

# Cytotechnologists in Sweden

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# Cytologylabs in Sweden

- 21 regions
- 24 cytology labs
  - 2-3 private/regional
  - 1 private
- Some differences in diagnostic responsibilities



# Education - training

- 1 year master
- Karolinska Institutet
- New programme 2016
- Diagnostic training
  - Cervical/Thin Prep
  - Respiratory samples
  - Urine samples (bladder washings)
  - Exsudate
- Quality Assurance & diagnostic profiles/statistics
- Molecular methods
- Scientific methodology
- Last year 2023

# Cytotechnicians in Sweden

## Survey 2018

	Number of CT in Sweden
Full time	157
Part time	15
Total	172

Retirement age	#
In 5 yrs (2023)	44
In 10 yrs (2028)	26
Total 2028	70

## Now and future

	Changes (retirement/new CTs)
Experienced	113
From CT-course	45-50
Total 2023	158-168

	Changes (retirement/new CTs)
Experienced	158-168
From CT-course	0 (?)
Total 2028	158-168

# Diagnostics – Cervical cytology

Responsibility/CT sign off

- Normal/benign
- ASC-US/LSIL
- HSIL
- HSIL+
- Only normal/benign

# Diagnostics – Cervical cytology

Responsibility/CT sign off

- Normal/benign – All Labs
- ASC-US/LSIL – 30% of labs
- HSIL – 9% of labs
- HSIL+ – 50% of labs
- Only normal/benign – a few labs

”Higher” diagnosis is signed off by a pathologist after screening by CT

# Diagnostics – Exsudat

Responsibility/CT sign off

- Normal
- Atypic/malignant

# Diagnostics – Exsudat

Responsibility/CT sign off

- Benign – 36% of labs
- Atypic/malignant – No labs

”Higher” diagnosis is signed off by a pathologist after suggestion of diagnosis by CT



# Diagnostics – Urine

Responsibility/CT sign off

- Benign
- Atypical/malignant

# Diagnostics – Urine

Responsibility/CT sign off

- Benign – 86% of labs
- Atypical/malignant – 1 lab (not bladder washings)
- Screening only – a few labs

”Higher” diagnosis is signed off by a pathologist after suggestion of diagnosis by CT

# Diagnostics – Respiratory cyt

Responsibility/CT sign off

- Benign
- Atypical/malignant
- Screening only

# Diagnostics – Respiratory cyt

Responsibility/CT sign off

- Benign – 86% of labs
- Atypical/malignant – No labs
- Screening only – a few labs

”Higher” diagnosis is signed off by a pathologist after suggestion of diagnosis by CT

# Diagnostics – FNA

Responsibility/CT sign off

- Benign
- Atypical/malignant
- Not at all

# Diagnostics – FNA

Responsibility/CT sign off

- Benign – No labs
- Atypical/malignant – No labs
- Not at all – 65% of labs

CT screening at 35% of labs, suggestion of diagnosis – pathologist signs off

# Diagnostics – Ancillary methods

## Responsibility CT

- Order of immunocytology – CT at a few labs
- Interpretation of immunocytology – CT at a few labs
- FISH is performed by CT at a few labs (Pathologist signs off)

# On site evaluation

- EBUS/ROSE
- Needle aspiration clinic

Most labs offer CT-assistance at some kind of ROSE.  
A few labs have CT-assistance at needle aspirations.



# Other responsibilities

- Labwork
- Quality Assurance
- Teamleader/labwork supervisor
- Methodology/development
- Studentsupervisor/teaching
- Screening programme
- Business solution manager/IT

# How to get the "next level"?

- Time
  - 6 months – 1 year normal/benign cervical cytology
- Number of cases
- Personal development
- "Interest" (mostly other responsibilities)
- Minimum of samples per year (cervical cytology)
  - KVAAT (quality committee)

# New Screening programme

- Primary HPV analysis for all age groups – fewer slides
- Extended intervals – fewer samples
- Extended genotyping
- Fewer slides/samples – “Screening opportunity”

# Tissue samples

- Cervical biopsies
- Prostate needles

Evaluations ongoing? Cooperation CT-Pathologist

# Future

- Genius
  - ROSE
  - FISH
  - Tissue samples?
  - Labwork?
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- Fewer cervical samples – more teamwork
  - More teamwork CT – Pathologist

Thank you for listening!