

# Gynaecological Cancer and the bowel: Indications for stoma formation

Lois Eva

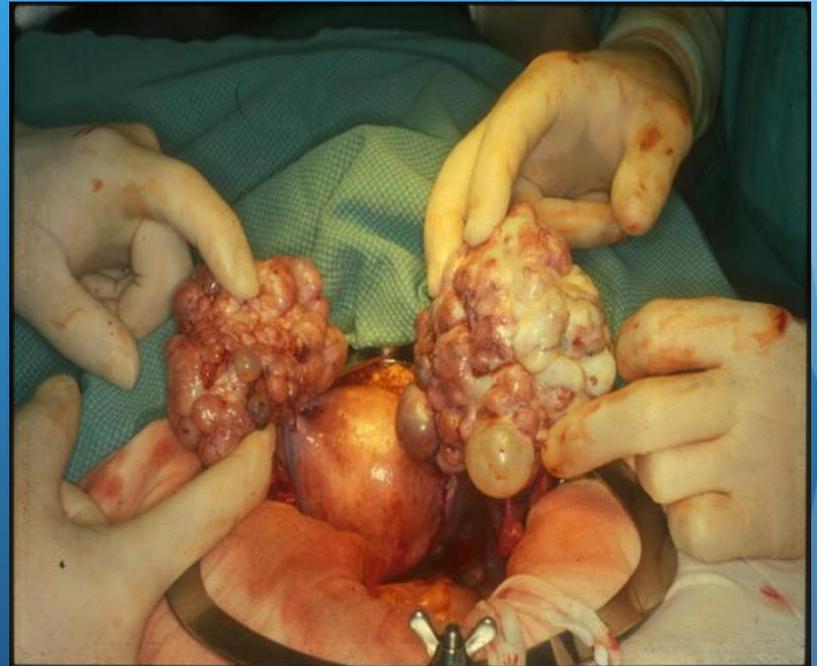
Clinical Director

Gynaecological Oncology

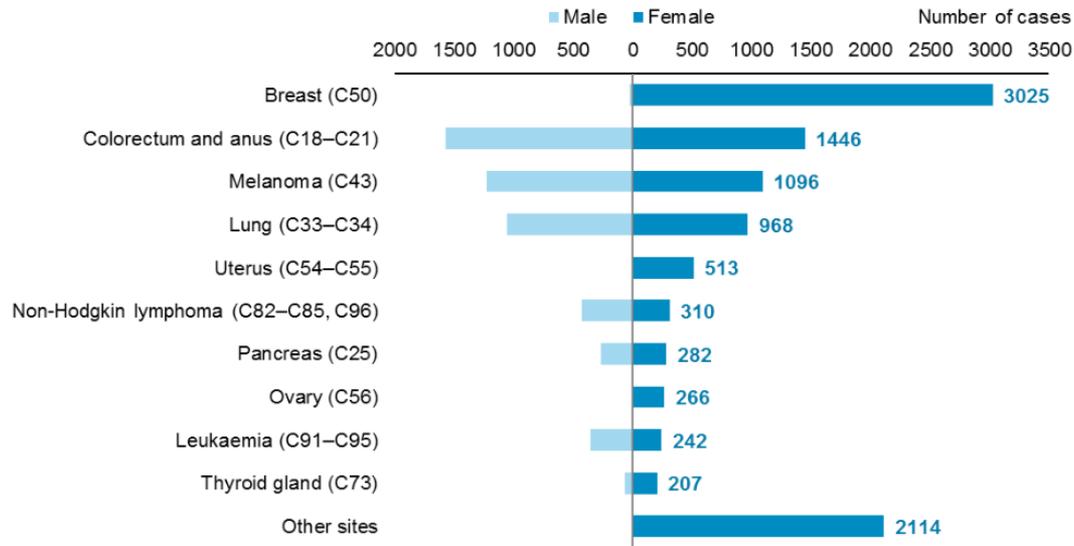
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# All pelvic cancers can affect bowel

- Ovary
- Endometrium
- Vulva
- Vagina
- Cervix
  
- HSIL (vulval premalignancy)

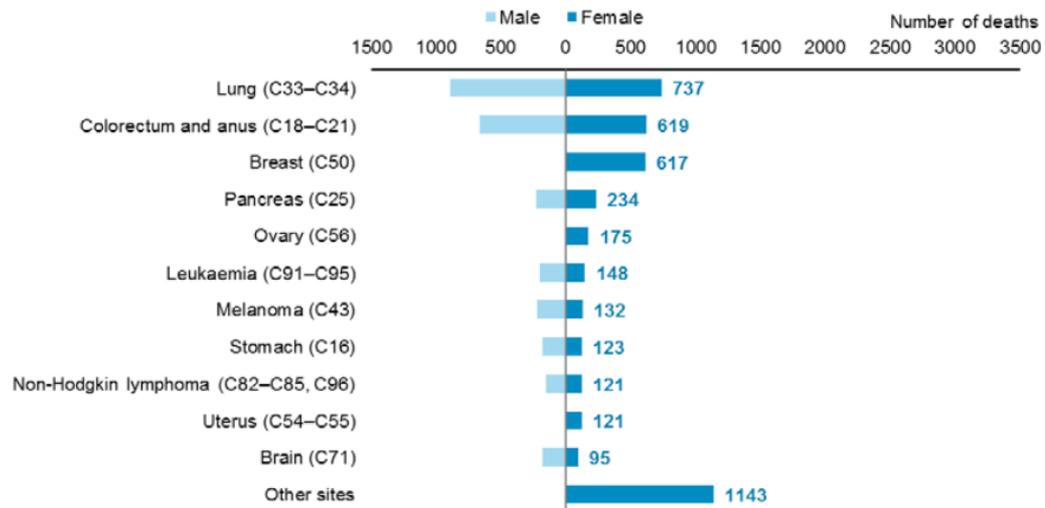


**Figure 6: The 10 most common cancers in females, 2012**



Source: New Zealand Cancer Registry

**Figure 26: The 10 most common cancer deaths in females, 2012**



Source: New Zealand Mortality Collection

# Psychological Effects

- Younger patients
- Loss of fertility
  
- Sexuality
- Body image
- Femininity
- Relationship effect

# Lesser of 2 evils.....

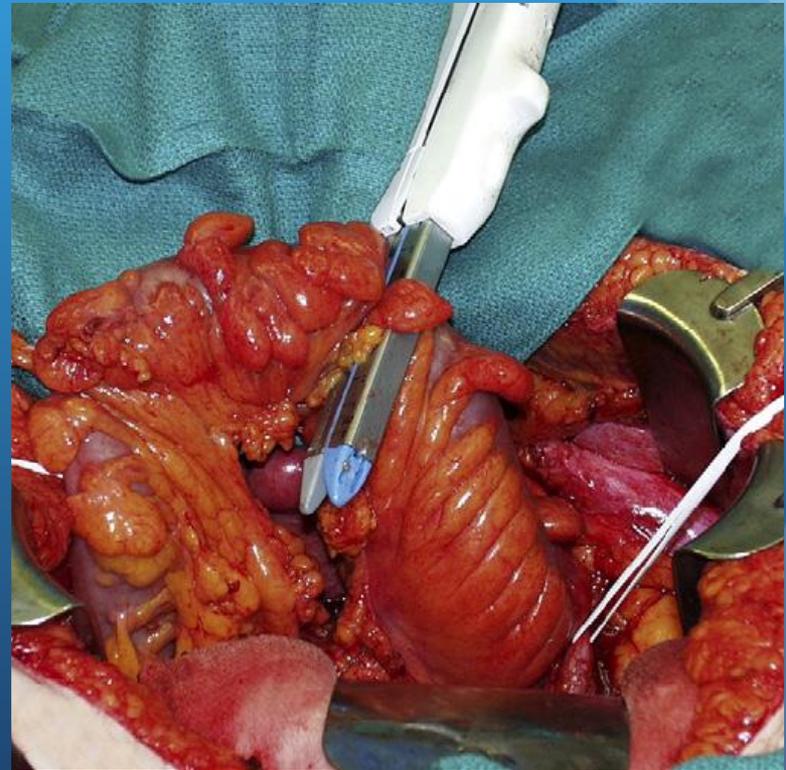
Disease

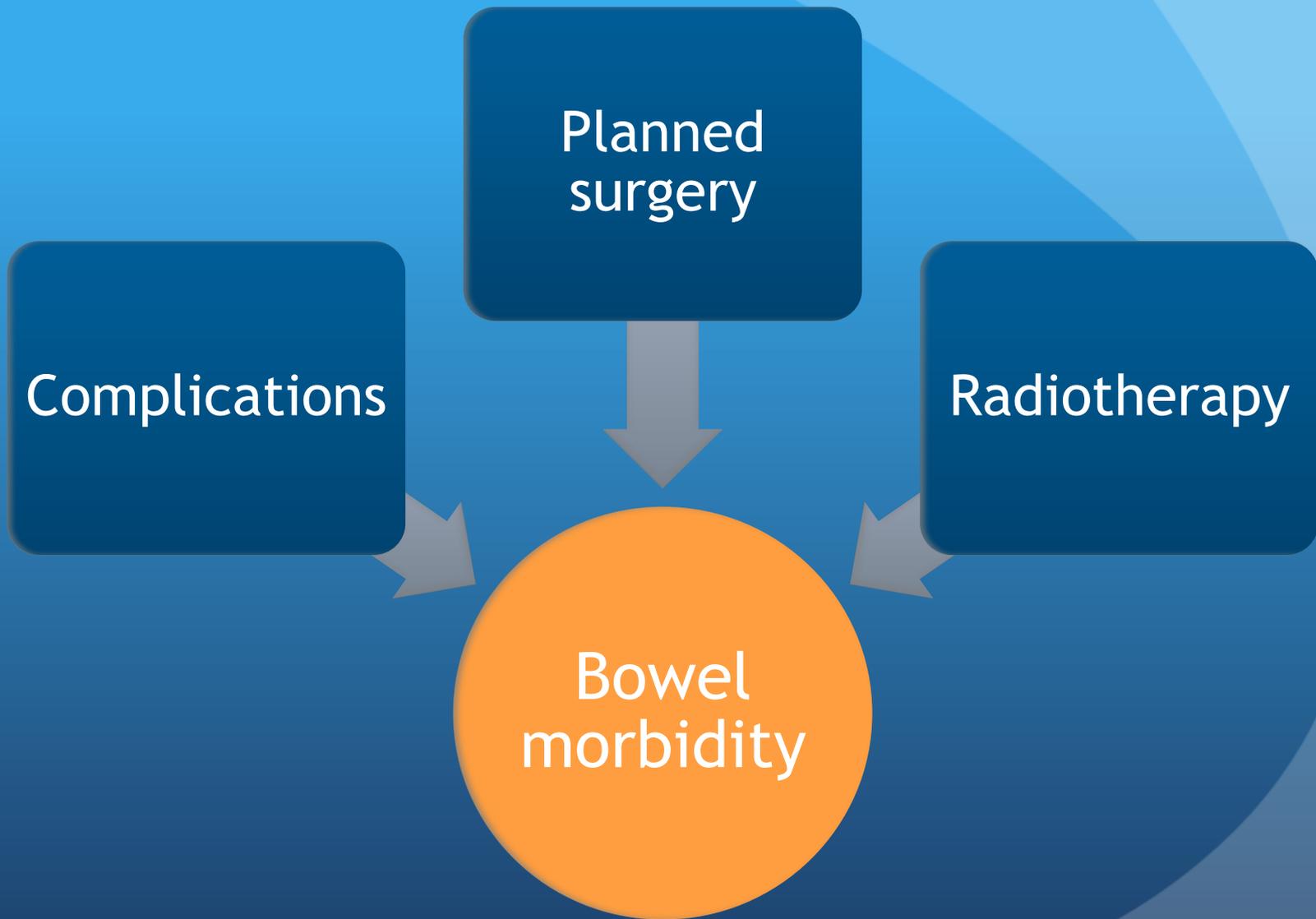
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Treatment

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# Effect on the bowel

- Disease
  - Obstruction
  - Fistula
  - Ascites
- Treatment
  - Surgery
  - Radiotherapy

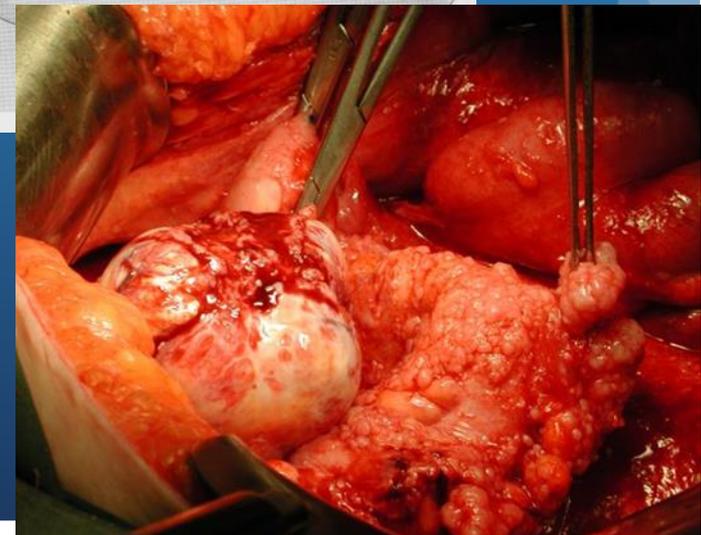
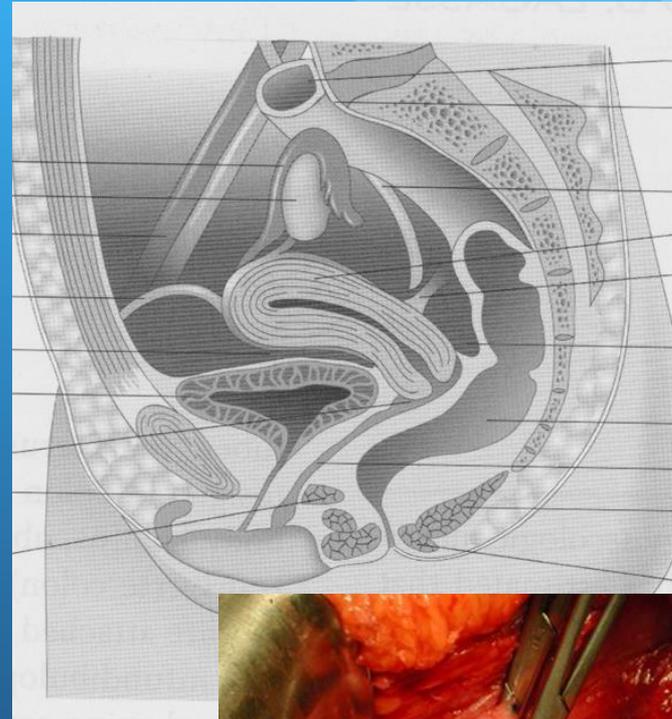
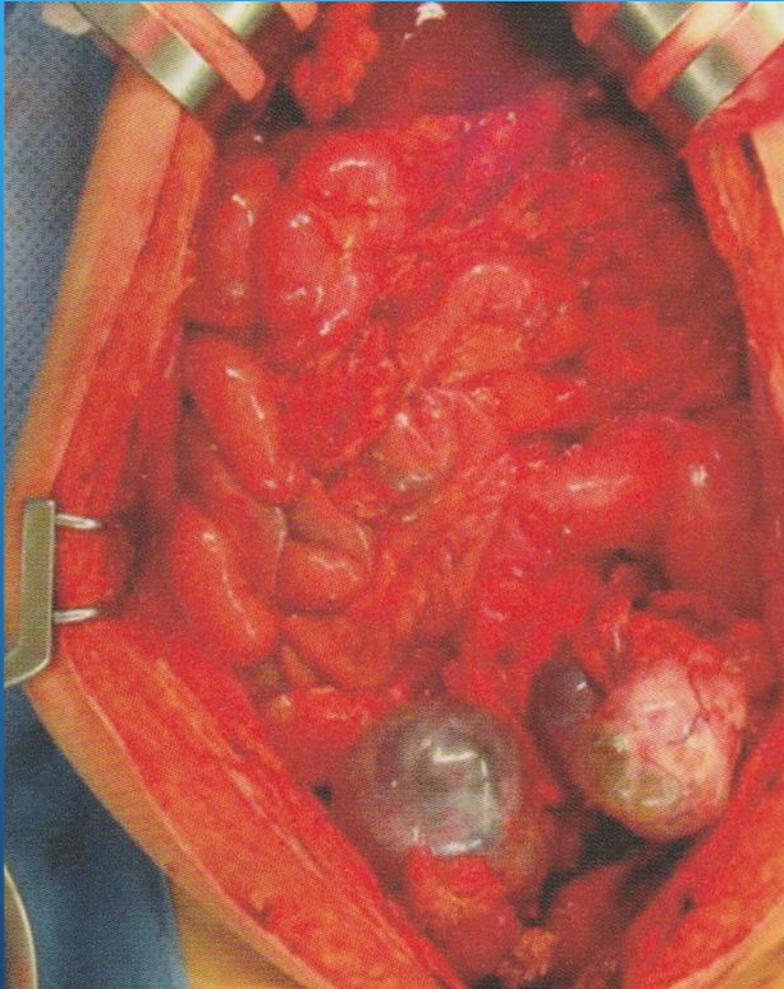


# Treatment effect

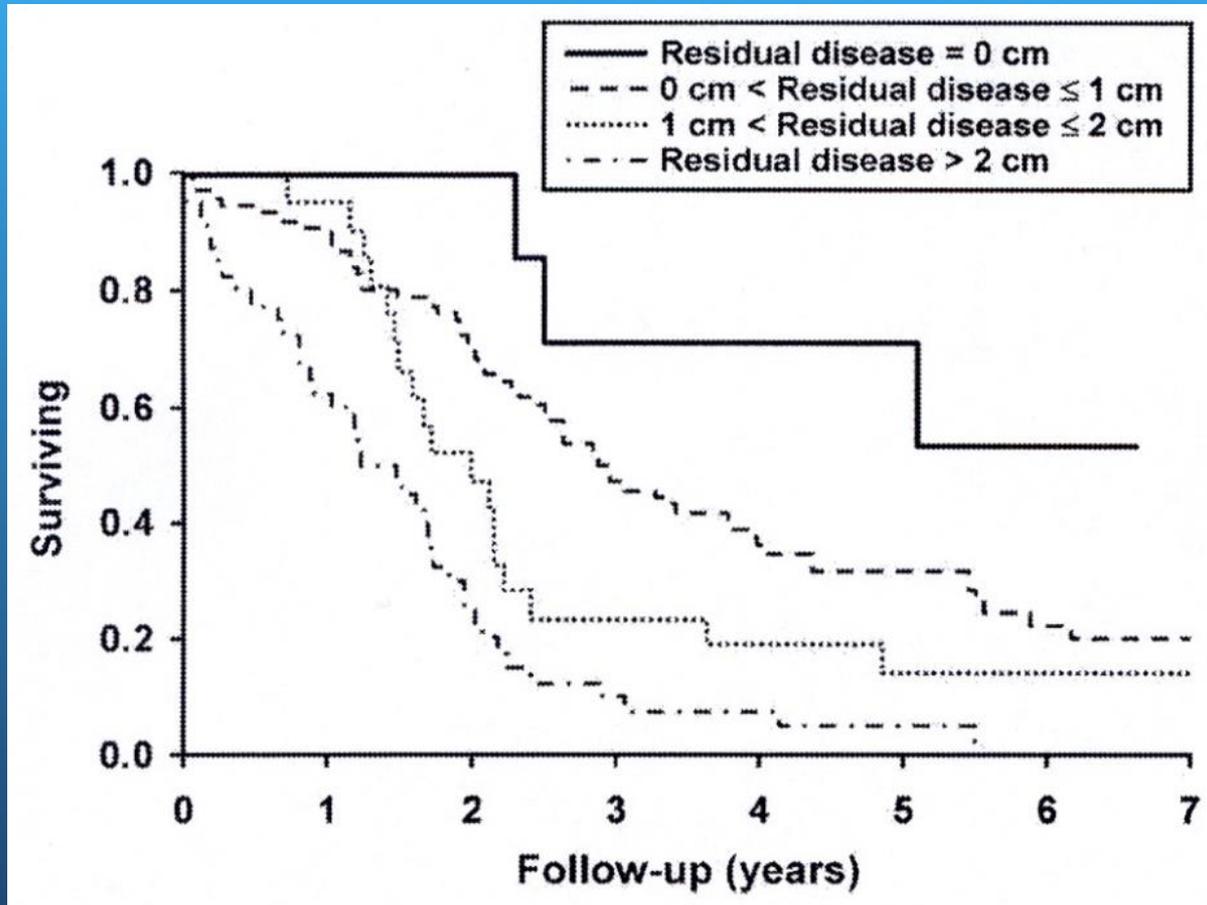
- Post op SE: ileus, obstruction, bowel injury
- Stoma and complications
- Chemo/Radiation
- Obstruction
- Fistula
- Proctitis



# So why radical surgery?

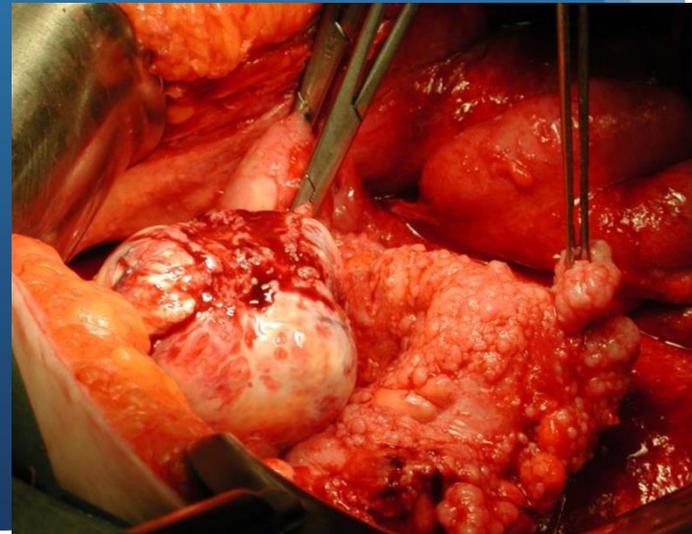


# Effect of surgery on survival

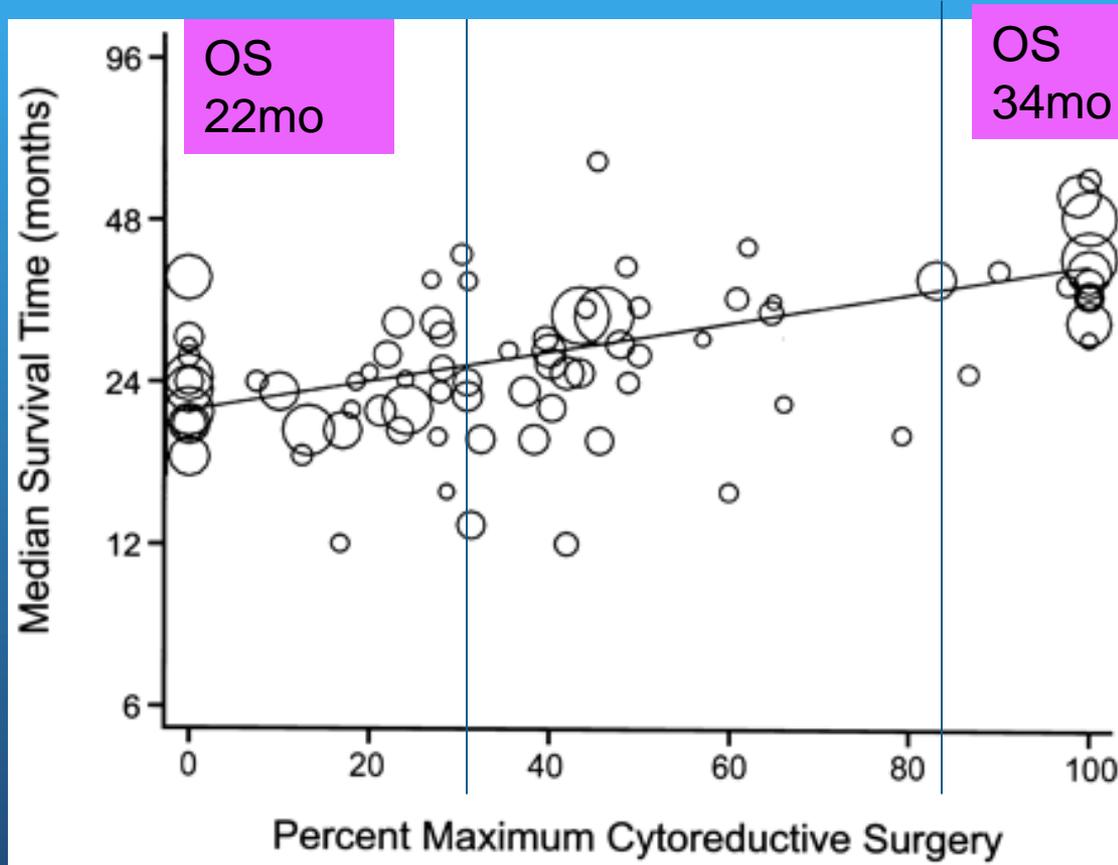


# Ovarian Cancer

- Surgical Aim is to reduce to no visible disease
- Stage at presentation
- Role of primary debulking vs NACT + IDS
- Differences in bowel resection rates
- Upper GI and colorectal surgery



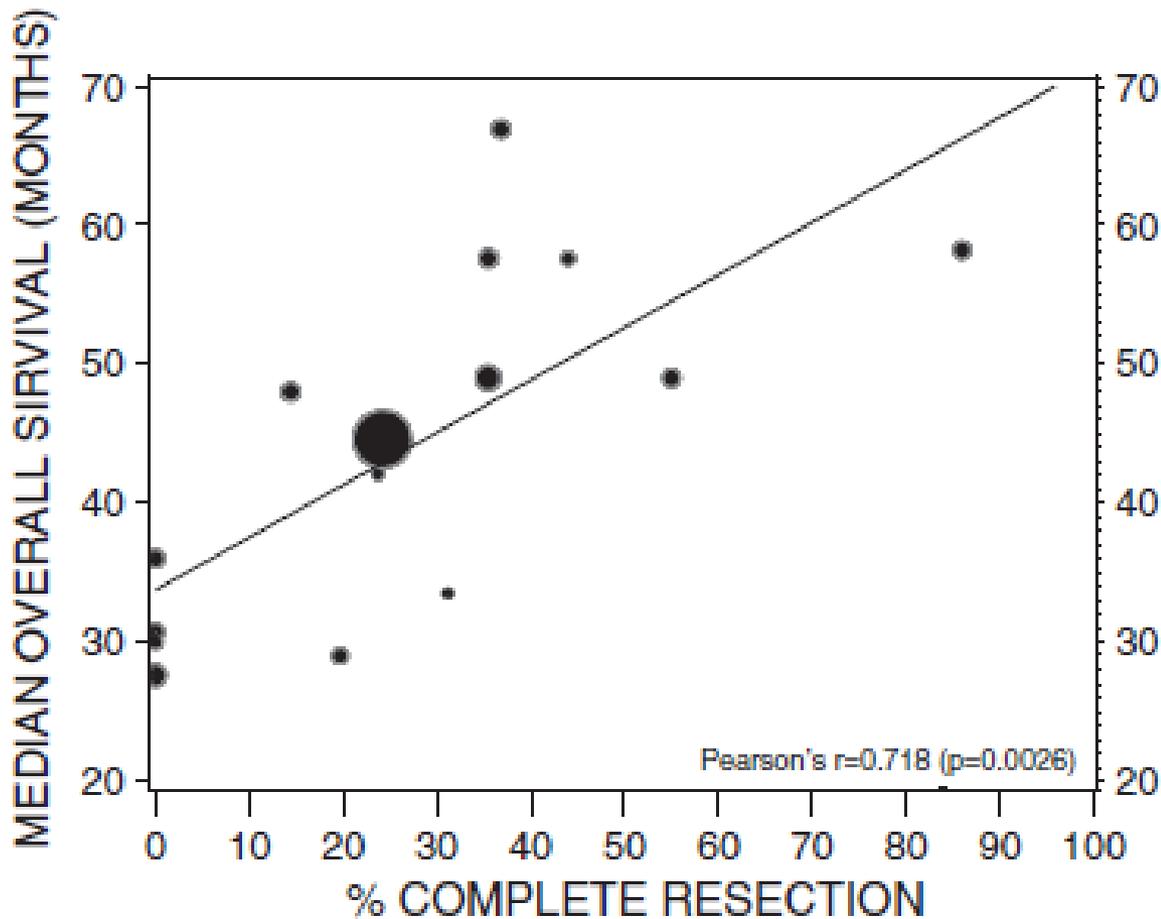
# Maximal cytoreduction: Survival impact



**Each 10% increase  
in maximal  
cytoreduction**

**is associated with  
a 5.5% increase in  
median survival**

*Bristow R.E, JCO, 2002  
Meta analysis of 81 cohorts, 6885 patients*



**Each 10% increase in complete cytoreduction**

**is associated with 2.3 month increase in median survival**

*Chang, Bristow, Gynecol Oncol, 2013  
Meta analysis of 18 studies, 13257 patients*

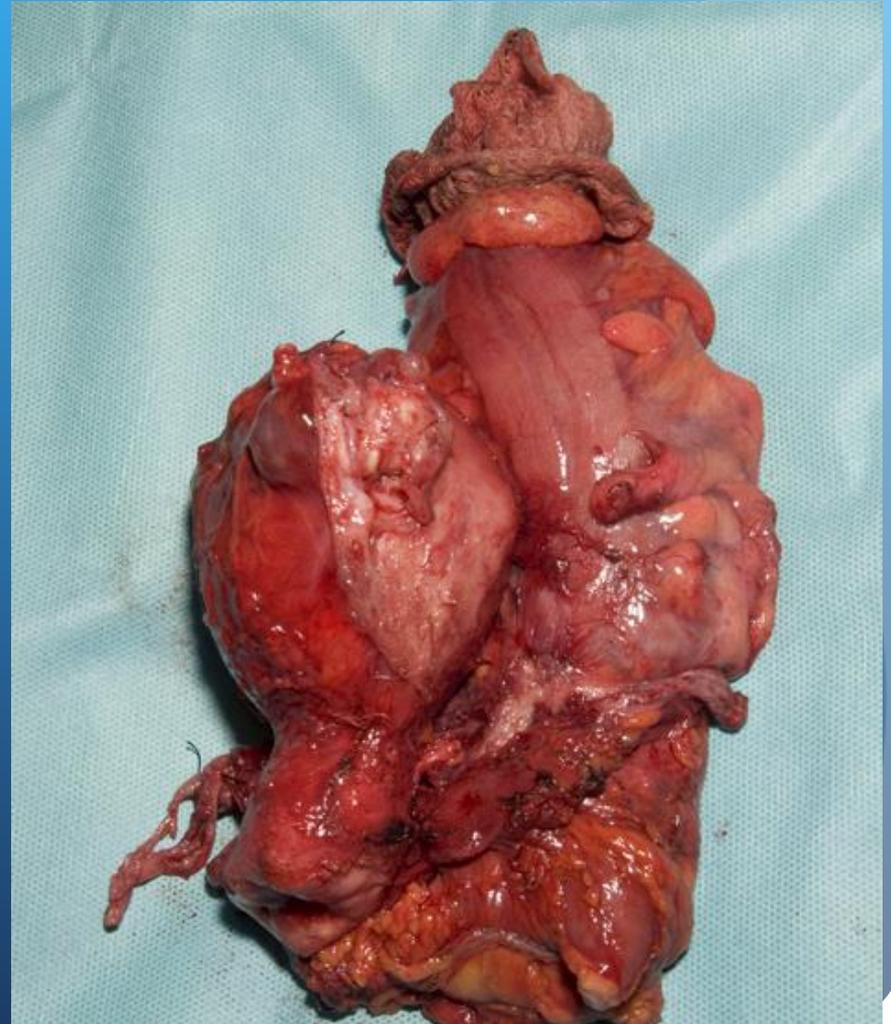
# Cytoreduction in ovarian cancer

	1996-99	2001-4
	N=168	N=209
Optimal cytoreduction	50%	80%
Median OS (months)	43	58
		P=0.004

*MSK data Chi et al ASCO 2007*

# Epithelial Ovarian Cancer

- Common site of disease is anterior surface of rectum and POD



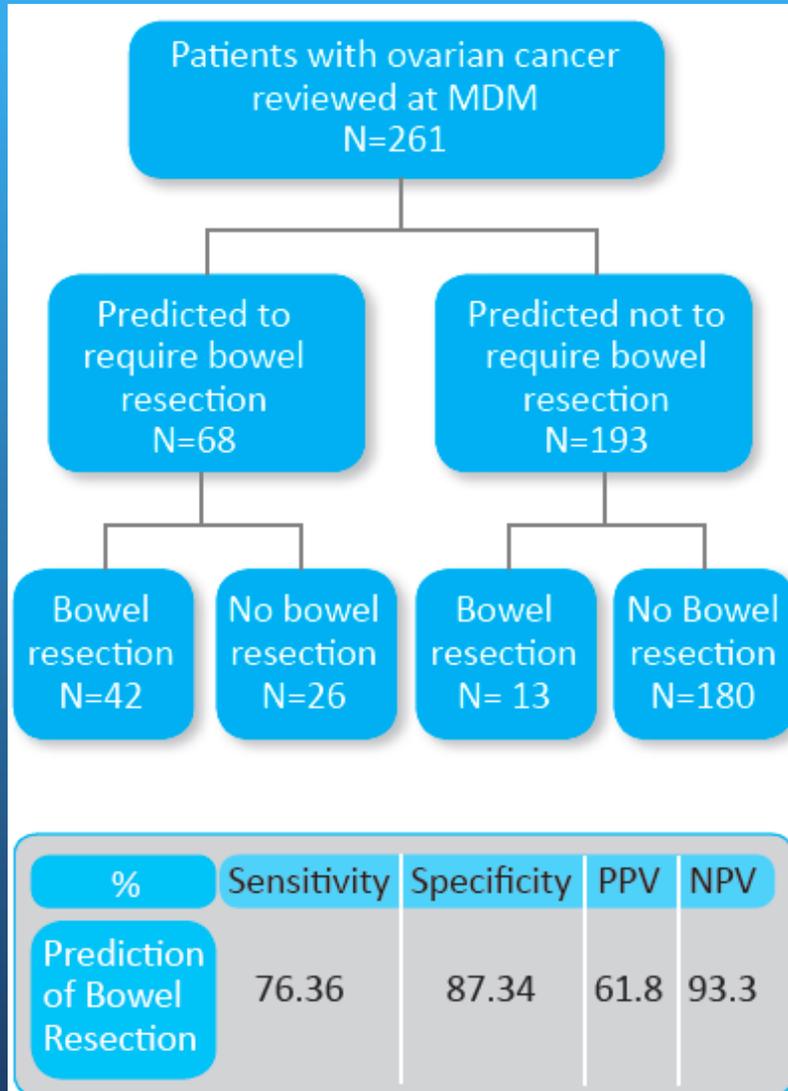
# Bowel surgery in Cytoreduction

- Extraperitoneal enbloc TAHBSO with rectosigmoid resection  
(supralevator posterior exenteration)
- Small bowel resection
- Upper abdominal resections

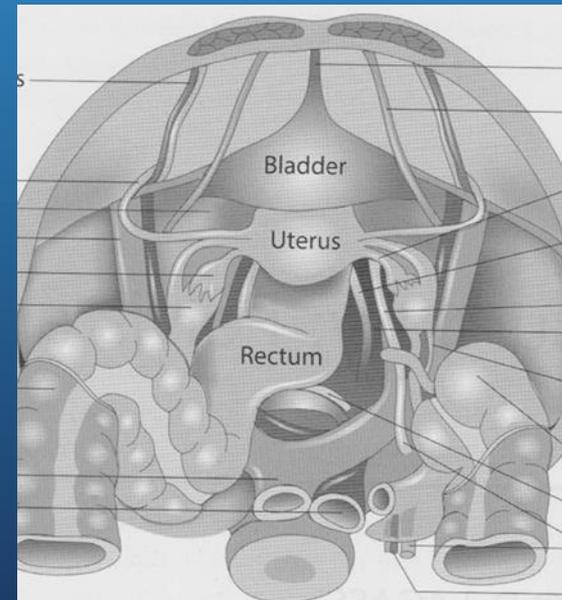
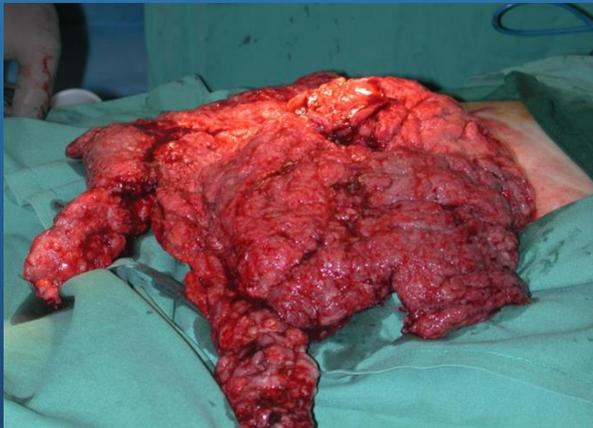
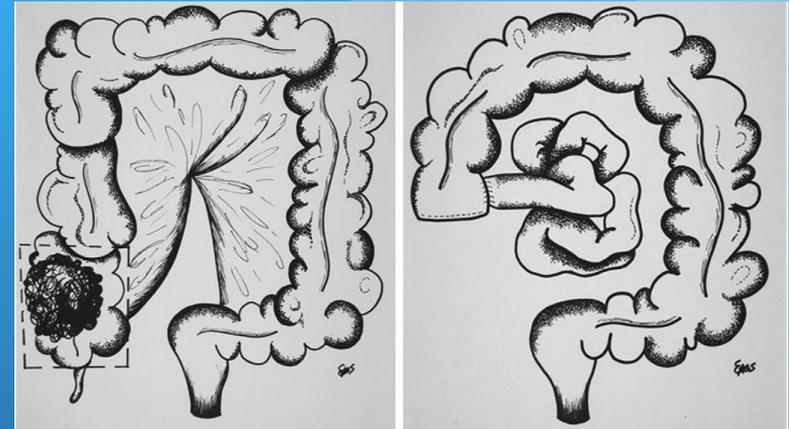
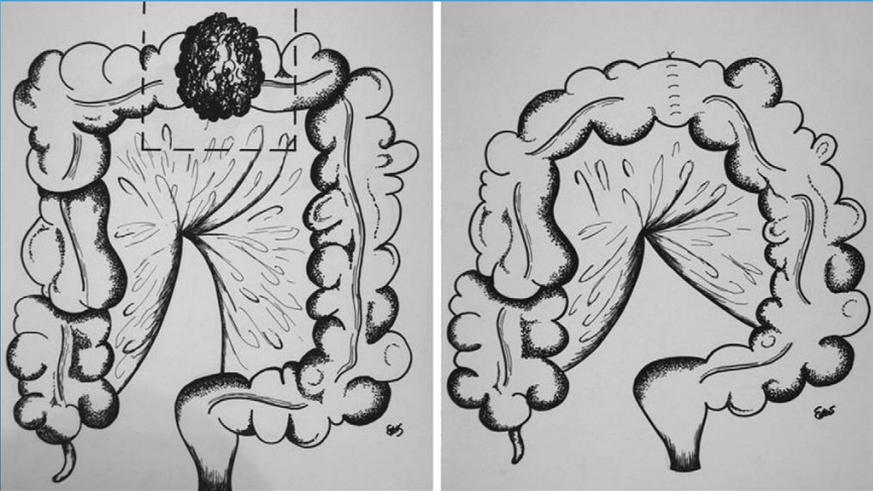
# Ovarian cancer debulking surgery and bowel resection at ADHB 2017

	<b>N</b>	<b>Total 128</b>	<b>Primary surgery N 69</b>		<b>Interval surgery N 47</b>	
<b>Residual disease</b>						
	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>
None	91	71.1	58	84.1	24	51.1
<1cm	17	13.3	5	7.2	11	23.4
≥1cm	20	15.6	6	8.7	12	25.5
<b>Bowel surgery</b>						
Yes	25	19.5	10	14.5	11	23.4
No	103	80.5	59	85.5	36	76.6

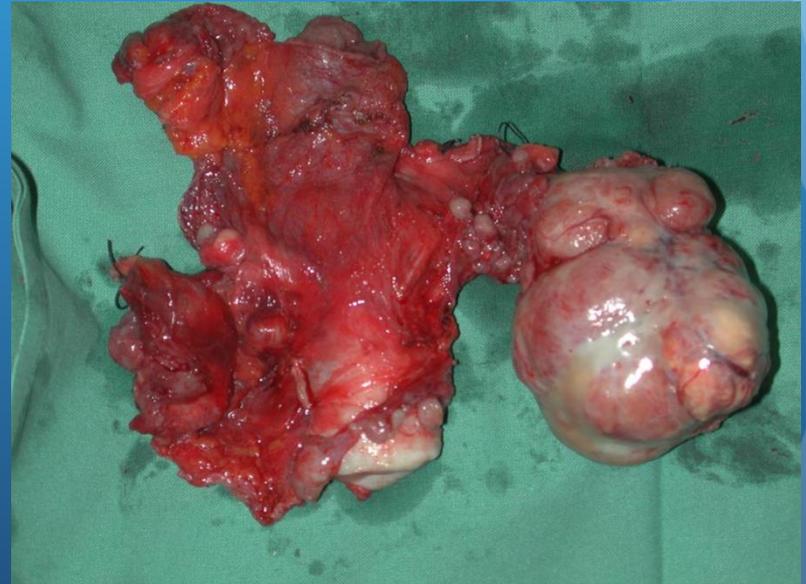
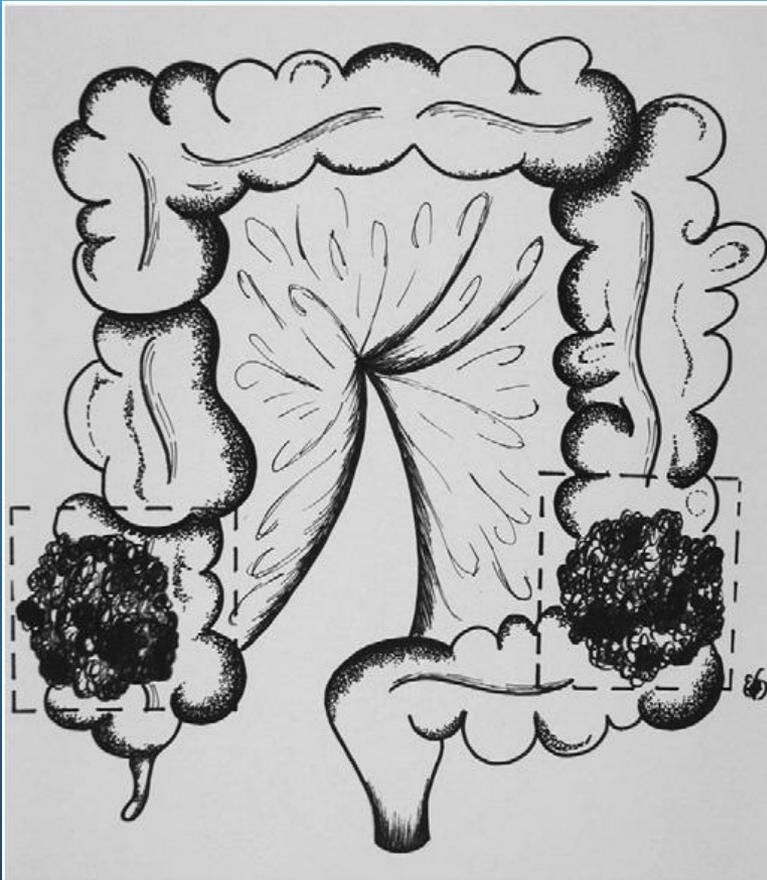
# Prediction by imaging of Bowel resections at ADHB



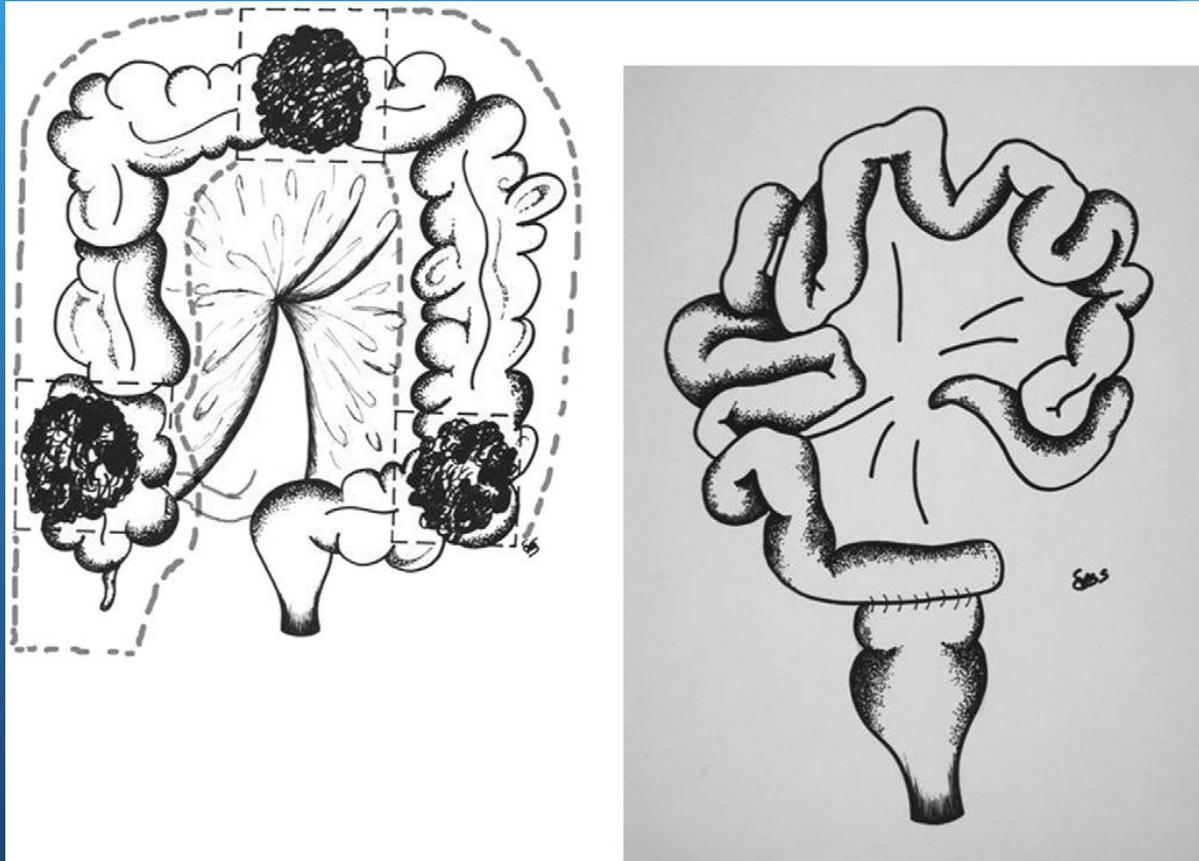
# Morbidity relates to site



# Role of multiple site bowel resections with covering ileostomy



# 3 resection limit?



# A prospective algorithm to reduce anastomotic leaks after rectosigmoid resection for gynecologic malignancies☆

E. Kalogera<sup>1</sup>, C.C. Nitschmann<sup>1</sup>, S.C. Dowdy, W.A. Cliby, C.L. Langstraat\*

**Table 3**

Reasons for diversion among diverted patients.

	Total N of diverted patients (N = 27 <sup>b</sup> )
Rectosigmoid resection plus additional large bowel resection	9 (33.3)
Anastomosis at ≤6 cm from anal verge <sup>a</sup>	5 (26.3)
Surgeon's intraoperative assessment of anastomosis	6 (22.2)
Leak identified during proctoscopy intraoperatively	5 (18.6)
Preoperative albumin ≤3.0 g/dL <sup>a</sup>	2 (7.7)
Prior pelvic radiation	2 (7.4)
Gross contamination of the pelvis	2 (7.4)

<sup>a</sup> Data missing: for preoperative albumin (n = 1); for distance from anal verge (n = 8).

<sup>b</sup> Multiple indications were present in some patients.

# Miliary disease



- Extensive serosal disease is a contraindication to bowel resections

# Recurrent ovarian cancer

- Surgery for malignant bowel obstruction in patients with advanced ovarian cancer must be justified on the basis of achieving a significant benefit
- High mortality and morbidity
- Limited long term benefit
- SB obstruction more common

# Outcome of surgical management in recurrent disease

- 90 patients 1992- 2008
- 22% large bowel
- 42% small bowel
- 29% both
- Operative mortality 18%
- Operative morbidity 27%
- Successful palliation 66%
- Median OS 90 days

40 resection and anastomosis

5 bypass +/- stoma

56 stoma

*Kolomainen et al Gyn Onc 2011*

# The problem with stomas...

- Need for reversal
- Complications may delay adjuvant chemotherapy
- Potential effect of ileostomy on adjuvant treatment
  
- Anastomotic leak rates

Gynae Oncology RSR	Colorectal RSR
0.8 - 6.8%	2.8 - 23%

*Matthiessen et al Color Dis. 2004; 6;462–469*

*McArdle et al Br J Surg 2005; 92 1150–1154*

*Fotopoulou et al Arch Gyn Obstet 2016; 294;607–614*

# Vulval Cancer

- Stage
- Position of tumour
- Role of anovulvectomy
- NACT + radiotherapy

# Prevention of recurrence

- Local - Adequate resection
- Ability to get margins depends on position of tumour
- Appropriate lymphadenectomy
- Adjuvant therapy

- Adequate treatment
- Preservation of anatomy
- Function
- Cosmesis



# Morbidity of treatment: Surgical

- Bleeding
- Visceral injury
- Infection
- Wound breakdown
- Prolonged healing
- Lymphocyst
- Lymphoedema
- Nerve palsy
- Loss of clitoris
- Sexual dysfunction
- Colostomy
- Urostomy
- Psychological
- Altered body image
- Relationship difficulty

- Highly morbid procedures
- Permanent loss of bowel function



# Preoperative chemoradiation

- Cochrane review

68-90% avoided exenteration

18 - 71% complication rate

Up to 6.5% treatment related death

Locoregional relapses in 6-50%

Death of disease/treatment 27-85%

*Van Doorn et al 2006*

# Preoperative chemoradiation

- May preserve function
- May make some inoperable tumours, operable
- Complications of chemoRT may outweigh complications of exenterative surgery
- Should not be used if surgery alone is adequate treatment

# Morbidity of treatment: Radiation

- Skin reactions
- Desquamation
- Pain
- Lymphoedema
- Cystitis
- Proctitis
- Vaginal stenosis
- Sexual dysfunction
- Fibrosis/scarring
- Psychological
- Nausea
- Alopecia
- Neutropenia
- Infections
- Lethargy

# Endometrial and Cervical Cancer: reasons for stoma formation

- Central Recurrence
- Radiotherapy SE
- Fistula
- Palliative procedure



# Conclusion: Exenterative Surgery

- Debulking in ovarian cancer
- Central Recurrence of cervical cancer
- Incomplete response to neoadjuvant treatment in vulval cancer
- Recurrent vulval cancer
- Occasional role in advanced endometrial cancer

# Conclusion

- Bowel resection is unavoidable in some pelvic cancers
- Treatment should be individualised
- Leak rate is lower than for colorectal tumours
- Multidisciplinary input is vital
- Stomas: additional psychological distress