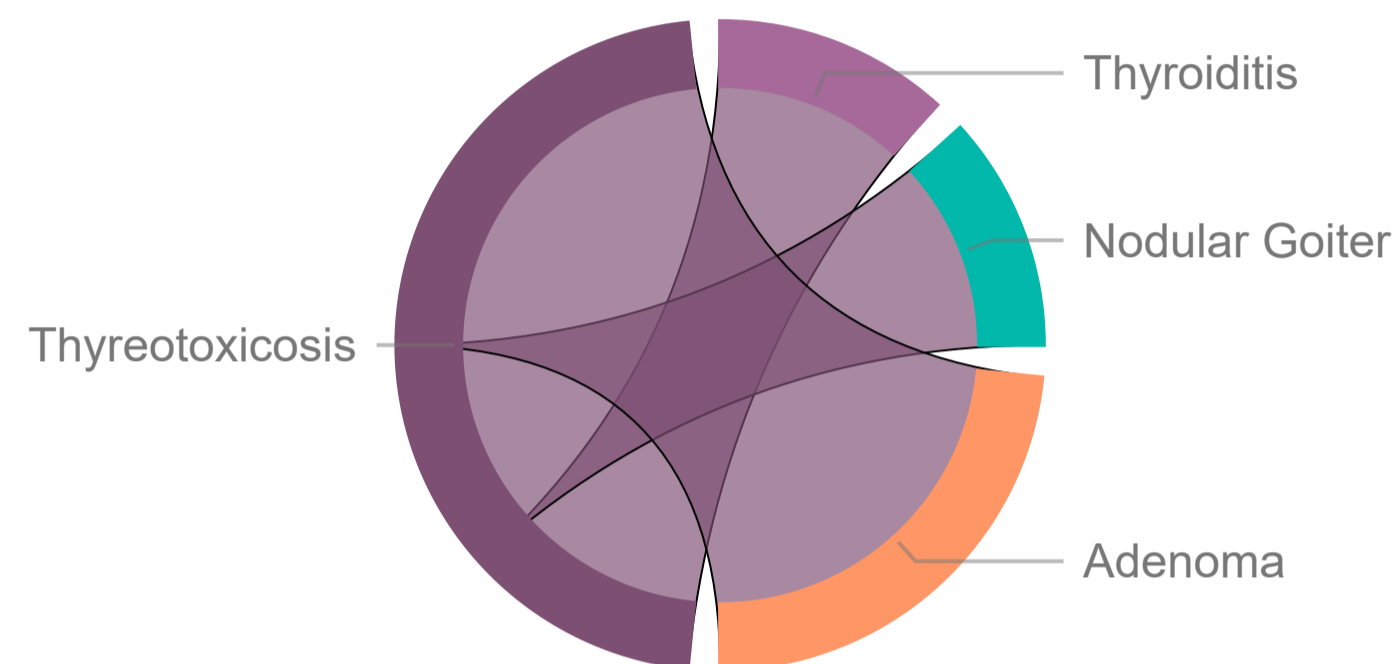


Investigated Clinic

EUROCRINE Clinics

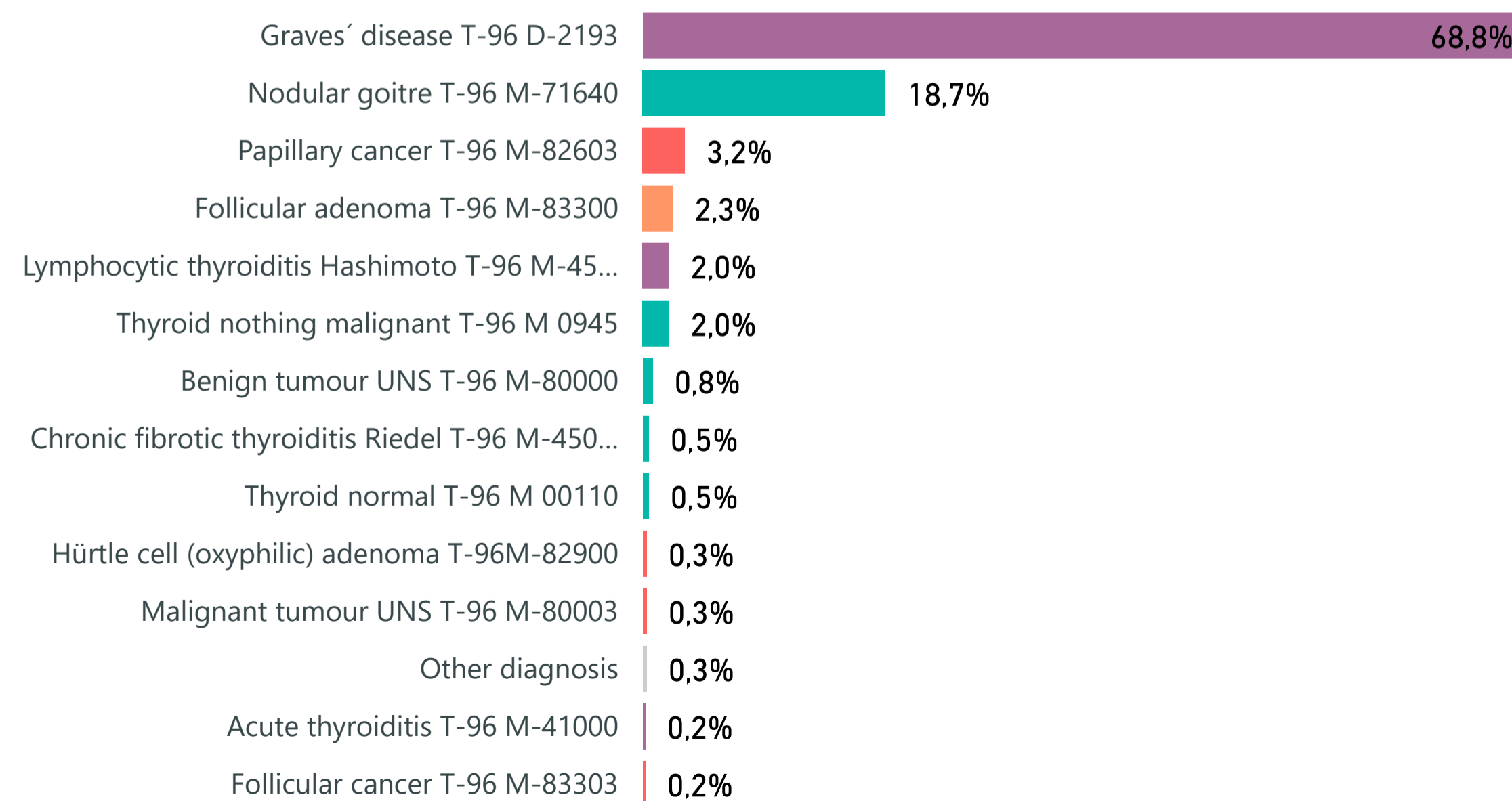
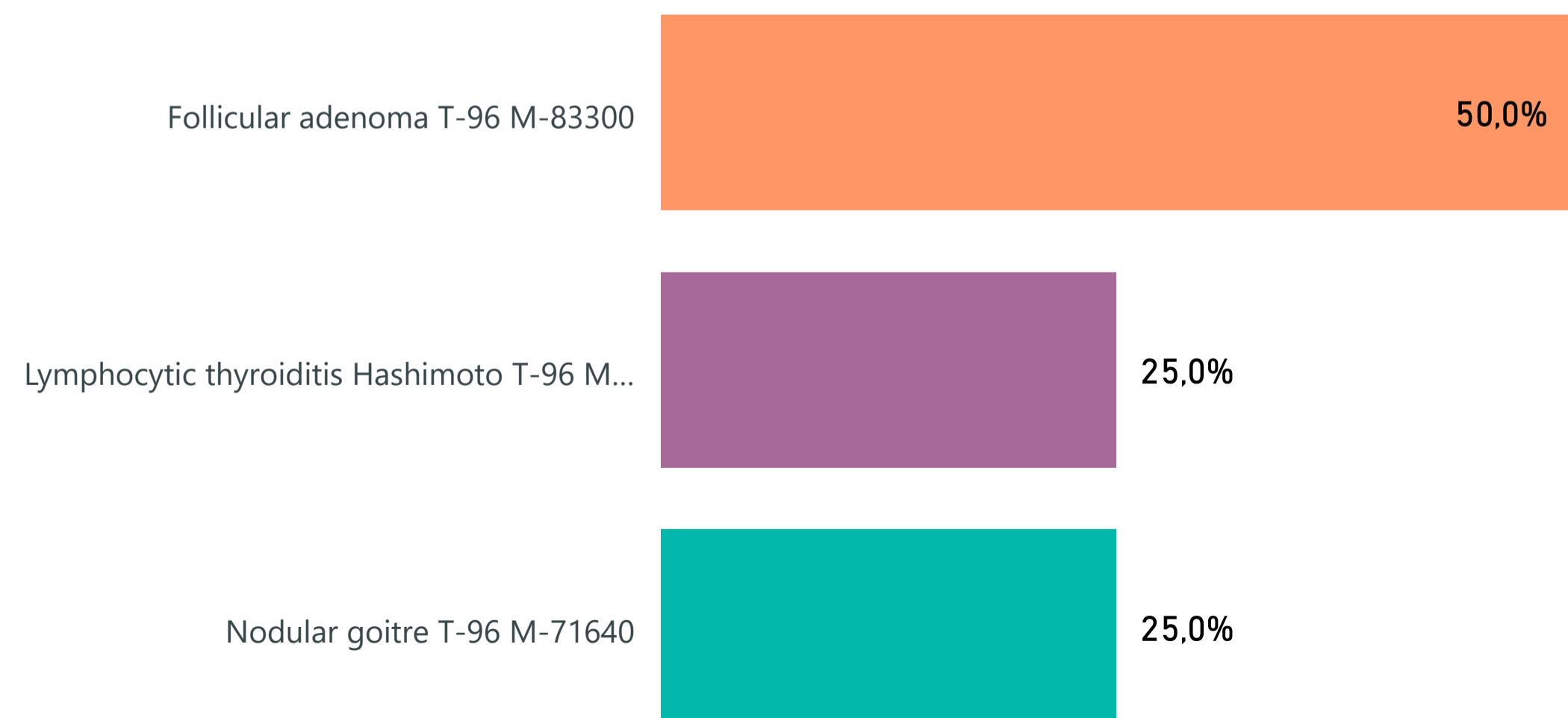
Main Indication (Volume and Compression Symptoms) and Final Diagnosis Groups

Main Indication (Volume and Compression Symptoms) and Final Diagnosis Groups



Main Indication (Compression Symptoms) and Final Histopathological Diagnosis

Main Indication (Compression Symptoms) and Final Histopathological Diagnosis



# Thyroid

Main Indication for Surgery: Thyrotoxicosis

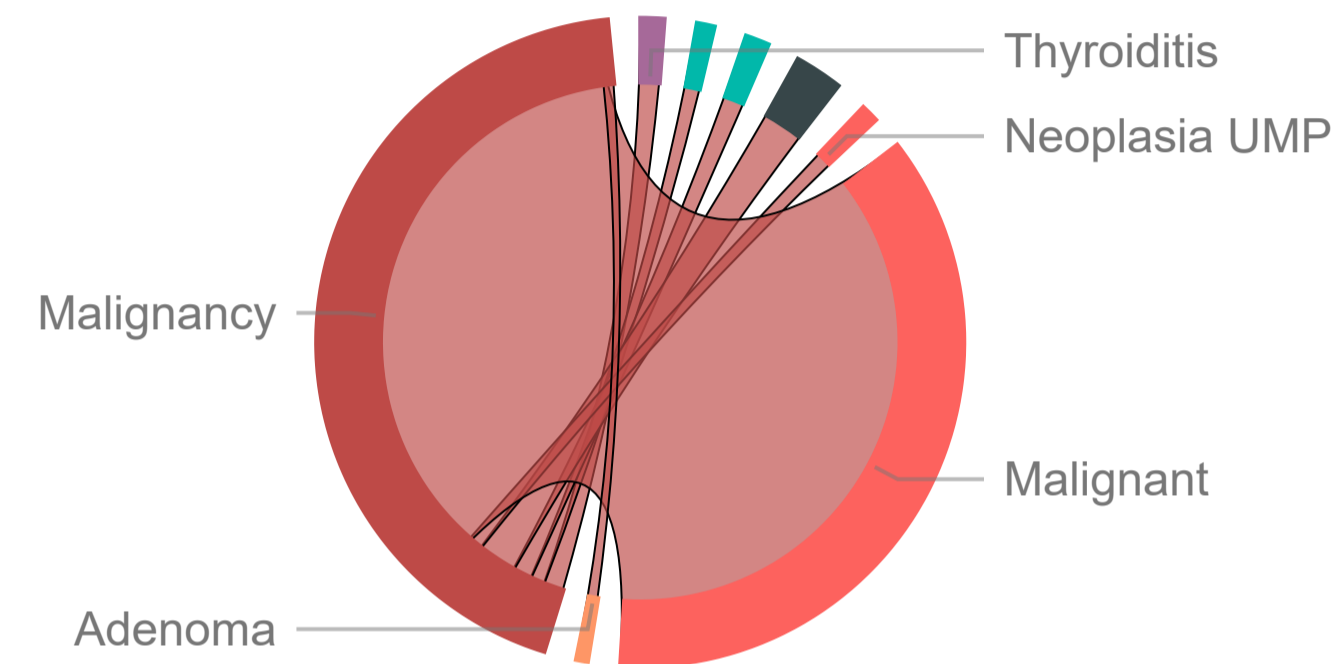
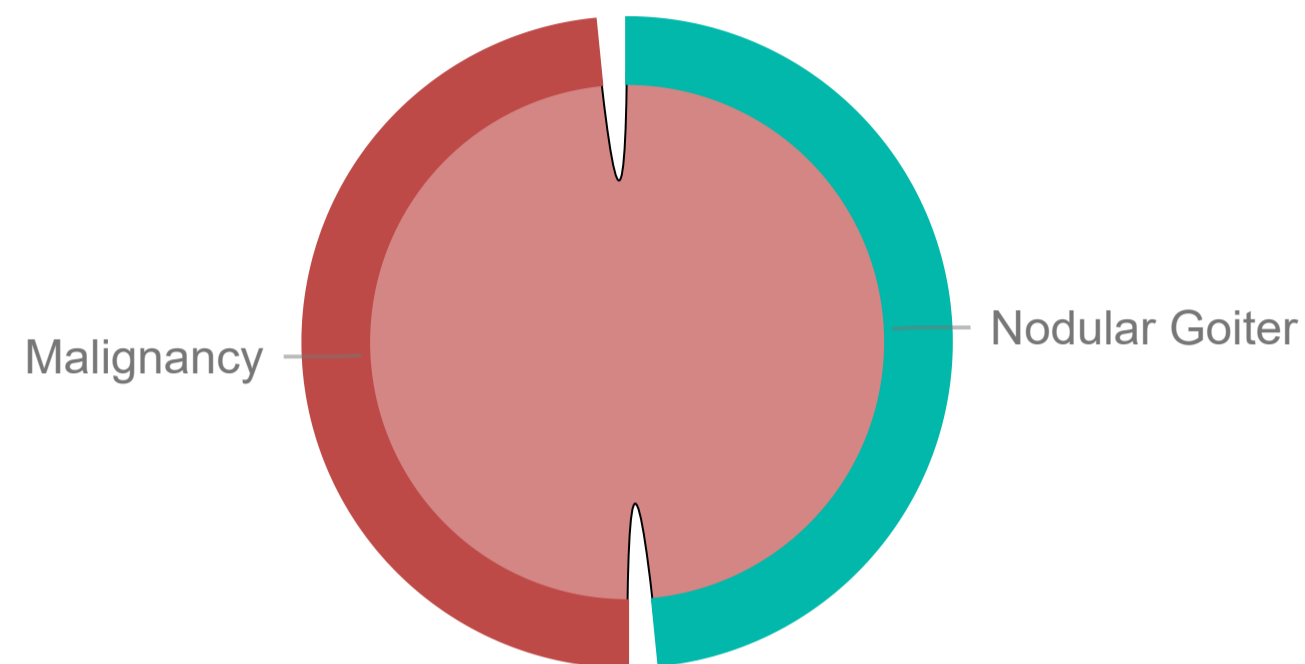


Investigated Clinic

EUROCRINE Clinics

Main Indication (Malignancy) and Final Diagnosis Groups

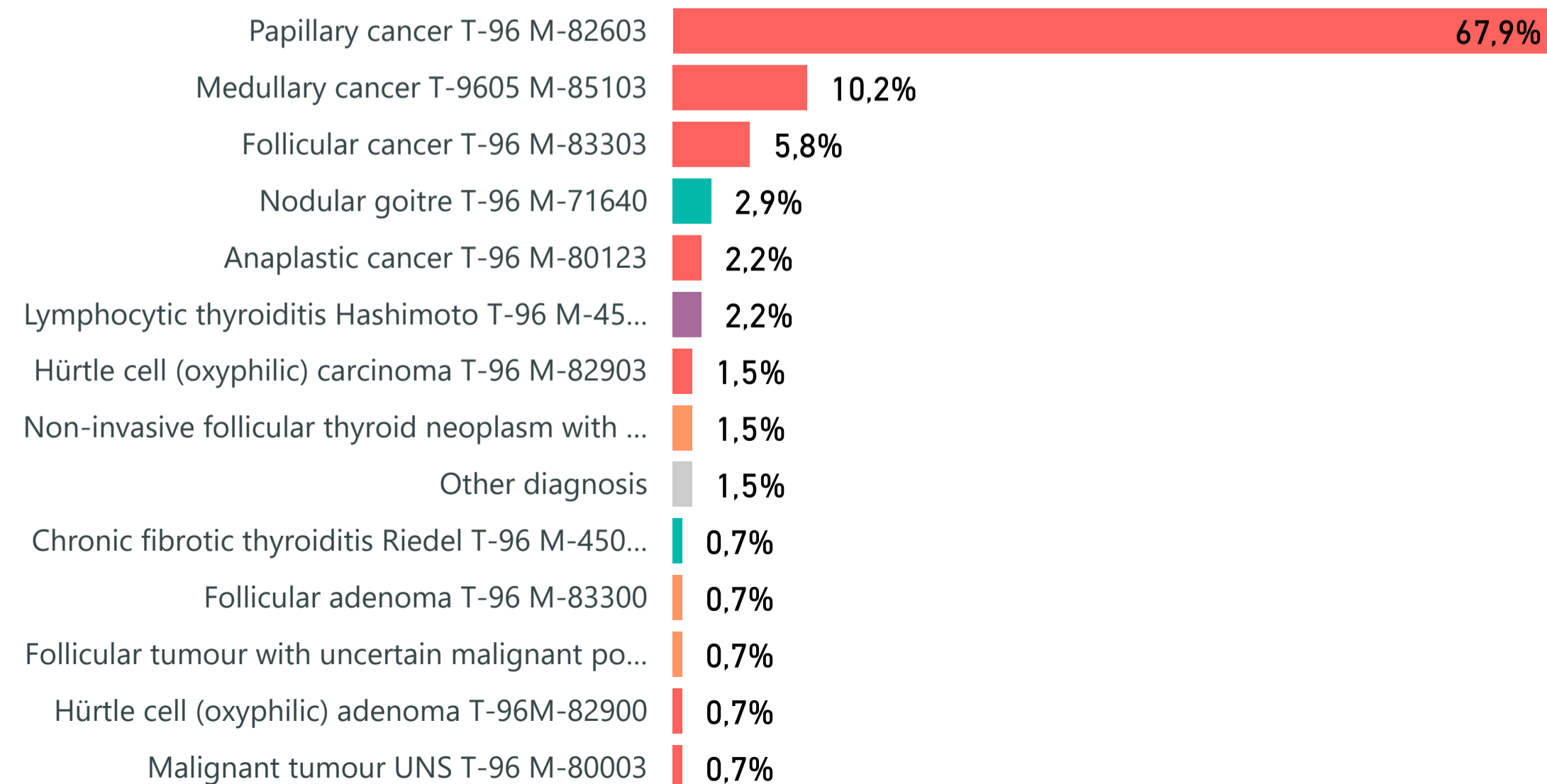
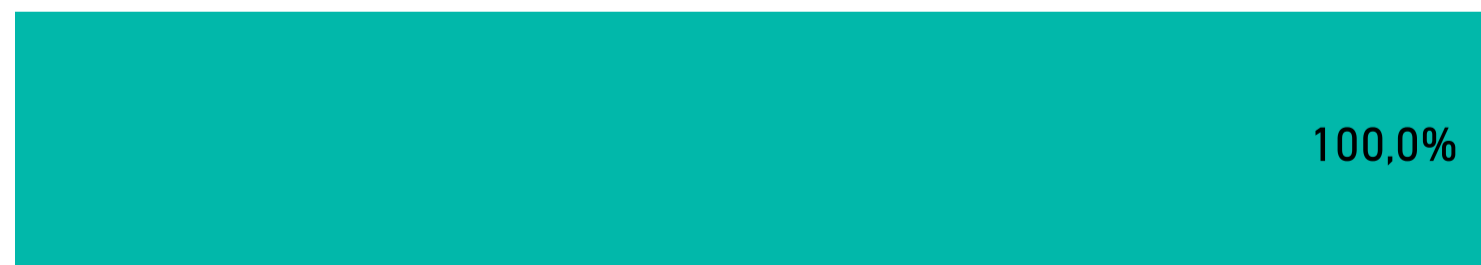
Main Indication (Malignancy) and Final Diagnosis Groups



Main Indication (Malignancy) and Final Histopathological Diagnosis

Main Indication (Malignancy) and Final Histopathological Diagnosis

Nodular goitre T-96 M-71640



# Thyroid

## Surgical Approach



Investigated Clinic

EUROCRINE Clinics

## Surgical Approach

## Surgical Approach

Neck incision

100,0%

Neck incision

99,9%

Extra cervical incision

0,1%

## Neck Incision - Subspecification

## Neck Incision - Subspecification

| Neck incision                                     | Number |
|---|--------|
| Conventional neck incision (regardless of length) | 175    |

| Neck incision                                     | Number |
|---|--------|
| Conventional neck incision (regardless of length) | 2731   |
| Lateral approach                                  | 4      |

## Extracervical Approach - Subspecification

## Extracervical Approach - Subspecification

| Extra cervical approach | Number |
|-------------------------|--------|
|                         |        |

| Extra cervical approach | Number |
|-------------------------|--------|
| Other                   | 4      |



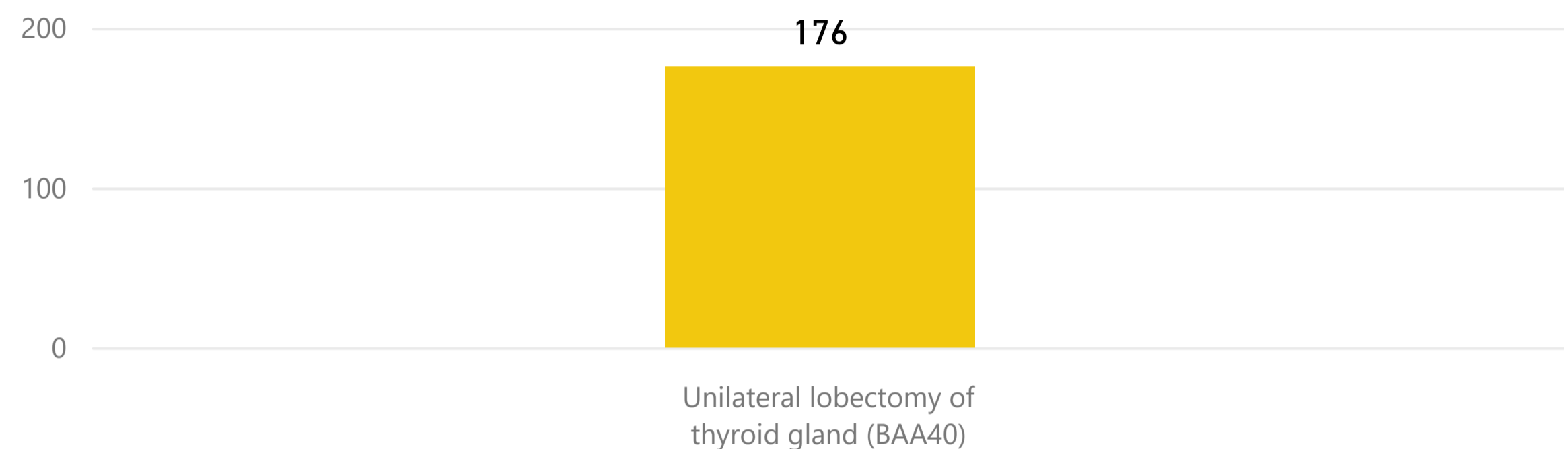
# Thyroid

## Resection Type and Intrathoracic Goiter Extension



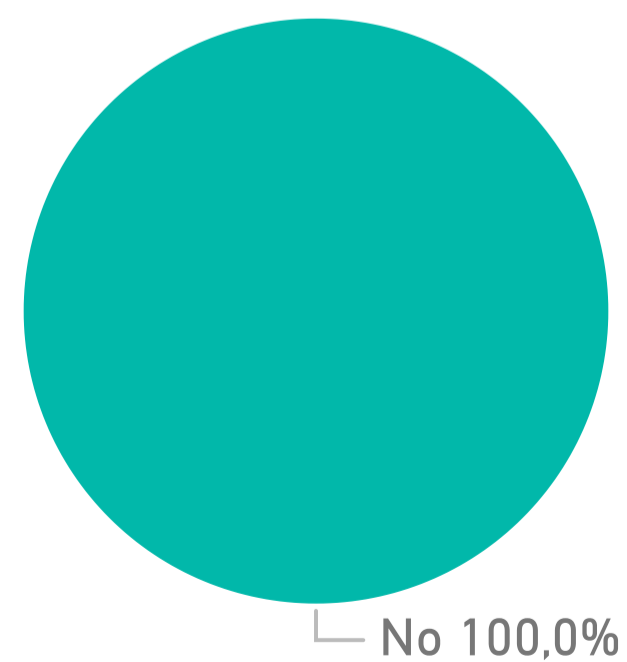
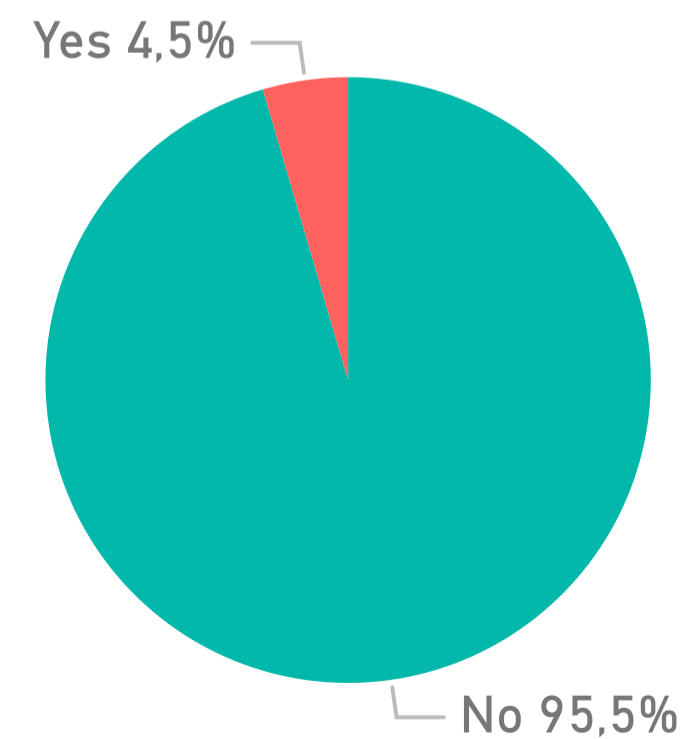
### Investigated Clinic

#### Resection Type



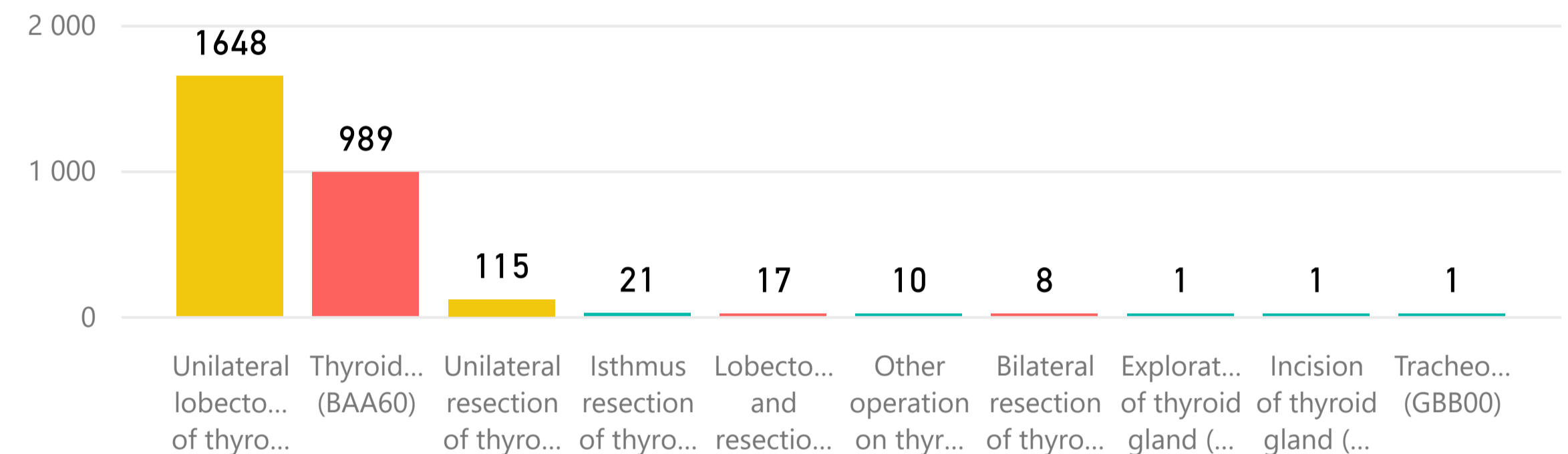
#### Intrathoracic Goiter Extension

#### Need for Sterno-/Thoracotomy



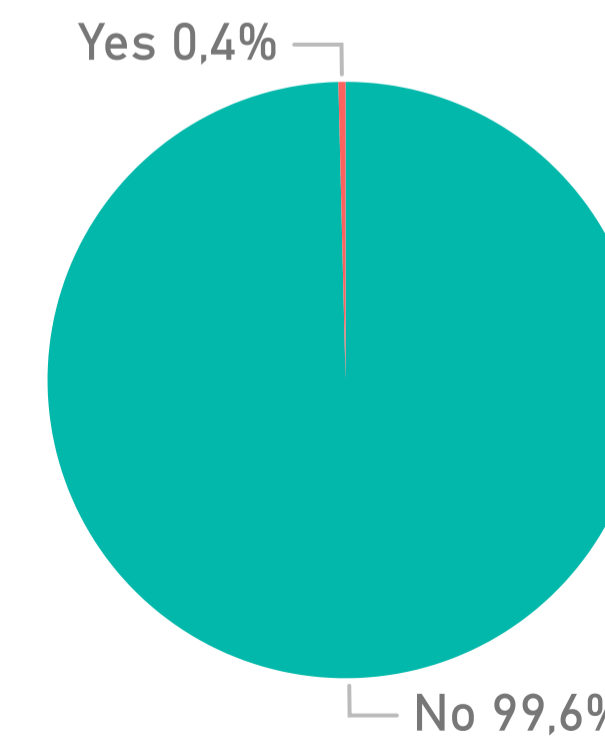
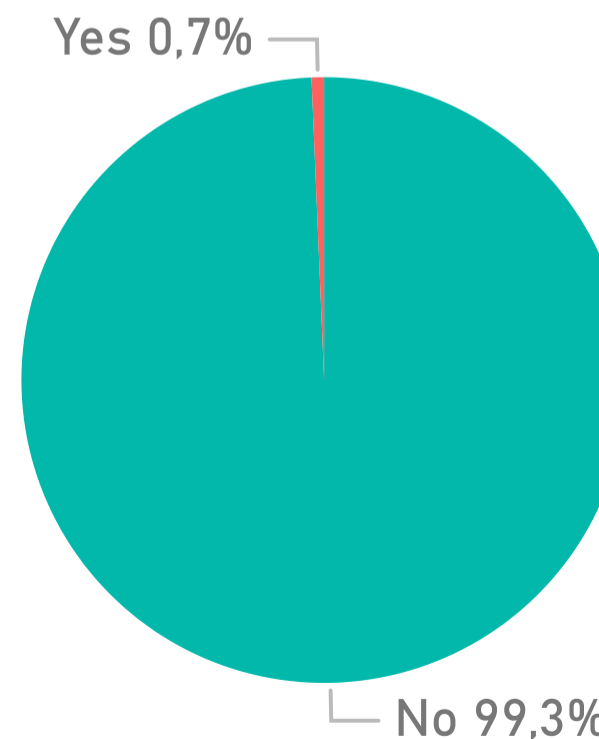
### EUROCRINE Clinics

#### Resection Type



#### Intrathoracic Goiter Extension

#### Need for Sterno-/Thoracotomy



Investigated Clinic

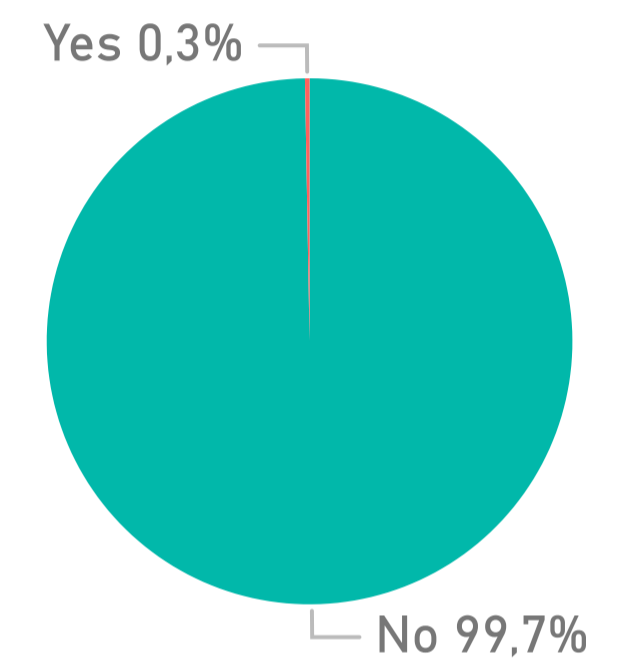
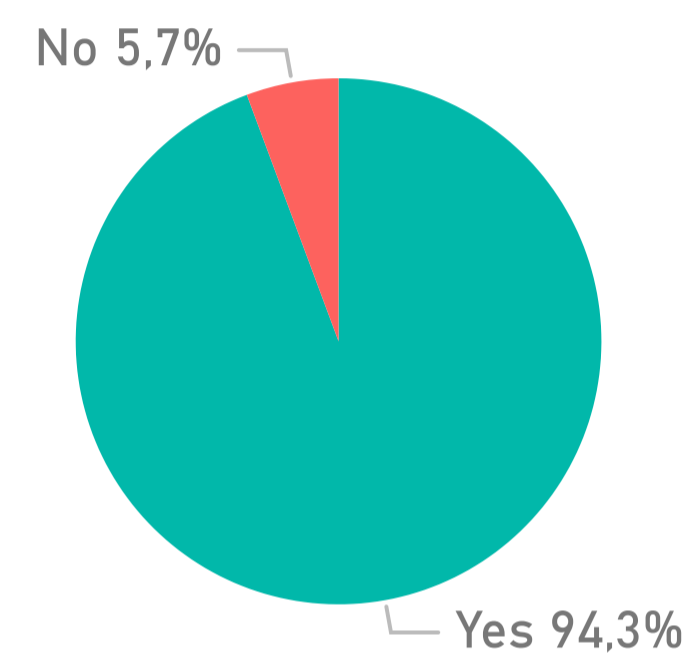
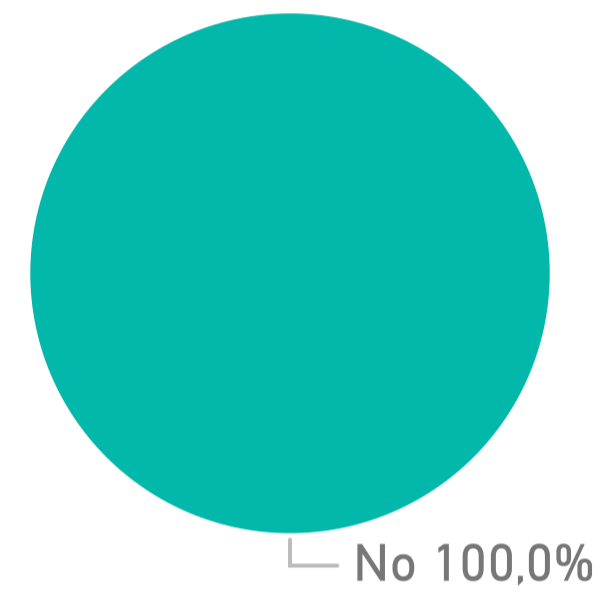
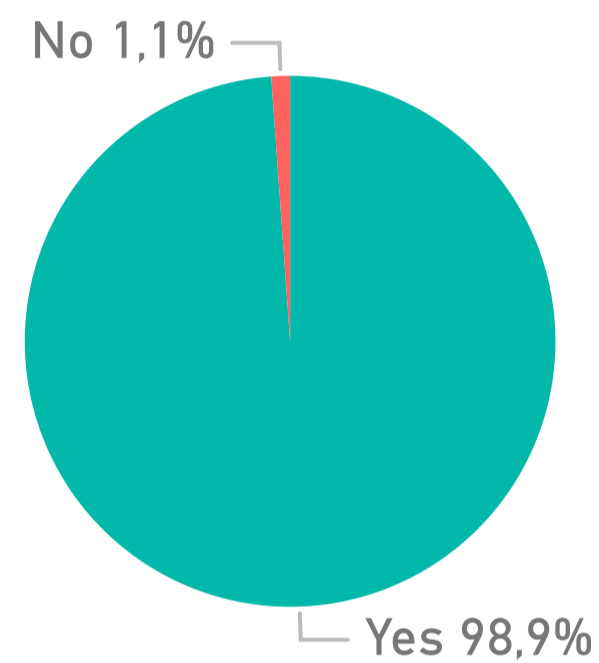
EUROCRINE Clinics

Intraoperative Use of IONM

IONM Induced Change of Strategy

Intraoperative Use of IONM

IONM Induced Change of Strategy



Type of Intraoperative Nerve Monitoring (Variable introduced 2019)

Type of Intraoperative Nerve Monitoring (Variable introduced 2019)



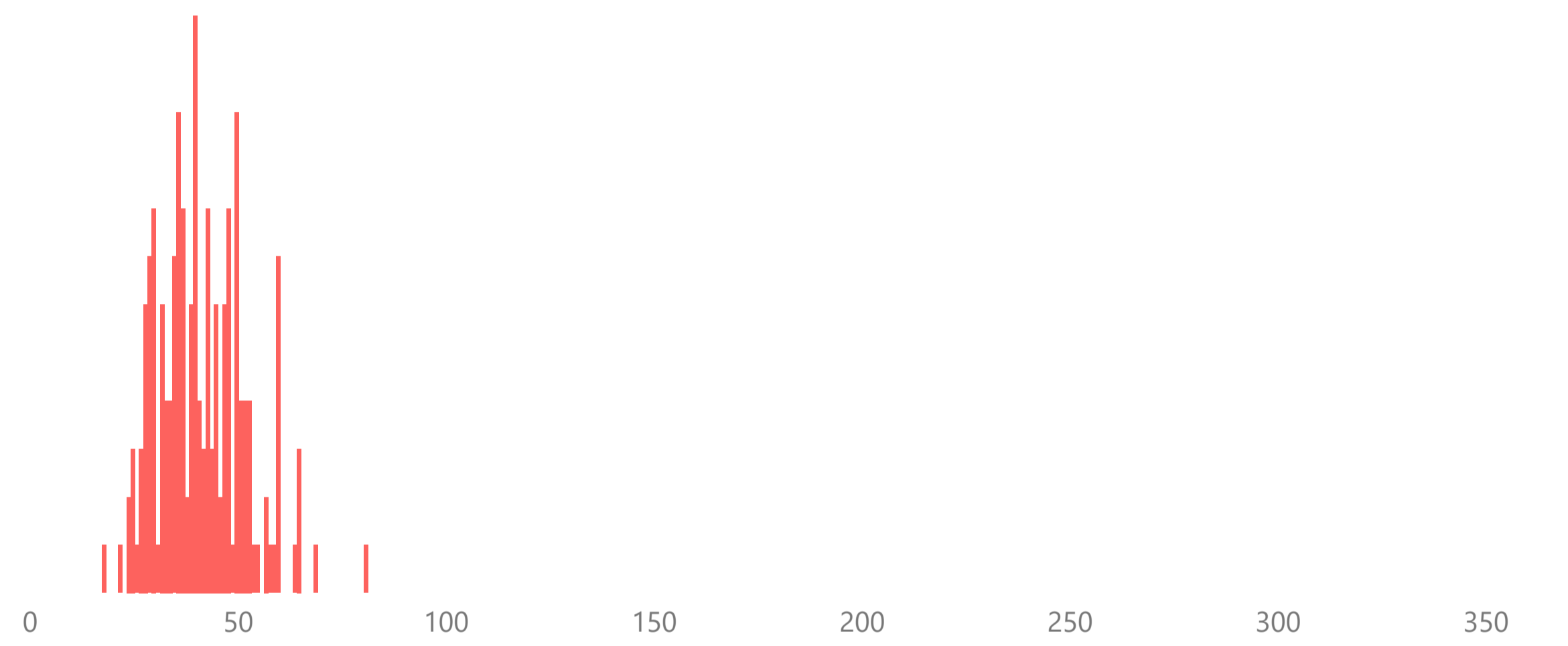
# Thyroid

Operation Time (skin to skin)

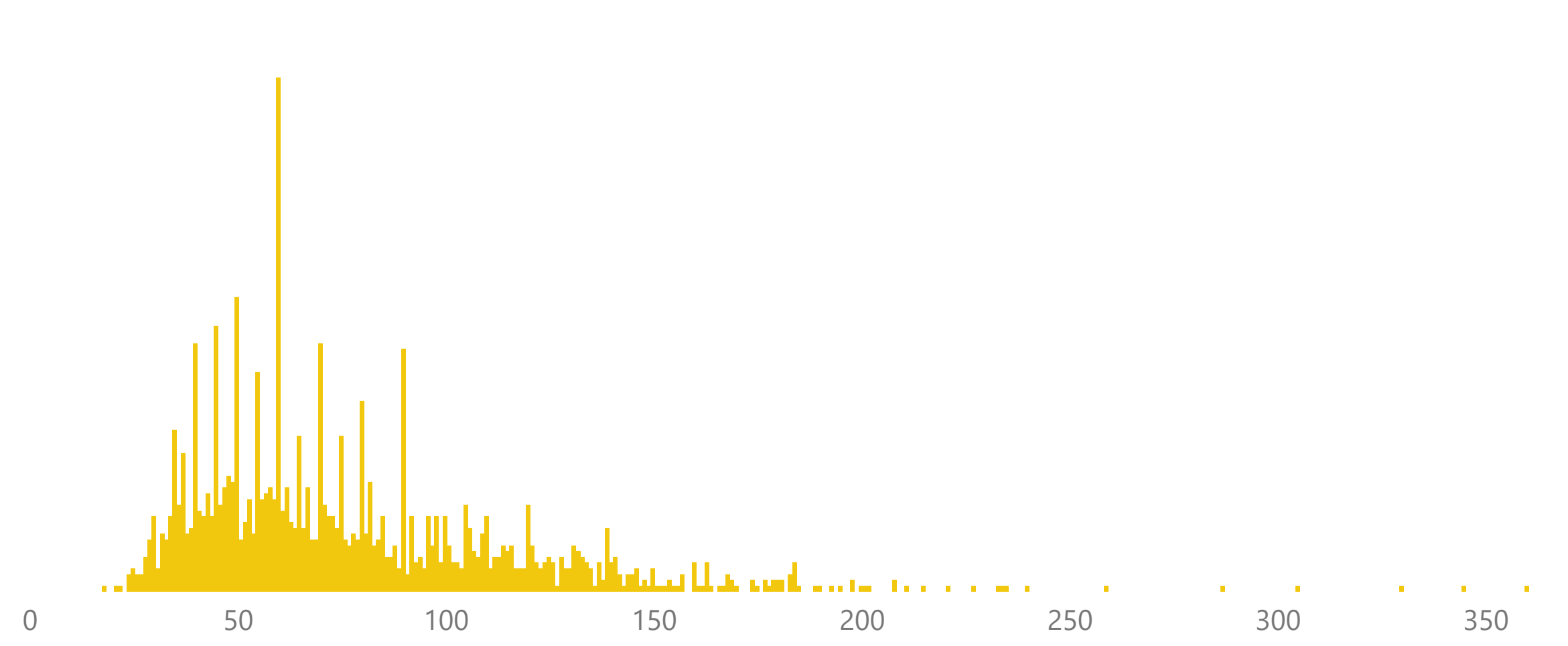


## Hemithyroidectomy

### Hemithyroidectomy, investigated clinic (graph limited to 6 hours)



### Hemithyroidectomy, EUROCRINE clinics (graph limited to 6 hours)

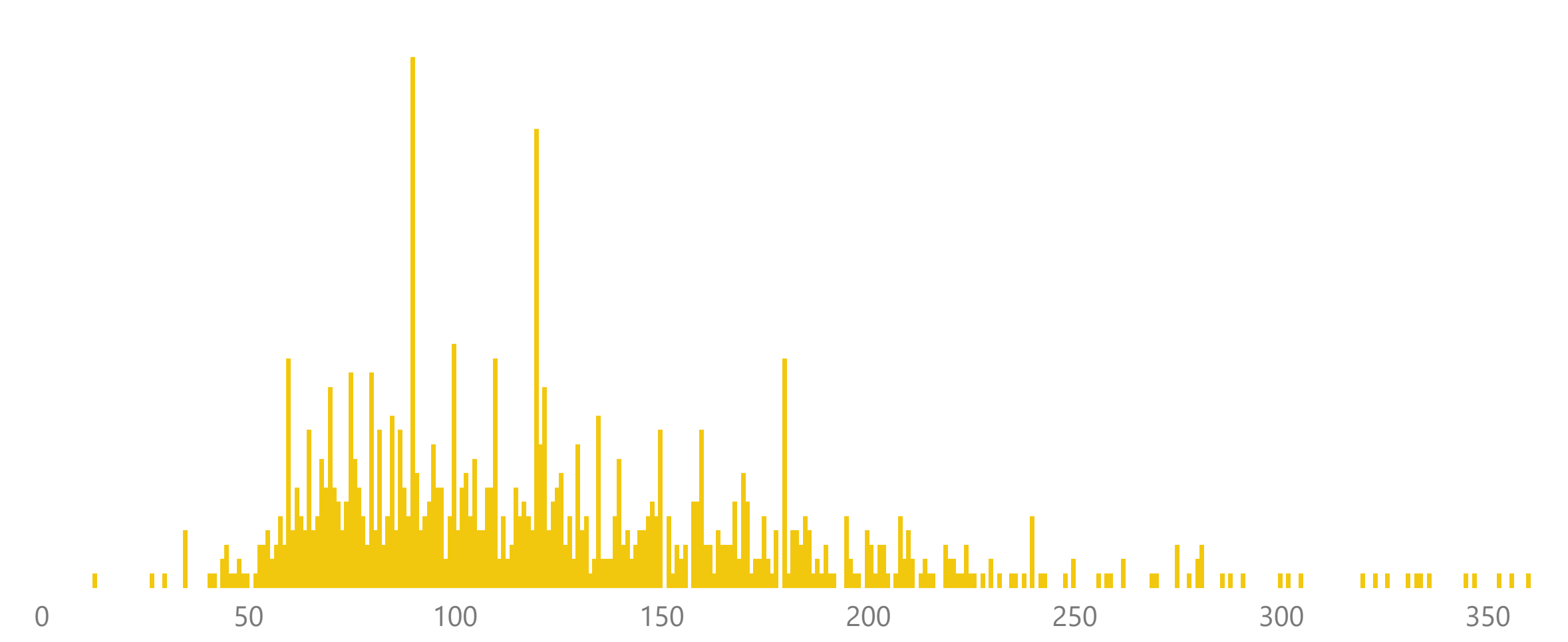


## Thyroidectomy

### Thyroidectomy, investigated clinic (graph limited to 6 hours)



### Thyroidectomy, EUROCRINE clinics (graph limited to 6 hours)



Resection Type in PTC - Investigated Clinic



Thyroidectomy and Extent of Lymphadenectomy

Unilateral Lobectomy of the Thyroid Gland and Extent of Lymphadenectomy

● None

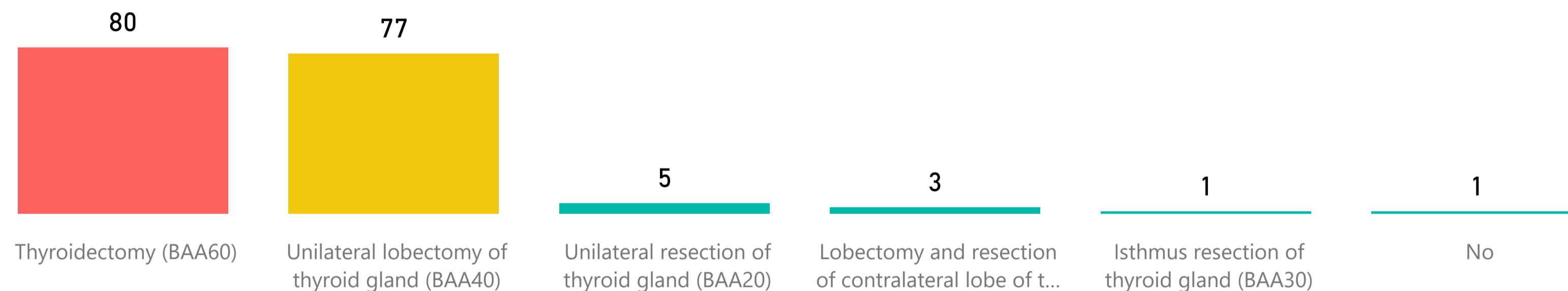
100,00%

# Thyroid

## Papillary Thyroid Cancer PTC, Initial Resection Type and Extent of Lymphadenectomy (excluding Tumorstage pT1a)



### Resection Type in PTC - EUROCRINE Clinics



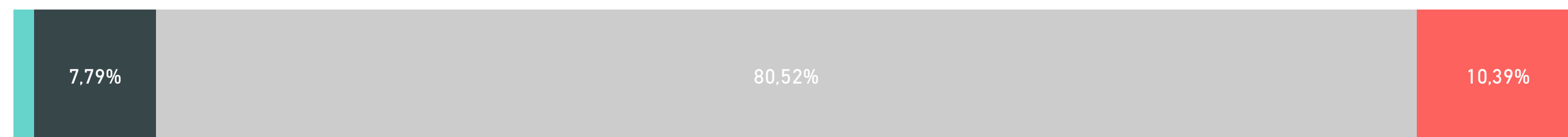
### Thyroidectomy and Extent of Lymphadenectomy

- Bilateral central lymph node dissection (PJD41)
- Bilateral central lymphnode dissection AND bilateral lateral lymphno...
- Central lymph node dissection (PJD41) and one-sided lat. Lymph nod...
- Exploration of lymph nodes incl. Biopsy (PJD10)
- Extirpation of lymph nodes (PJD41)
- None
- Unilateral central lymph node dissection (PJD41)



### Unilateral Lobectomy of the Thyroid Gland and Extent of Lymphadenectomy

- Central lymph node dissection (PJD41) and one-sided lat. Lymph nod...
- Extirpation of lymph nodes (PJD41)
- None
- Unilateral central lymph node dissection (PJD41)





# Thyroid

Complications: Postoperative Recurrent Laryngeal Nerve Palsy (preoperatively known paresis and resected nerves excluded)



## Investigated Clinic

### All Operations

| Patients | Number of Postop Paresis | %    | % (NAR) | Paresis at Follow-up(F2) | % | % (NAR) |
|----------|--------------------------|------|---------|--------------------------|---|---------|
| 176      | 3                        | 1,71 | 0,85    | ▼                        |   |         |

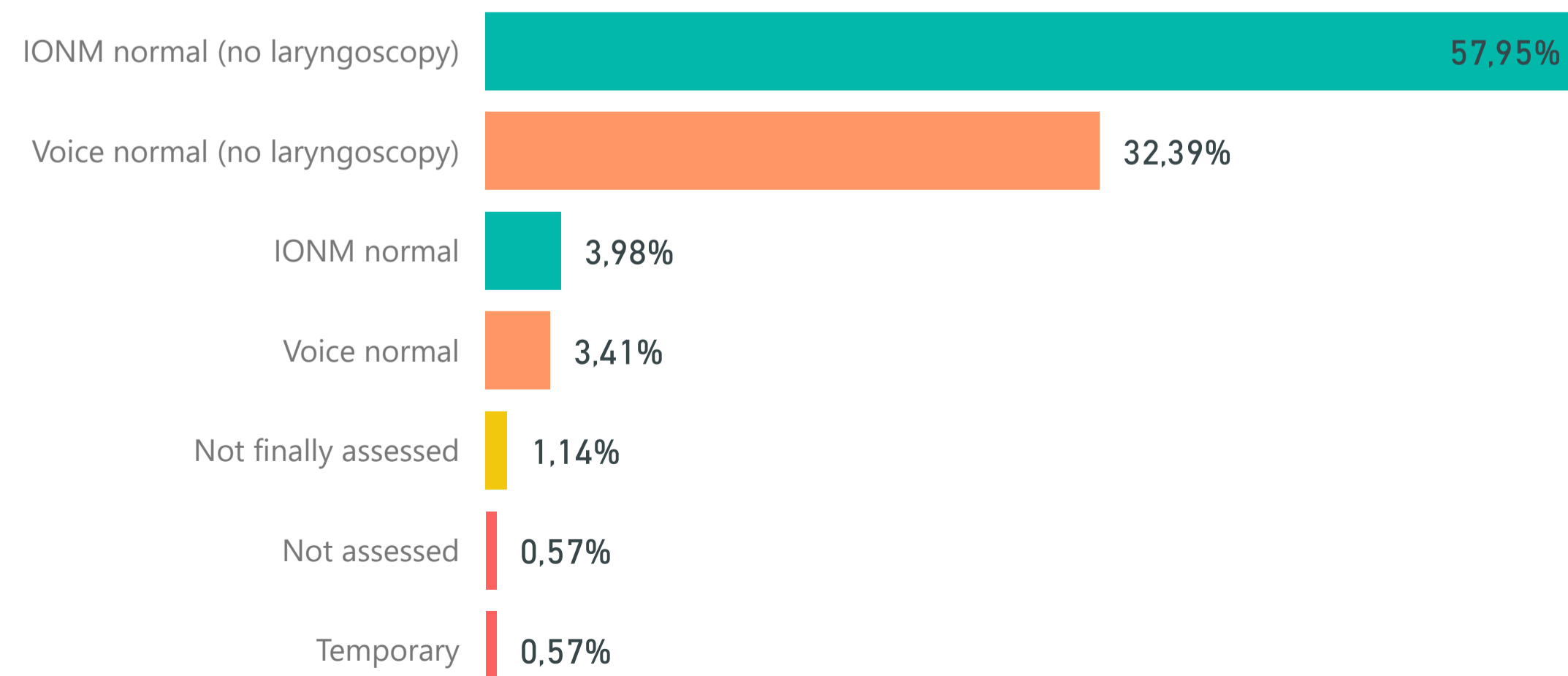
### Primary Operations

| Patients | Number of Postop Paresis | %    | % (NAR) | Paresis at Follow-up(F2) | % | % (NAR) |
|----------|--------------------------|------|---------|--------------------------|---|---------|
| 162      | 3                        | 1,85 | 0,93    | ▼                        |   |         |

### Reoperations

| Patients | Number of Postop Paresis | % | % (NAR) | Paresis at Follow-up(F2) | % | % (NAR) |
|----------|--------------------------|---|---------|--------------------------|---|---------|
| 14       |                          |   |         | ▼                        |   |         |

## Complications Summary - Recurrent Nerve Palsy - All Operations - Latest Available Follow-up



## EUROCRINE Clinics

### All Operations

| Patients | Number of Postop Paresis | %    | % (NAR) | Paresis at Follow-up(F2) | %  | % (NAR) |
|----------|--------------------------|------|---------|--------------------------|----|---------|
| 2833     | 64                       | 2,26 | 1,20    | ▼                        | 11 | 0,25    |

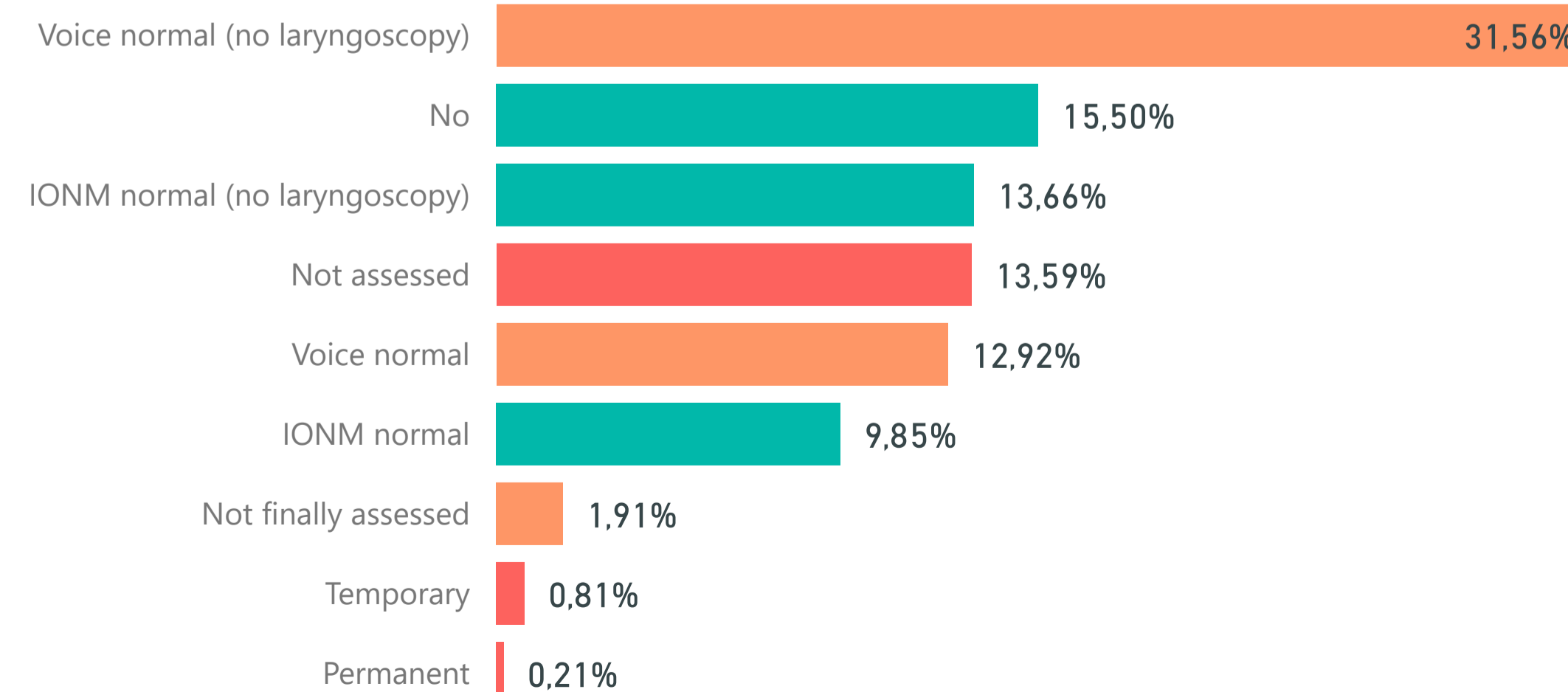
### Primary Operations

| Patients | Number of Postop Paresis | %    | % (NAR) | Paresis at Follow-up(F2) | % | % (NAR) |
|----------|--------------------------|------|---------|--------------------------|---|---------|
| 2508     | 55                       | 2,19 | 1,14    | ▼                        | 8 | 0,21    |

### Reoperations

| Patients | Number of Postop Paresis | %    | % (NAR) | Paresis at Follow-up(F2) | % | % (NAR) |
|----------|--------------------------|------|---------|--------------------------|---|---------|
| ▼ 322    | 9                        | 2,80 | 1,76    | ▼                        | 3 | 0,61    |

## Complications Summary - Recurrent Nerve Palsy - All Operations - Latest Available Follow-up



# Thyroid

Recurrent Nerve Palsy - Laryngoscopy Policy (starting Feb 20th 2020, after introduction of these variables)

## Investigated Clinic

### Laryngoscopy Status at (F1)



### Reasons for Performing Postoperative Laryngoscopy

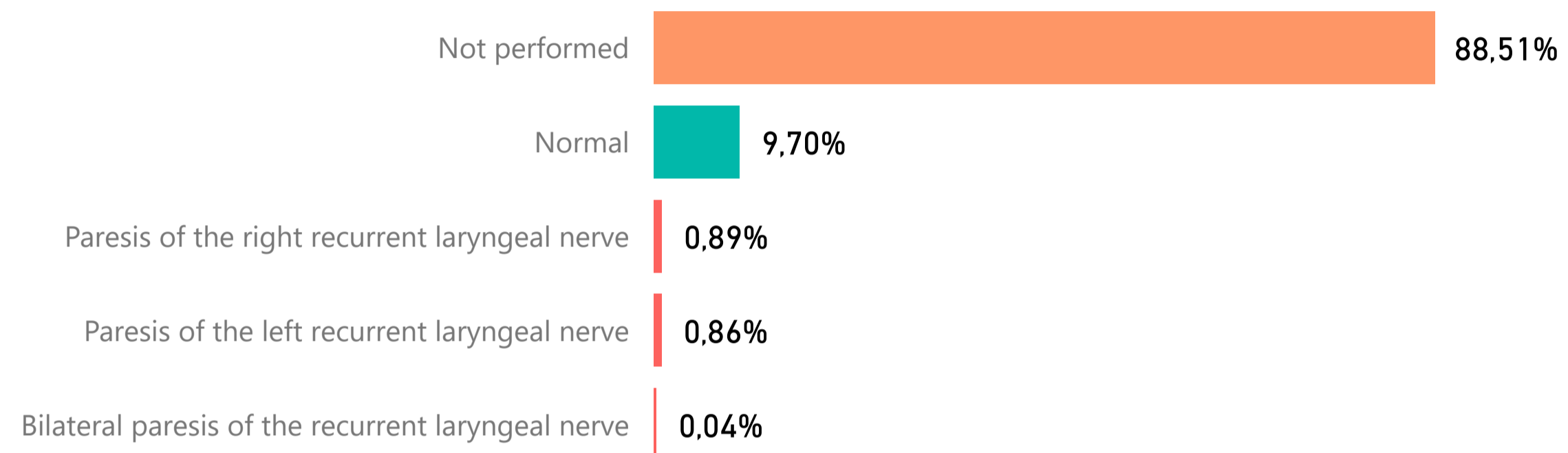
| Reason | n | % |
|--------|---|---|
|--------|---|---|

### Reasons for Not Performing Postoperative Laryngoscopy

| Reason   | n          | %              |
|--|------------|----------------|
| Not performed because of normal IONM signal      | 110        | 62,50%         |
| Not performed on clinical grounds (normal voice) | 63         | 35,80%         |
| Not performed for other reasons                  | 3          | 1,70%          |
| <b>Total</b>                                     | <b>176</b> | <b>100,00%</b> |

## EUROCRINE Clinics

### Laryngoscopy Status at (F1)



### Reasons for Performing Postoperative Laryngoscopy

| Reason  | n           | %              |
|---|-------------|----------------|
|   | 2538        | 88,90%         |
| Routine examination as department policy (>90% investigated)                            | 230         | 8,06%          |
| Targeted examination (hoarseness, loss of signal, morphological suspected nerve injury) | 87          | 3,05%          |
| <b>Total</b>  | <b>2855</b> | <b>100,00%</b> |

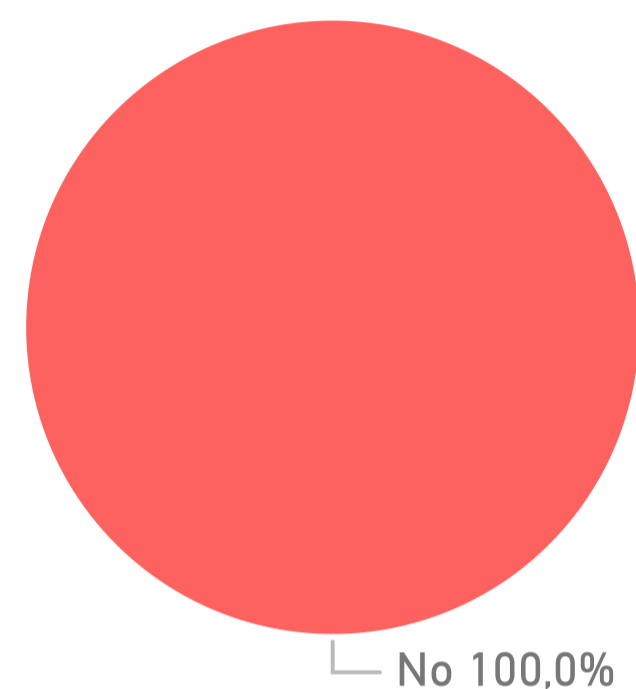
### Reasons for Not Performing Postoperative Laryngoscopy

| Reason   | n           | %              |
|--|-------------|----------------|
| Not performed on clinical grounds (normal voice) | 1367        | 55,28%         |
| Not performed because of normal IONM signal      | 700         | 28,31%         |
| Not performed for other reasons                  | 378         | 15,29%         |
|  | 28          | 1,13%          |
| <b>Total</b>                                     | <b>2473</b> | <b>100,00%</b> |

Thyroid  
Intraoperative Use of Fluorescence Imaging (Variables introduced in 2023)

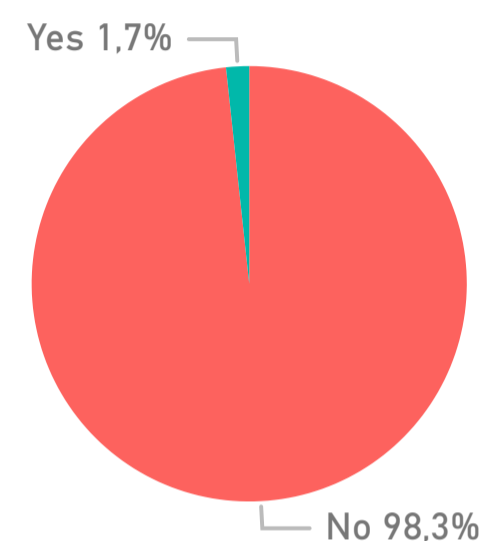


Overall Use, in all Resection Types

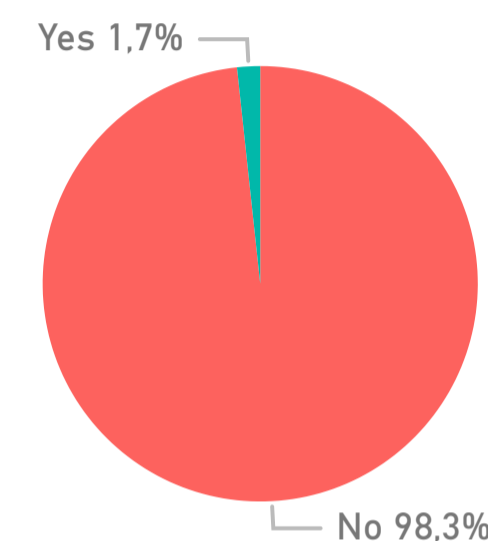


Reimplantation of Parathyroid Tissue

Without Use of Fluorescence



With Use of Fluorescence

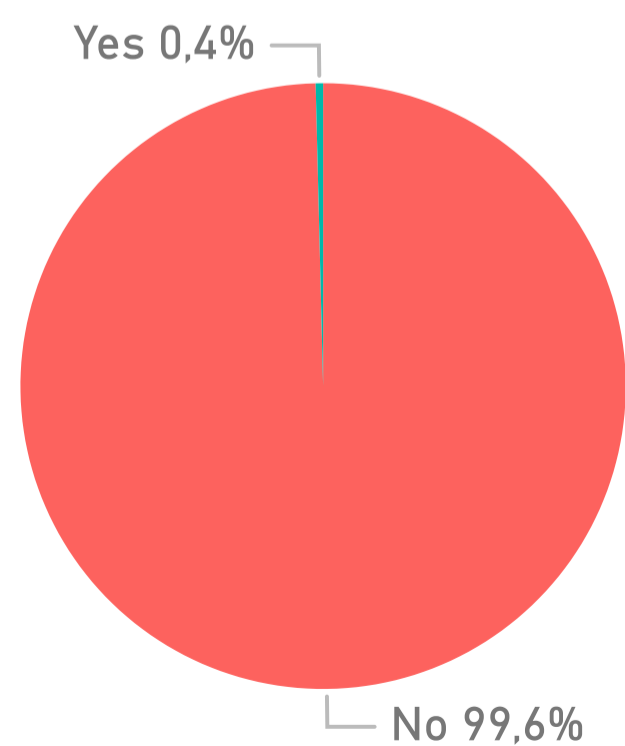


Parathyroid Gland on Thyroid Specimen

Without Use of Fluorescence

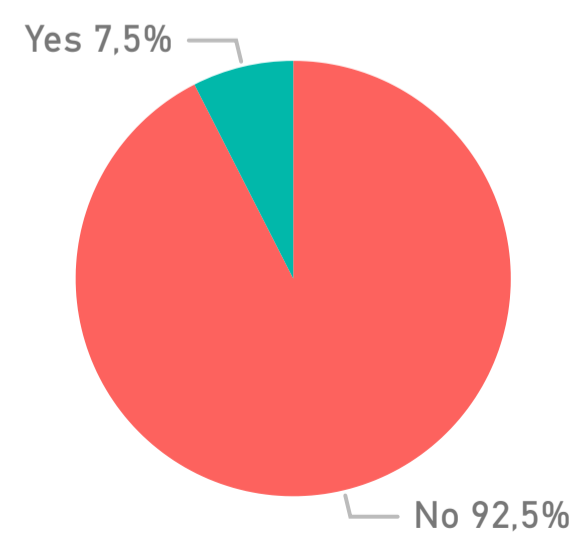
With Use of Fluorescence

Overall Use, in all Resection Types

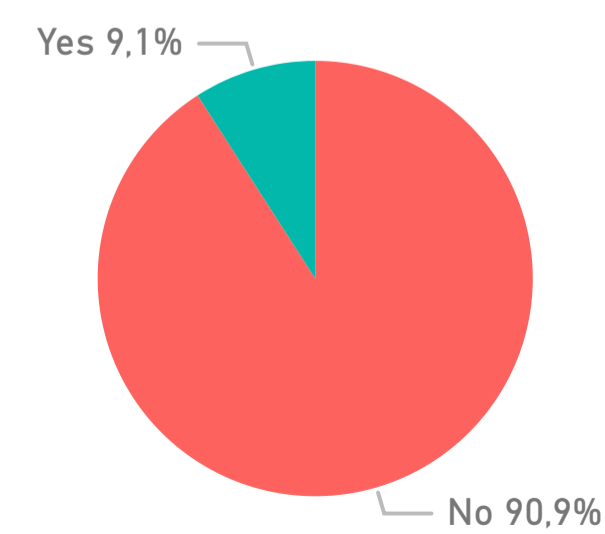


Reimplantation of Parathyroid Tissue

Without Use of Fluorescence



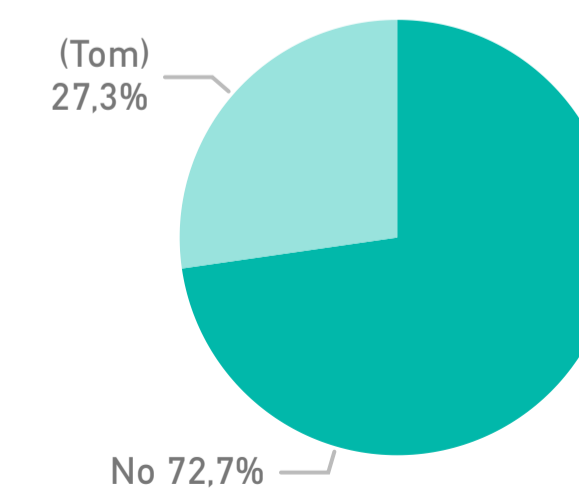
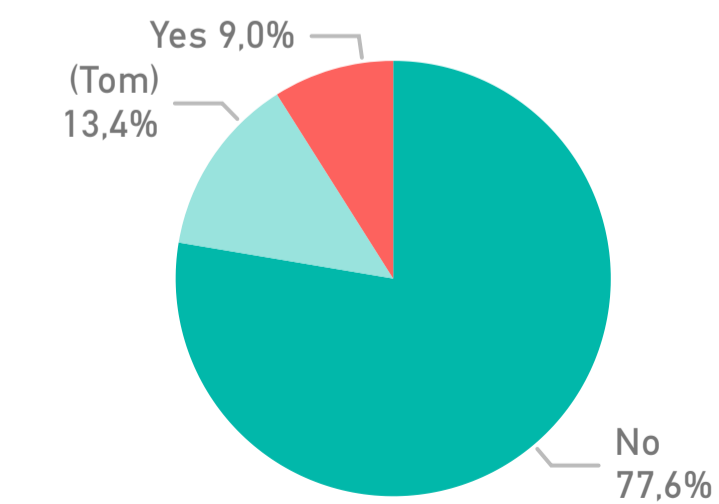
With Use of Fluorescence



Parathyroid Gland on Thyroid Specimen

Without Use of Fluorescence

With Use of Fluorescence



Thyroidectomies

Calcium po at (F1)

Calcium po at next Follow-up (F2)

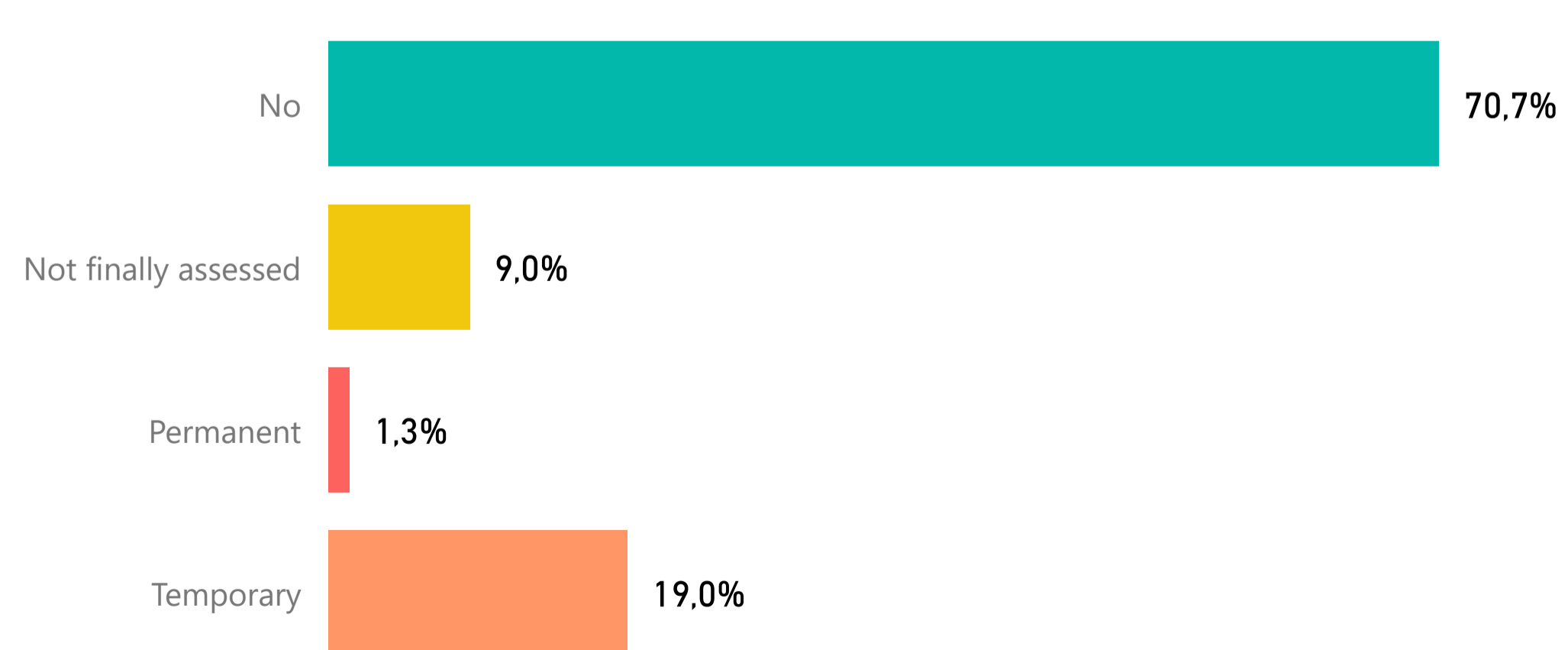
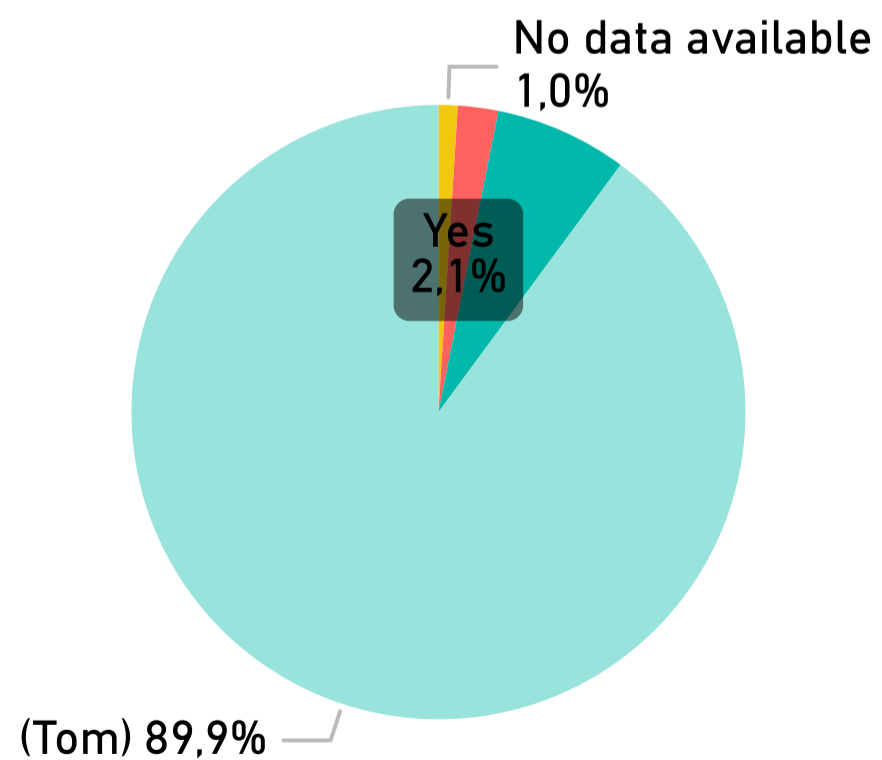
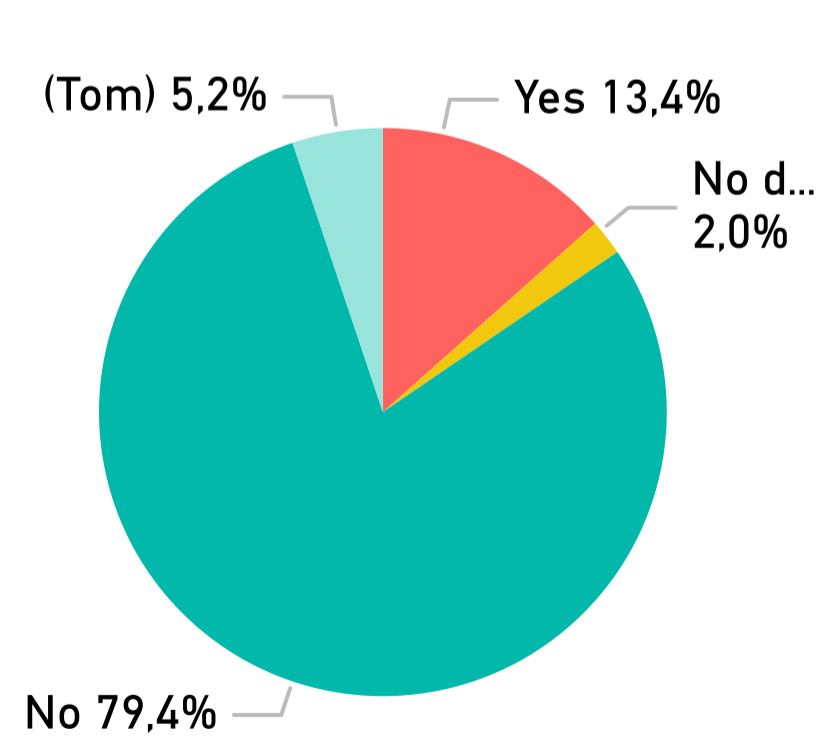
Complication Summary: Calcium po at Latest Available Follow-up

Thyroidectomies

Calcium po at (F1)

Calcium po at next Follow-up (F2)

Complication Summary: Calcium po at Latest Available Follow-up



# Thyroid

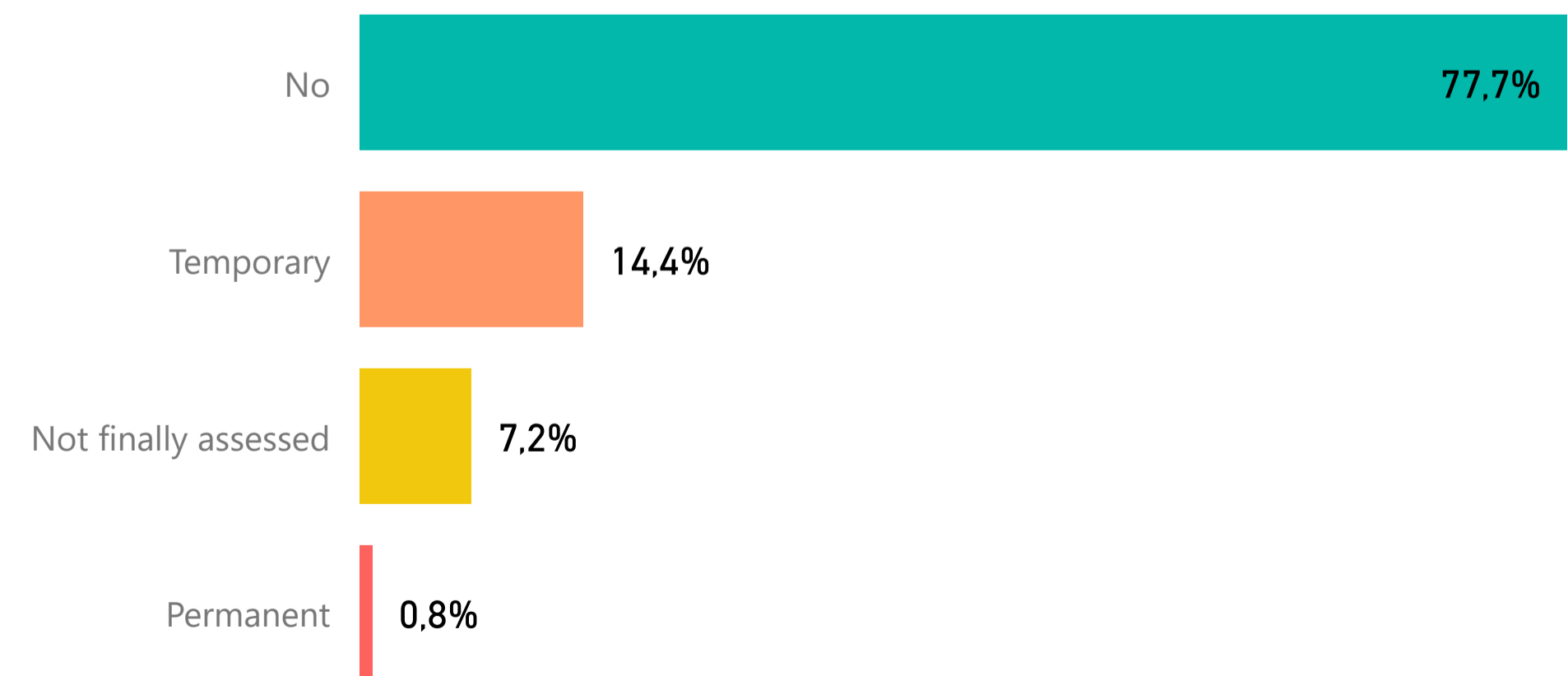
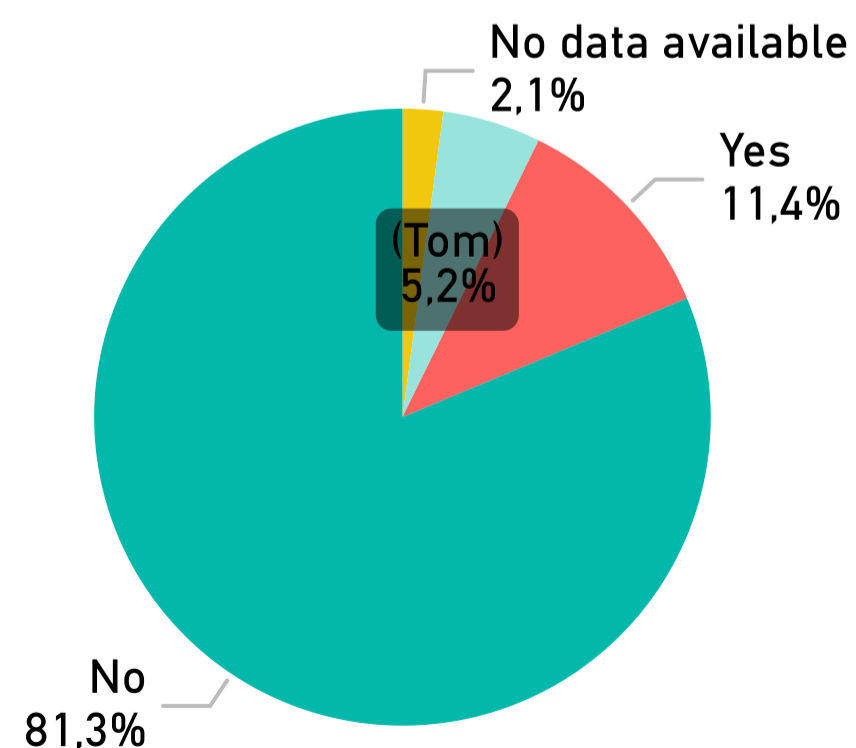
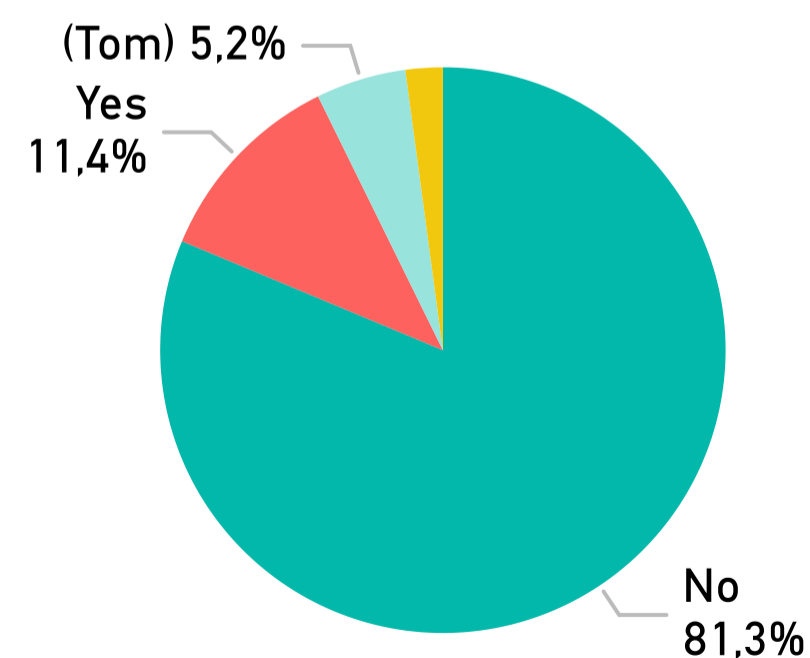
## Short and Longterm Treatment of Postoperative Parathyroid Insufficiency with Vit D (all Thyroidectomies, Primary Operations)



Thyroidectomies    Vit D po at (F1)    Vit D po at next Follow-up (F2)    Complication Summary: Vit D po at Latest Available Follow-up

Thyreoidectomies    Vit D po at (F1)    Vit D po at next Follow-up (F2)    Complication Summary: Vit D po at Latest Available Follow-up

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# Thyroid

Short and Longterm PTH Course (all Thyroidectomies, Primary Operations)



Thyroidectomies

PTH at (F1)

PTH at Longterm Follow-up

Complication Summary: Vit D po at Latest Available Follow...

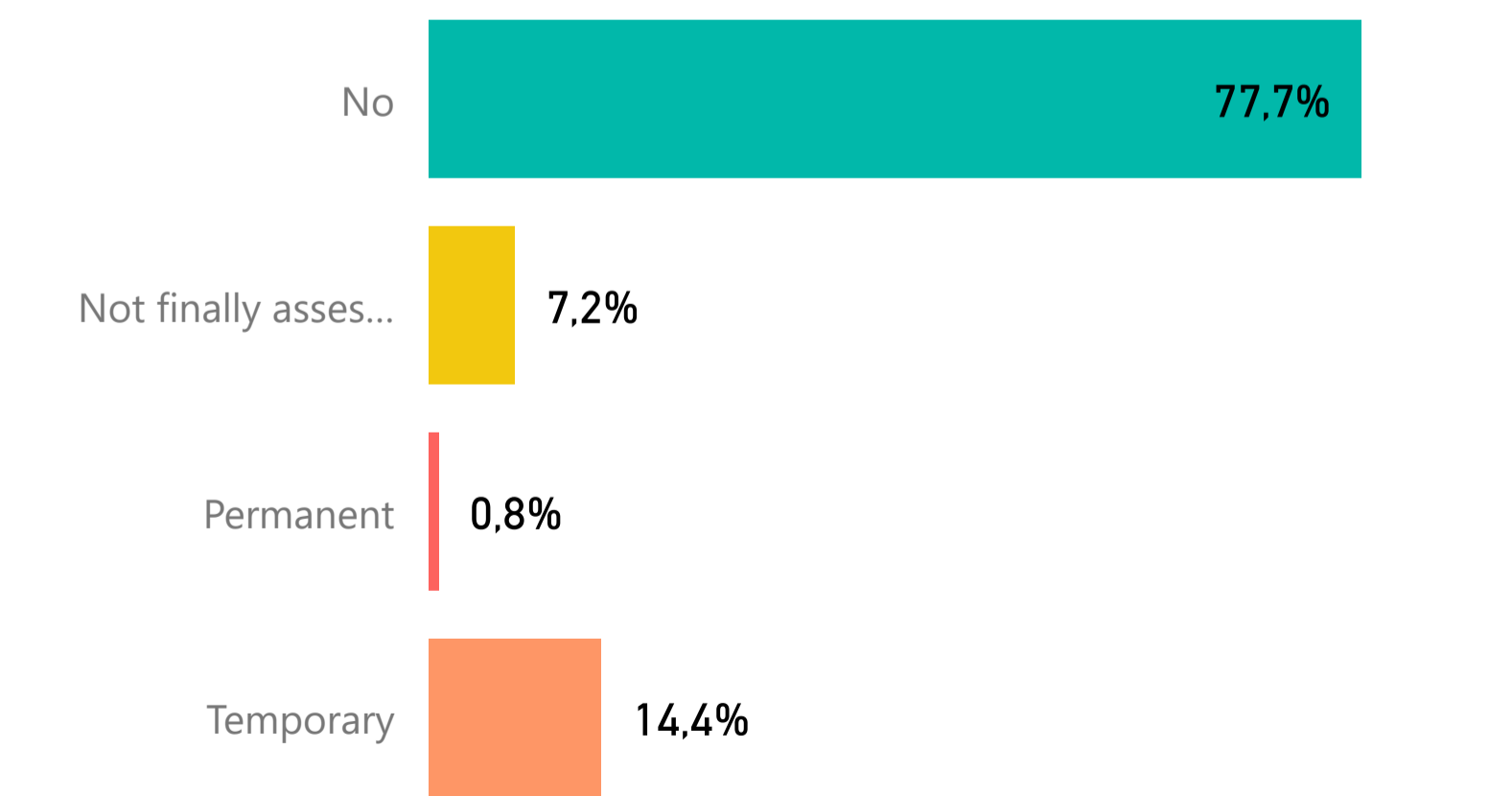
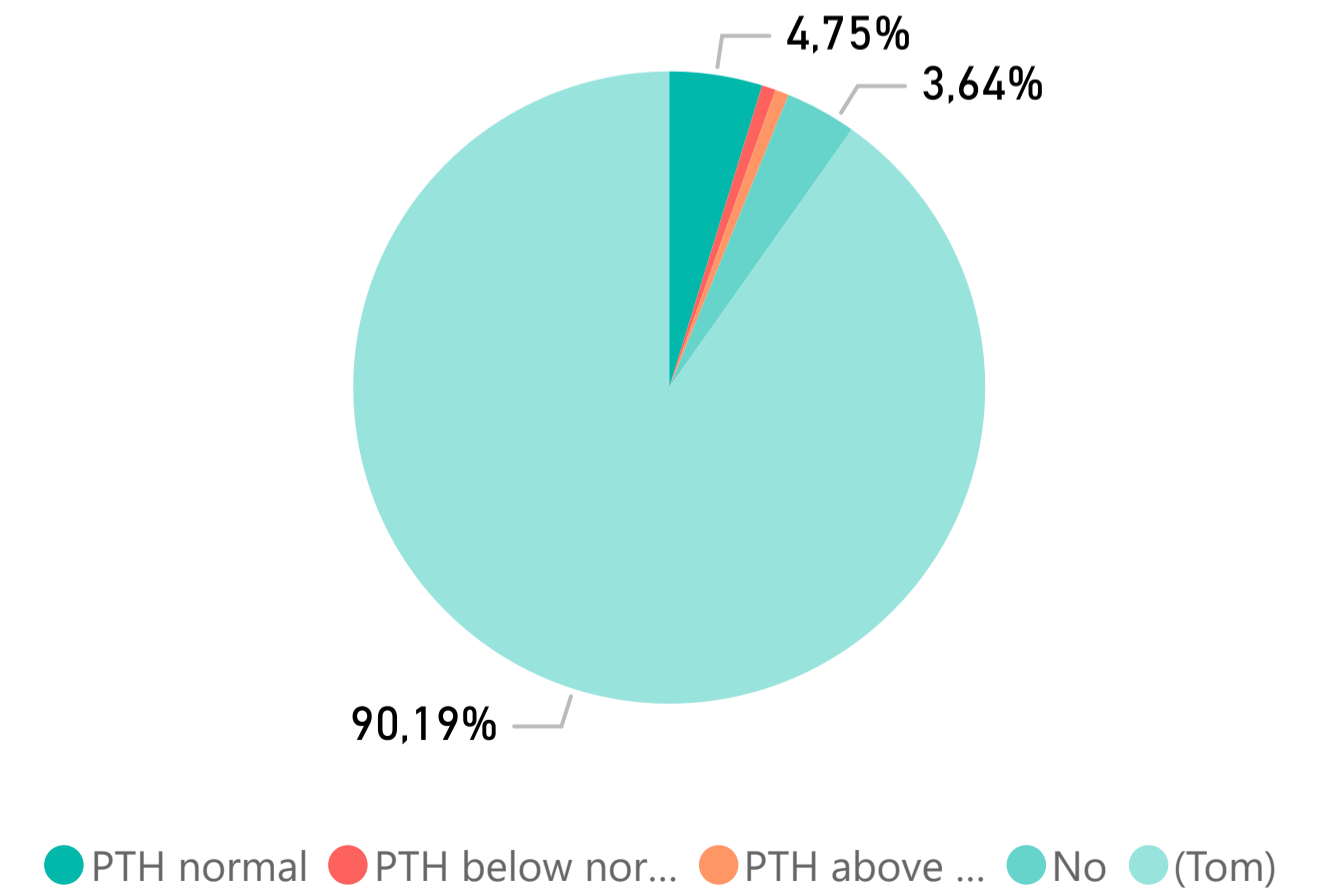
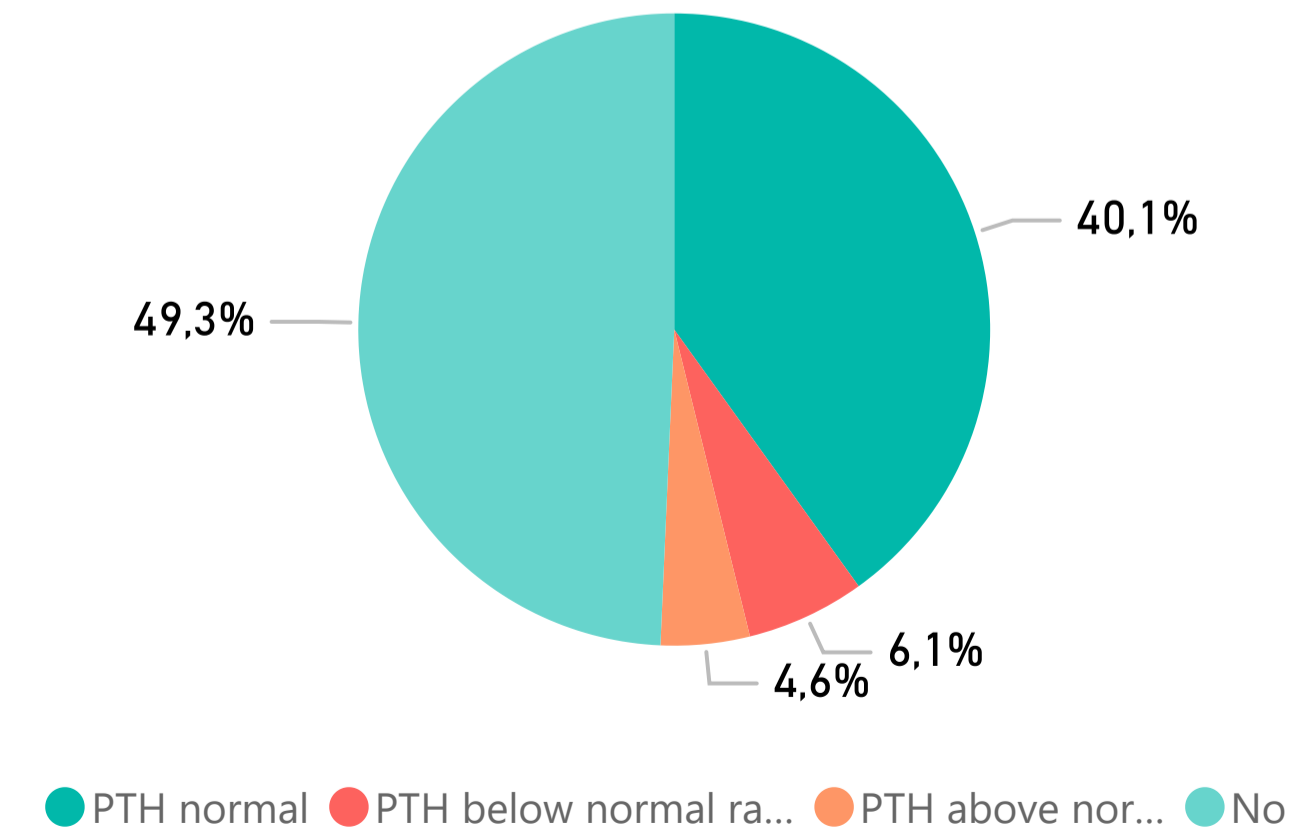
Thyroidectomies

PTH at (F1)

PTH at Longterm Follow-up

Complication Summary: Vit D po at Latest Available Follow...

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# Thyroid

Lost Parathyroid Glands on the Specimen, Postoperative Hemorrhage, Wound Infection and Hospital Stay



## Investigated Clinic

## EUROCRINE Clinics

### Parathyroid Gland on Specimen

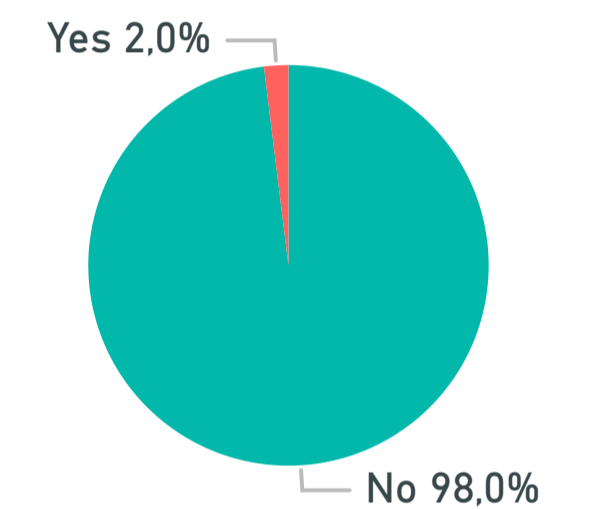
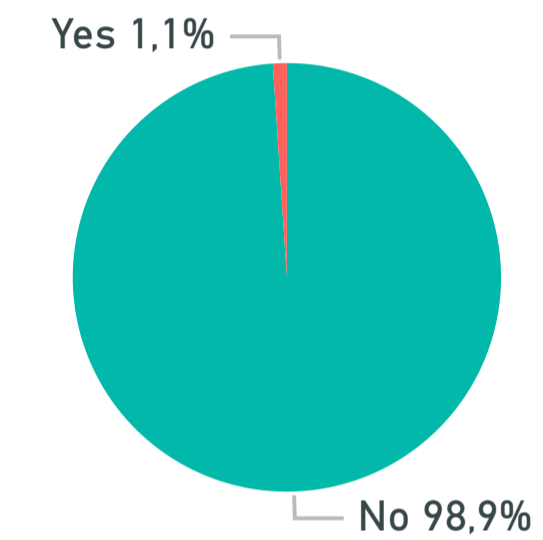
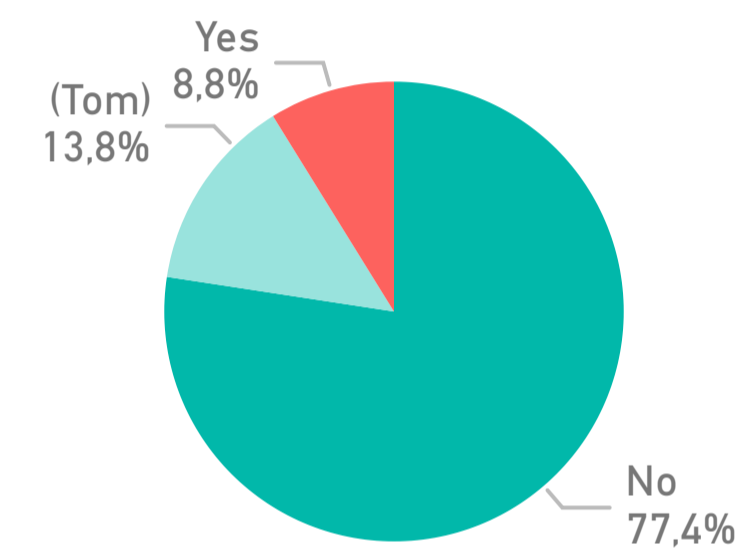
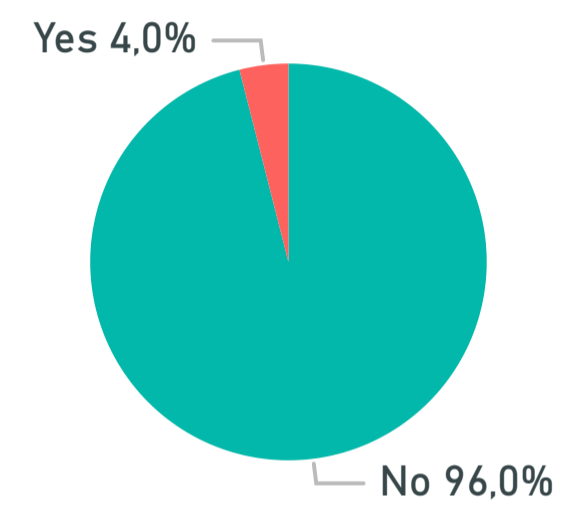
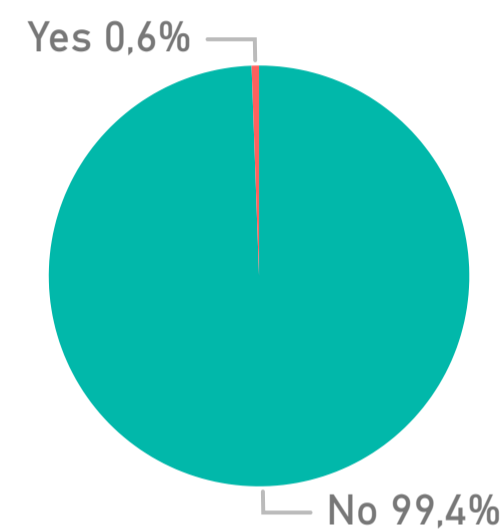
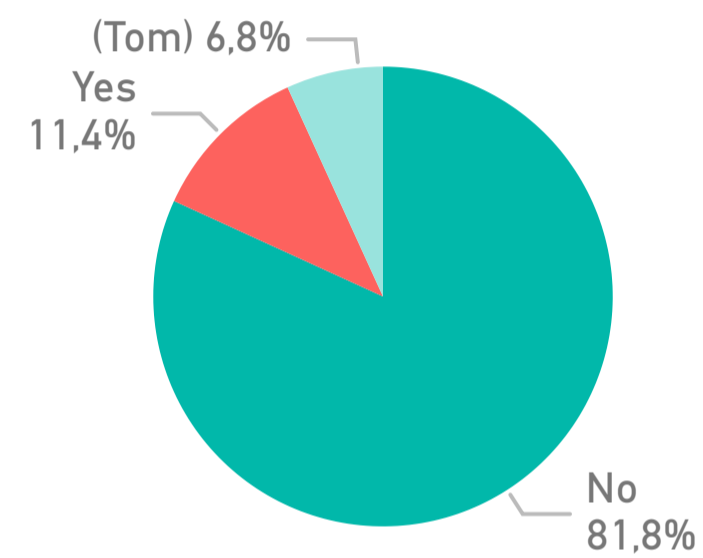
### Postoperative Hemorrhage

### Wound Infection

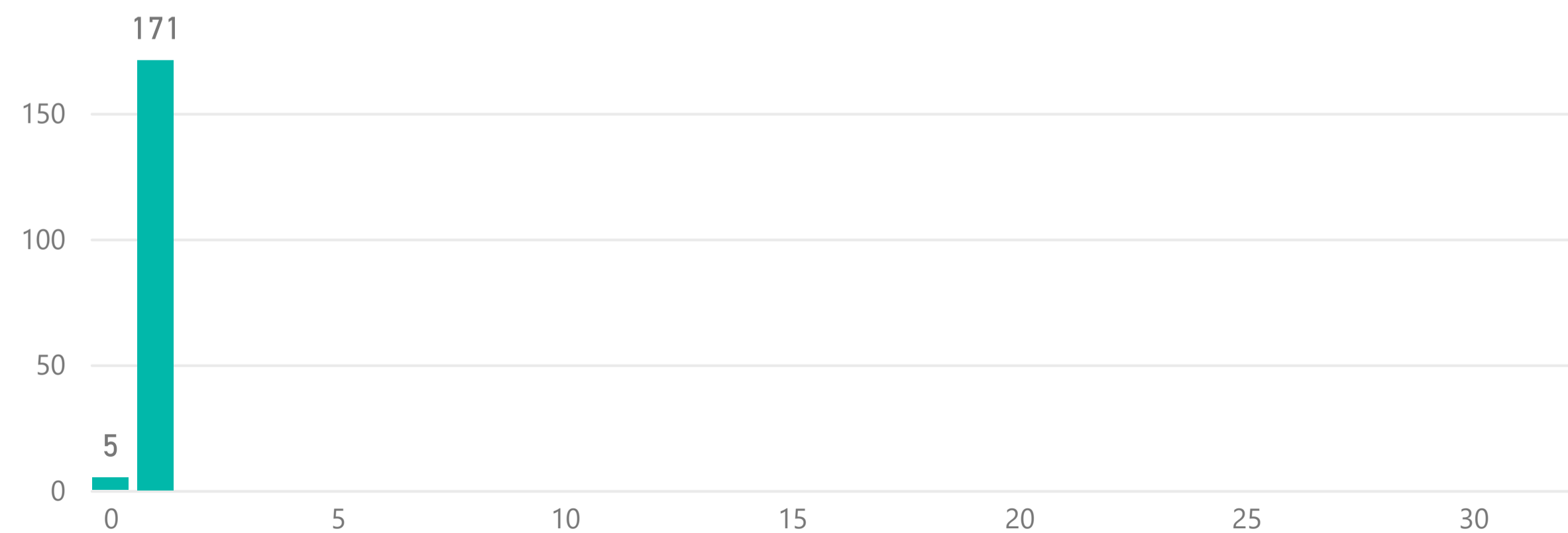
### Parathyroid Gland on Specimen

### Postoperative Hemorrhage

### Wound Infection



## Postoperative Hospital Stay (graph limited to max 31 days)



## Postoperative Hospital Stay (graph limited to max 31 days)

