



HPV Prevention
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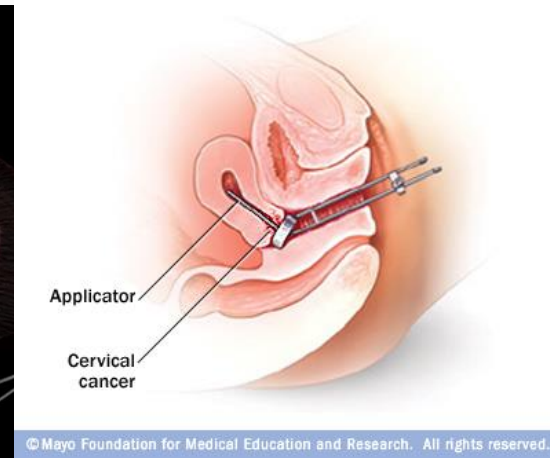
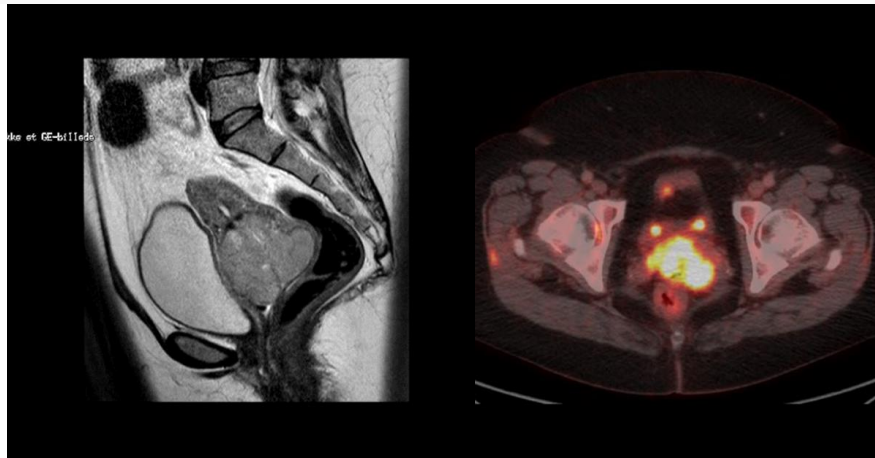
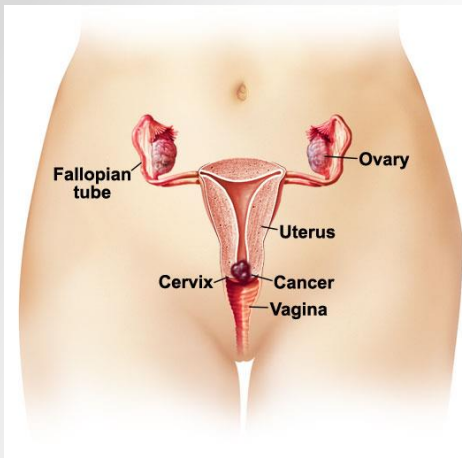
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Cervical cancer treatment and late effects

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Region of
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OUH
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Anne, 31 years old

A successful centralisation

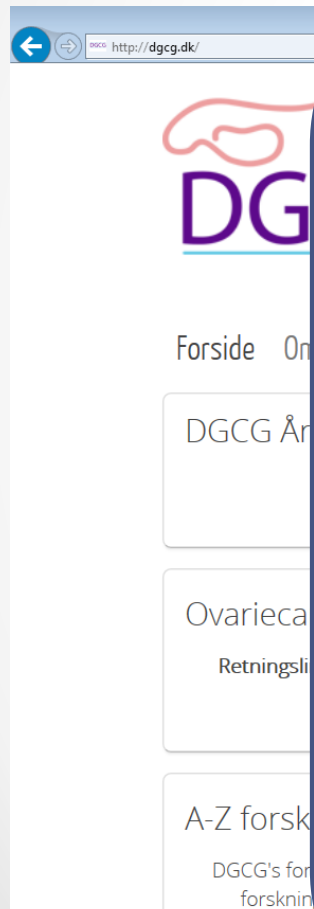


The departments with highly specialized function within cervical cancer

Defined by the Danish Health and Medical authority

The present specialty planning is being negotiated and revised in 2016

The Danish Gynecological Cancer group



- The DGCG is a multi-disciplinary sub-group of the Danish Medical Cancer Group
- The DGCG is linked to the Danish Society of Obstetrics and Gynecology, The Danish Society of Clinical Oncology, The Danish Society of Pathology and The Danish Society of Onko-radiology
- Guideline groups for each gynecological cancer site
- National guidelines are revised by the guideline groups but undergo a national hearing phase before final acceptance by the Executive Committee



The Danish Gynecological Cancer Database

- Existed since 2005
- Became part of the the Danish Clinical Registers in 2010
- A nationwide database with compulsory on-line prospective filing
- Today: works with surgical and pathological data
- No oncological filing takes place
- Data are merged with survival data from other registers.
- Annual rapports
-

The Danish fast track cancer referral programme for cervical cancer

Monitoring		
From REFERRAL RECIEVED to 1. ATTENDANCE at the department with highly specialized function		6 weekdays
From 1. ATTENDANCE to COMPLETED DIAGNOSTICS		14 weekdays
From COMPLETED DIAGNOSTICS to the START OF THE INITIAL TREATMENT	Surgery	8 weekdays
	Radiotherapy	15 weekdays
	Chemotherapy	11 weekdays
From REFERRAL RECEIVED to START OF THE INITIAL TREATMENT	Surgery	28 weekdays
	Radiotherapy	35 weekdays
	Chemotherapy	31 weekdays

Derived consequences of fast track cancer programs

- Ressource allocation
 - Imaging
 - Multi-disciplinary team conferences
 - Fast track out patient cancer clinics
 - Prioritizing within and between departments
 - Ressource consuming monitoring locally and nationally
 - Continous focus on deviations

Facts about cervical cancer in DK

- 350 new cases / year
- Age standardized incidence rate of 10.1/100.000 per year
- Crude incidence rate 2014:
 - 22/100.000 in the age group 35-44 years
 - 17/100-000 in the age group 25-34 years

Back to Anne 31 years...

- Referred with a visible tumor on cervix (January 2015)
- Biopsies confirmed cervical cancer
- Enrolled in a fast track cervical cancer program
- PET CT and MRI scan performed and evaluated at MDT: localized cervical tumor with no lymph node metastasis
- Gynecological examination in general anaesthesia showed a large tumor (35-40 mm) with no signs of local dissemination
- Evaluated as suitable for radical surgery
- Fast track allocation to robotic assisted surgery

Staging Cervical cancer

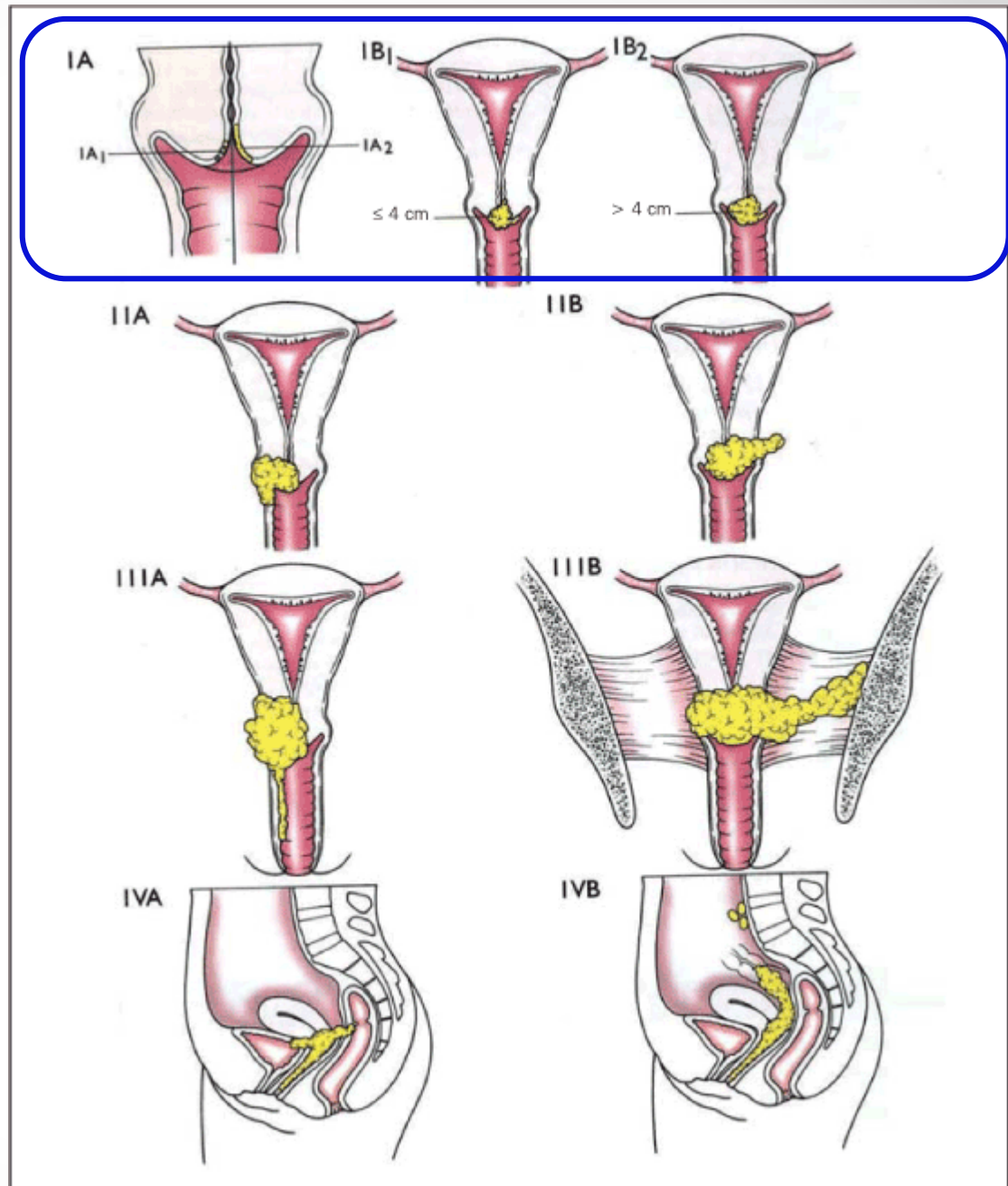
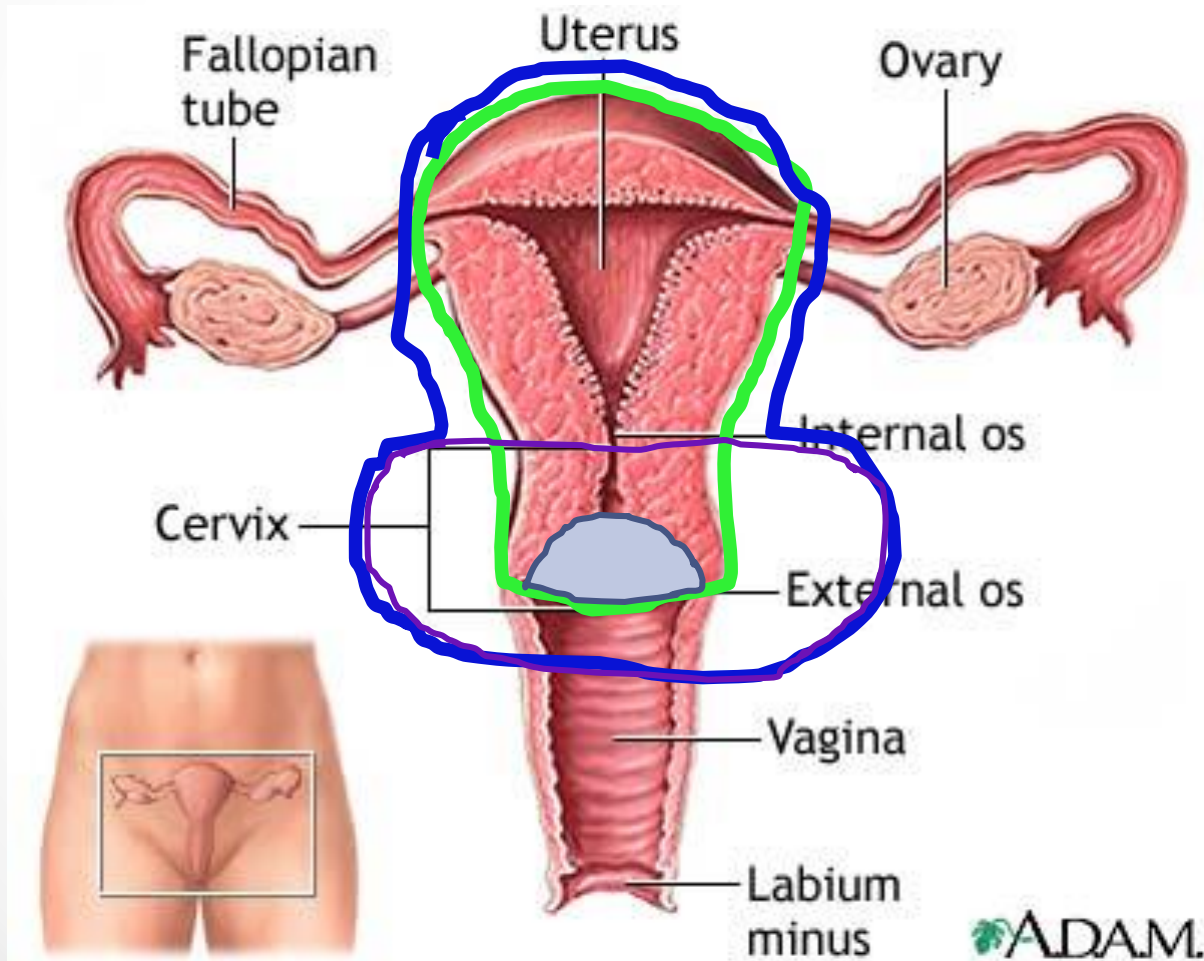
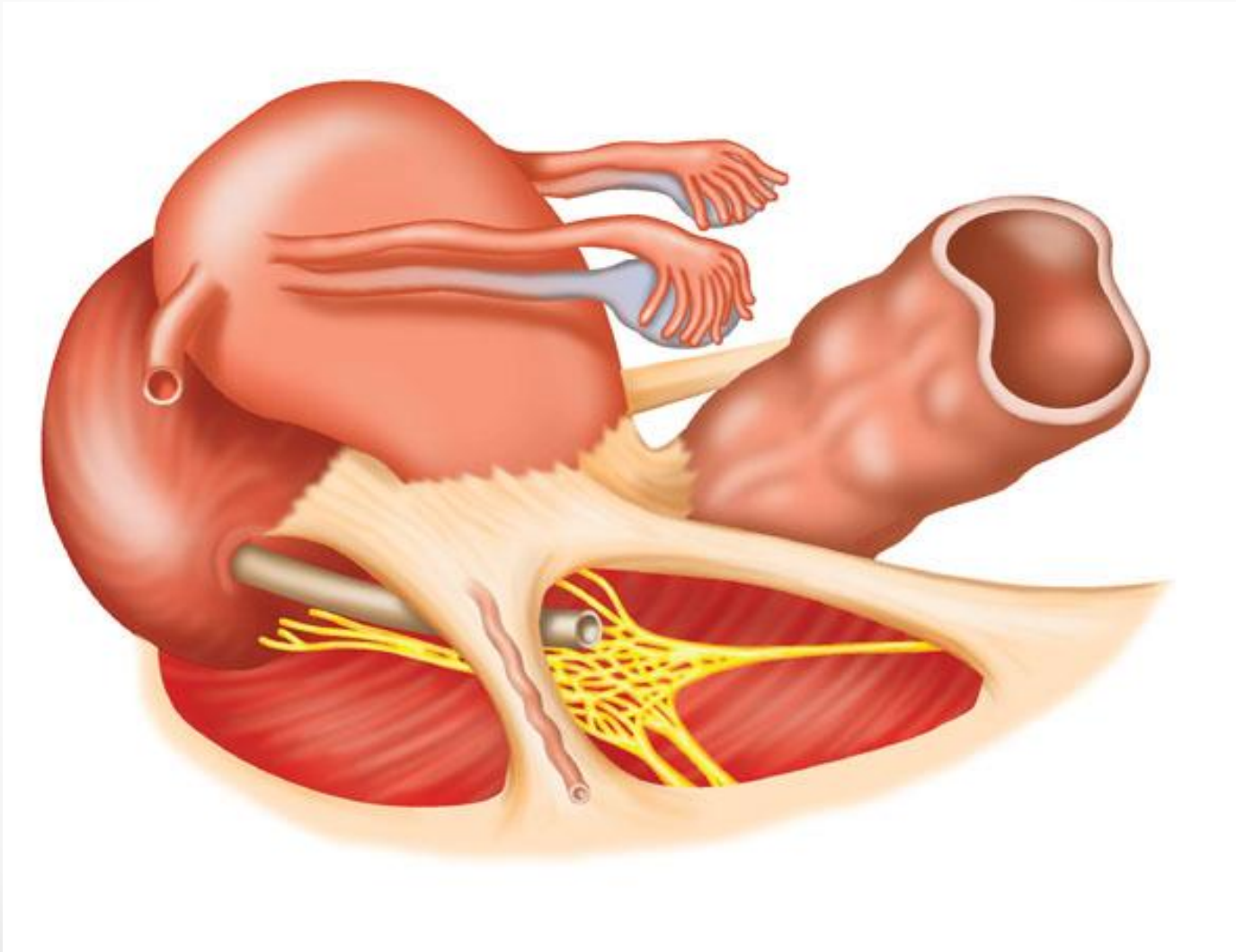


Figure 1. Staging of uterine cervix carcinoma according to FIGO⁽³⁾.

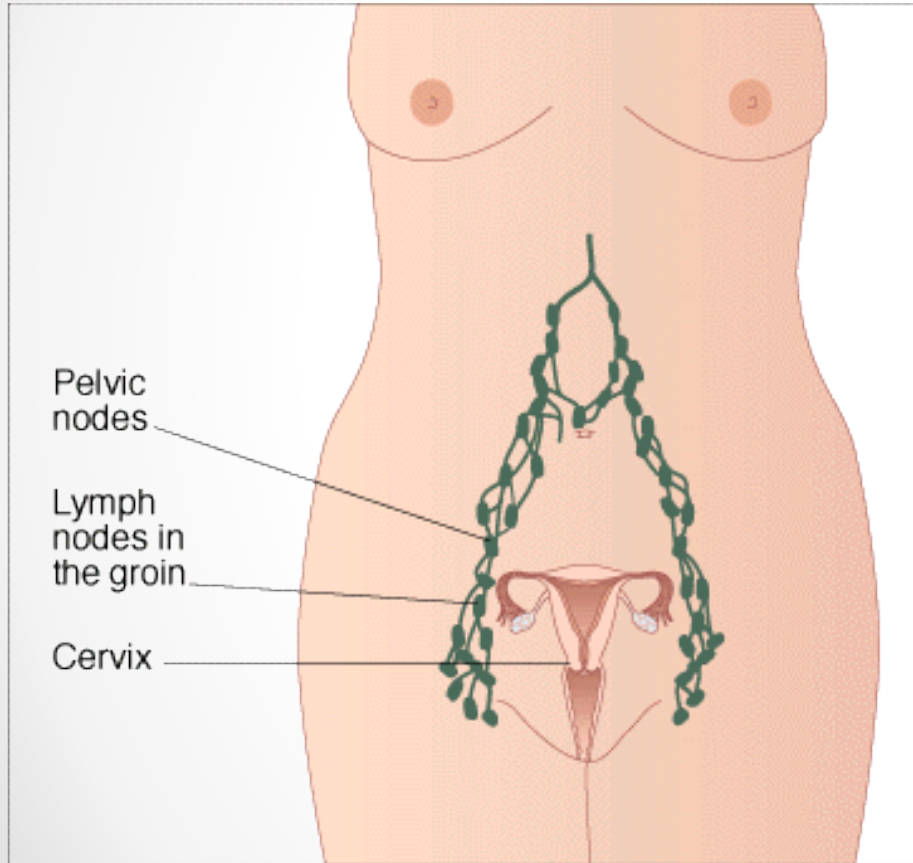
Surgery for stage I cervical cancer



The uterus and its' relation to nerves and organs in the pelvis

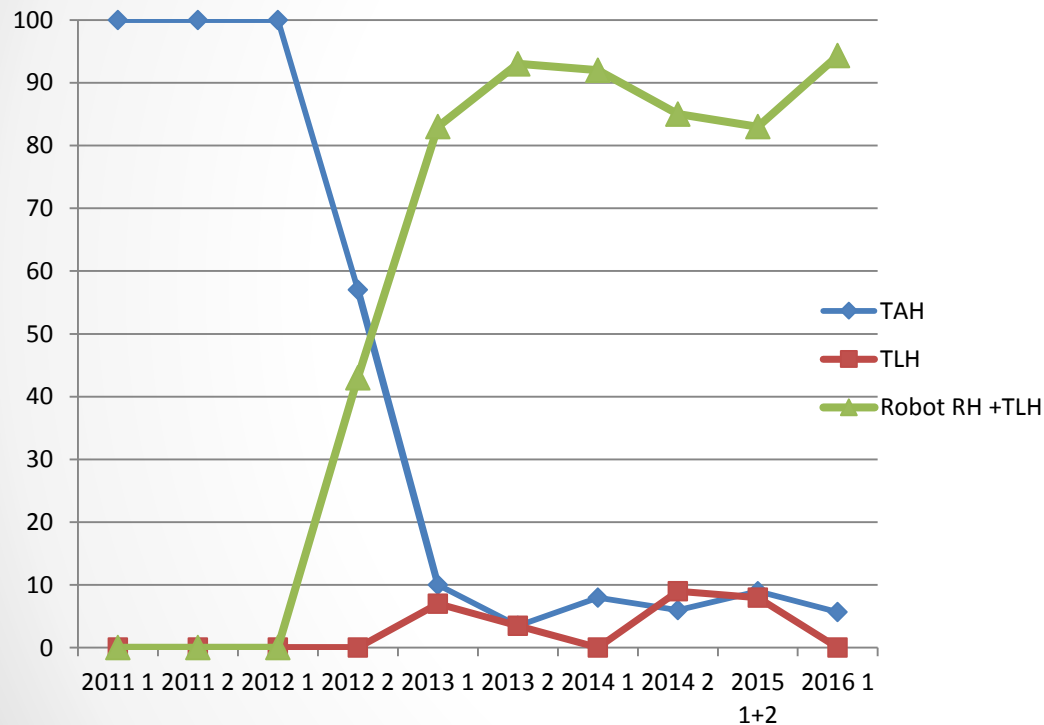


Lymph node dissection

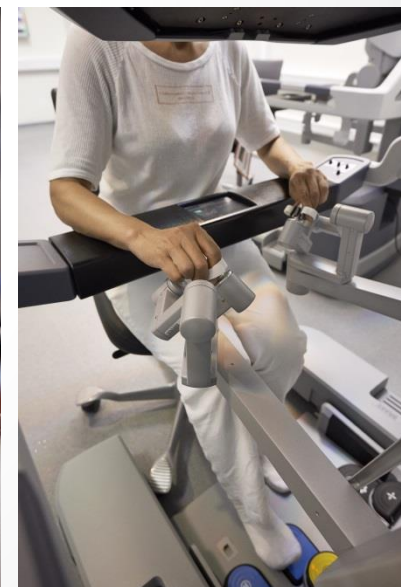


- Lymphnode dissection is performed as a staging procedure
- To identify potential metastatic disease
- Pre-operative PET CT scan is valuable but not sufficiently sensitive

The transition from open surgery to minimally invasive surgery in cervical cancer in DK



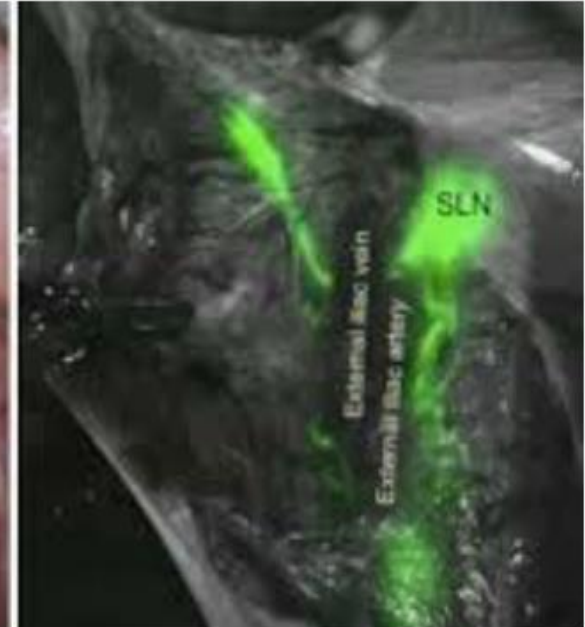
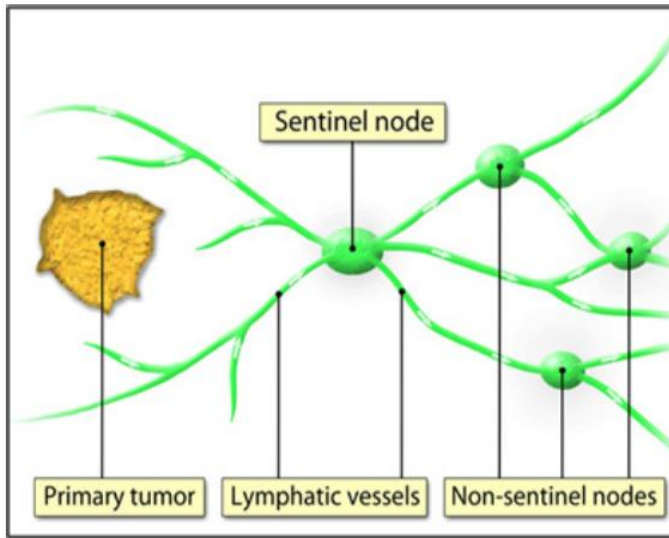
TAH: Total abdominal hysterectomy
 TLH: Total laparoscopic hysterectomy
 RH: Radical hysterectomy



Late effects after surgery

- 30% has difficulties emptying the bladder 2 years after surgery
- Increased risk of sexual dysfunction first 6 months after surgery
- Aprox. 10-25% has varying degrees of leg lymphoedema

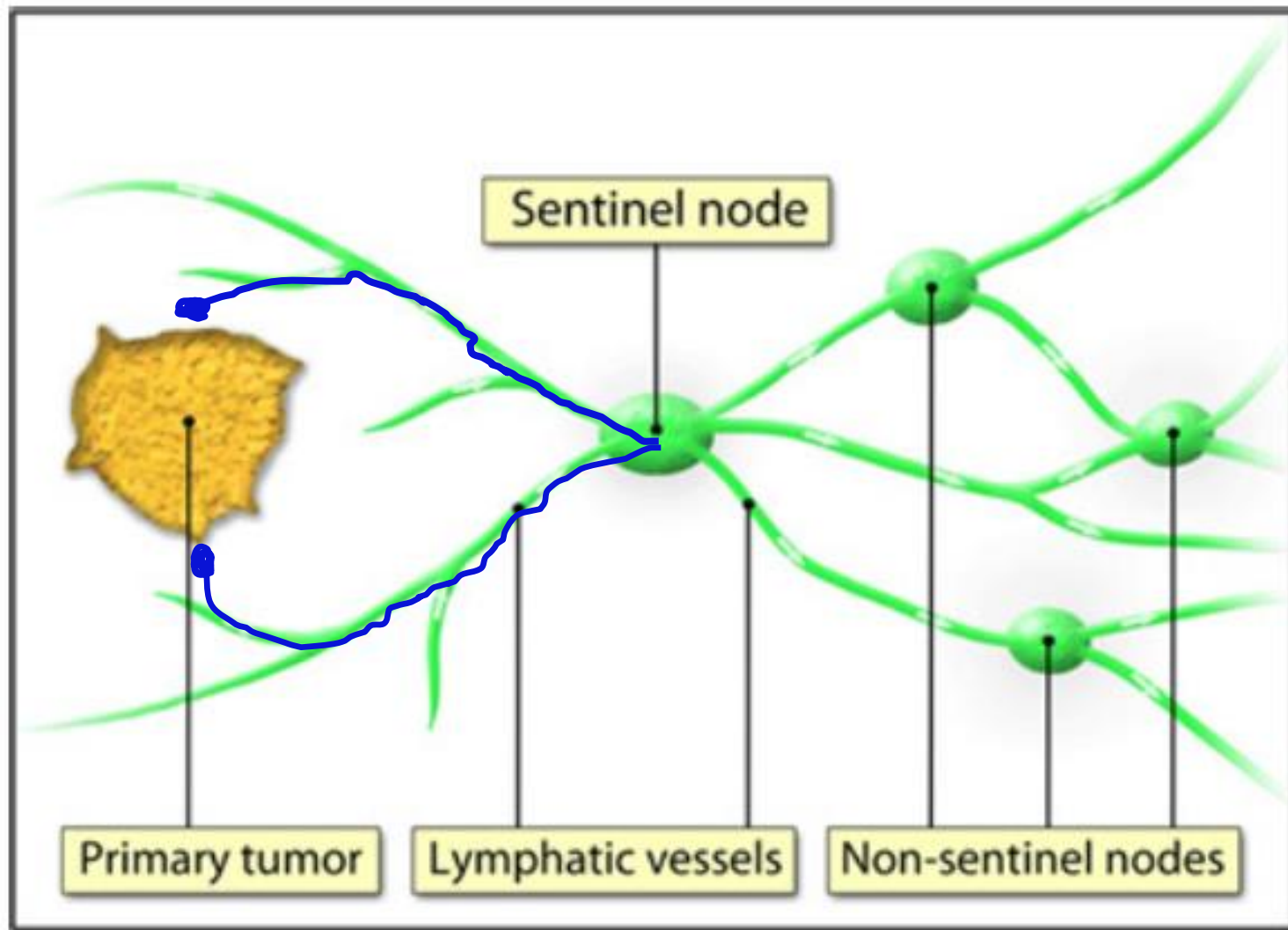
Sentinel node technique



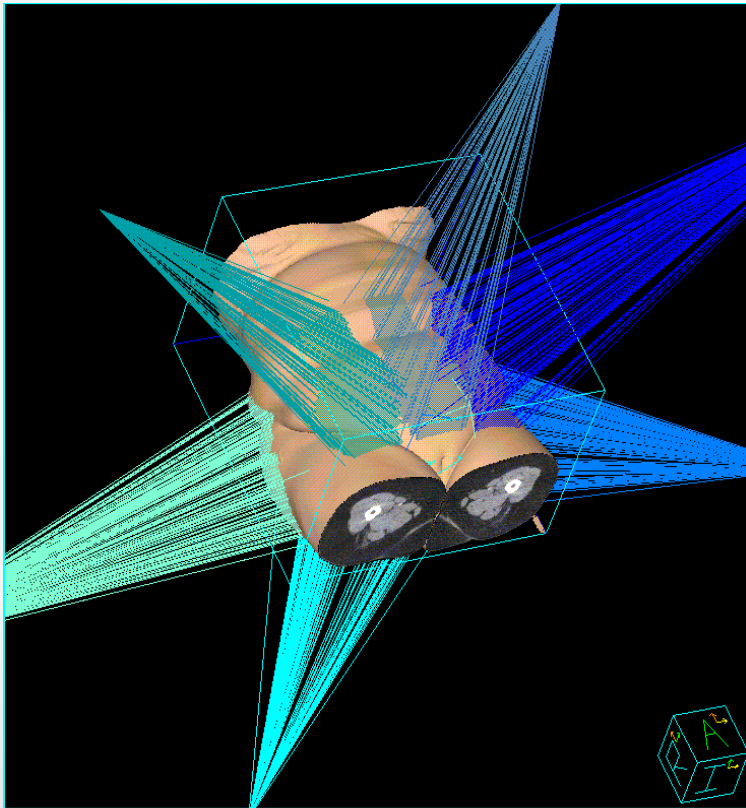
The Sentinel lymph node mapping concept is based on the principle that lymphatic drainage follows an orderly and predictable pattern to a regional lymph node basin

Introduced in DK as part of two national multicenter studies

- Primary purpose is to reduce leg lymphoedema



Locally advanced cervical cancer is treated with radiotherapy and chemotherapy



● Intensity modulated radiotherapy

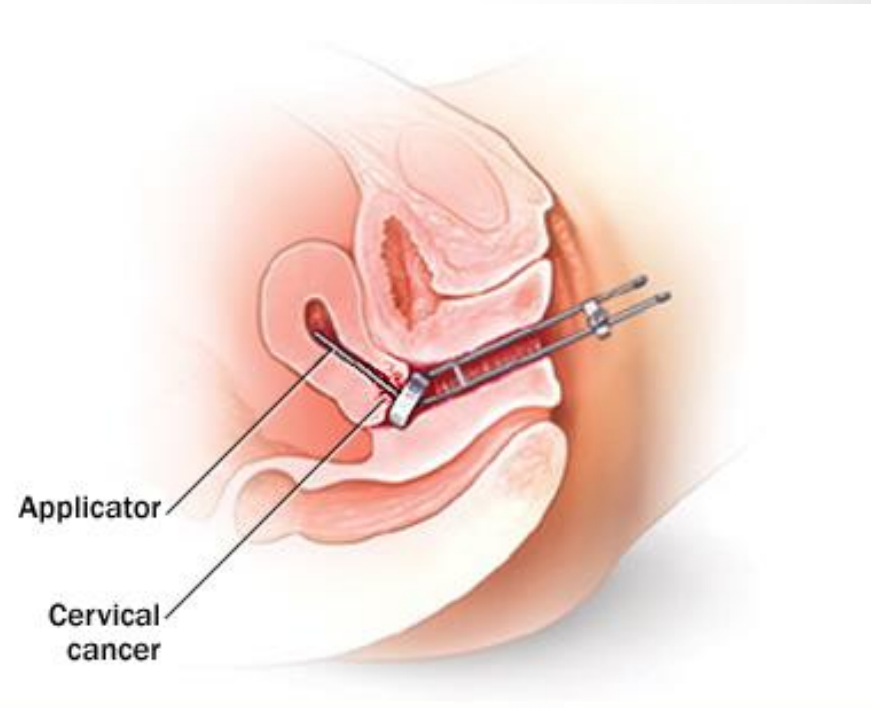


Image guided brachytherapy ●

Risk factors indicating adjuvant treatment after surgery

High-risk factors

- Positive lymph node(s)
- Parametrial invasion
- Positive resection margins

Intermediate-risk factors

- Tumor >3 cm and invasion >2/3
- Tumor >2 cm and invasion >1/3 and Lympho-vascular space invasion

Late effects after radio-chemotherapy

- Persistent sexual dysfunction with little or no improvement over time
- Vaginal toxicity: dryness, pain, lack of lubrication, bleeding
- Bowel toxicity: fecal leakage, diarrhea, bleeding
- Urinary toxicity: urge incontinence, frequent voiding
- Lymphoedema of the legs

Anne – after surgery

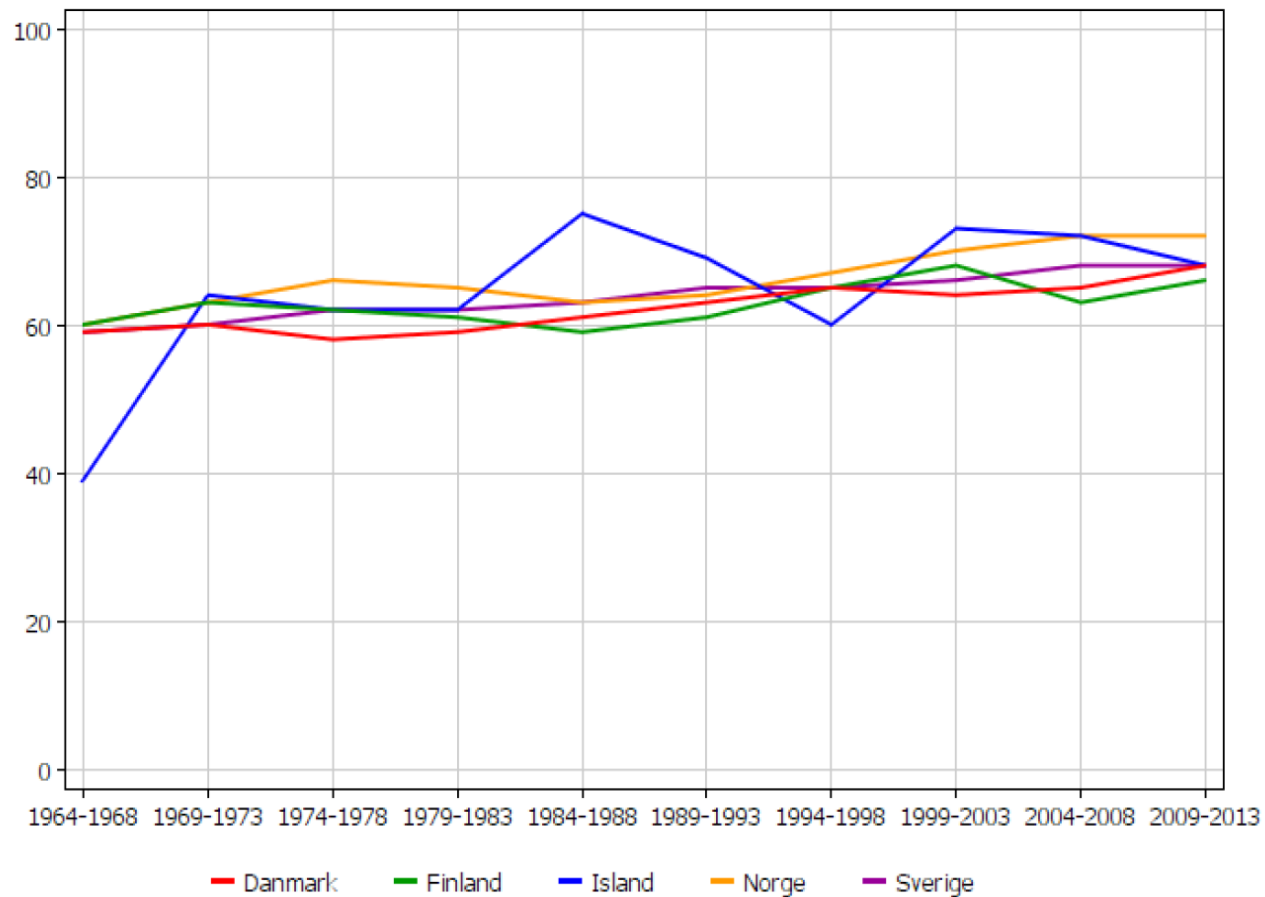
- Significant intermediate risk factors
- Adjuvant radiotherapy and chemotherapy
- At 3 months follow up suspicious PET CT scan
- At 5 months repeated PET CT and gynecological examination in general anaesthesia confirmed a local recurrence in the radiation field

Cervical cancer survival in DK

Cervical Cancer in Denmark 2015/2016 (30.6.2016)

	Stage I	Stage II	Stage III	Stage IV	Total
Count	204 (61%)	74 (22%)	29 (8.6%)	18(5.3%)	337
2014/2015					
					All stages
1 year survival	97.9%	90.8%	69.8%	43.1%	96.4%
2 year survival	93.8%	82.0%	52.6%	23.7%	87.2%
5 year survival	91.2%	65.0%	35.5%	10.0%	88.5%

5 years age-standardized survival (%) in the Nordic countries



Why do women get cervical cancer in DK

Did not participate in the screening program (55 %)

- Age outside the target group
- Actively opting out

False negative screen test (30 %)

- Not representative
- The test is mis-interpreted as negative

Lack of follow up on abnormal test (15 %)

- Follow up not offered
- Follow up opted out by the woman

Anne in a national perspective

- Anne had an exenteration with two stomas
- 30-50% 5 year survival
- Anne was outside the age-group that were offered HPV vaccination
- She had two negative screen-tests before her cancer
- She was offered fast track referral and treatment with the modern technology and equipment
- We should do everything we can to prevent cases like Anne
- The HPV vaccination program must get back on track