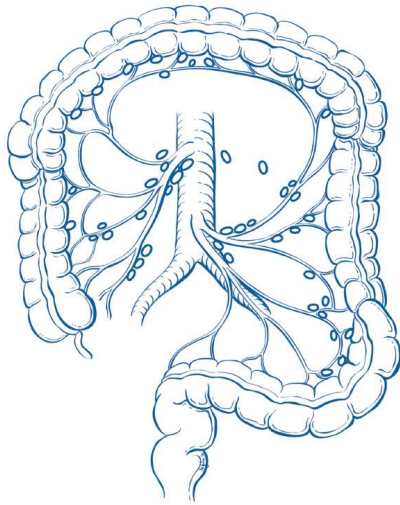


Søreide, del 1.



Gardermoen-møte 26-27 januar 2012



Colorektal cancer

- folkesykdom og modellsykdom

Kjetil Søreide

Kirurgisk avdeling

Stavanger universitetssjukehus



Stavanger University Hospital
Stavanger Hospital Trust

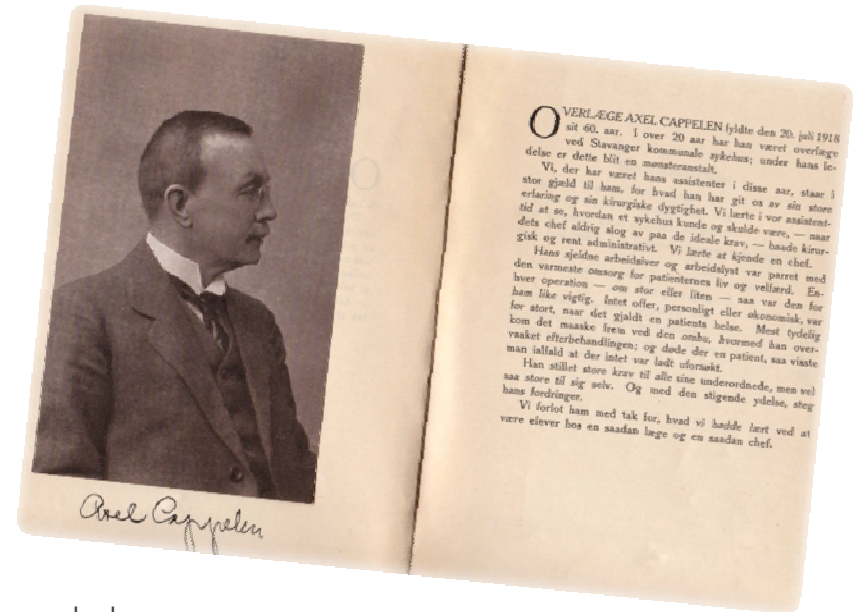


Anna Malena

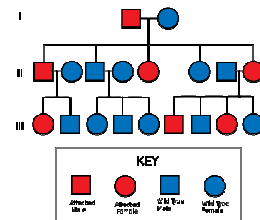
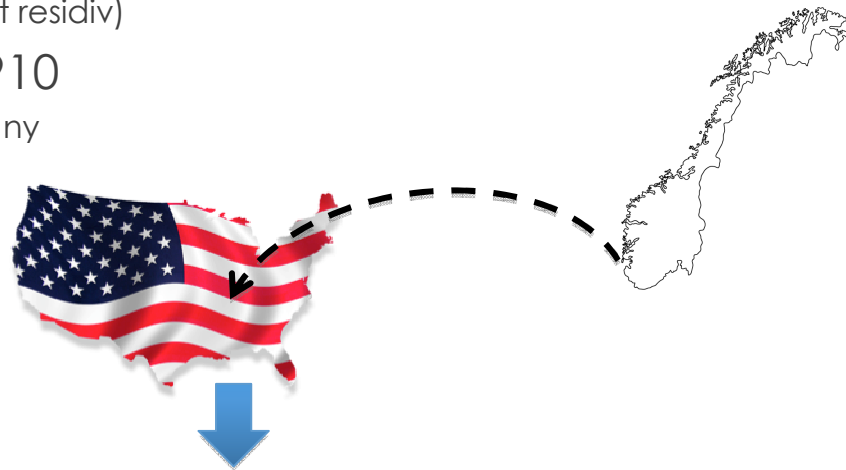
- f. 1852 - 1910
- 9 barn
- bosted Brusand/Herredsvela



Anna Malena



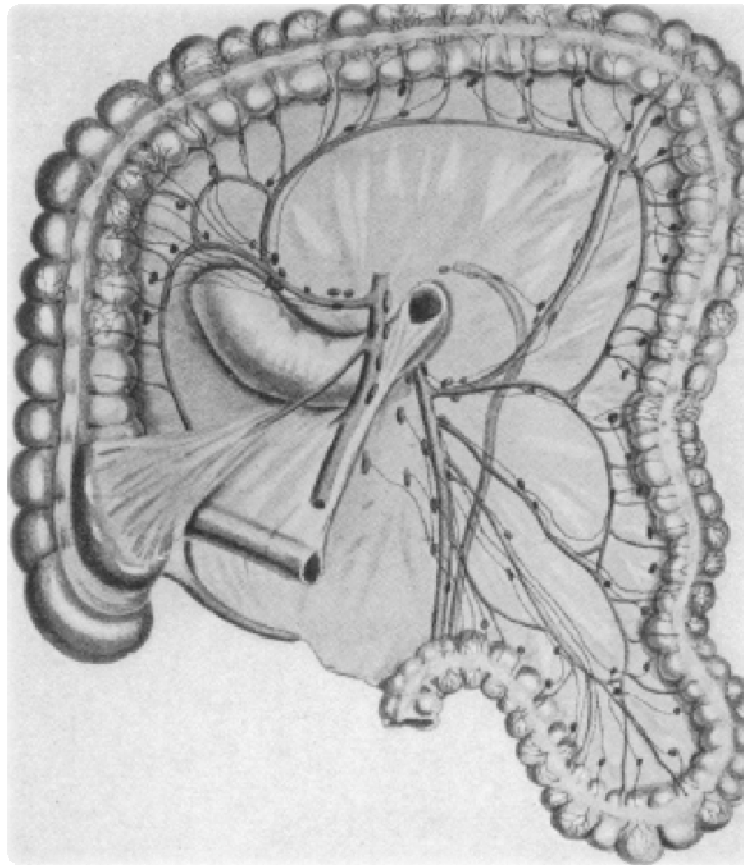
- Venstresidig kolon cancer i 1901
 - (49 år) – operert av dr. A. Cappelen; Stavanger sykehus
 - Fulgt opp i 1904 og 1908 (intet residiv)
- Høyresidig kolon cancer 1910
 - Ny "metakron" tumor – operert på ny
 - (58 år)



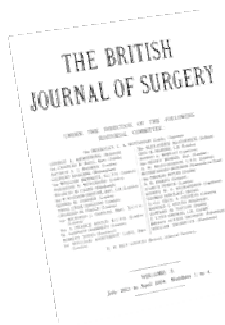
Hva har endret seg på 100 år?

- Alder, risiko, presentasjon?
- Sykdomsforståelse, sykdomsforløp?
- Familiaer belastning, arvelighet?
- Diagnose og behandlingsalternativer?
- Prognose?

Lymfedrenasje



The lymphatics of the colon.
Jamieson et al Ann Surg 1909 + Lancet 1907



1913



EXTENSION IN RECTAL CANCER 173

INTRAMURAL EXTENSION IN RECTAL CANCER.

By K. W. MONSARRAT, LIVERPOOL,
AND
HOWARD T. WILLIAMS, LIVERPOOL.

EXPERIENCE in operating for carcinoma of the rectum teaches that methods have to vary considerably according to the local and general condition presented by the patient. The general condition may forbid such a formidable operation as a complete abdomino-perineal amputation ; the local condition may exclude any attempt to preserve the anal sphincters. One point in the discussion of method, however, is clear, namely, that operations are to be avoided which do not offer a fair prospect of going wide of the disease.



...year 1913 conclusions:

GENERAL CONCLUSIONS.

1. Carcinoma of the rectum habitually remains localized within narrow limits for a considerable period.
2. Permeation of lymphatic plexuses to a distance beyond the primary site is an exceptional process.
3. Access of the disease to the plane between the bases of the follicles and the muscularis mucosæ occurs by invasion from the submucous plane.
4. Mucin production in the cells is to be interpreted as indicating special activity, and not degeneration.
5. Infiltration is widest in the plane of the longitudinal muscular coat and the cellular tissue outside it.
6. Glandular invasion is sometimes long delayed.
7. Without wide local dissemination the disease may make its way into blood-vessels, a process which may be responsible for distant metastasis.

LONDON, SATURDAY 18 JULY 1981

BRITISH MEDICAL JOURNAL

Colorectal surgery—the Cinderella specialty

Endoluminal ultrasound

- “A new method for staging local invasion in rectal cancer has been assessed... 38 patients with primary rectal cancers ...examined pre-operatively with endoluminal rectal ultrasound and results compared with histological analysis ... correlation was 0.93 ($P < 0.001$)... Invasion beyond the muscularis propria was predicted with a sensitivity of 96% and specificity of 92% ...

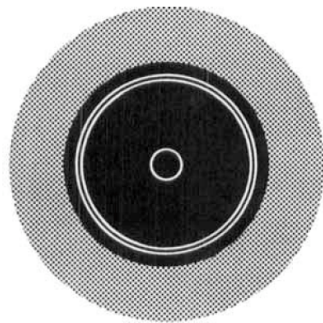


Figure 2 The ultrasonic layers of the rectum. The transducer lies centrally. 1st layer, echogenic, mucosa; 2nd layer, echopoor, muscularis mucosae; 3rd layer, echogenic, submucosa; 4th layer, echopoor, muscularis propria; 5th layer, echogenic, serosa/perirectal fat



Beynon J, et al.
Br J Surg 1986



Leading articles

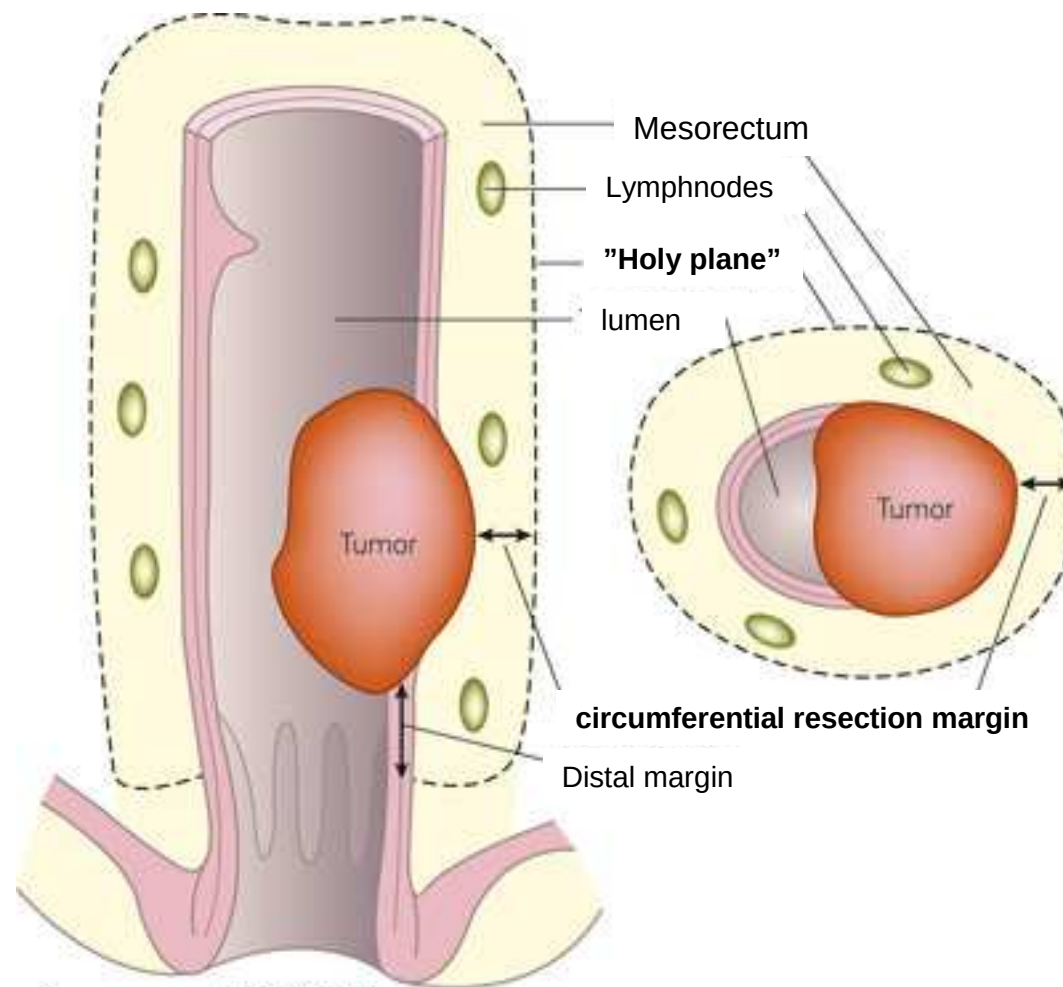
Total mesorectal excision is optimal surgery for rectal cancer: a Scandinavian consensus

Consensus is not readily achieved among surgeons and oncologists, and the acceptance of new priorities for management of rectal cancer by the recent International Standardization Conference in Oslo may well ruffle feathers in both specialties. In particular, the endorsement of total mesorectal excision (TME) as the new standard for Norway and Sweden is timely after the call by this Journal for a debate on surgical technique in its June 1995 issue¹. This was the same month as the Oslo meeting, which aimed to confront the crucial challenge posed by variability in treatment outcome, and to assess and guide the Scandinavian craft workshops which have already established a unique lead in the teaching of new surgical techniques to experienced, practising surgeons. The essence of this...

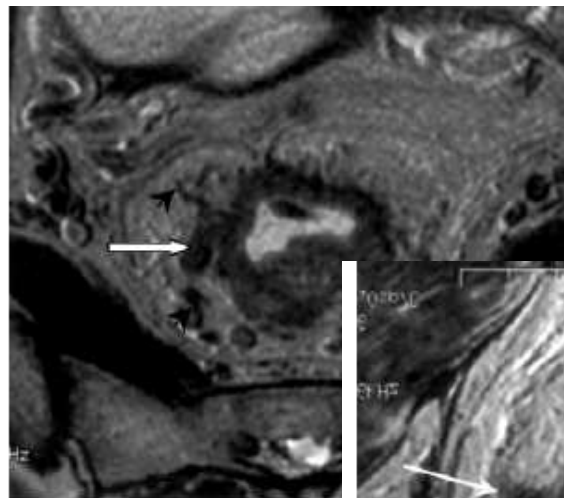
...surgeons who visited Oslo in June. It will be the data collection skills of Scandinavian doctors and their cancer registries that will eventually decide whether the Oslo consensus meeting pointed the way to the future or was simply a Nordic midsummer dream.

R. J. Heald

*Colorectal Research Unit,
Basingstoke General Hospital
Basingstoke RG24 9NA
UK*



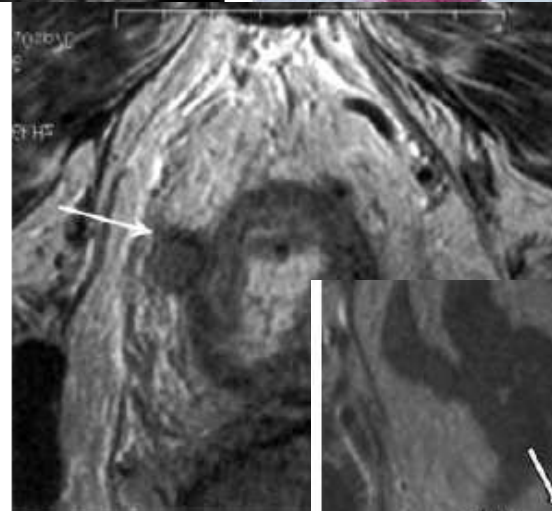
Pre-op MRI diagnostics



a Axial MRI



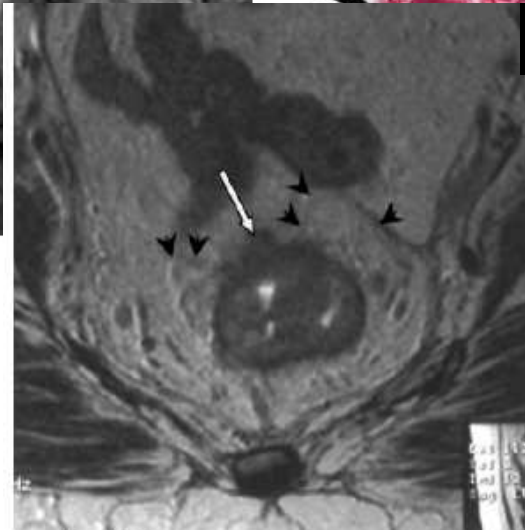
Venous invasion



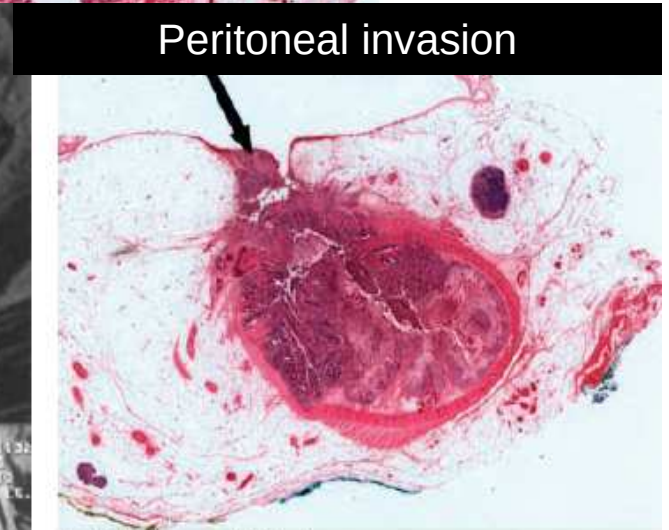
a Axial MRI



Circumferential margin



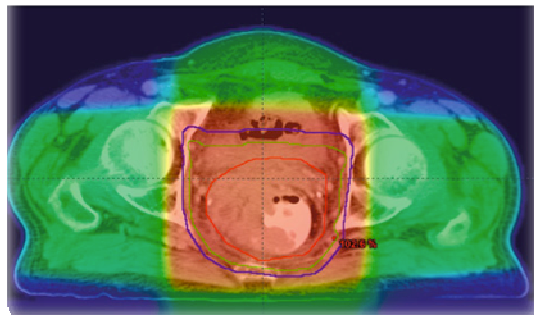
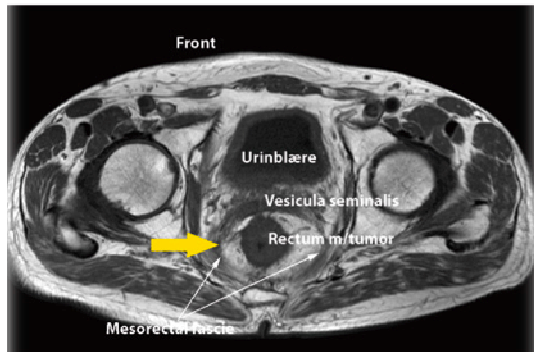
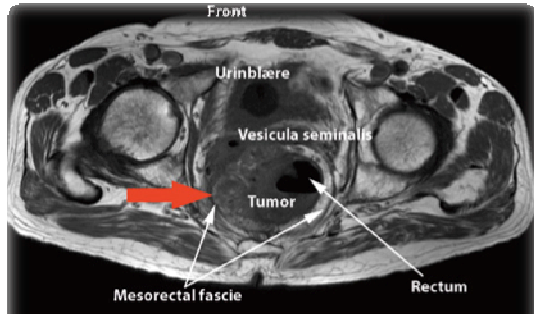
a Axial MRI



b Whole-mount histology

Peritoneal invasion

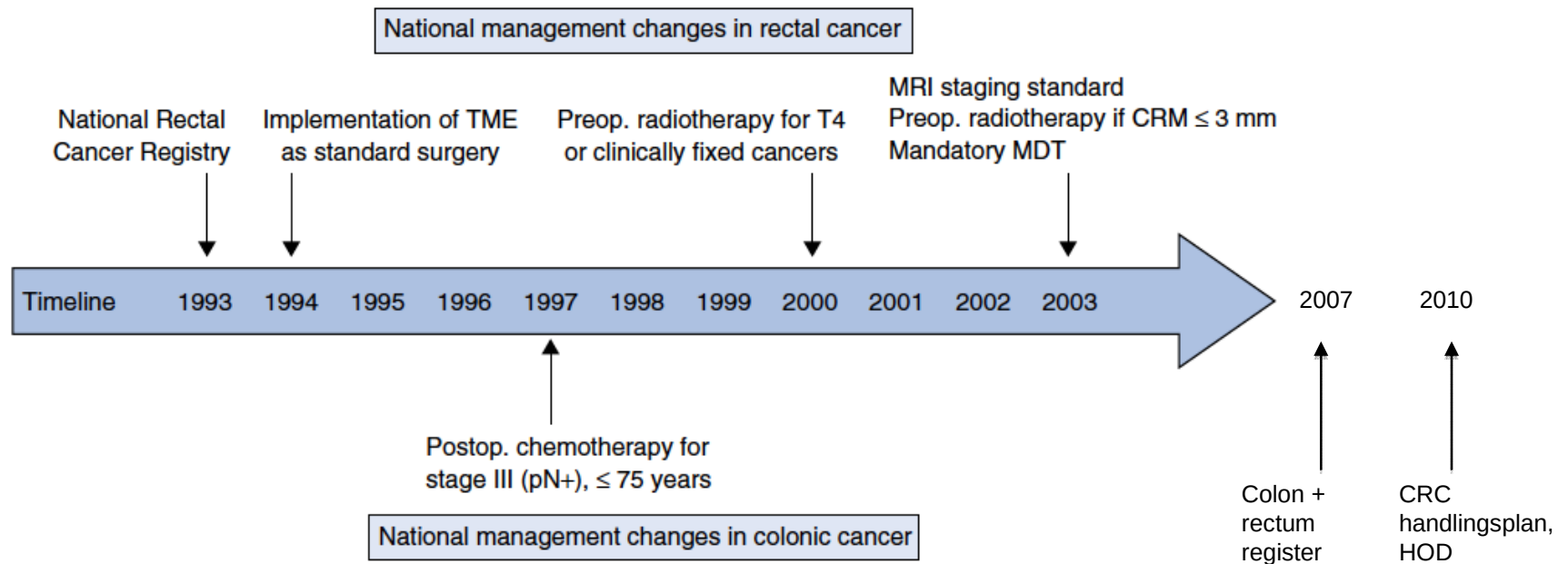
Pre-op Rx



- In resectable disease
 - For increased local control
- In locally advanced
 - Fixed T4
 - "downstaging"
- Palliative

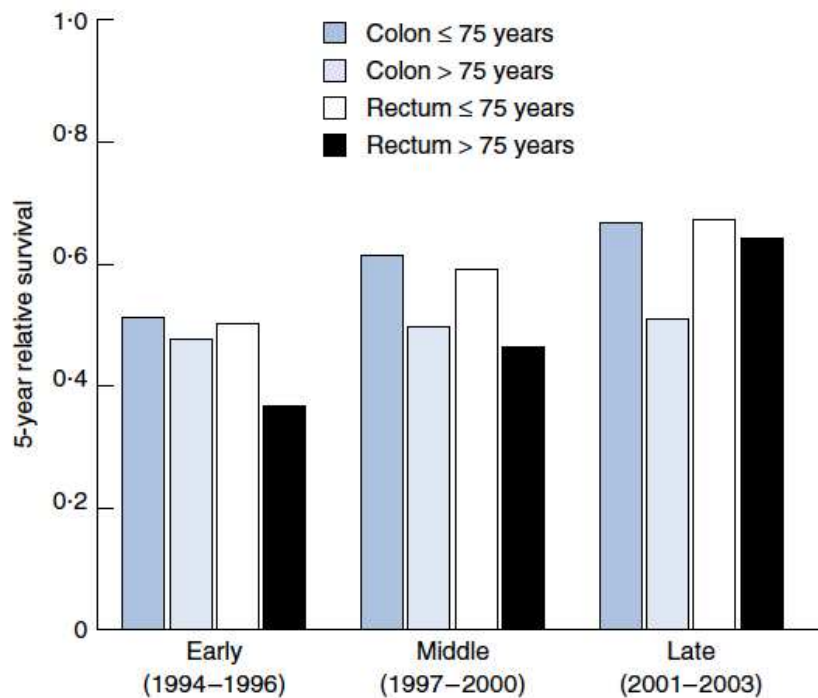
Remains controversial – differences among countries – # PROs and CONs

Endringer i Norge...



Endring i prognose:

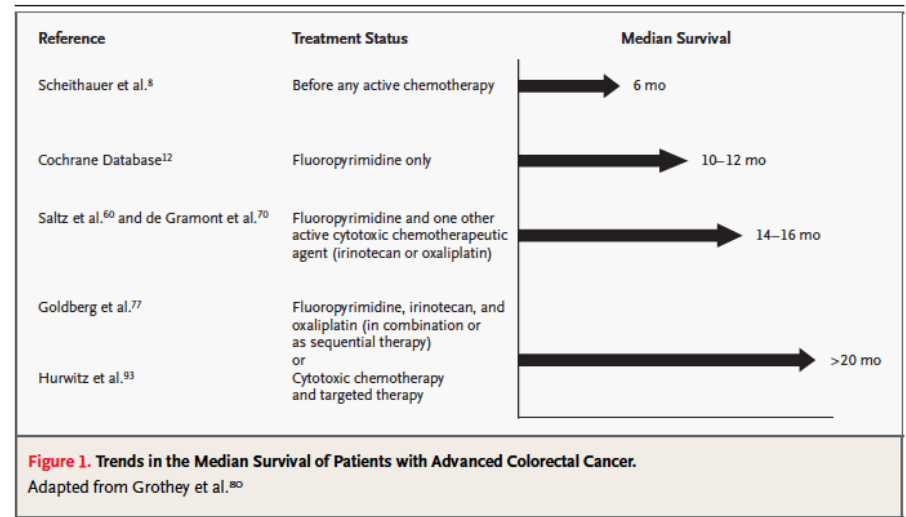
Kurativt opererte

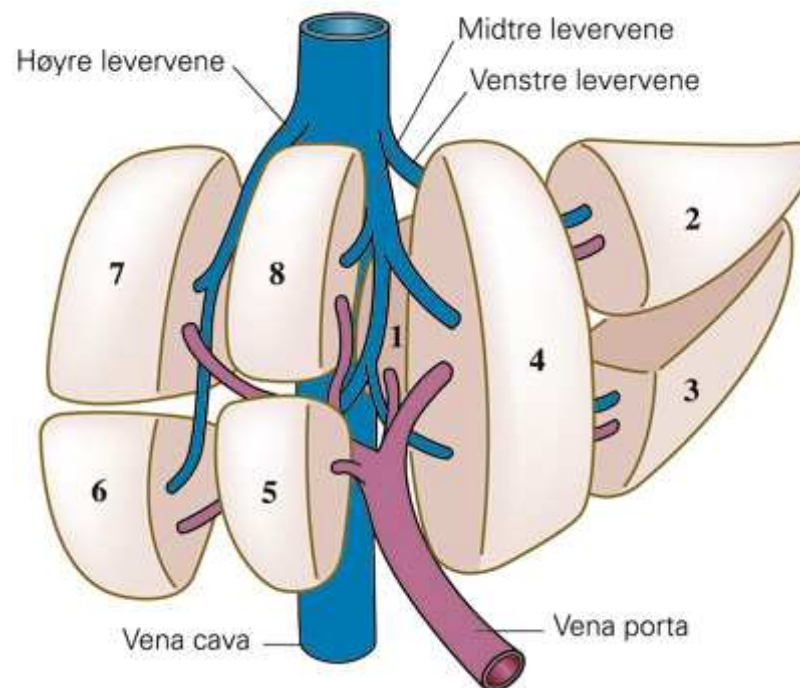
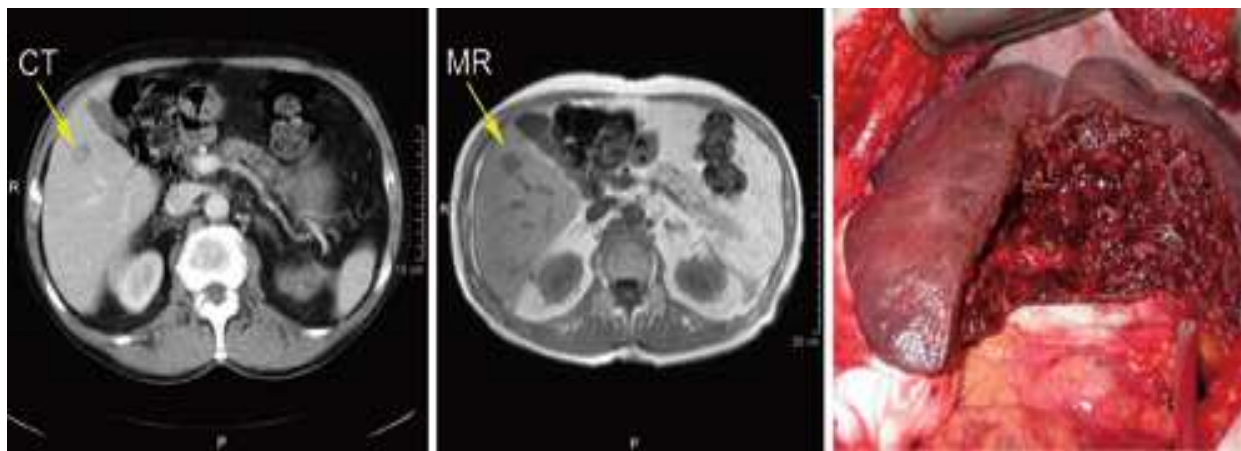


Nedrebø et al, Br J Surg, 2011

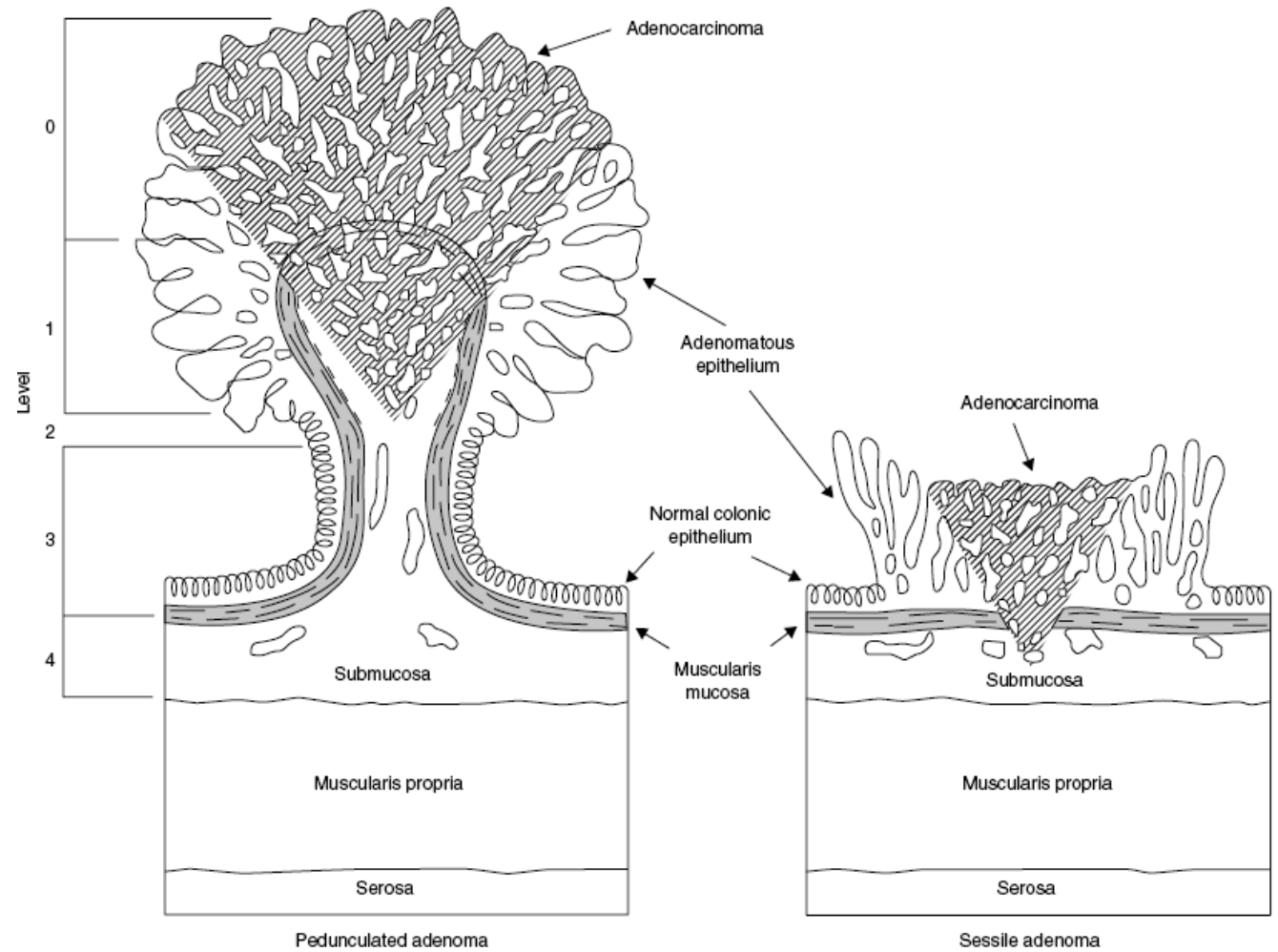
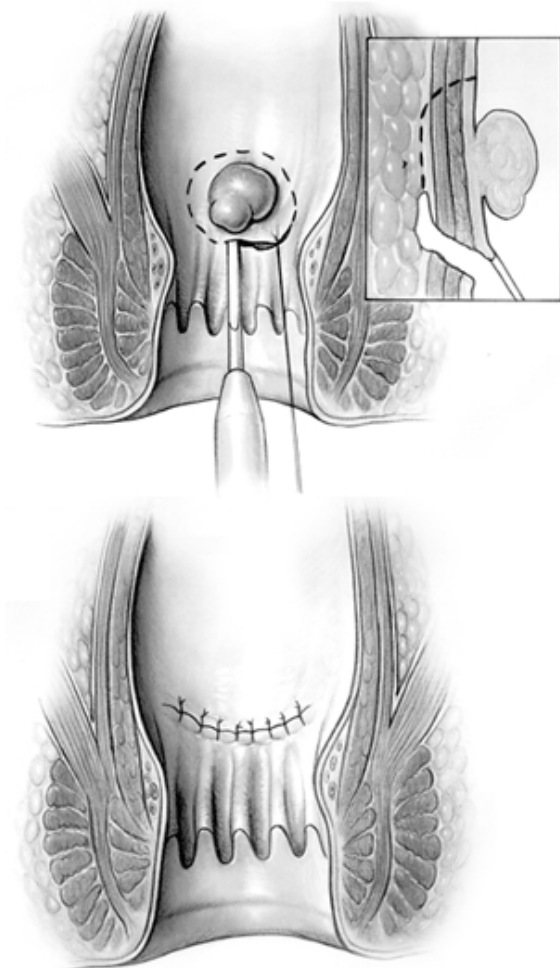
Metastatisk sykdom

The NEW ENGLAND JOURNAL of MEDICINE



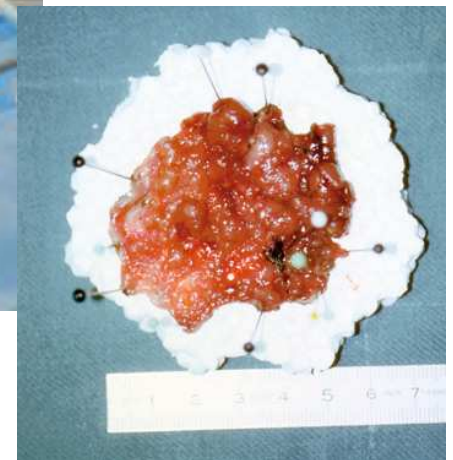


Local excision



Transanal endoscopic microsurgery

TEM



Colon and Rectum Cancer Staging

7th EDITION

Definitions

Primary Tumor (T)

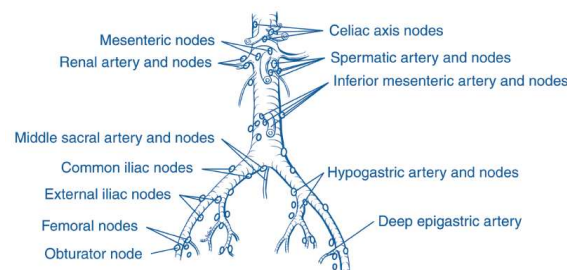
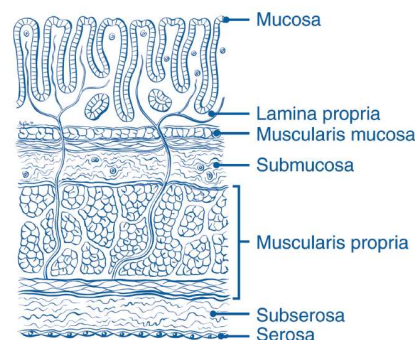
- TX** Primary tumor cannot be assessed
- T0** No evidence of primary tumor
- Tis** Carcinoma in situ: intraepithelial or invasion of lamina propria¹
- T1** Tumor invades submucosa
- T2** Tumor invades muscularis propria
- T3** Tumor invades through the muscularis propria into pericolorectal tissues
- T4a** Tumor penetrates to the surface of the visceral peritoneum²
- T4b** Tumor directly invades or is adherent to other organs or structures^{2,3}

Regional Lymph Nodes (N)⁴

- NX** Regional lymph nodes cannot be assessed
- N0** No regional lymph node metastasis
- N1** Metastasis in 1–3 regional lymph nodes
- N1a** Metastasis in one regional lymph node
- N1b** Metastasis in 2–3 regional lymph nodes
- N1c** Tumor deposit(s) in the subserosa, mesentery, or nonperitonealized pericolic or perirectal tissues without regional nodal metastasis
- N2** Metastasis in 4 or more regional lymph nodes
- N2a** Metastasis in 4–6 regional lymph nodes
- N2b** Metastasis in 7 or more regional lymph nodes

Distant Metastasis (M)

- M0** No distant metastasis
- M1** Distant metastasis
- M1a** Metastasis confined to one organ or site (for example, liver, lung, ovary, nonregional node)
- M1b** Metastases in more than one organ/site or the peritoneum



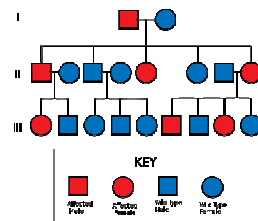
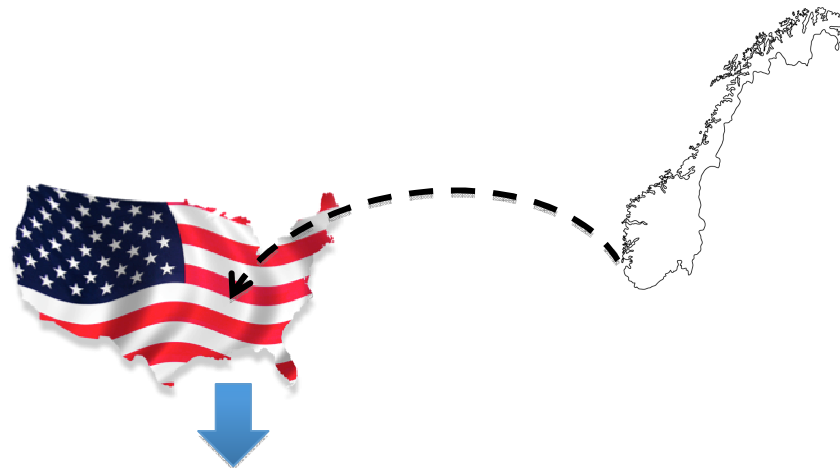
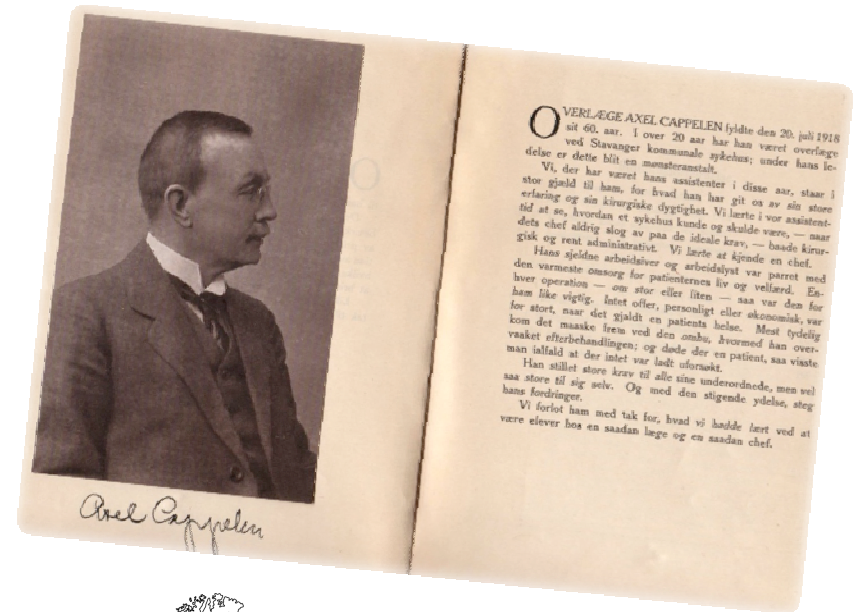
ANATOMIC STAGE/PROGNOSTIC GROUPS					
Stage	T	N	M	Dukes*	MAC*
0	Tis	N0	M0	—	—
I	T1	N0	M0	A	A
	T2	N0	M0	A	B1
IIA	T3	N0	M0	B	B2
IIB	T4a	N0	M0	B	B2
IIC	T4b	N0	M0	B	B3
IIIA	T1–T2	N1/N1c	M0	C	C1
	T1	N2a	M0	C	C1
IIIB	T3–T4a	N1/N1c	M0	C	C2
	T2–T3	N2a	M0	C	C1/C2
	T1–T2	N2b	M0	C	C1
IIIC	T4a	N2a	M0	C	C2
	T3–T4a	N2b	M0	C	C2
	T4b	N1–N2	M0	C	C3
IVA	Any T	Any N	M1a	—	—
IVB	Any T	Any N	M1b	—	—

NOTE: cTNM is the clinical classification, pTNM is the pathologic classification. The y prefix is used for those cancers that are classified after neoadjuvant pretreatment (for example, ypTNM). Patients who have a complete pathologic response are ypT0N0cM0 that may be similar to Stage Group 0 or I. The r prefix is to be used for those cancers that have recurred after a disease-free interval (rTNM).

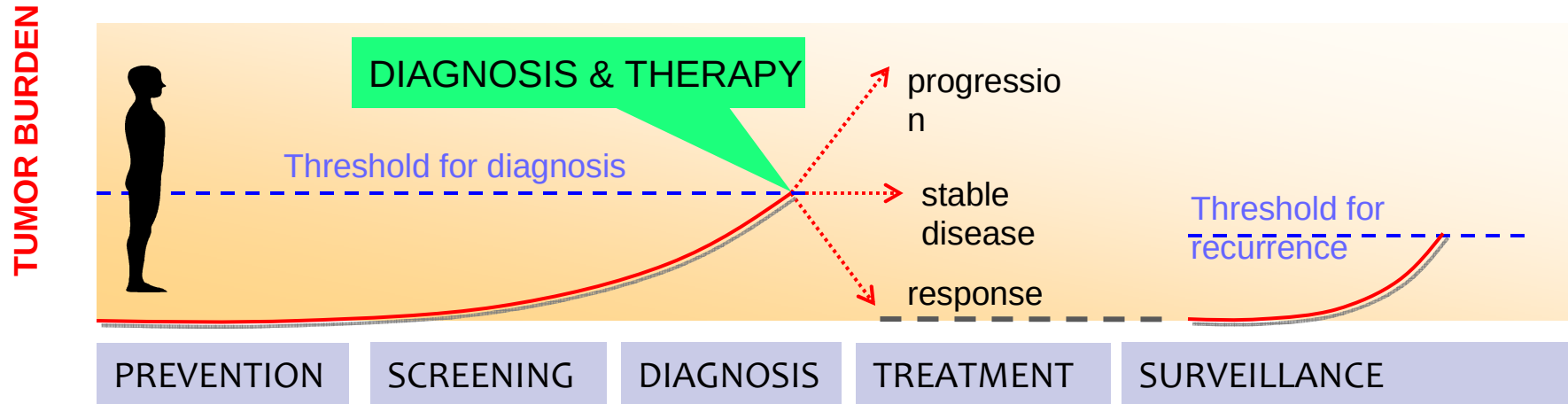
* Dukes B is a composite of better (T3 N0 M0) and worse (T4 N0 M0) prognostic groups, as is Dukes C (any T N1 M0 and Any T N2 M0). MAC is the modified Astler-Coller classification.



Anna Malena

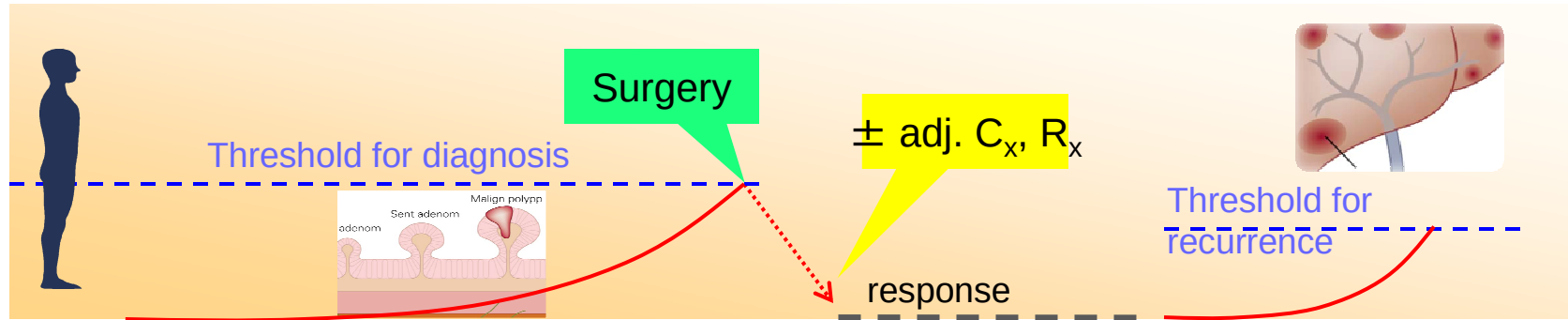


Sykdomsforløp ved colorectal cancer



Colorectal Cancer

TUMOR BURDEN



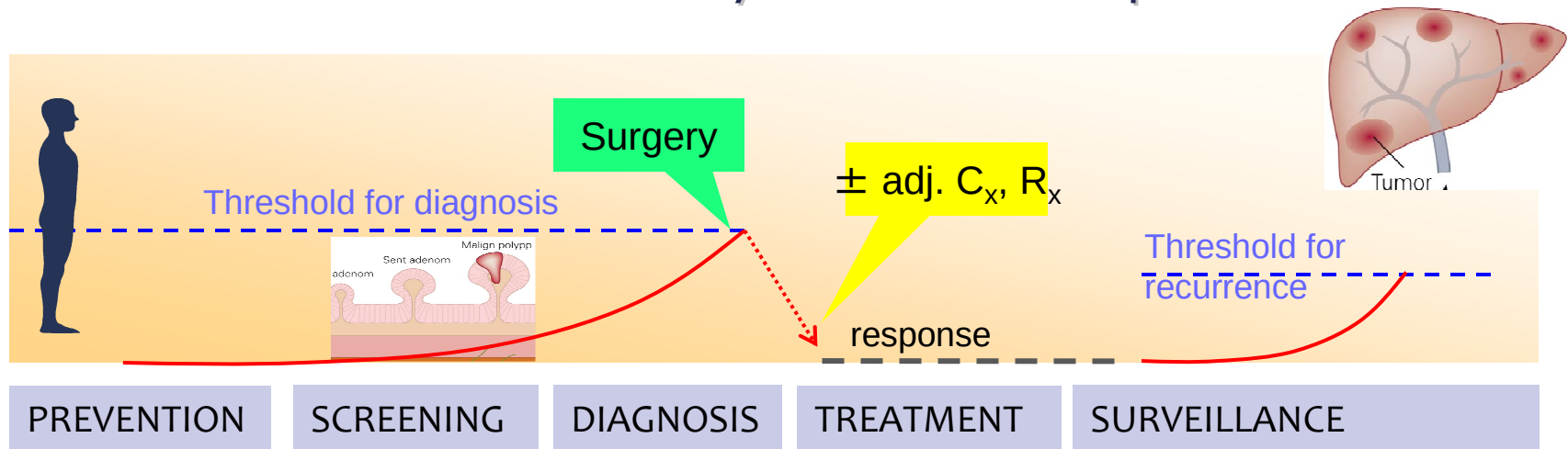
5-års overlevelse

Stadium
(Dukes)

I, A	} $\approx 15\%$	>90%
II, B		60-85%
III, C	} $\approx 60\%$	25-60%
IV, D		<10%

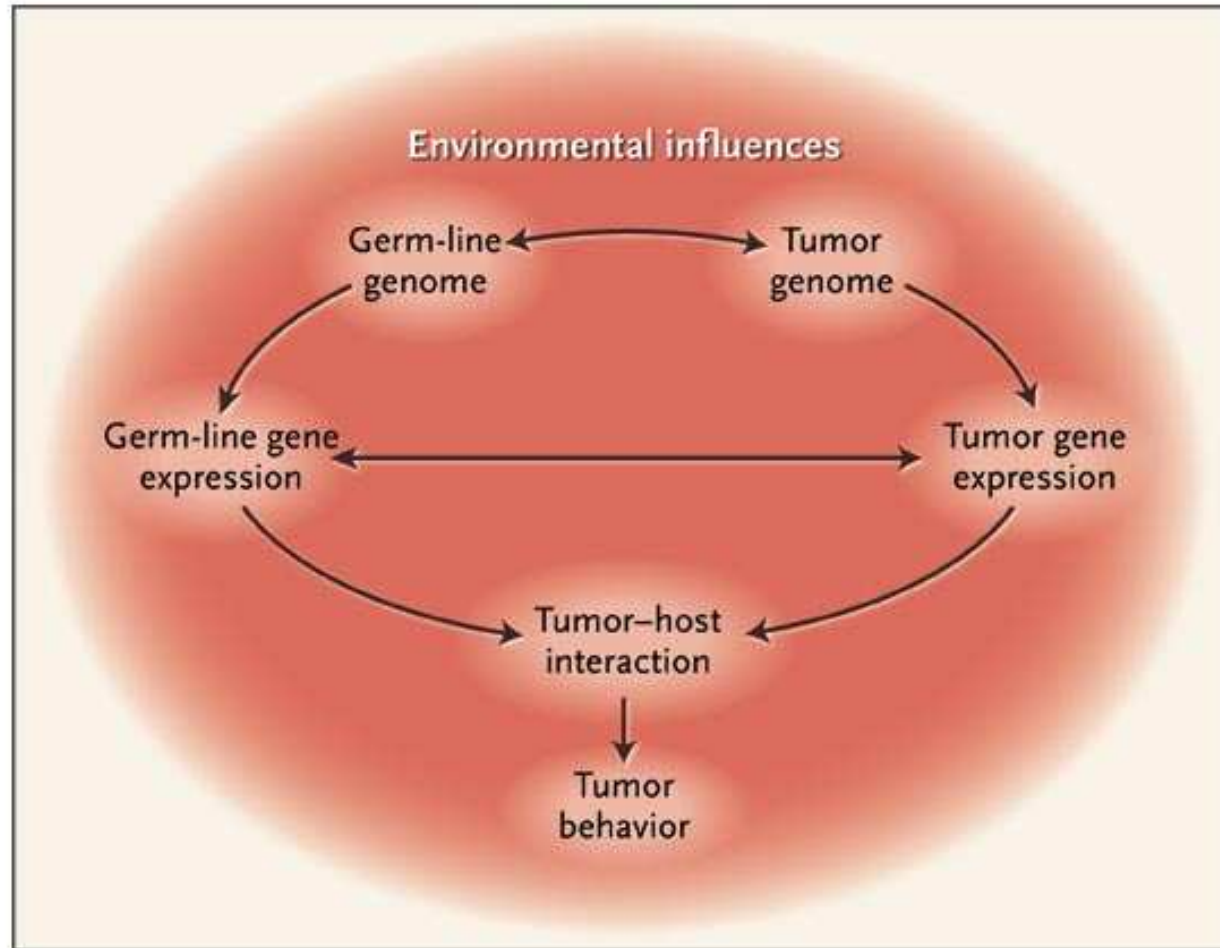
Colorectal Cancer - sykdomsforløp

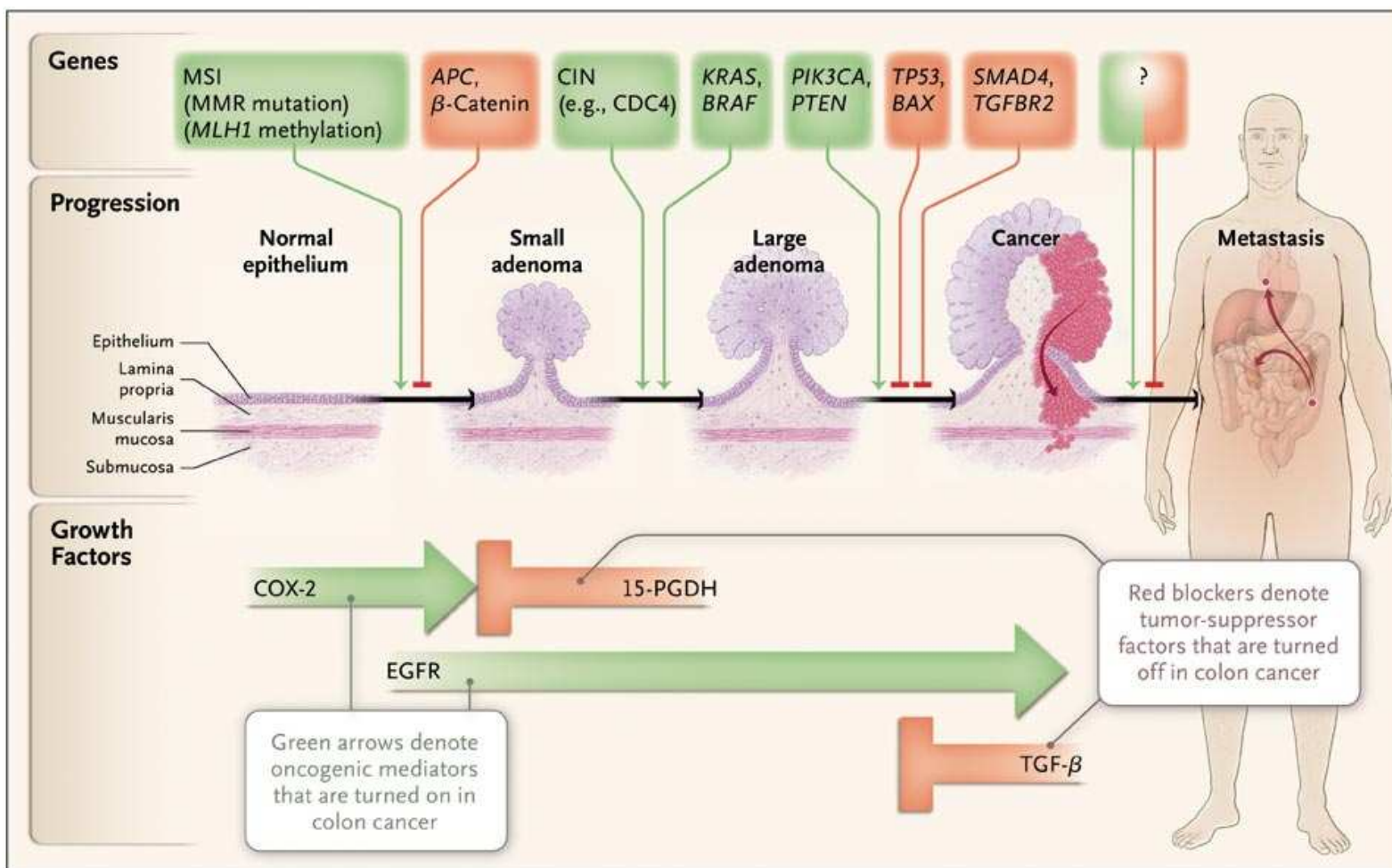
TUMOR BURDEN



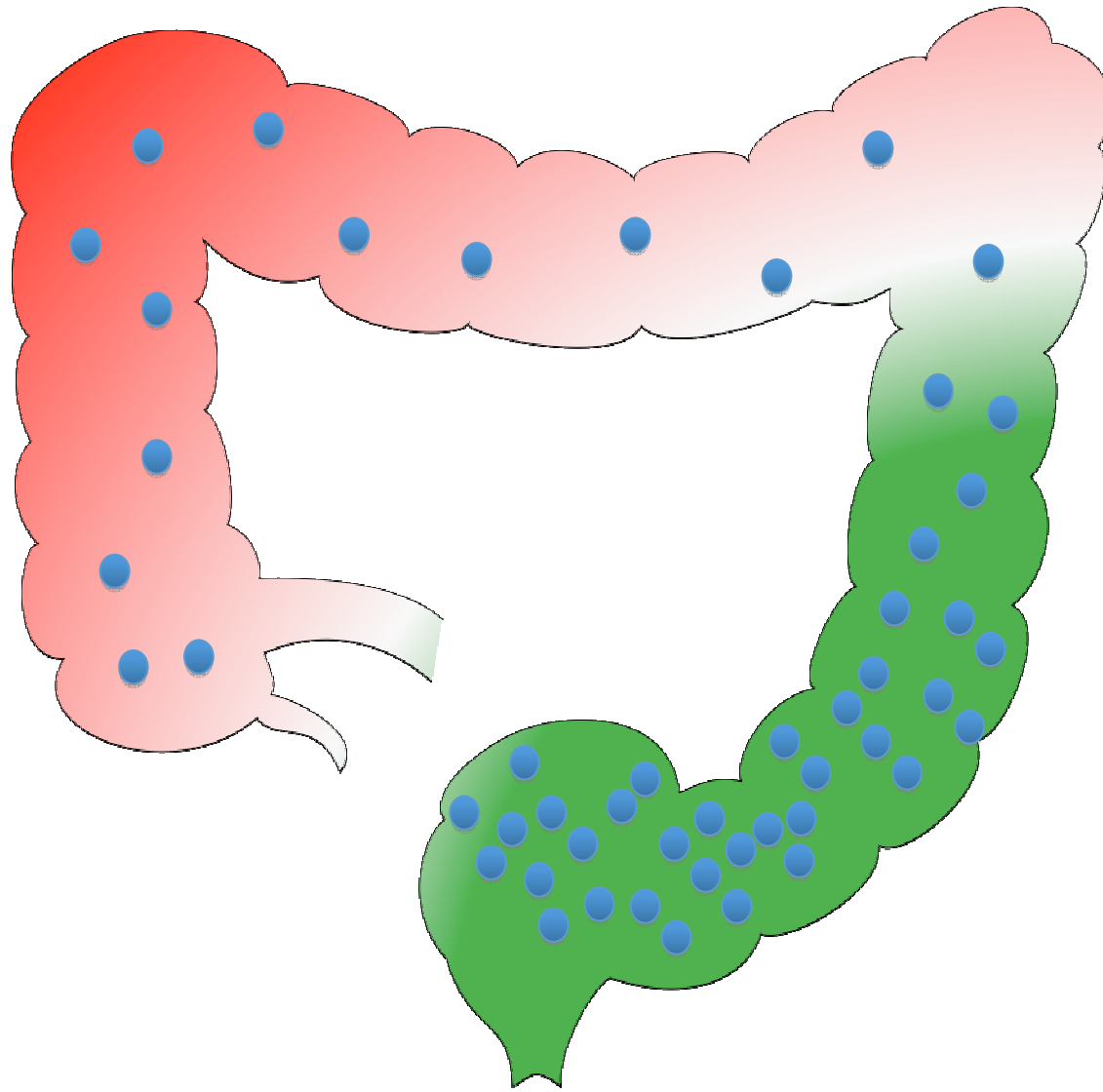
Epidemiologi – en "folkesykdom"

Patogenese – en "modellsykdom"

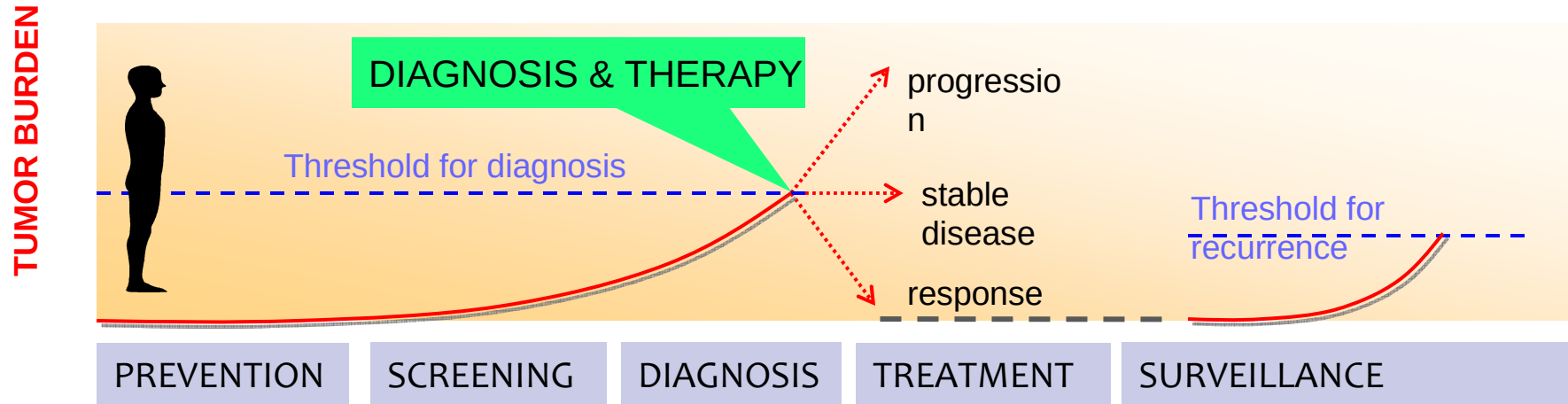




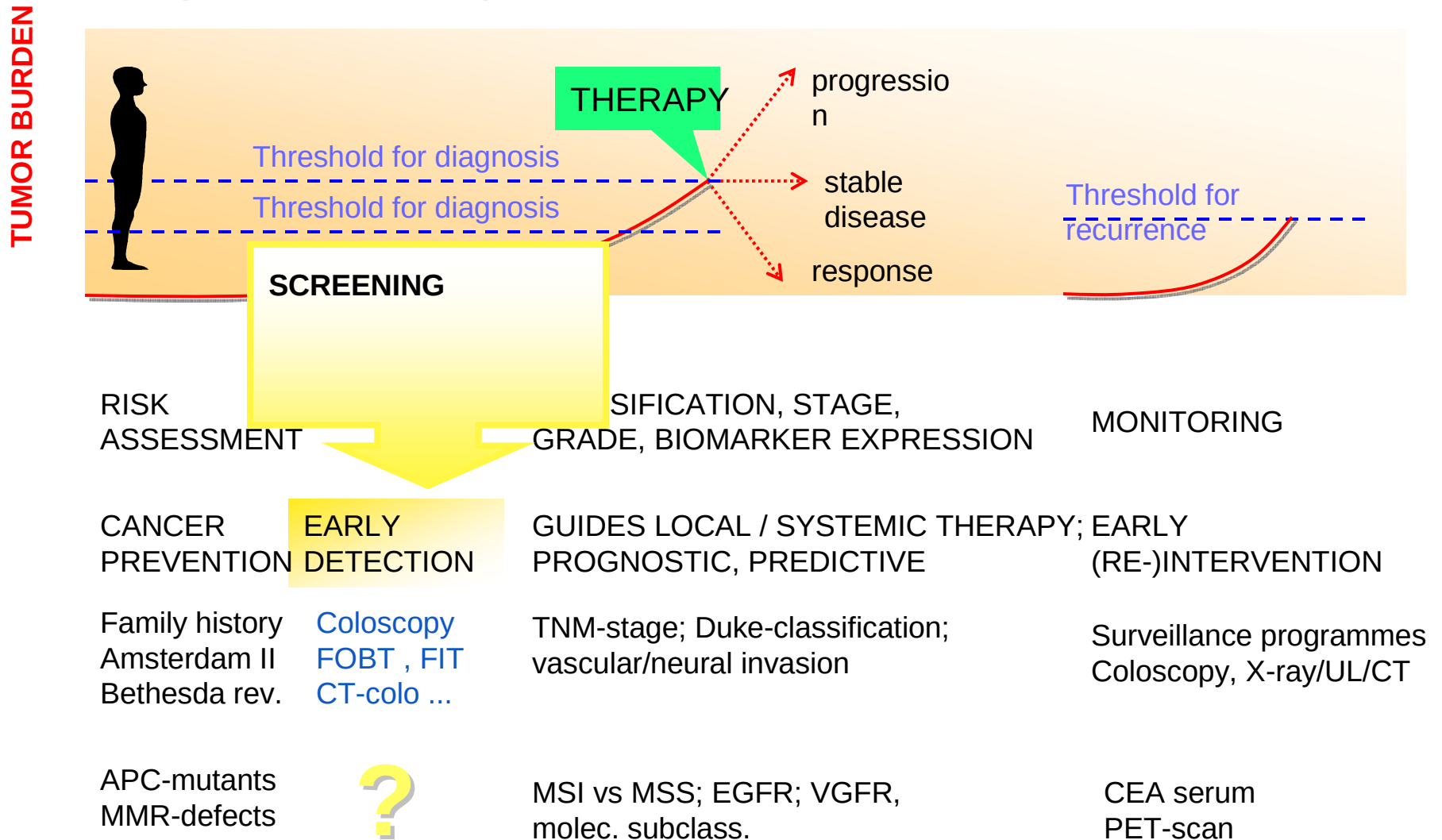
Distribuering: polypper – cancere



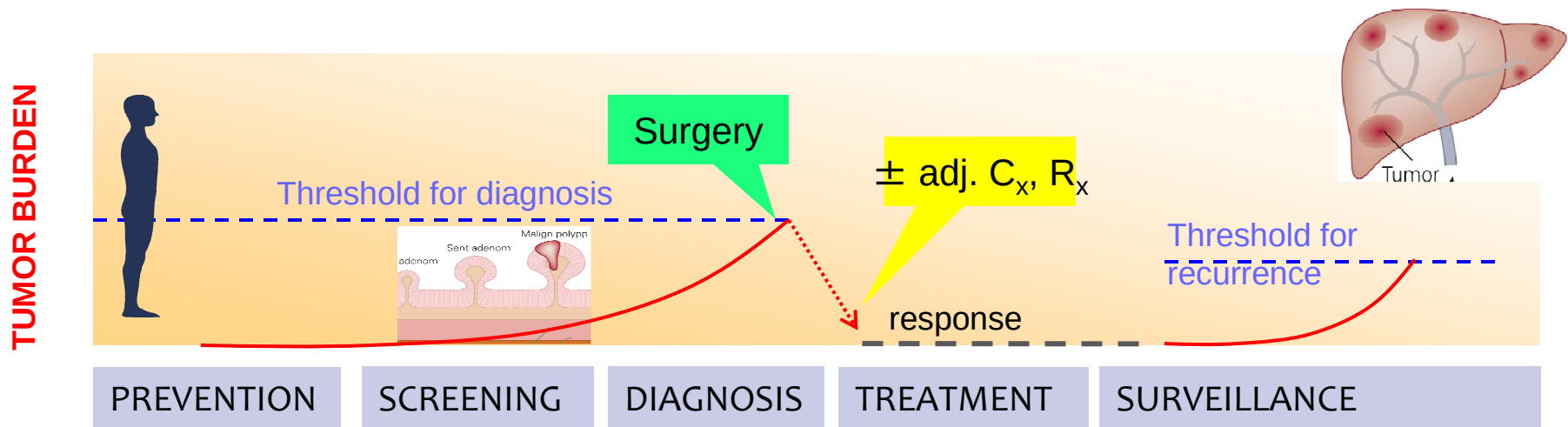
Sykdomsforløp ved colorectal cancer



Mulighet for å gripe inn i sykdomsbildet

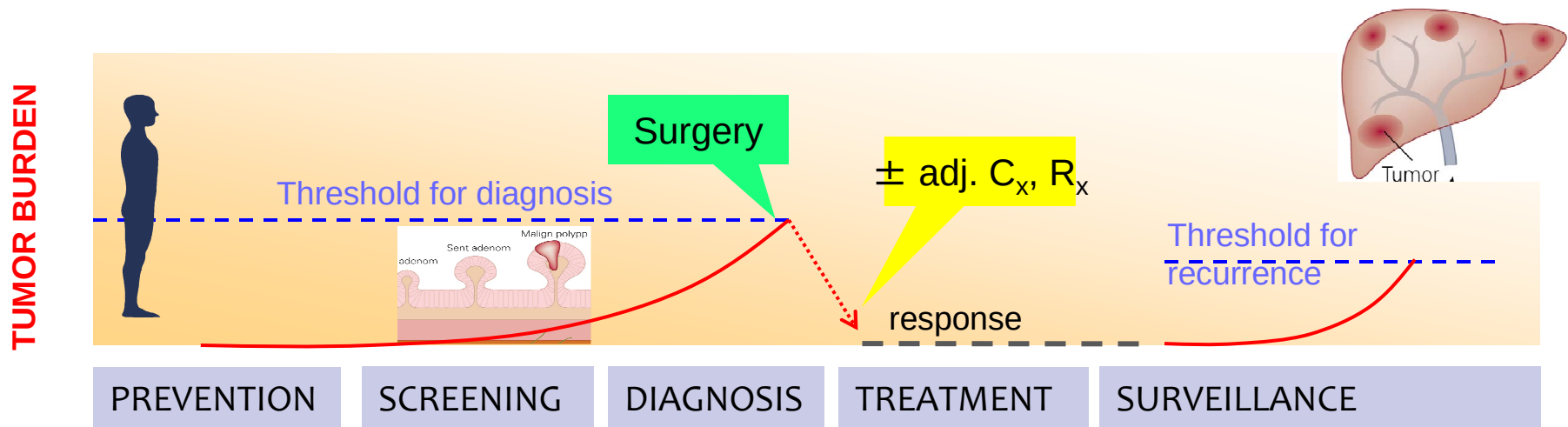


Colorectal Cancer



Det er mulig å påvirke/gripe inn i
det naturlige sykdomsforløpet

Colorectal Cancer



Epidemiologi – en "folkesykdom"

Patogenese – en "modellsykdom"