GYNAE ONCOLOGY: THE OTHER SIDE OF THE DRAPES..

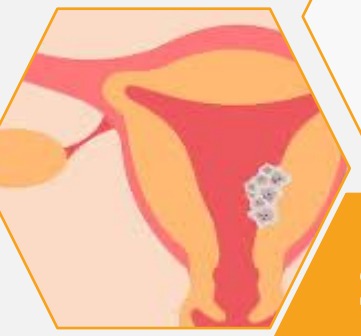
Dr Lois Eva

Clinical Director Gynaecological Oncology

National Women's at Te Toka Tumai

Auckland

GYNAE ONCOLOGY IN 30 MINS..



Surgical pathways in NZ

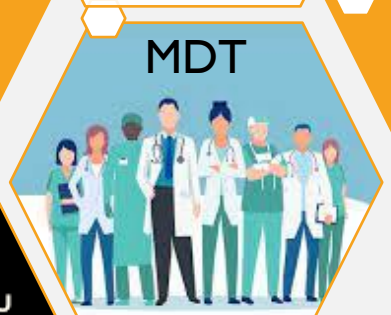
Local data

Why Gyn Onc?

TE AHO O TE KAHU CANCER CONTROL AGENCY

Changes in the last decade

MDT



What surgery do we do?

Evidence

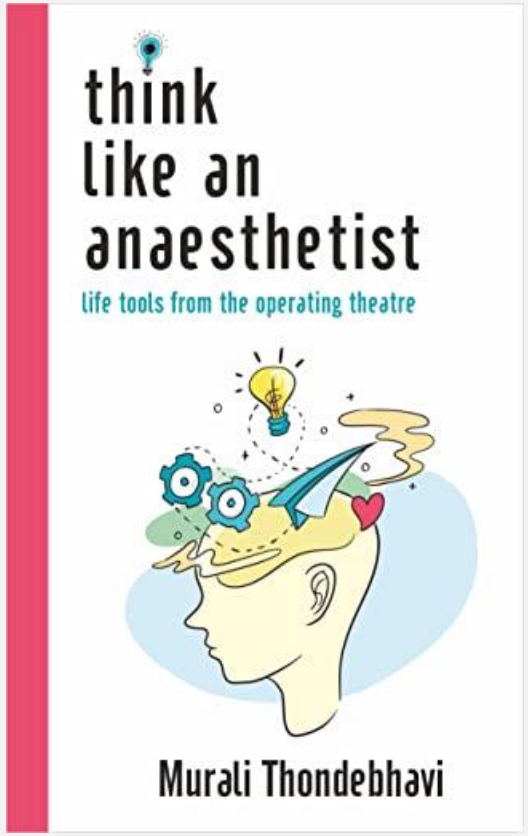
Why we are getting busier

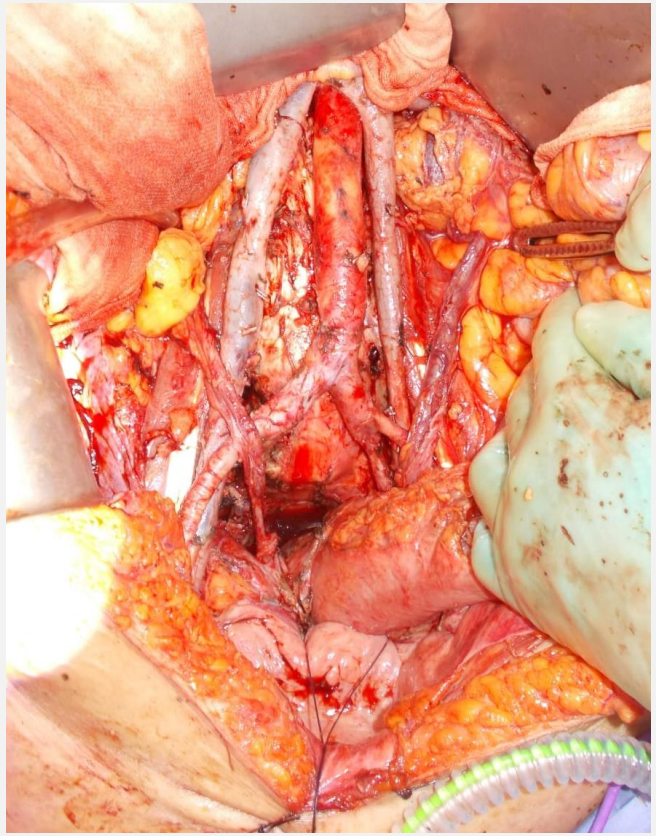
DISCLOSURE

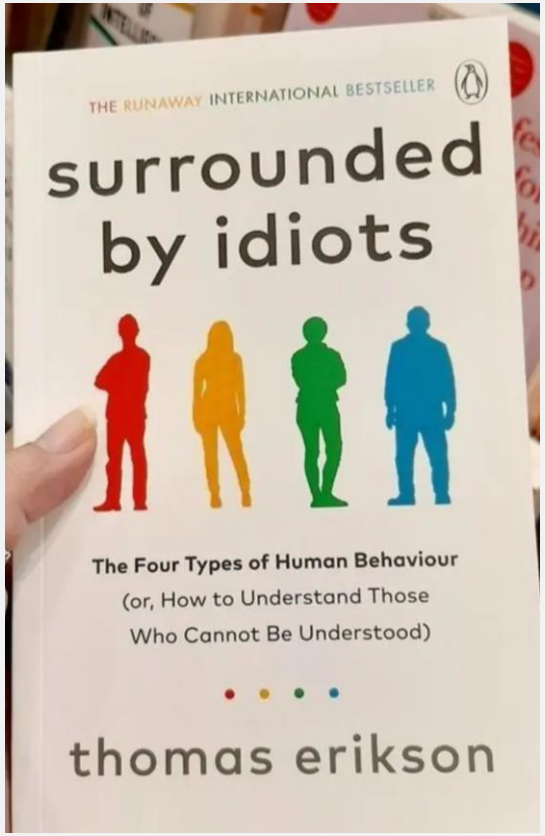
- **Any resemblance to any real anaesthetists, living or dead, is purely coincidental**

IT'S NOT ALWAYS LIKE THIS

WHAT'S GOING THROUGH YOUR MIND?







RANZCOG™
Excellence in Women's Health

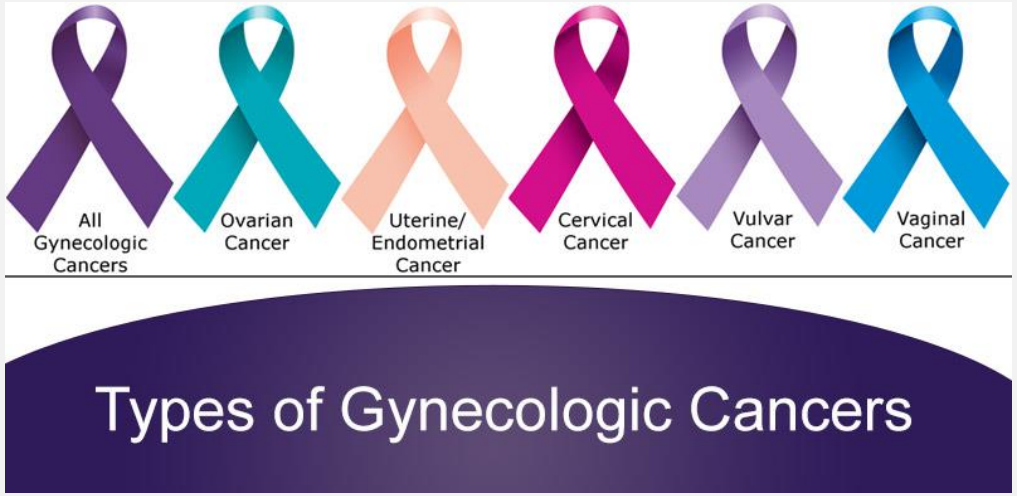
WHAT'S GOING THROUGH MY MIND?

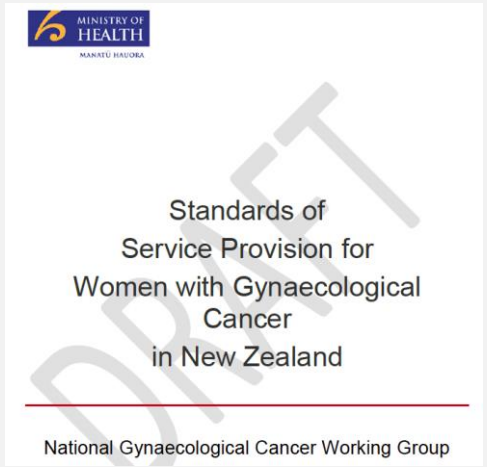
Datix®

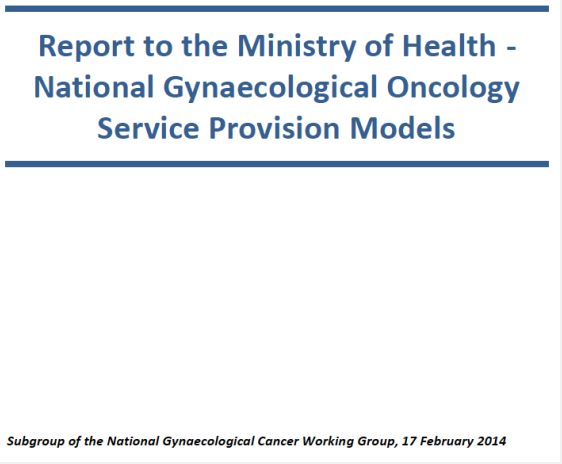
OR SOMETIMES…IN SOMEONE ELSE'S THEATRE

HOW DID WE GET HERE?

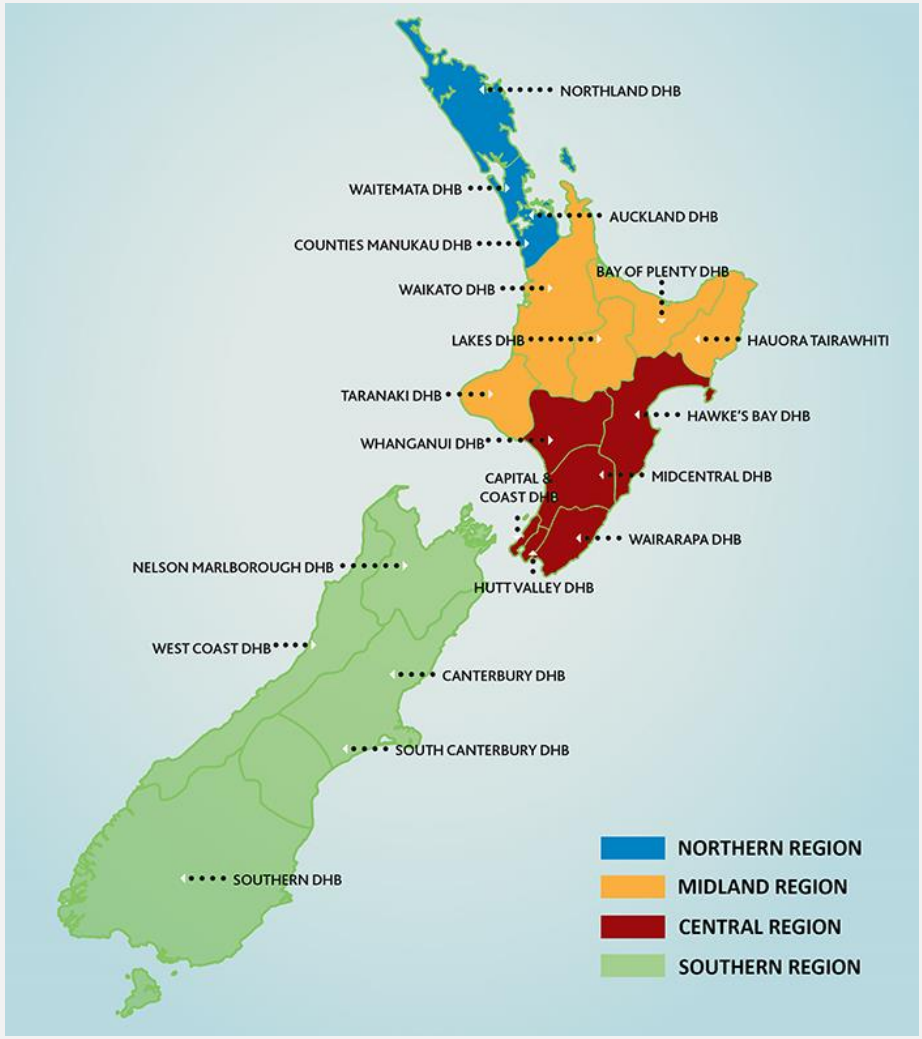
- Specialised training
- High volume centres
- Better outcomes
- Better Survival

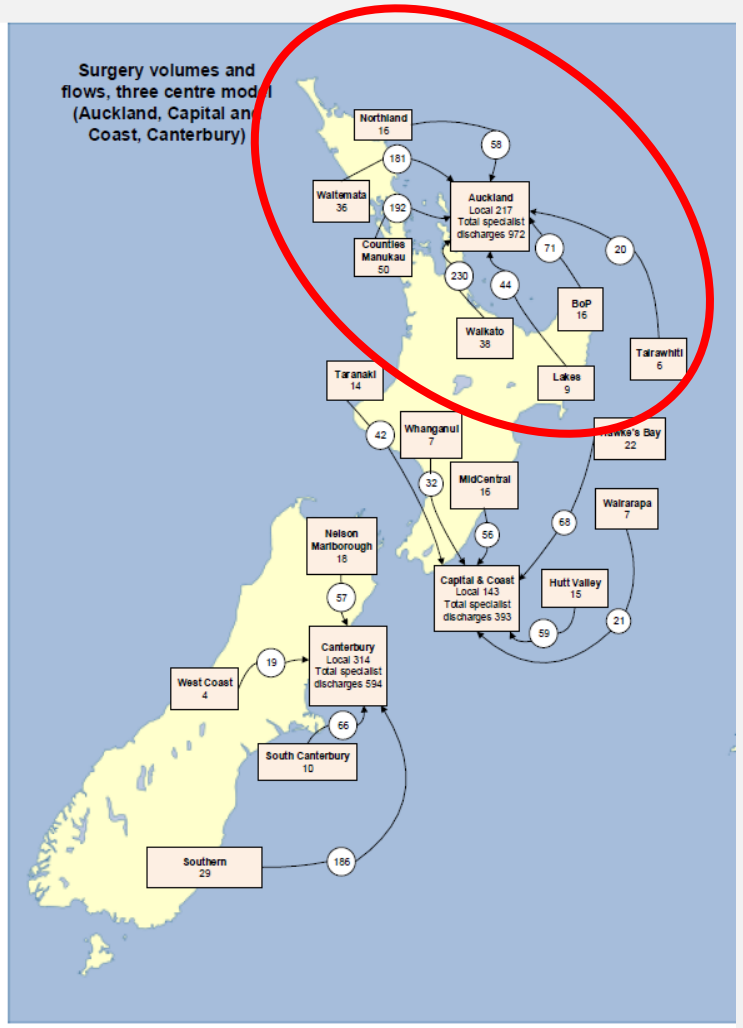






GYNAECOLOGICAL CANCER REGIONS OF AOTEAROA



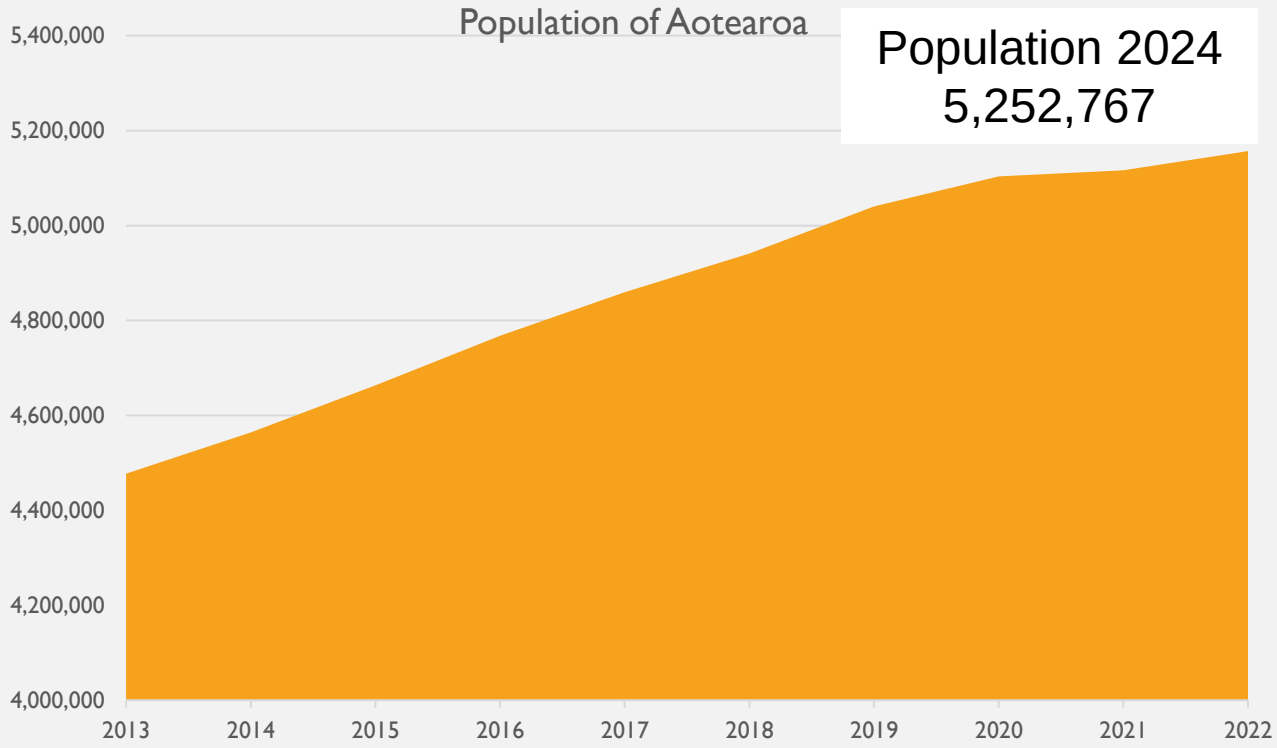


GYNAECOLOGICAL CANCER REGIONS OF AOTEAROA: 3 CENTRE MODEL 2013

Three centre model	
Northern	2,300,000
Central	980,000
Southern	1,000,000

	Four centre model	Three centre model	2024
Auckland	5	7-8	4
Waikato	2		
Wellington	3	3	1
Christchurch	3	3	2.5

Table 1 - ideal distribution of gynaecological oncologists



Population 2024
5,252,767

google.com/search?q=number+of+unicorns+in+nz&source=lmns&bih=670&biw=1440&prmd=insvmbtz&rlz=1C5CHFA_enNZ949NZ961&hl=en-US&sa=X&...

Gmail YouTube Maps

Google number of unicorns in nz

All Images News Shopping Videos More Tools

About 6,850,000 results (0.24 seconds)

The vast majority of our 560,000 businesses employ fewer than 20 people, 70 per cent of them are sole traders, and in 2019 Callaghan Innovation estimated that New Zealand had produced just nine "unicorns", those rare businesses valued at more than $1 billion. 1 Jul 2021

TEAM TE TOKA TUMAI

GYN ONC MDM

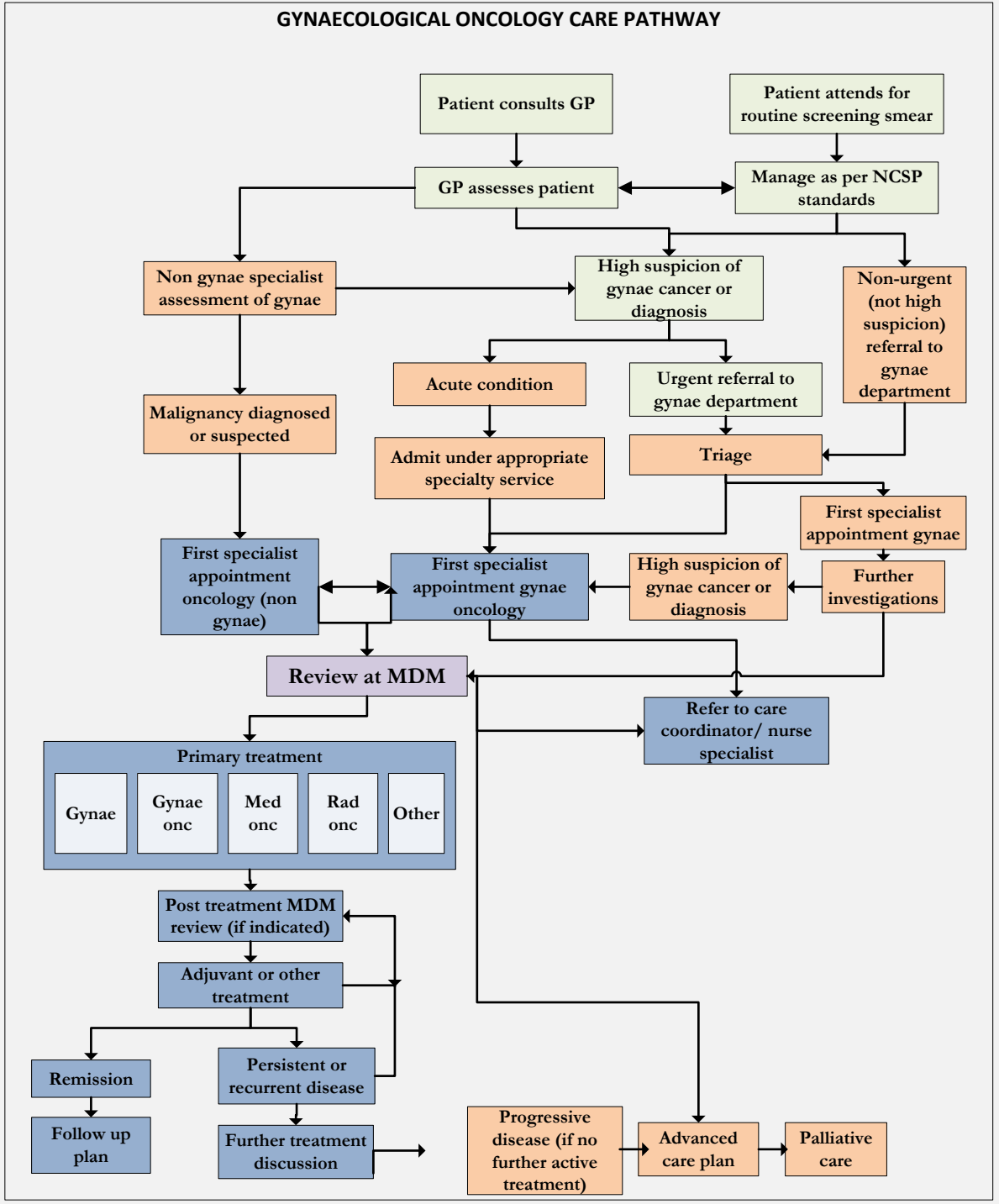
- 2 MDM Coordinators
- 3 Medical Oncologists
- 2 Radiation Oncologists
- 4 Gynae Oncologists
- 4 Gynae Pathologists
- 4 Gynae Radiologists
- 2 Gyn Onc CNS
- 1 Med Onc CNS

- 8 Unit Lead Gynaecologists
- 8 Local CNS

ROLE OF GYN ONC

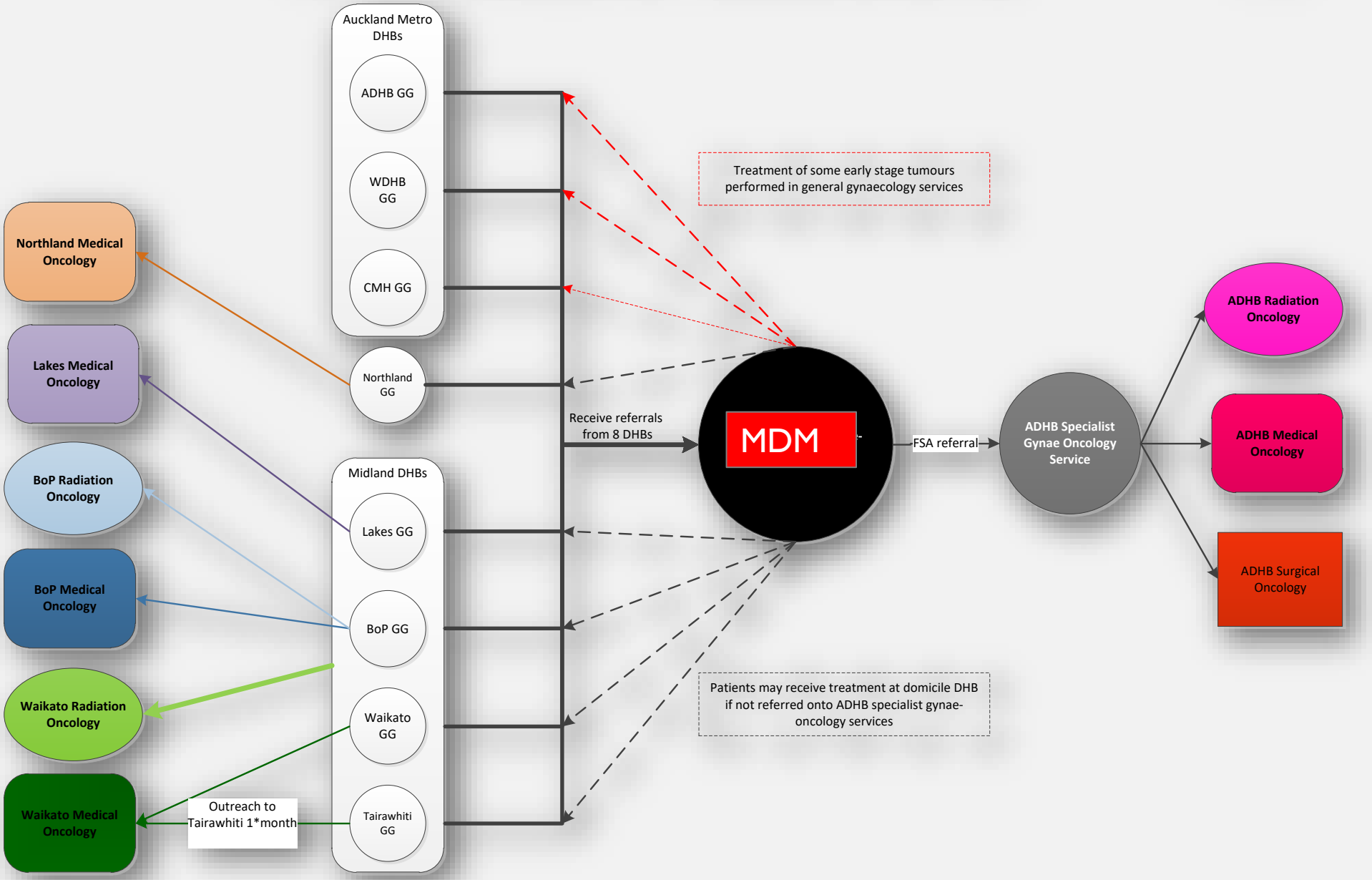
- Coordinate regional referrals
- Host MDM
- Coordinate documentation
- Surgical services
- Regional vulval clinic
- Regional tertiary colposcopy

- CGO training centre
- Academic centre



ADHB Specialist Oncology Services – relationship with other DHBs

GG = General Gynaecology



SURGICAL PATHWAY

Referral by Thursday 12pm

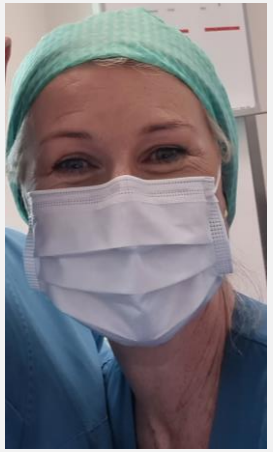
MDM Wed Live local team

Clinic Thursday

Surgeon Anaesthetist CNS

Surgery in 2-3 weeks

LEVEL 9 THEATRE



WARD 97

Managed with pain team

CNS phone call Day 7

MDM 2 weeks later

Post op phone or F2F

Local Med/Rad Onc referral

Local or central follow up

TIME TO CLINIC AND SURGERY

Table 11.10 Time from first MDM to first GO Clinic appointment (clinic in 2022)*

	2021 N=349		2022 N= 367	
	n	%	n	%
<7 days	185	53.0	174	47.4
7-14 days	44	12.6	62	16.9
>14 days	116	33.2	121	33.0
Clinic before MDM	4	1.1	10	2.7

Table 11.11 Time from first clinic visit to primary surgical treatment (surgery in 2022)*

	n	%
<14 days	171	71.0
14 - 31 days	48	19.9
>31 days	22	9.1

PREDICTING THE FUTURE: WHAT ACTUALLY HAPPENED…

Region	2012	2021
Central region	32	35
Midland region	26	30
Northern region	67	79
Southern region	34	36
Total	159	179

Table 8 - cervical cancer raw volume increases by region

Region	2012	2021
Central region	72	83
Midland region	51	61
Northern region	93	117
Southern region	81	96
Total	297	356

Table 10 - ovarian cancer raw volume increases by region

Region	2012	2021
Central region	98	115
Midland region	61	72
Northern region	143	180
Southern region	87	101
Total	389	469

Table 9 - endometrial cancer raw volume increases by region

Region	2012	2021
Central region	26	30
Midland region	20	23
Northern region	46	58
Southern region	31	35
Total	123	146

Table 11 - other cancer raw volume increases by region

	Cervix	Ovary	Endometrial	Other	Total
Projected North/Mid cancers 2021	109	178	252	81	620
New MDM referrals 2022	90	423	374 (all grade/stage)	218	1105
Total MDM referrals 2022	125	538	481	273	1417
Gyn Onc surgery 2022	50	218	124 (high grade/stage)	103	495

INCREASING AGING POPULATION

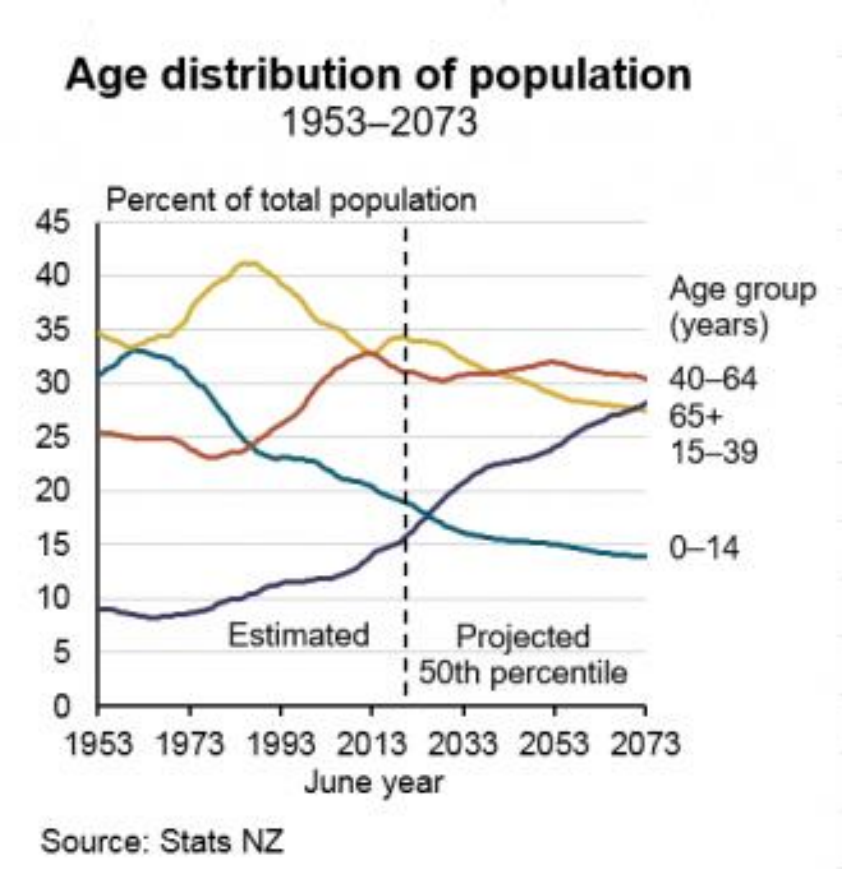
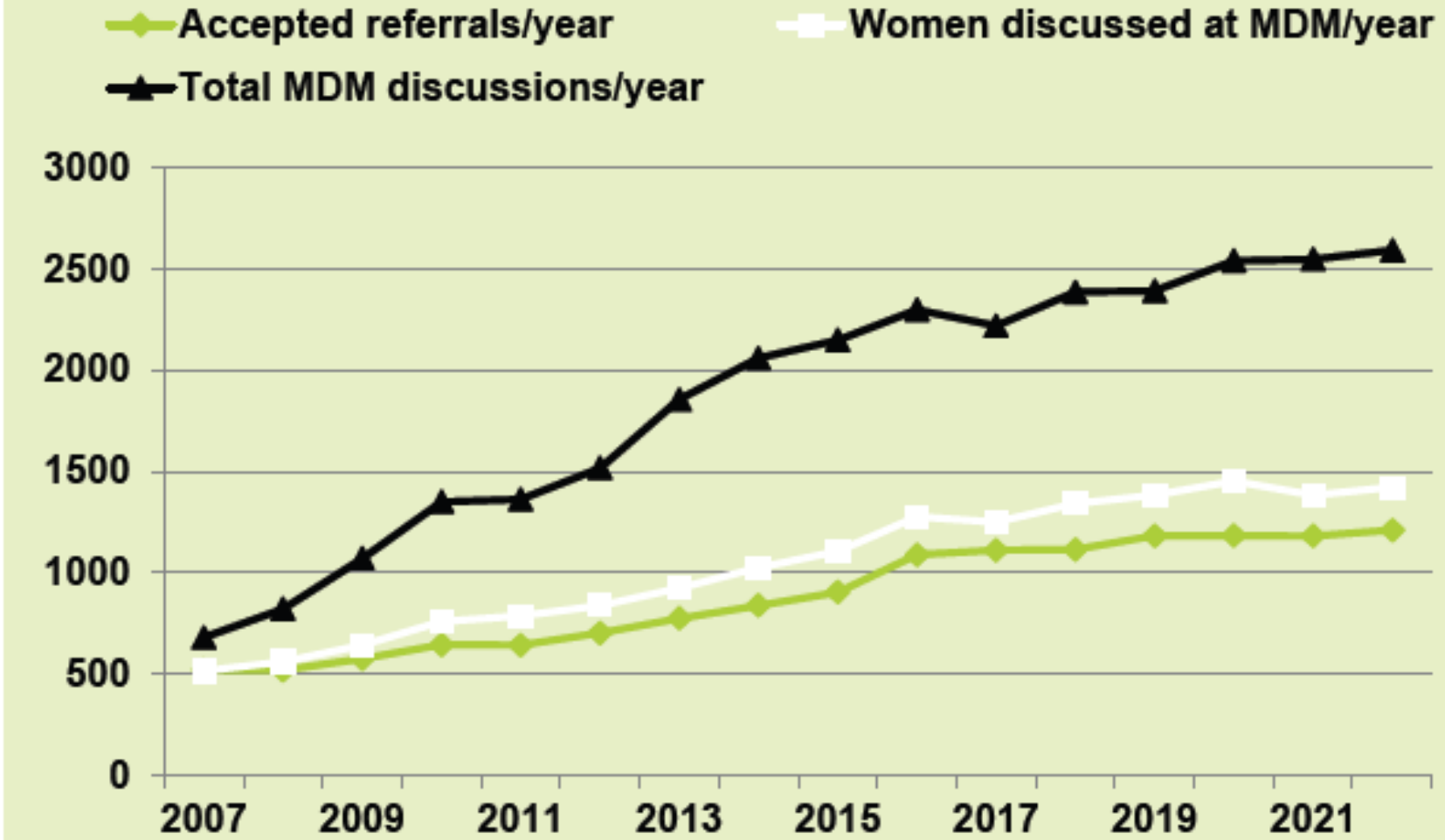


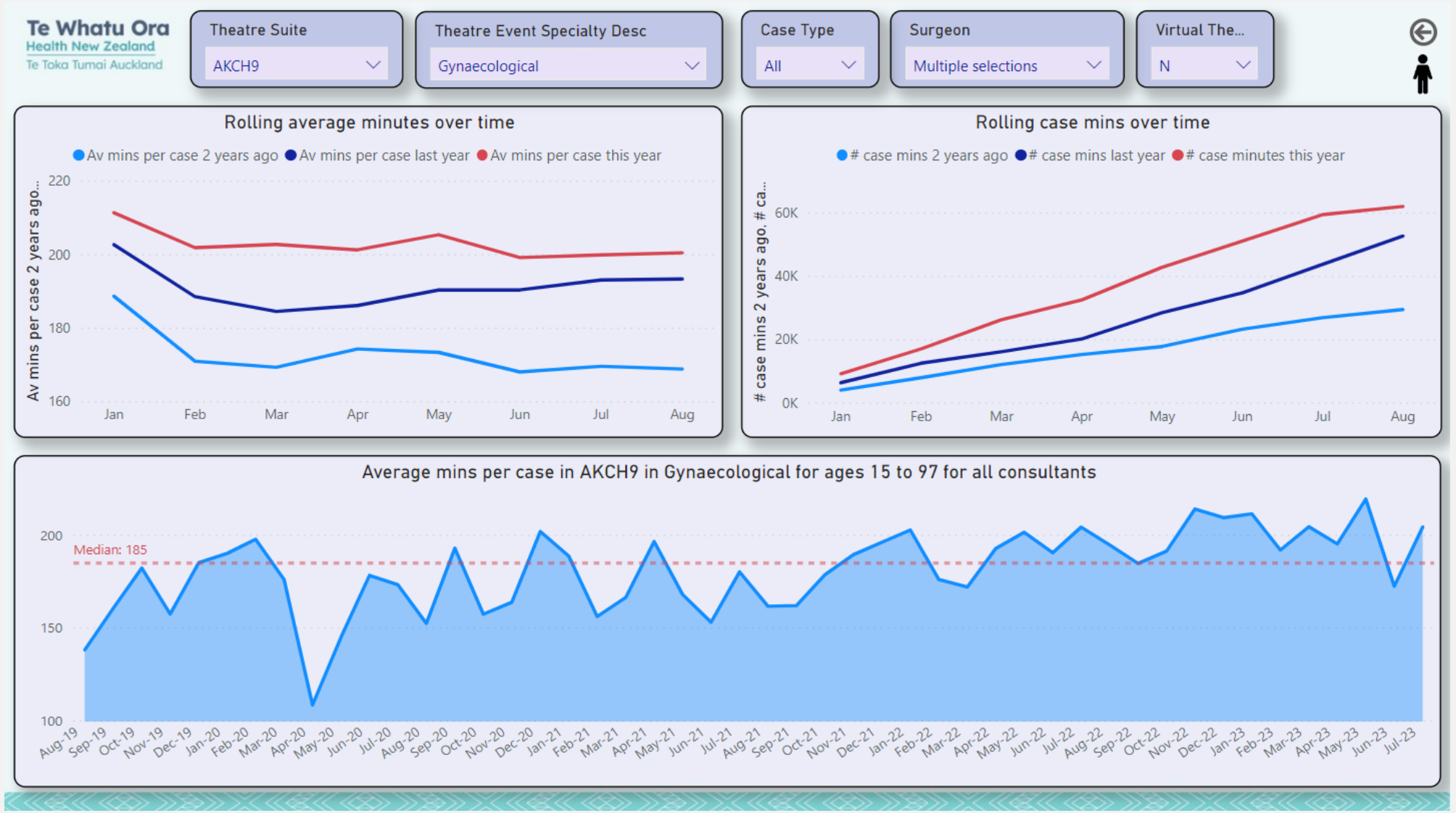
Table 11.13 Demographic characteristics

	Total		Ovarian	
	N= 1423		N= 503	
	n	%	n	%
Registered in 2022	1105	77.7	401	79.7
Age				
≤25	37	2.6	23	4.6
26-35	154	10.8	48	9.5
36-45	208	14.6	79	15.7
46-55	249	17.5	103	20.5
56-65	294	20.7	89	17.7
66-75	282	19.8	100	19.9
>75	199	14.0	61	12.1

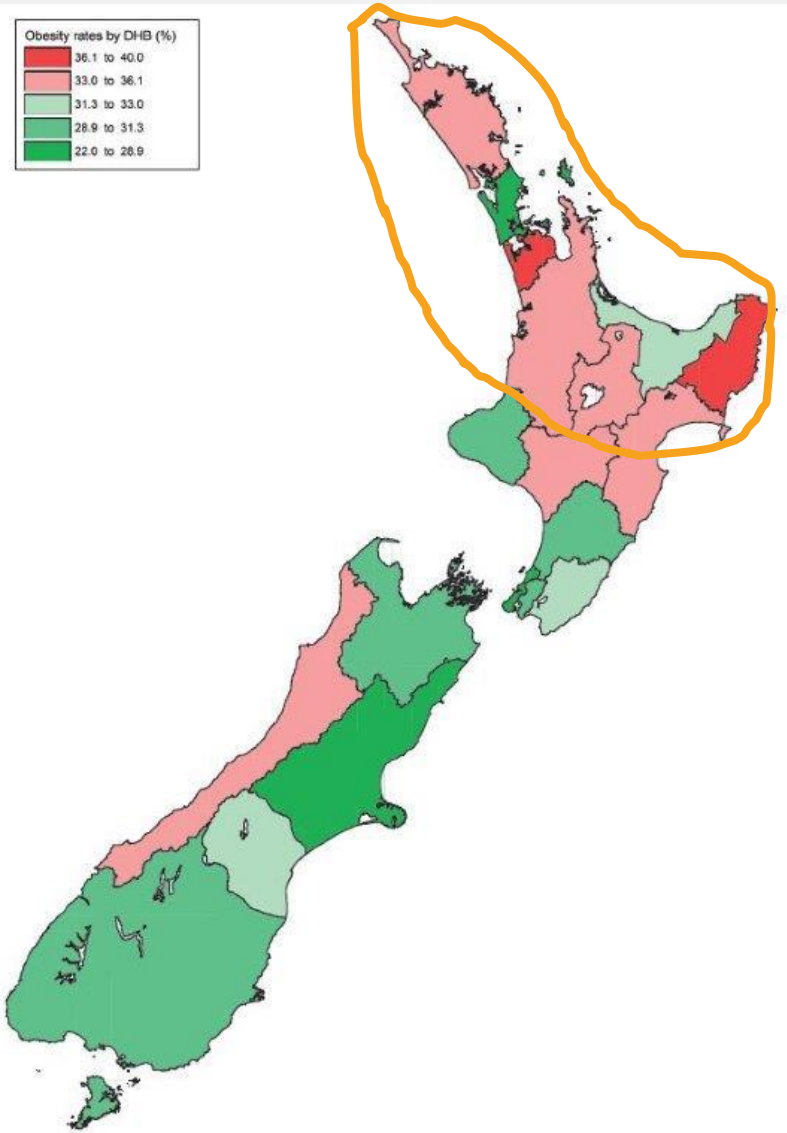
Figure 11.1 Referrals and Multidisciplinary meetings (MDMs) 2007 -2022

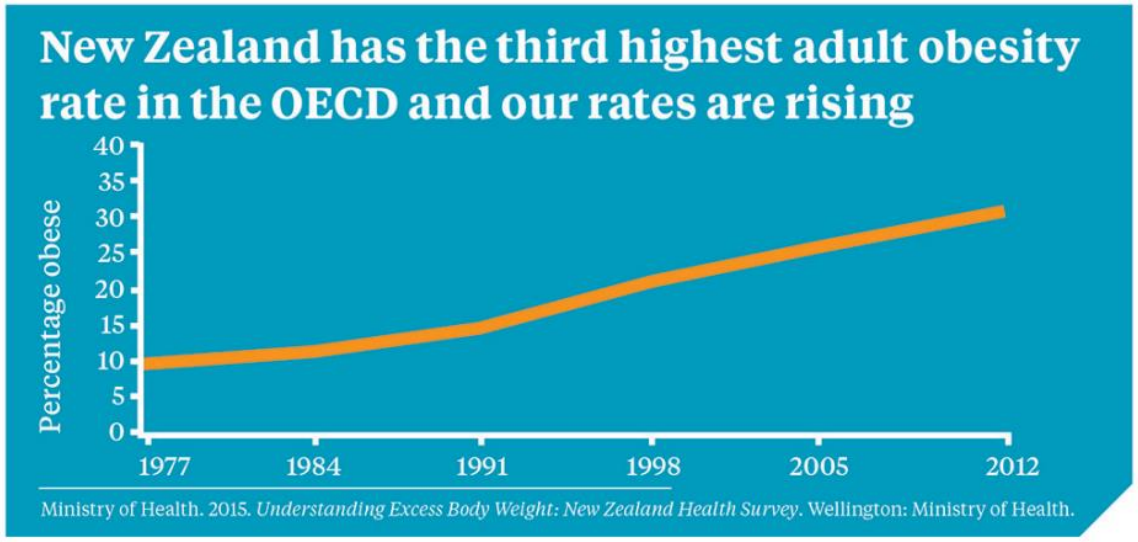


INCREASING THEATRE TIME



INCREASING COMPLEXITY





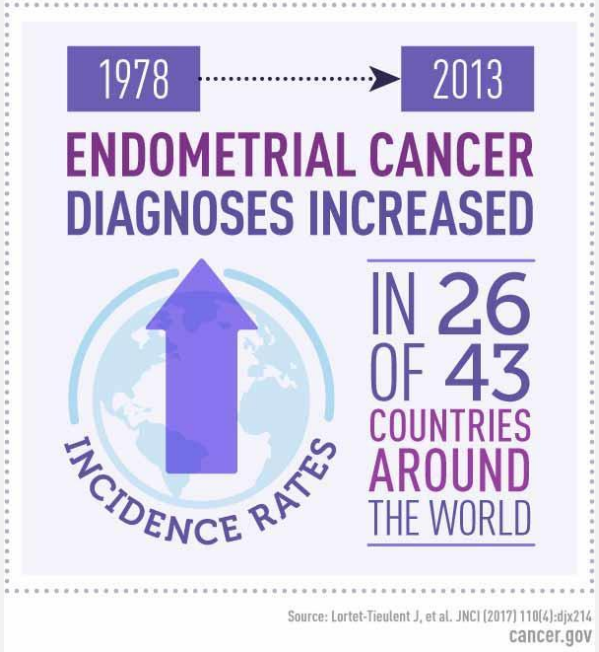
CANCER RISK AND OBESITY

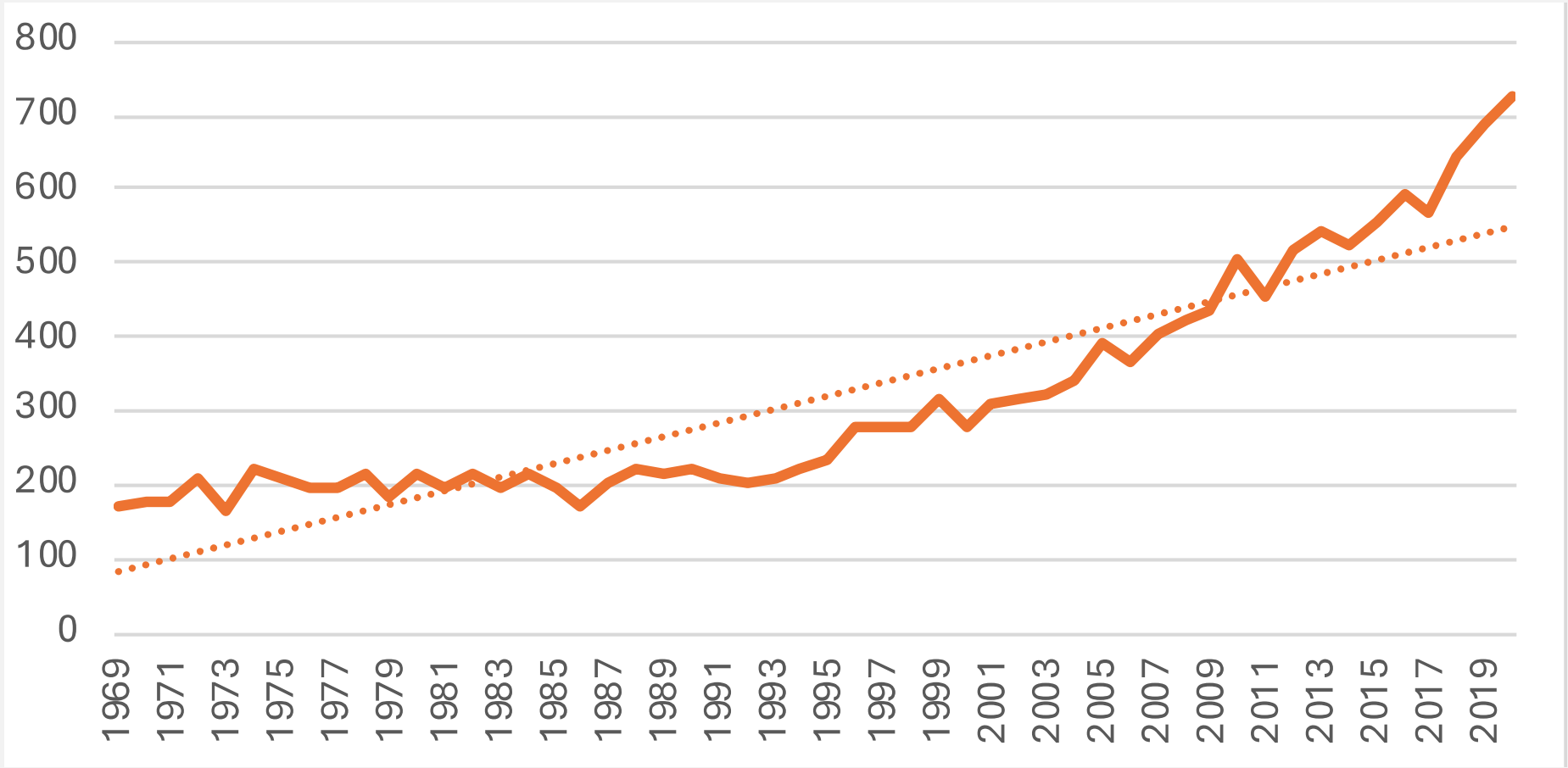
Table 2. Strength of the Evidence for a Cancer-Preventive Effect of the Absence of Excess Body Fatness, According to Cancer Site or Type.*

Cancer Site or Type	Strength of the Evidence in Humans†	Relative Risk of the Highest BMI Category Evaluated versus Normal BMI (95% CI)‡
Esophagus: adenocarcinoma	Sufficient	4.8 (3.0–7.7)
Gastric cardia	Sufficient	1.8 (1.3–2.5)
Colon and rectum	Sufficient	1.3 (1.3–1.4)
Liver	Sufficient	1.8 (1.6–2.1)
Gallbladder	Sufficient	1.3 (1.2–1.4)
Pancreas	Sufficient	1.5 (1.2–1.8)
Breast: postmenopausal	Sufficient	1.1 (1.1–1.2)§
Corpus uteri	Sufficient	7.1 (6.3–8.1)
Ovary	Sufficient	1.1 (1.1–1.2)
Kidney: renal-cell	Sufficient	1.8 (1.7–1.9)
Meningioma	Sufficient	1.5 (1.3–1.8)
Thyroid	Sufficient	1.1 (1.0–1.1)§
Multiple myeloma	Sufficient	1.5 (1.2–2.0)
Male breast cancer	Limited	NA
Fatal prostate cancer	Limited	NA

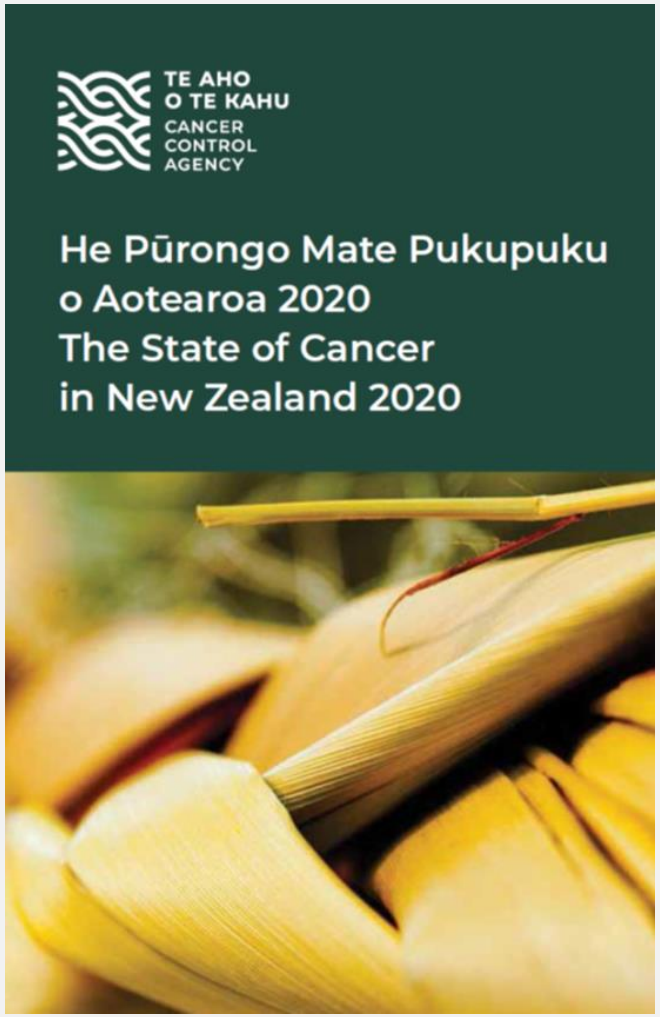
Lauby-Secretan, IARC report, NEJM, 2016

ENDOMETRIAL CANCER IN AOTEAROA NZ





ENDOMETRIAL CANCER



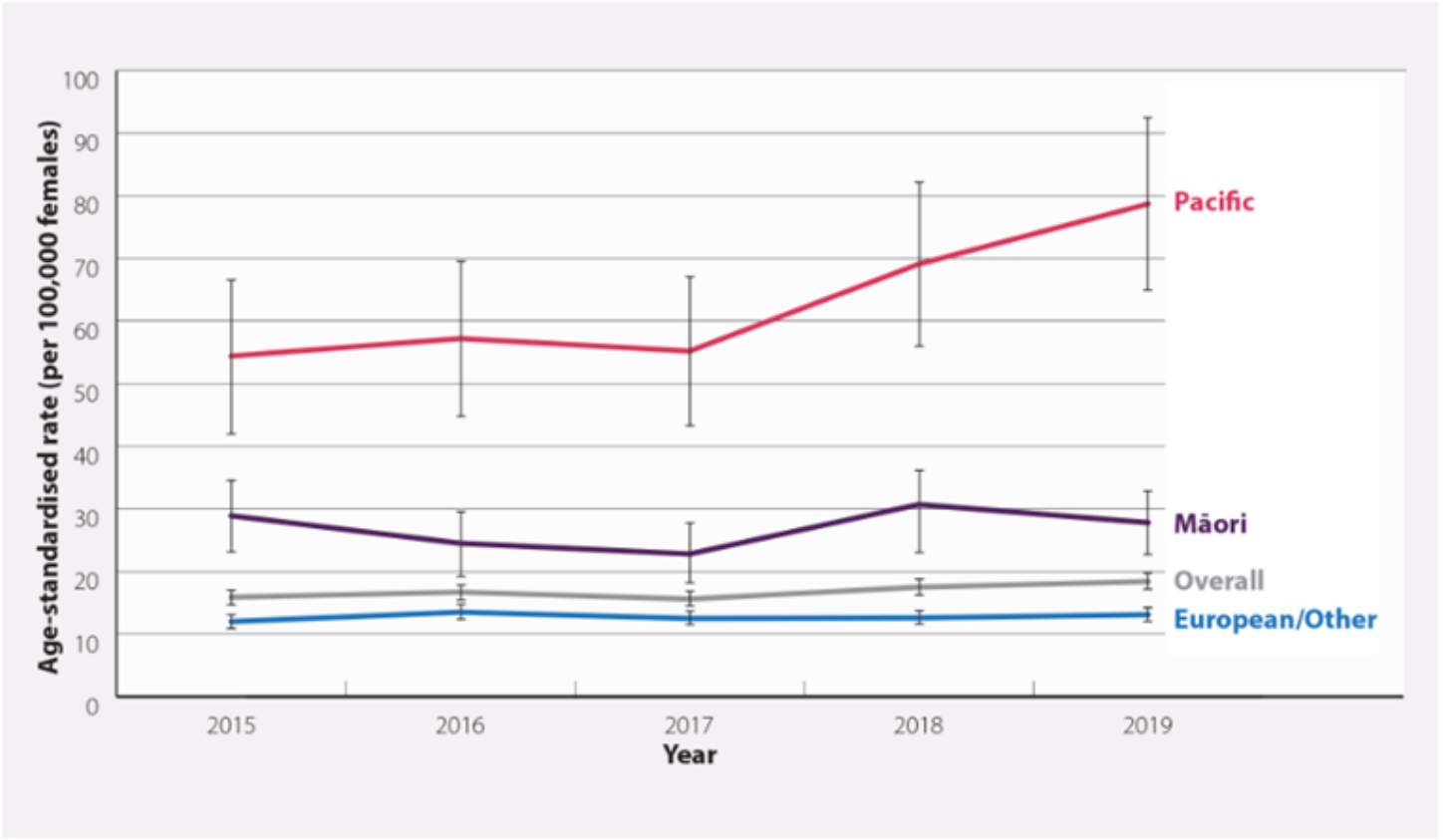


Figure 2. Age-standardised incidence rate (per 100,000 females; 95% confidence intervals)* for uterine cancer by ethnicity between 2015 and 2019 in New Zealand.[16] N.B. Data in New Zealand are only available for uterine cancer overall; endometrial cancers represent approximately 95% of all uterine cancer diagnoses.[3] Incidence data by ethnicity are not yet available for 2020.

Aust N Z J Obstet Gynaecol 2020; 1–8

DOI: 10.1111/ajo.13108

ANZJOG

ORIGINAL ARTICLE

Increasing incidence of endometrial carcinoma in a high-risk New Zealand community

Susan M. Bigby[1], Sandar Tin Tin[2], Lois J. Eva[3], Phillipa Shirley[3], Kieran Dempster-Rivett[4] and Mark Elwood[2]

Table 1: Incidence, trends and Outcome by Ethnicity

(ASI = Age Standardised Incidence, APC= Annual Percentage Change, CI = Confidence Interval

	National	Counties Total	Maori	Pacific	Other
All women: n *(%)*	5486 *(100%)*	588 *(100%)*	82 *(13.9%)*	242 *(41.2%)*	264 *(44.9%)*
Age <50 years: n *(%)*	707 *(12.9%)*	157 *(26.7%)*	24 *(29.3%)*	96 *(39.7%)*	37 *(14.0%)*
Age 50+ years: n *(%)*	4779 *(87.1%)*	431 *(73.3%)*	58 *(70.7%)*	146 *(60.3%)*	227 *(86.0%)*
Average ASI – all women	14.5/100 000	22.97/100 000	32.33 *(RR= 2.47)*	66.88 *(RR= 5.11)*	13.09 *(RR= 1.0)*
Average trends in incidence: APC *(95%CI)*	2.01 *(1.40, 2.60)*	7.3 *(3.4, 11.1)*	7.2 *(0.2, 14.6)*	9.3 *(4, 14.9)*	3.4 *(0.5, 6.4)*
Disease specific mortality	4.7/100 000	4.14/100 000			
Trends in disease specific mortality: APC *(95%CI)*	- 4.91 *(-5.80, -4.00)*	7.3 *(3.7, 11.1)*			

PART OF THE HEALTH EQUITY PROBLEM

Table 11.13 Demographic characteristics of women discussed at MDM in 2022 by primary site

	Total		Ovarian		Peritoneum		Fallopian tube		Endometri-um		Uterus		Cervix		Vulva	
	N= 1423		N= 503		N= 13		N= 22		N= 481		N= 84		N= 125		N= 62	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Registered in 2022	1105	77.7	401	79.7	8	61.5	14	63.6	374	77.8	74	88.1	90	72.0	31	50.0
Ethnicity																
Māori	210.0	14.8	71.0	14.1	1.0	7.7	1.0	4.5	84.0	17.5	11.0	13.1	24.0	19.2	2.0	3.2
Pacific	255	17.9	76	15.1	2	15.4	2	9.1	132	27.4	9	10.7	19	15.2	1	1.6
Asian	216	15.2	75	14.9	0	0.0	3	13.6	62	12.9	18	21.4	27	21.6	2	3.2
MELAA	18	1.3	5	1.0	0	0.0	1	4.5	5	1.0	3	3.6	0	0.0	0	0.0
European	724	50.9	276	54.9	10	76.9	15	68.2	198	41.2	43	51.2	55	44.0	57	91.9

ENDOMETRIAL CANCER IN WĀHINE UNDER 45

263 Women under 45 over 8 years

2-3 per month

Mean age 37.9 (21-45)

93.9% Endometrioid type

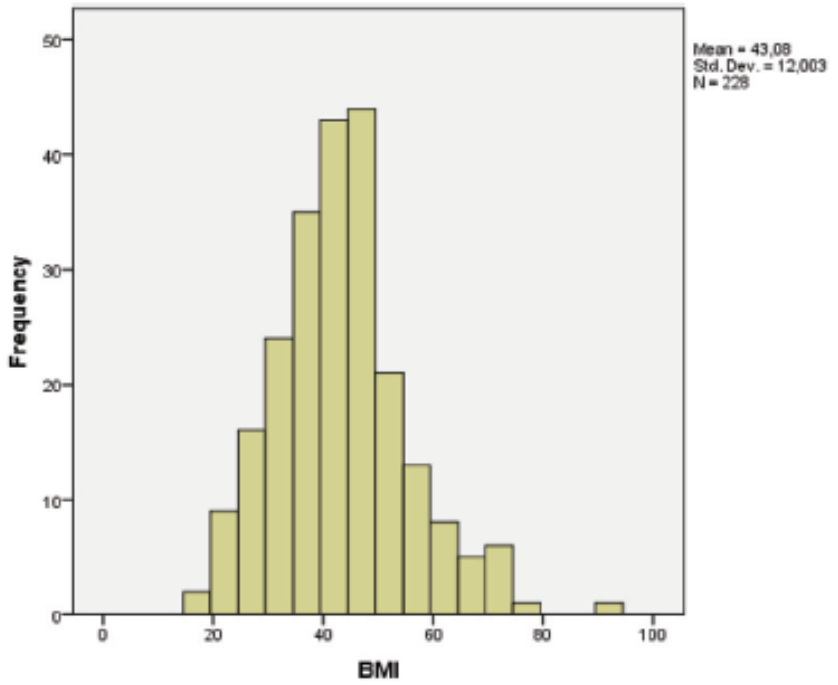
Conservation of ovaries

Table 1. Ethnicity

Ethnicity	Number* (%)
Pacific Islander	125 (47.9)
Māori	49 (19.1)
(NZ) European	25 (9.8)
Asian	23 (9.0)
Cook Island Māori	16 (6.1)
Indian	12 (4.7)
Other	2 (0.8)

* 11 missings

Figure 1. Body Mass Index of study population



S Naiqiso, A Aarts, A Tan LJ Eva IGCS Kyoto 2018

Gynecologic Oncology 140 (2016) 184–190

Contents lists available at ScienceDirect

Gynecologic Oncology

journal homepage: www.elsevier.com/locate/ygyno

Review

Body mass index and mortality in endometrial cancer: A systematic review and meta-analysis

Angeles Alvarez Secord [a,*], Vic Hasselblad [b], Vivian E. Von Gruenigen [c], Paola A. Gehrig [d], Susan C. Modesitt [e], Victoria Bae-Jump [d], Laura J. Havrilesky [a]

Table 3
Estimated odds ratio of all-cause mortality per 10% Increase in BMI.

Parameter	Estimate	Lower CI limit	Upper CI limit	p-Value
Per 10% increase in BMI	1.092	1.027	1.161	0.007
Extra variation (σ)	0.265	NA	NA	<0.0001

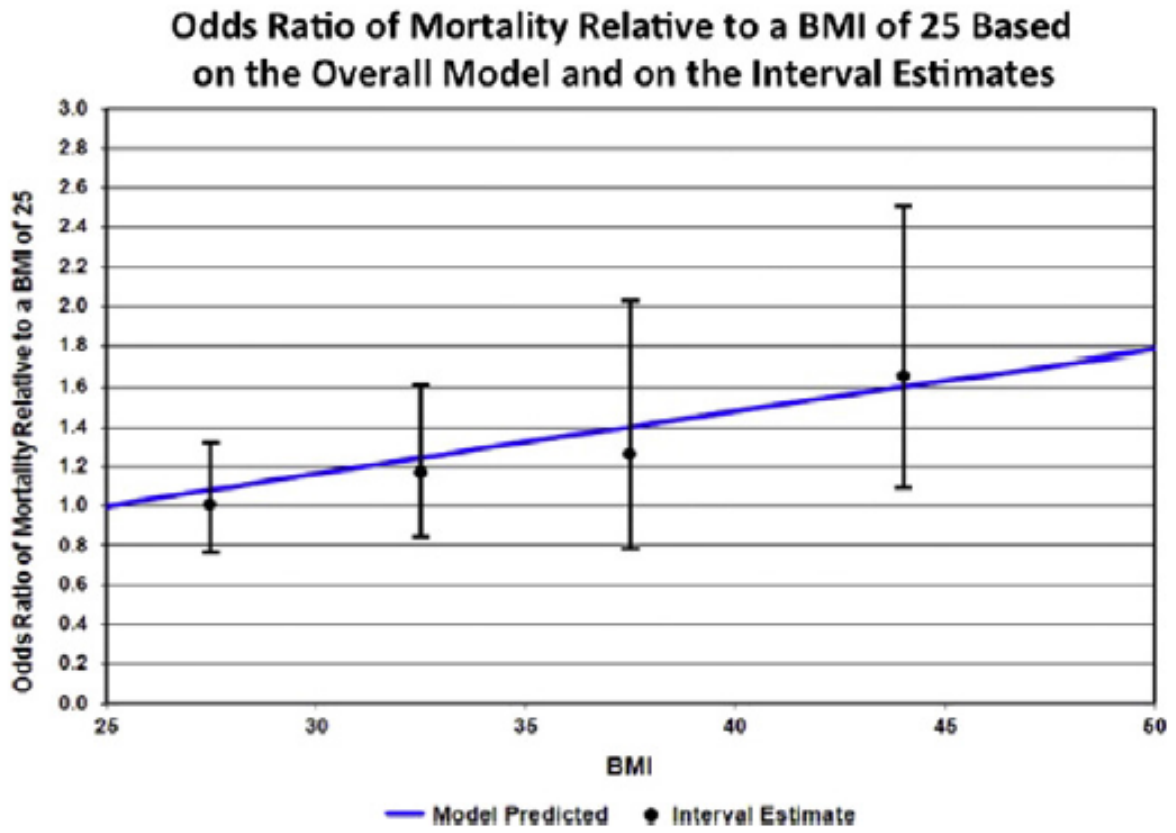


Fig. 2. The figure depicts the odds ratio of all-cause mortality relative to a BMI of 25 based on the overall model and on the interval estimates. The odds of all-cause mortality were significantly increased with increasing BMI.

ANOTHER DAY AT THE OFFICE

TH01 - Theatre List

Run at 06:4
Printed at 06:5

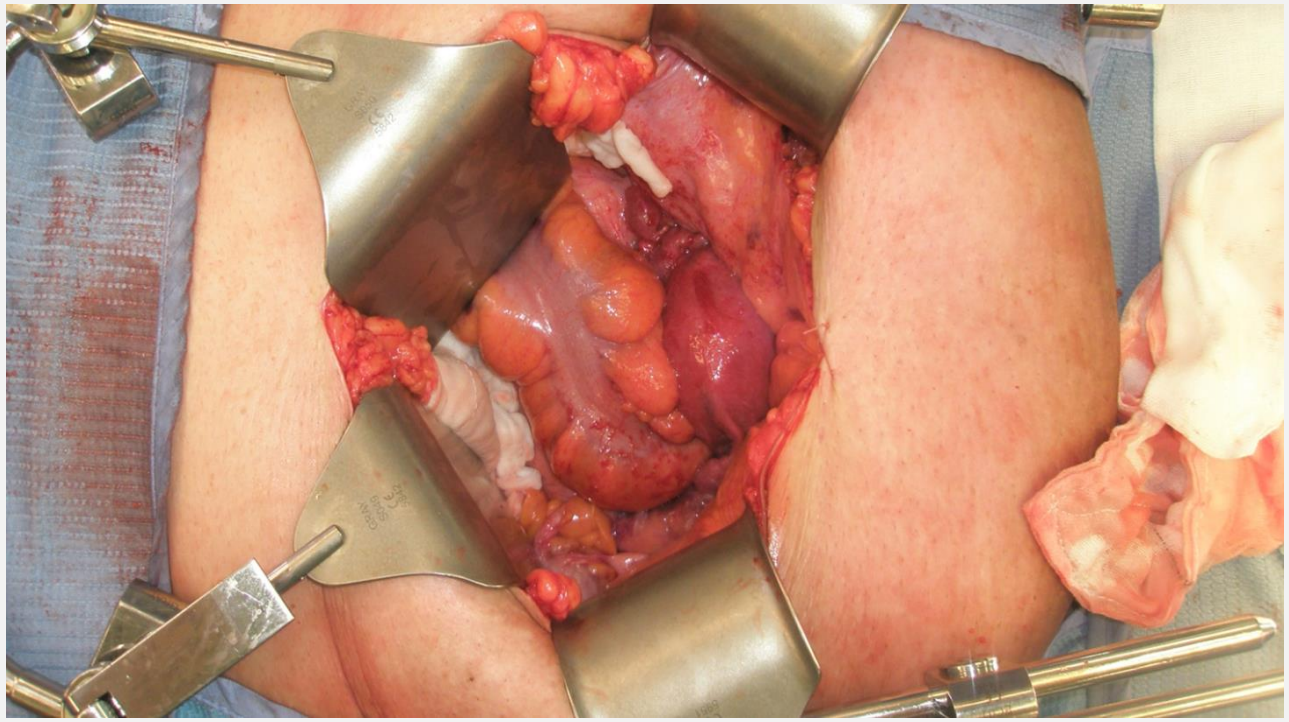
AUCKLAND DISTRICT HEALTH BOARD

8:30:00
6:30:00

Theatre Session: 2WK2A9OR03D **Session Surgeon:** Ol

Operation Description	Clinical Information	Duratio (mins)
Laparotomy + pelvic clearance + staging	BMI 67, T2DM, HTN, asthma, ?OSA, CVA 2008 (ASA 4)	210
Staging laparoscopy + biopsies	BMI 51, bilateral TKJR, partial Lt mastectomy (ASA 2)	130
TLH/BSO/washings/nodes	BMI 44, T2DM, HTN (ASA 3)	160

OBESITY OPEN SURGERY: MORE KIT, MORE TIME…..



CUSTOM MADE KIT

MORE COMPLICATIONS?

Table 2
Surgical complications and outcomes according to BMI groups.

Variables	BMI <30 kg/m²	BMI 30–39.9 kg/m²	BMI ≥40 kg/m²	Analysis
	N = 249	N = 195	N = 70	P-value
Overall complications				
Yes	47 (18.9%)	57 (29.2%)	23 (32.9%)	0.010*
No	202 (81.1%)	138 (70.8%)	47 (67.1%)	
Intra-operative complications				
Yes	5 (2.0%)	1 (0.5%)	2 (2.9%)	0.197
No	244 (98.0%)	194 (99.5%)	68 (97.1%)	
Individual complications				
Bowel injury	2 (0.8%)	0 (0%)	0 (0%)	0.632
Bladder injury	0 (0%)	1 (0.5%)	0 (0%)	0.516
Ureter injury	0 (0%)	0 (0%)	1 (1.4%)	0.136
Vascular injury	1 (0.4%)	0 (0%)	0 (0%)	1.000
Other	2 (0.8%)	0 (0%)	1 (1.4%)	0.259
Postoperative complications				
Yes	44 (17.7%)	57 (29.2%)	22 (31.4%)	0.005*
No	205 (82.3%)	138 (70.3%)	48 (68.6%)	
Clavien-Dindo grade				0.021*
1	13 (30.2%)	4 (7.3%)	1 (4.5%)	
2	26 (60.5%)	43 (78.2%)	16 (72.7%)	
3	2 (4.7%)	4 (7.3%)	4 (18.2%)	
4	2 (4.7%)	4 (7.3%)	1 (4.5%)	

Gynecologic Oncology 139 (2015) 369–376

Contents lists available at ScienceDirect

Gynecologic Oncology

journal homepage: www.elsevier.com/locate/ygyno

Review

The impact of BMI on surgical complications and outcomes in endometrial cancer surgery—An institutional study and systematic review of the literature

Frederique Bouwman [a], Anke Smits [b], Alberto Lopes [b], Nagindra Das [b], Adam Pollard [c], Leon Massuger [a], Ruud Bekkers [a], Khadra Galaal [b,*]

[a] Radboud UMC, Nijmegen, The Netherlands
[b] Royal Cornwall Hospital Trust, Truro, Cornwall, United Kingdom
[c] European Centre for the Environment and Human Health, University of Exeter Medical School, Truro, Cornwall, United Kingdom

Table 2
Surgical complications and outcomes according to BMI groups.

Variables	BMI <30 kg/m²	BMI 30–39.9 kg/m²	BMI ≥40 kg/m²	Analysis
	N = 249	N = 195	N = 70	P-value
Wound complication	7 (2.8%)	17 (8.7%)	11 (15.7%)	<0.001*
Laparoscopic	1 (0.4%)	1 (0.5%)	0 (0%)	0.811
Open	6 (2.4%)	16 (8.2%)	11 (15.7%)	<0.001*
Ileus	6 (2.4%)	1 (0.5%)	0 (0.0%)	0.176
Antibiotics use	26 (10.4%)	43 (22.1%)	17 (24.3%)	0.001*
Laparoscopic	7 (2.8%)	12 (6.2%)	3 (4.3%)	0.112
Open	17 (6.8%)	31 (15.9%)	13 (18.6%)	0.002*
Urinary tract infection	5 (2.0%)	5 (2.6%)	3 (4.3%)	0.499
Pneumonia	5 (2.0%)	7 (3.6%)	1 (1.4%)	0.623
Pelvic abscess	1 (0.4%)	1 (0.5%)	0 (0%)	1.000
Secondary haematoma	5 (2.0%)	4 (2.1%)	0 (0%)	0.728
Venous thrombo-embolism	3 (1.2%)	0 (0%)	0 (0%)	0.372
Sepsis	1 (0.4%)	1 (0.5%)	0 (0%)	1.000
Renal complication	1 (0.4%)	1 (0.5%)	1 (1.4%)	0.523
Cardiac complication	3 (1.2%)	5 (2.6%)	1 (1.4%)	0.594
Organ failure	2 (0.8%)	4 (2.1%)	0 (0%)	0.430
Relaparotomy	3 (1.2%)	5 (2.6%)	2 (2.9%)	0.413
Other	17 (6.8%)	15 (7.7%)	5 (7.1%)	0.971
30-day mortality	1 (0.4%)	2 (1.0%)	0 (0%)	0.732
90-day mortality	3 (1.2%)	3 (1.5%)	0 (0%)	0.865
Other operative outcomes				
Conversion to laparotomy	7 (5.6%)	16 (16.5%)	9 (21.4%)	0.006*
EBL, mean (SD)				
Laparoscopic	72 (75.7)	116 (110.6)	125 (92.6)	<0.001*
Open	267 (201.8)	290 (272.7)	258 (200.8)	0.901
Transfusion (intra- & post-op)				0.768
Yes	6 (2.4%)	7 (3.6%)	2 (2.9%)	
No	243 (97.6%)	188 (96.4%)	68 (97.1%)	
Hospital stay Mean (SD)	5.1 (3.8)	4.7 (2.5)	4.7 (3.3)	0.722

Gynecologic Oncology 145 (2017) 55–60

Contents lists available at ScienceDirect

Gynecologic Oncology

journal homepage: www.elsevier.com/locate/ygyno

Impact of body mass index and operative approach on surgical morbidity and costs in women with endometrial carcinoma and hyperplasia

Rudy S. Suidan [a], Weiguo He [b], Charlotte C. Sun [a], Hui Zhao [b], Nicole D. Fleming [a], Pedro T. Ramirez [a], Pamela T. Soliman [a], Shannon N. Westin [a], Karen H. Lu [a], Sharon H. Giordano [b], Larissa A. Meyer [a,*]

[a] Department of Gynecologic Oncology and Reproductive Medicine, Division of Surgery, The University of Texas MD Anderson Cancer Center, Houston, TX, United States
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Complications associated with increasing BMI and open surgery
Mainly Wound infections and VTE

Uncomplicated MIS cheaper than open

Complications are more expensive with higher BMI and open surgery

Table 4
30-day total costs stratified by body mass index and surgical approach.

Body mass index (Kg/m^2)	All patients		Open abdominal surgery		Minimally invasive surgery		Cost difference	p
	Median	IQR	Median	IQR	Median	IQR	Median	
≤29	$16,555	$11,123–$24,983	$19,345	$13,287–$26,333	$14,976	$9942–$22,663	$4369	<0.001
30–39	$16,775	$10,873–$24,920	$18,864	$12,094–$26,715	$16,088	$10,218–$23,501	$2776	0.01
≥40	$17,302	$11,202–$26,243	$21,649	$13,893–$30,277	$14,882	$10,215–$23,456	$6767	<0.001
Overall	$16,785	$11,049–$25,450	$19,770	$13,207–$27,452	$15,377	$10,128–$23,403	$4393	<0.001

Table 5
Impact of complications on 30-day total costs.

Surgery type	Body mass index (Kg/m^2)	Complication		No complication		Cost difference	p
		Median	IQR	Median	IQR	Median	
All patients	≤29	$26,350	$14,858–38,982	$15,564	$9935–22,482	$10,786	<0.001
	30–39	$25,399	$15,833–30,838	$15,976	$10,469–23,316	$9423	<0.001
	≥40	$27,251	$15,591–43,777	$14,999	$10,208–22,817	$12,252	<0.001
	Total	$26,301	$15,544–38,151	$15,564	$11,701–23,496	$10,737	<0.001
Open abdominal surgery	≤29	$27,151	$17,927–48,499	$17,215	$10,056–21,989	$9936	<0.001
	30–39	$26,776	$19,773–36,511	$15,794	$12,418–24,156	$10,982	<0.001
	≥40	$29,545	$20,085–44,578	$17,060	$11,375–23,182	$12,485	<0.001
	Total	$27,745	$19,131–41,095	$16,427	$9619–22,019	$11,318	<0.001
Minimally invasive surgery	≤29	$21,035	$12,528–35,763	$14,574	$9701–22,627	$6461	0.004
	30–39	$18,518	$14,016–27,866	$15,976	$9493–22,154	$2542	0.04
	≥40	$18,471	$14,401–39,725	$13,819	$9609–22,269	$4652	0.003
	Total	$19,961	$13,774–32,476	$15,036	$9935–22,482	$4925	<0.001

IQR, interquartile range.

ENDOMETRIAL CANCER, LAPAROSCOPIC SURGERY AND OBESITY

- Move to TLH as default
- Home next morning

- 2019 Formal protocol with anaesthesia
- 2020 Move to sentinel nodes

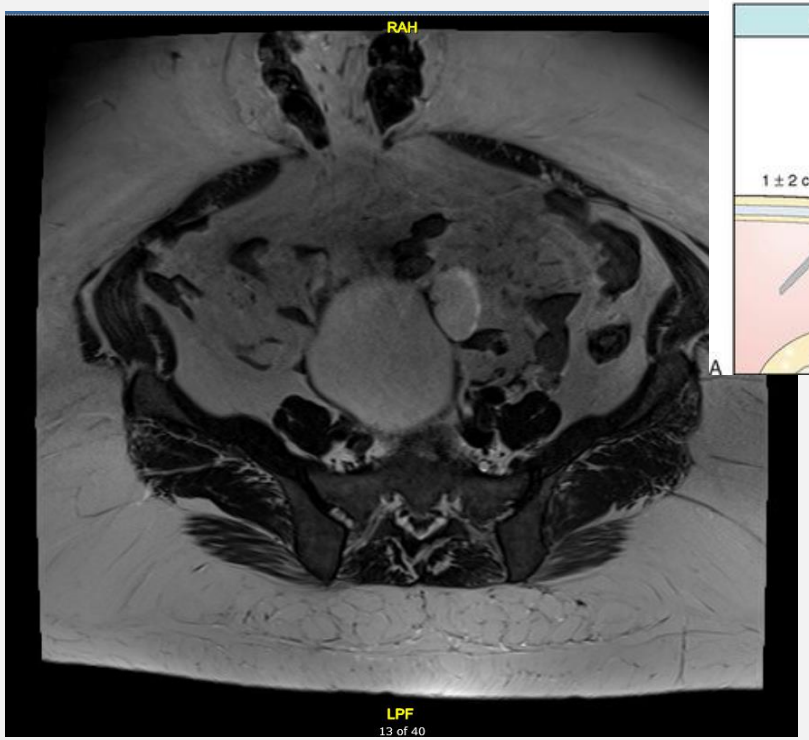
- 2022 75% TLH (BMI 20 – 82)

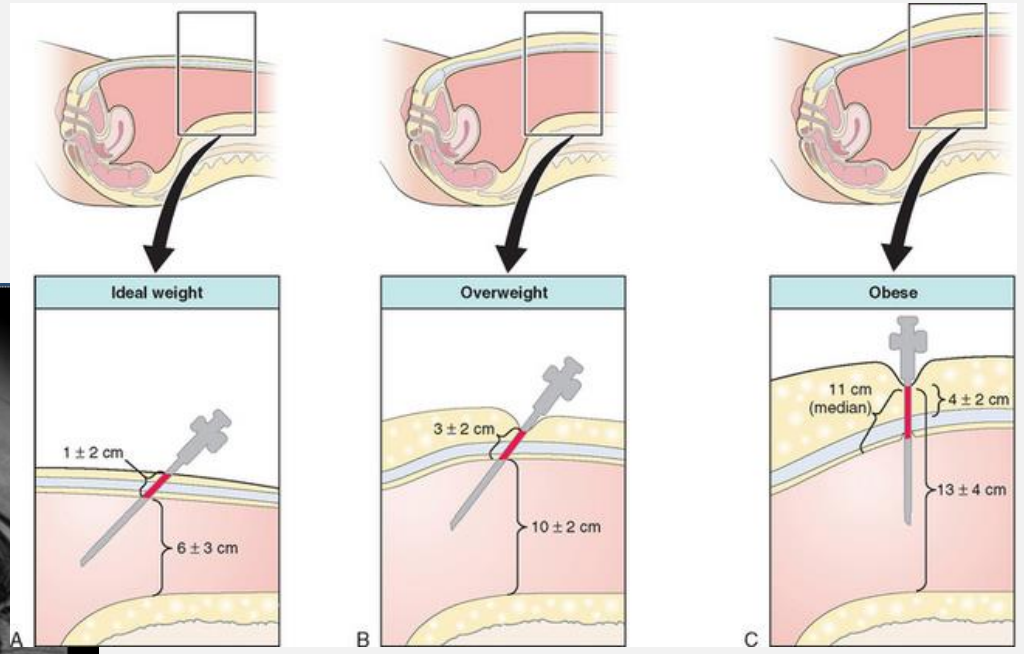
ADHB Guideline for Enhanced Recovery for Major Gynaecological Oncology Minimally Invasive Surgery

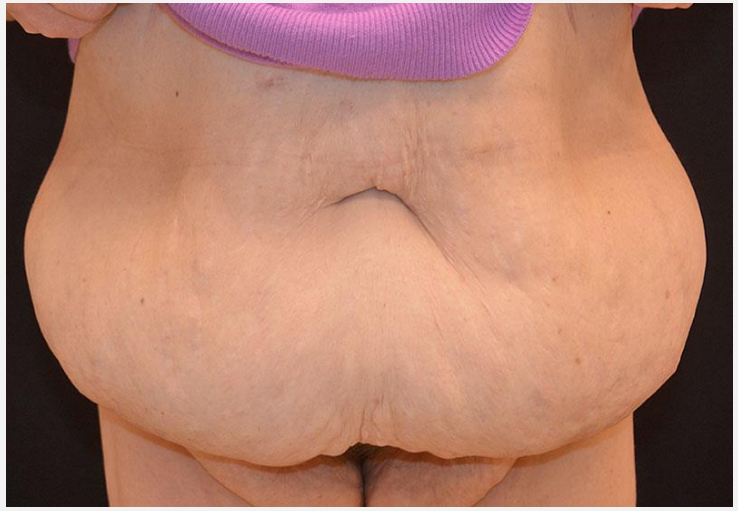
4.4 Anaesthesia

- CHO loading 2 hours prior to anaesthesia [7-9]
- No routine epidural or spinal [11-13]
- Work with the surgeon to achieve adequate head-down tilt sufficient for bowel retraction from the pelvis. Parameters to work within are airway pressures <30cmH2O, rising and difficult to control CO2 and hypoxaemia[14]
- Multimodal analgesia
    - IV lignocaine infusion as per protocol [15]
        - Fixed rate infusion between 6-12 mls/hour for 12 hours in total then ceased.
        - Improves gut function with less ileus
        - Reduces nausea and vomiting
        - There is growing evidence of benefit in preventing cancer recurrence [16]
        - Opioid sparing approach
    - No routine PCA [17, 18]

ENTRY DIFFICULTIES





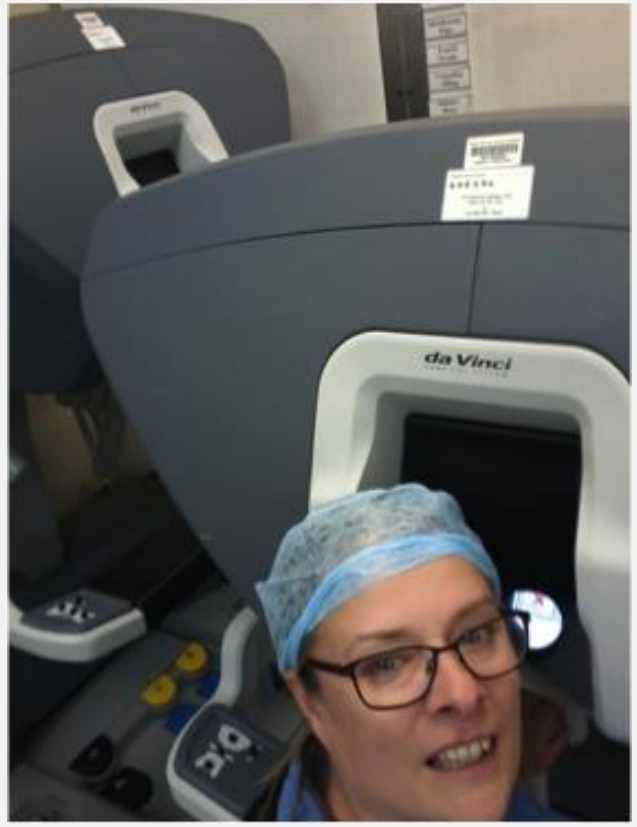


GETTING THAT VIEW…..

- Steep Trendelenburg is the optimal position for gynaecological MIS [14]
  - 20 - 30 degrees of Trendelenburg is required in most cases to sufficiently retract bowel from the pelvis and efforts should be made to maintain optimal positioning.
  - Steep Trendelenburg may not be possible for all patients and difficult cases should be discussed between surgeon and anaesthetist.
  - A tiltometer should be used to measure incline for head down

ASSOCIATED WITH OBESITY..

- Increased post operative complications
- Decreased overall but not disease specific survival
- Increased costs, particularly if complications
- Increased use of resources
- More complications and costs in open surgery than MIS



- Surgeon and anaesthetist pain
- Robotics may save my back… but we don't have one

Sentinel nodes for endometrial cancer

A comparison of sentinel lymph node biopsy to lymphadenectomy for endometrial cancer staging (FIRES trial): a multicentre, prospective, cohort study

Emma C Rossi, Lynn D Kowalski, Jennifer Scalici, Leigh Cantrell, Kevin Schuler, Rabbie K Hanna, Michael Method, Melissa Ade, Anastasia Ivanova, John F Boggess

Lancet Oncol 2017; 18: 384–92

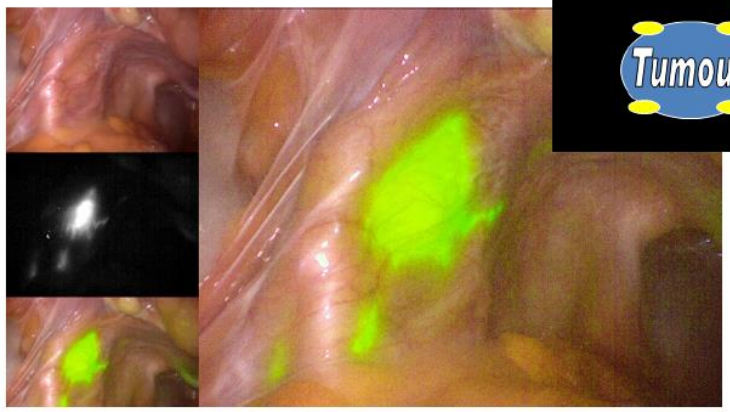
Interpretation Sentinel lymph nodes identified with indocyanine green have a high degree of diagnostic accuracy in detecting endometrial cancer metastases and can safely replace lymphadenectomy in the staging of endometrial cancer. Sentinel lymph node biopsy will not identify metastases in 3% of patients with node-positive disease, but has the potential to expose fewer patients to the morbidity of a complete lymphadenectomy.

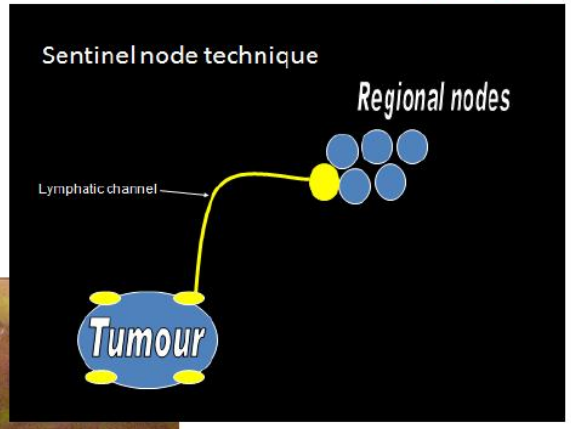
ICG injection to cervix
Infrared laparoscopy

Less morbidity
Less operating time

CHANGE IN PRACTICE

High risk endometrial cancer: Nodal staging



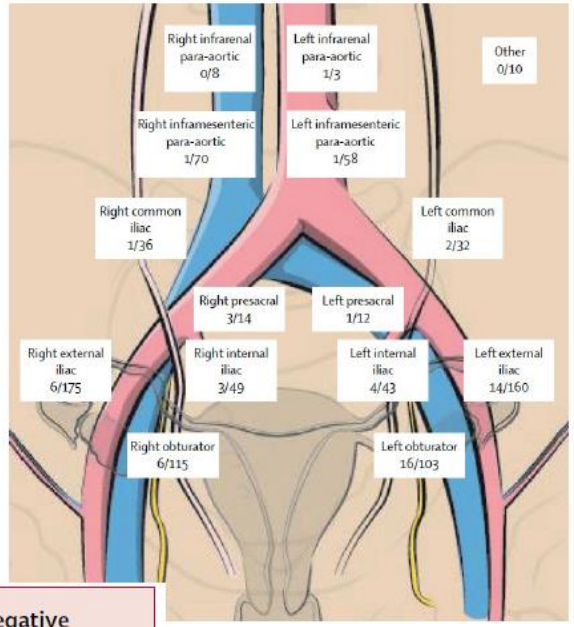


CHANGING PRACTICE ~~2018~~ 2020

	Patients (n=340)
Pelvic lymphadenectomy	340 (100%)
Pelvic and para-aortic lymphadenectomy	196 (58%)
Successful mapping of sentinel lymph nodes	293 (86%)
Bilateral mapping	177 (52%)
Para-aortic sentinel lymph node detected	81 (23%)
Isolated para-aortic sentinel lymph node detected	3 (<1%)
Median number of sentinel lymph nodes removed	2 (0–20)
Mean number of total nodes removed	19 (10·3; 1–61)

Data are n (%), median (range), or mean (SD; range).

Table 2: Surgical results in patients who had pelvic lymphadenectomy



	True positive nodes	True negative nodes
Positive sentinel lymph node	35	0
Negative sentinel lymph node	1	257

Table 3: Sensitivity and specificity data

Sentinel nodes for EC… the first 40

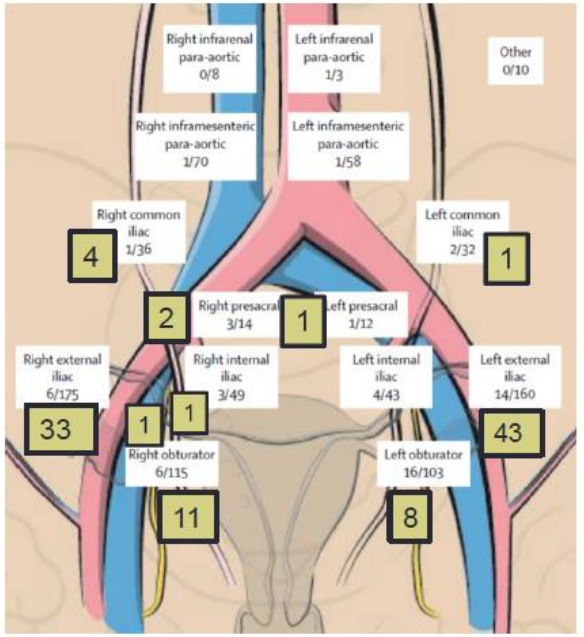
- 39 endometrium
- 1 cervix

- 80 hemi pelvis mappings
- 102 nodes

- 9 not mapped (1 bilateral)
  = 11.3% failure rate

FIRES:14% unsuccessful mapping

- No adverse events

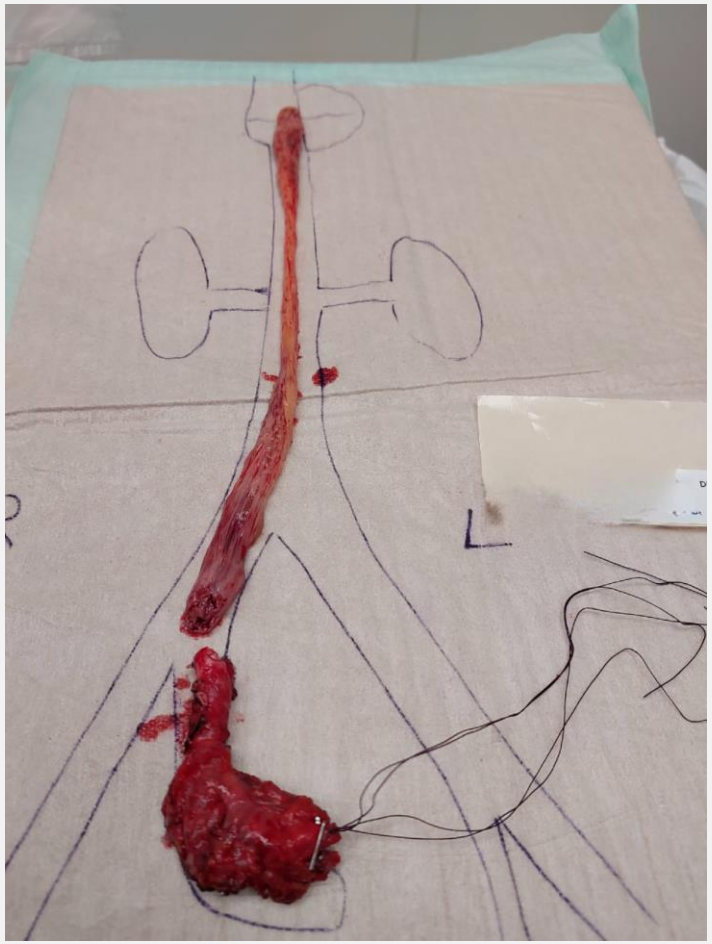


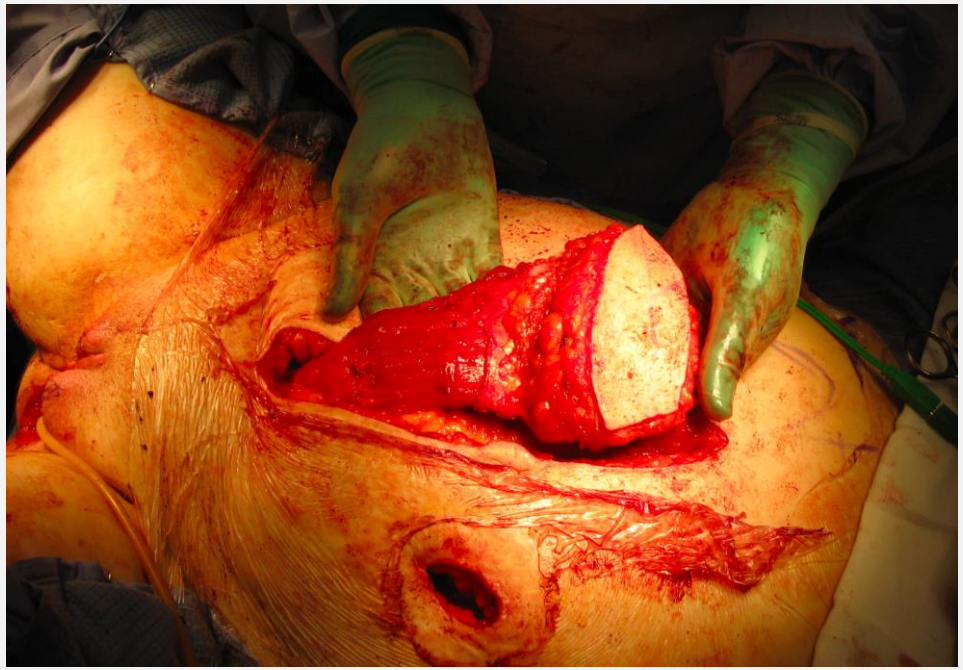
SURGICAL CHANGES IN PAST DECADE

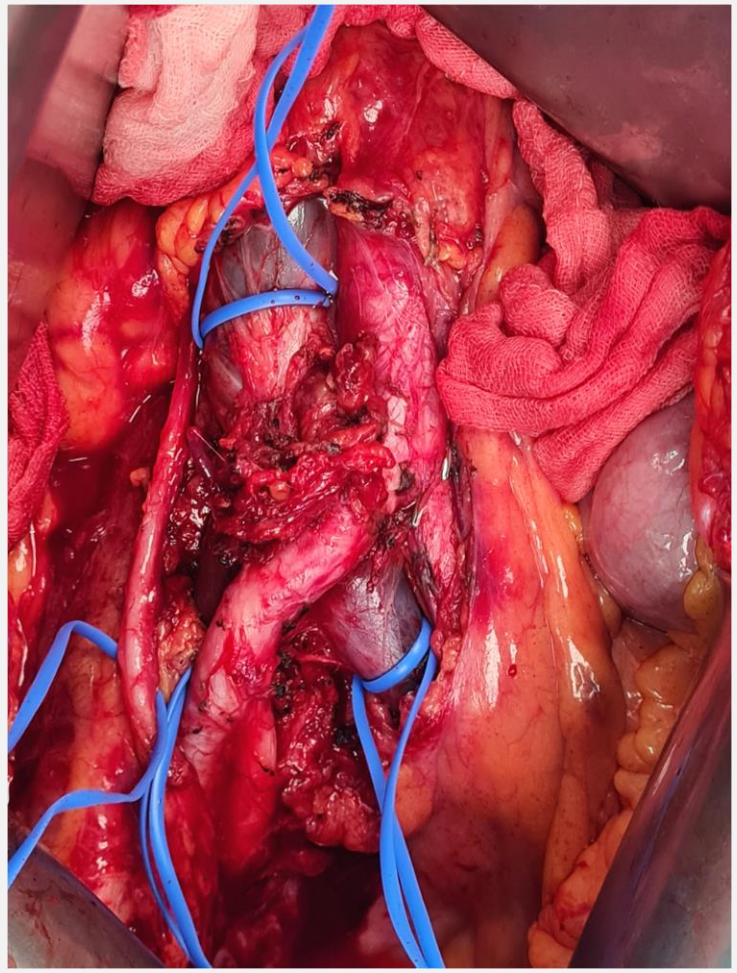
- More MIS… except for cervix
- Sentinel nodes for vulval and endometrial cancer

- More radical surgery for ovarian cancer
- More reconstructive surgery for vulval cancer
- More recurrence and exenterative procedures

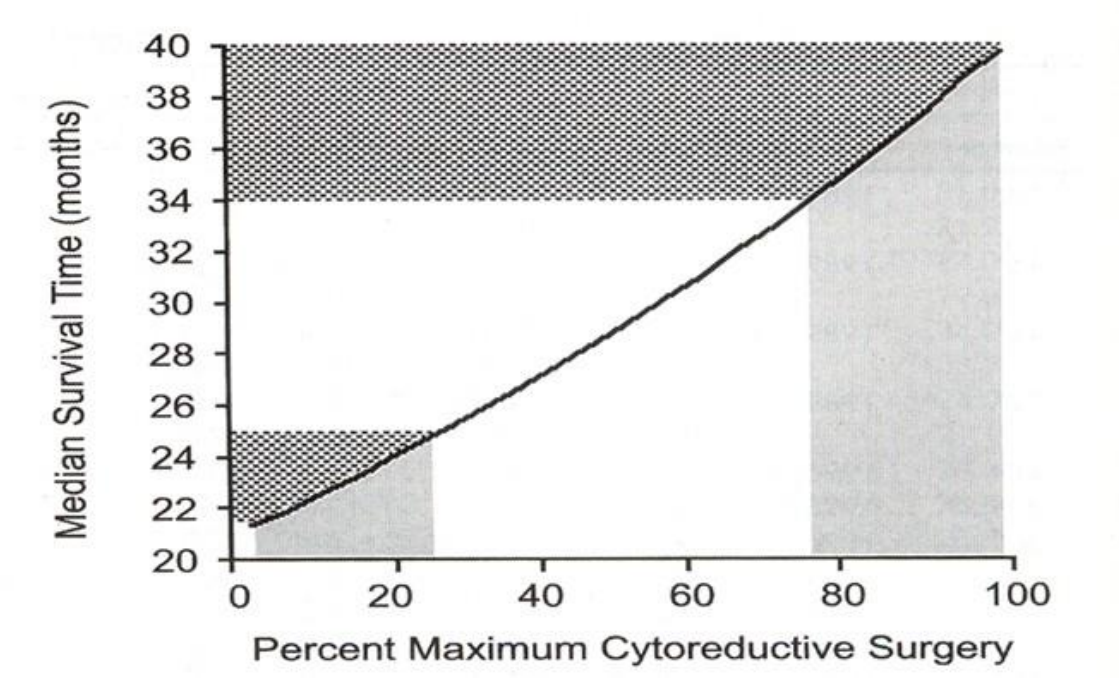
21ST CENTURY GYN ONC…GOING BEYOND THE PELVIS







TUBO-OVARIAN CANCER: THE PAST 20 YEARS



Journal of Clinical Oncology
An American Society of Clinical Oncology Journal

ORIGINAL REPORTS | March 01, 2002

Survival Effect of Maximal Cytoreductive Surgery for Advanced Ovarian Carcinoma During the Platinum Era: A Meta-Analysis

Authors: Robert E. Bristow, Rafael S. Tomacruz, Deborah K. Armstrong, Edward L. Trimble, and F. J. Montz | AUTHORS INFO & AFFILIATIONS

Publication: Journal of Clinical Oncology • Volume 20, Number 5 • https://doi.org/10.1200/JCO.2002.20.5.1248

Median survival increases by 5.5%
for every 10% increase in cytoreduction

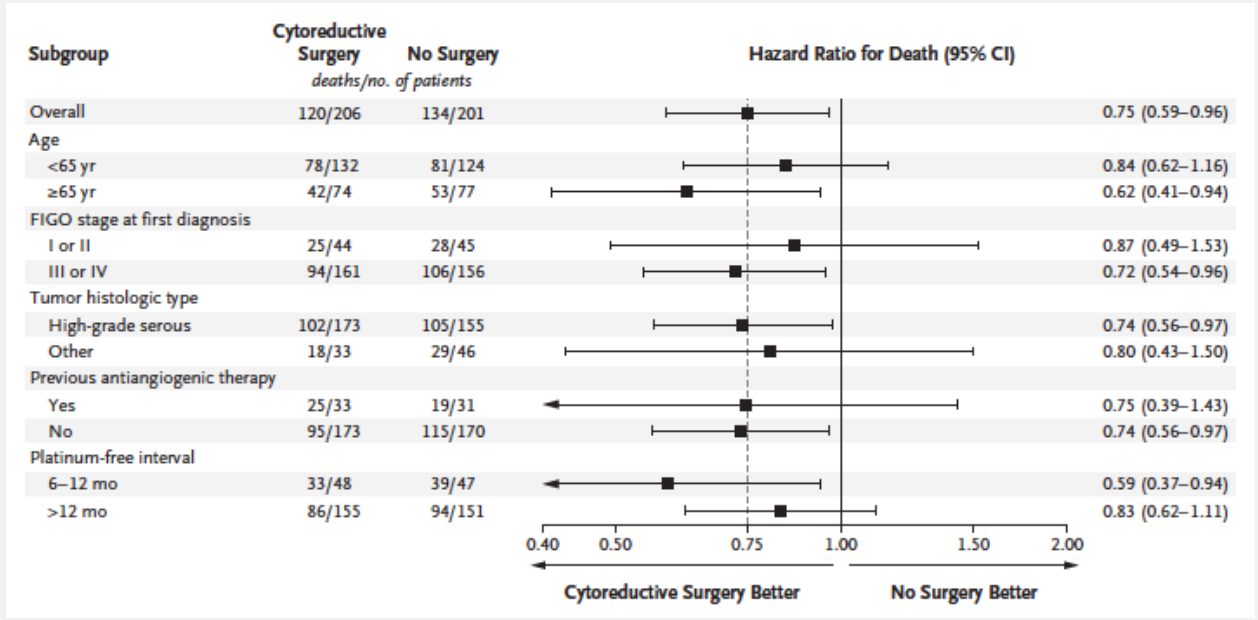
RECURRENT OVARIAN CANCER

The NEW ENGLAND JOURNAL of MEDICINE

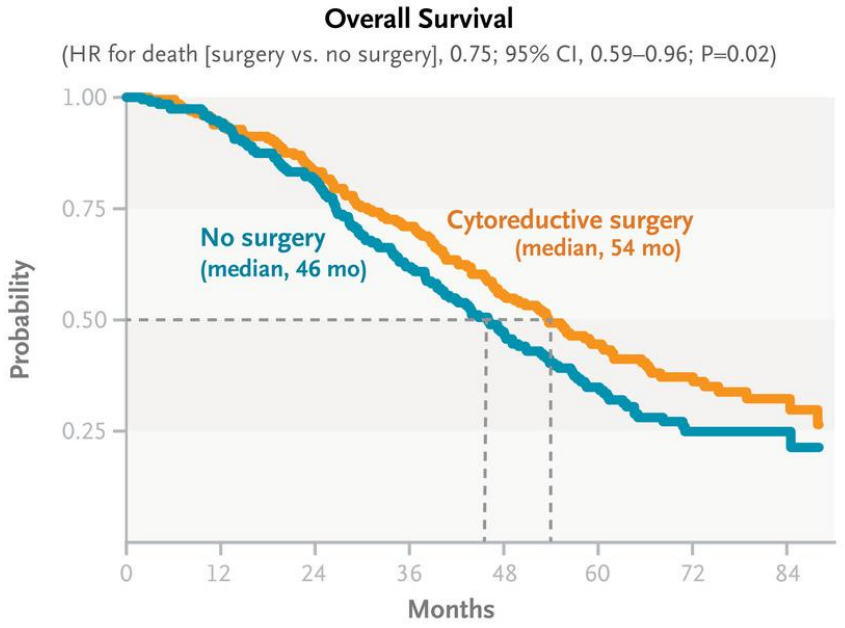
ESTABLISHED IN 1812 DECEMBER 2, 2021 VOL. 385 NO. 23

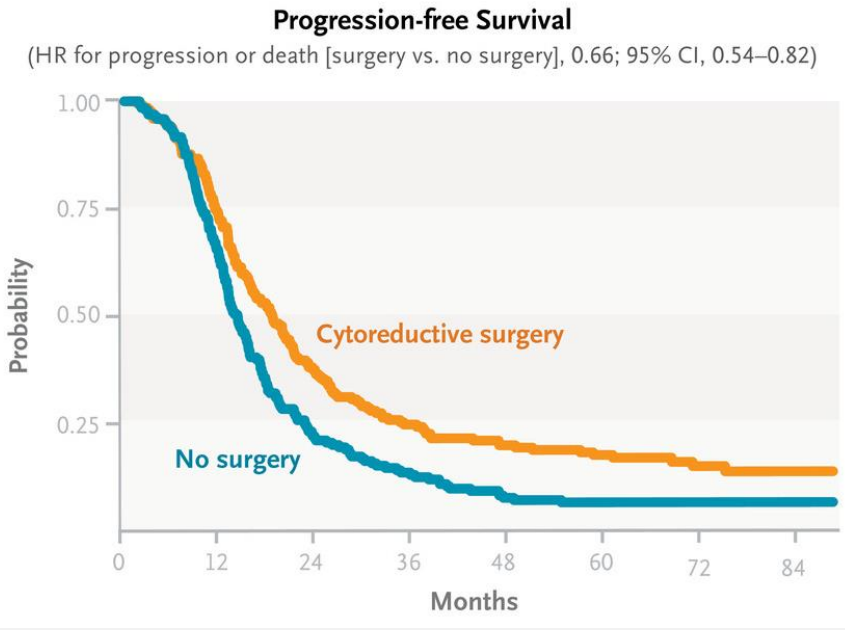
Randomized Trial of Cytoreductive Surgery for Relapsed Ovarian Cancer

P. Harter, J. Sehouli, I. Vergote, G. Ferron, A. Reuss, W. Meier, S. Greggi, B.J. Mosgaard, F. Selle, F. Guyon, C. Pomel, F. Lécuru, R. Zang, E. Avall-Lundqvist, J.-W. Kim, J. Ponce, F. Raspagliesi, G. Kristensen, J.-M. Classe, P. Hillemanns, P. Jensen, A. Hasenburg, S. Ghaem-Maghami, M.R. Mirza, B. Lund, A. Reinthaller, A. Santaballa, A. Olaitan, F. Hilpert, and A. du Bois, for the DESKTOP III Investigators*



Subgroup	Cytoreductive Surgery	No Surgery	Hazard Ratio for Death (95% CI)
	deaths/no. of patients		
Overall	120/206	134/201	0.75 (0.59–0.96)
Age			
<65 yr	78/132	81/124	0.84 (0.62–1.16)
≥65 yr	42/74	53/77	0.62 (0.41–0.94)
FIGO stage at first diagnosis			
I or II	25/44	28/45	0.87 (0.49–1.53)
III or IV	94/161	106/156	0.72 (0.54–0.96)
Tumor histologic type			
High-grade serous	102/173	105/155	0.74 (0.56–0.97)
Other	18/33	29/46	0.80 (0.43–1.50)
Previous antiangiogenic therapy			
Yes	25/33	19/31	0.75 (0.39–1.43)
No	95/173	115/170	0.74 (0.56–0.97)
Platinum-free interval			
6–12 mo	33/48	39/47	0.59 (0.37–0.94)
>12 mo	86/155	94/151	0.83 (0.62–1.11)





OVARIAN CANCER

Non specific symptoms

Late presentation: Stage 3 or 4

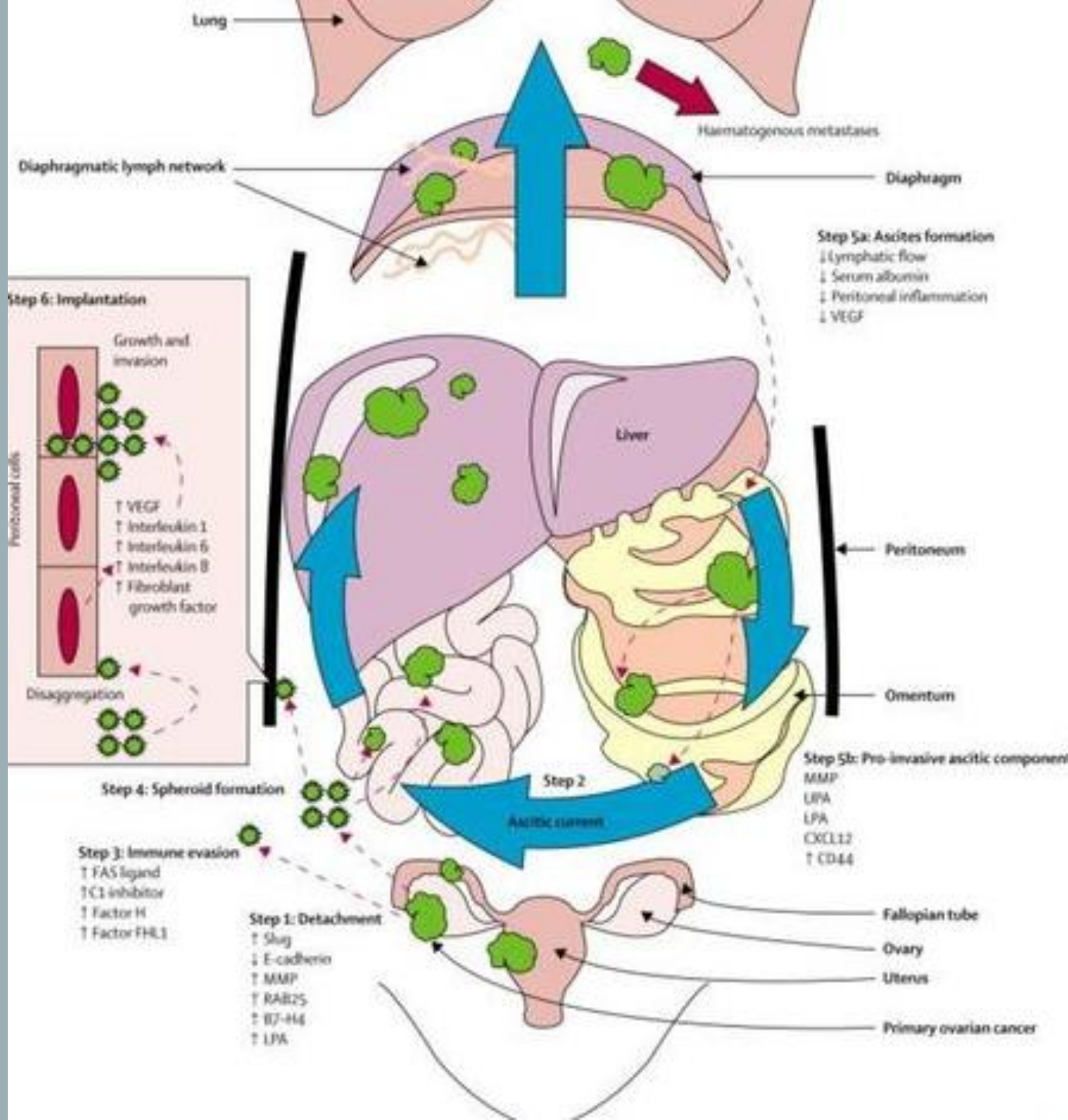
2022

65 early staged

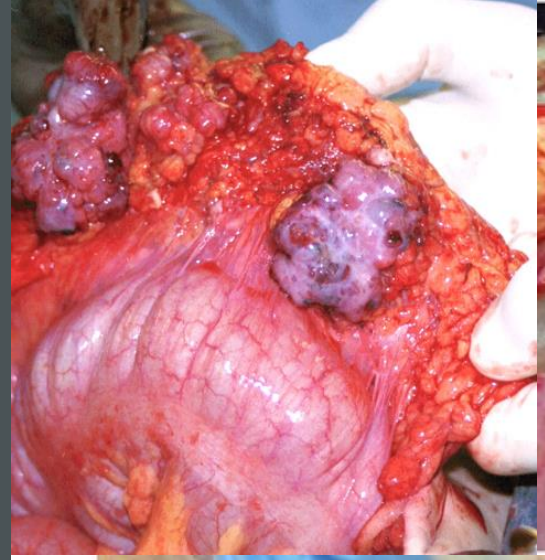
75 advanced operations

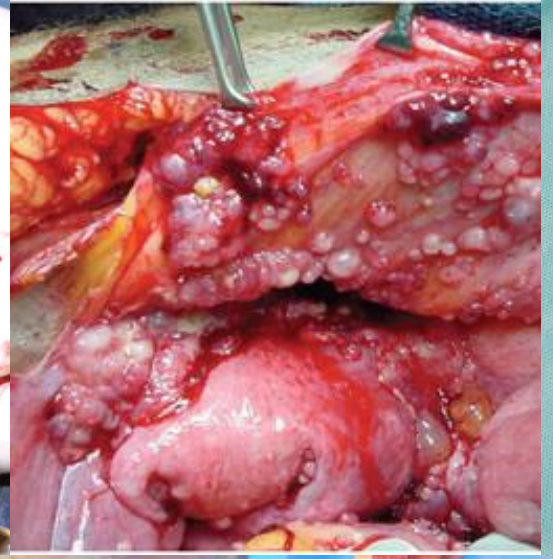
12 recurrent operations

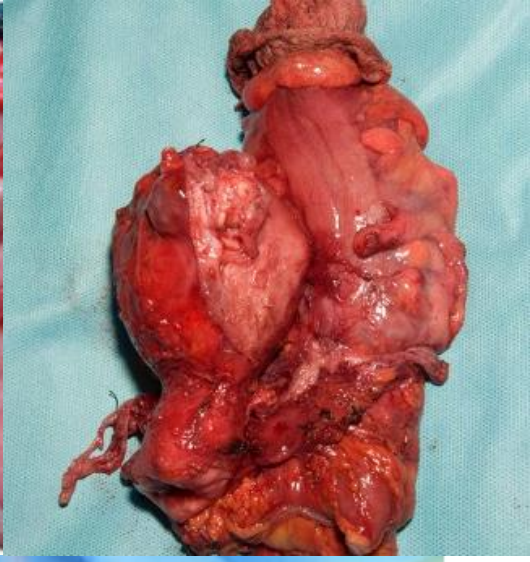
30% stage 3/4 never get to surgery

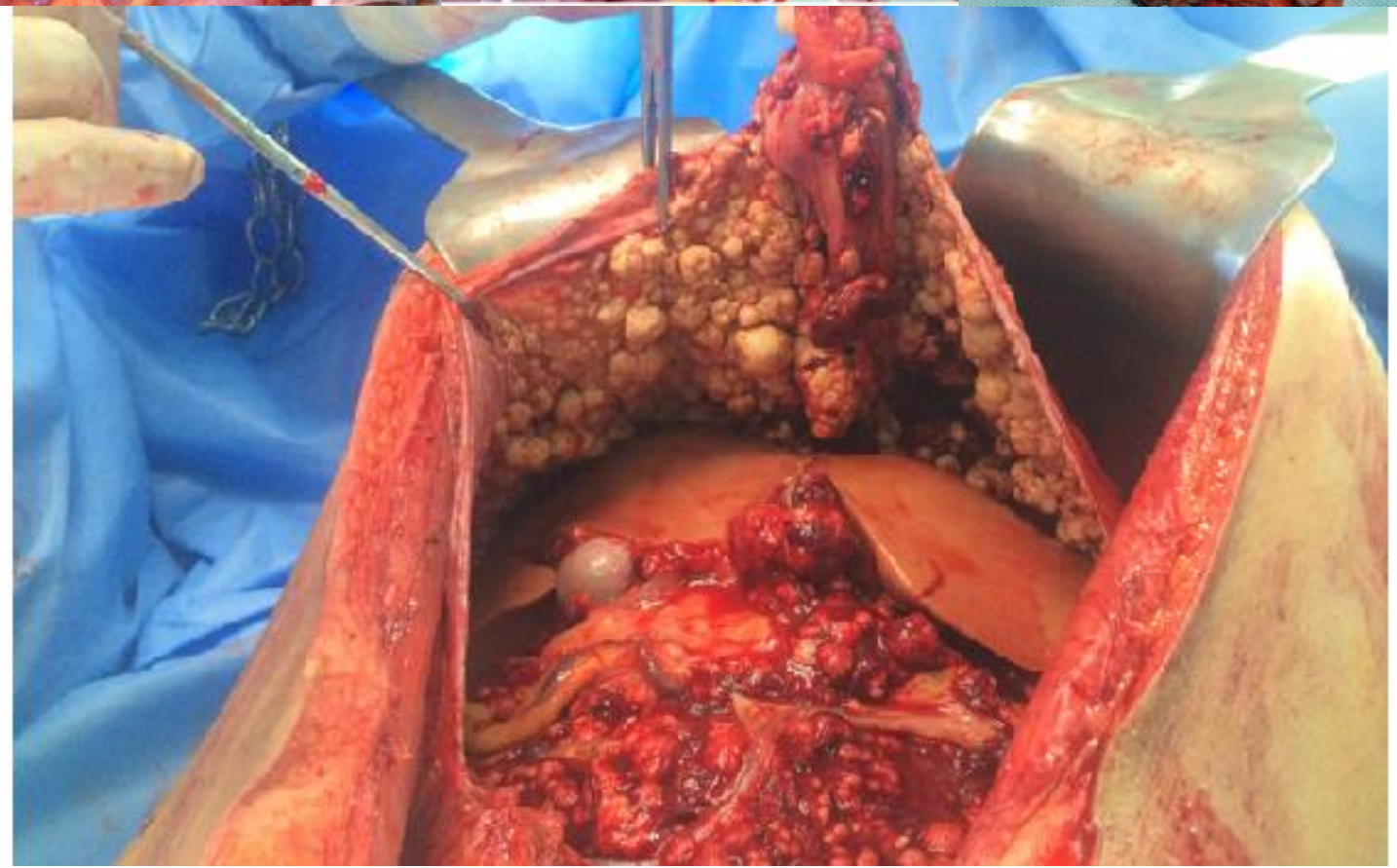


ADVANCED OVARIAN CANCER









SURGICAL STRATEGY ADVANCED OVARIAN CANCER

PRIMARY DEBULKING SURGERY

6 CYCLES ADJUVANT CHEMOTHERAPY

NEOADJUVANT CHEMOTHERAPY 3 CYCLES

INTERVAL DEBULKING SURGERY

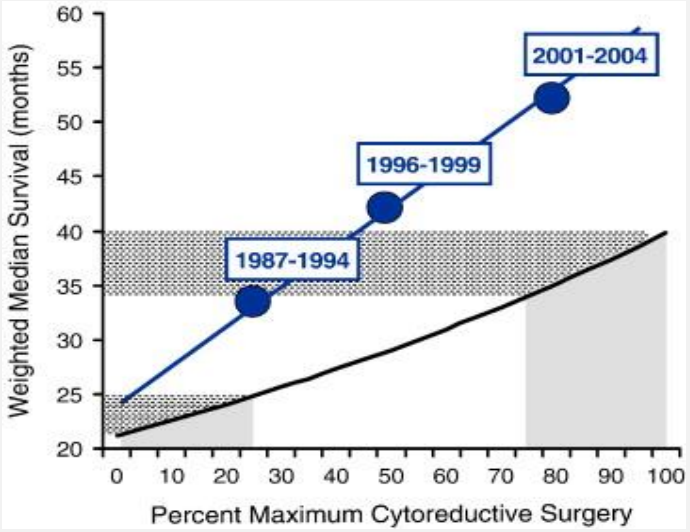
NEOADJUVANT CHEMOTHERAPY 3 CYCLES

CYTOREDUCTION

Gynecologic Oncology
Volume 114, Issue 1, July 2009, Pages 26-31

Improved progression-free and overall survival in advanced ovarian cancer as a result of a change in surgical paradigm ☆

Dennis S. Chi [a], Eric L. Eisenhauer [a], Oliver Zivanovic [a], Yukio Sonoda [a], Nadeem R. Abu-Rustum [a], Douglas A. Levine [a], Matthew W. Guile [b], Robert E. Bristow [b], Carol Aghajanian [c], Richard R. Barakat [a]

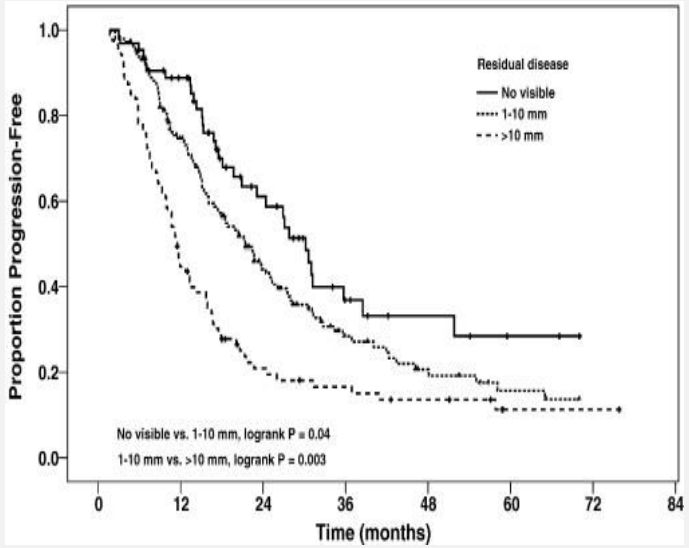


	1996-99	2001-4
Optimal cytoreduction	50%	80%
Median OS (months)	43	58
		P=0.004

Gynecologic Oncology
Volume 108, Issue 2, February 2008, Pages 276-281

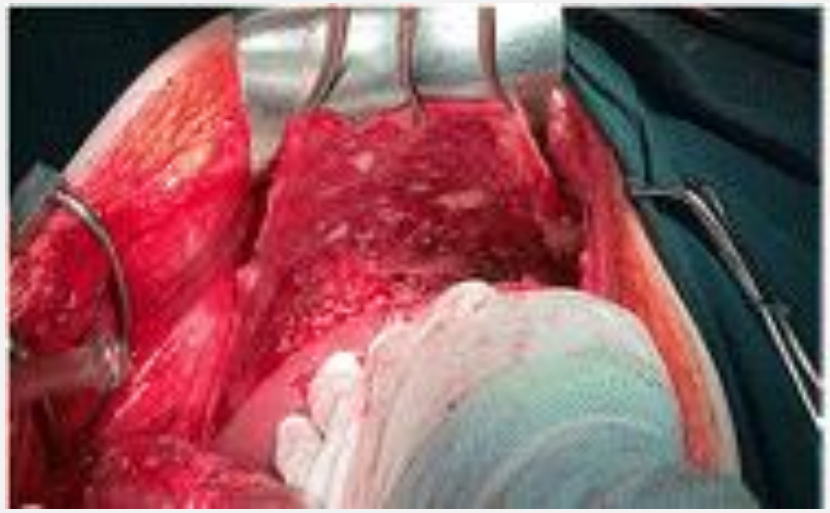
The effect of maximal surgical cytoreduction on sensitivity to platinum-taxane chemotherapy and subsequent survival in patients with advanced ovarian cancer ☆

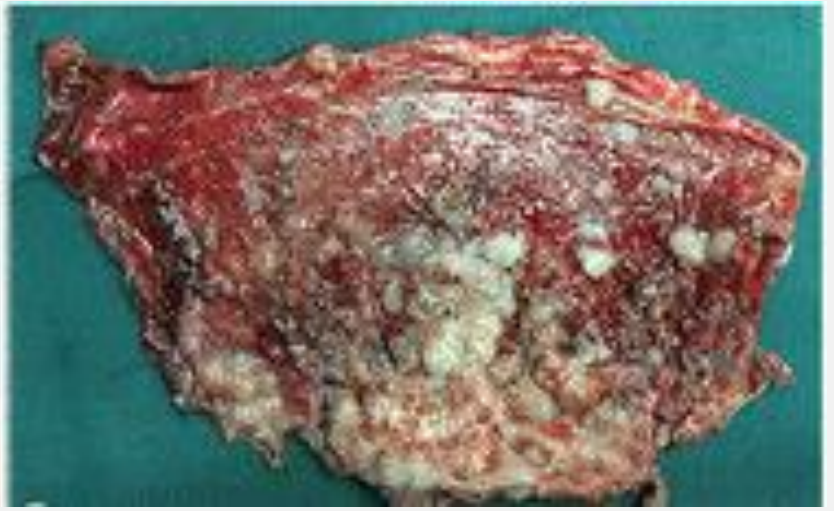
Eric L. Eisenhauer [a], Nadeem R. Abu-Rustum [a], Yukio Sonoda [a], Carol Aghajanian [b], Richard R. Barakat [a], Dennis S. Chi [a]

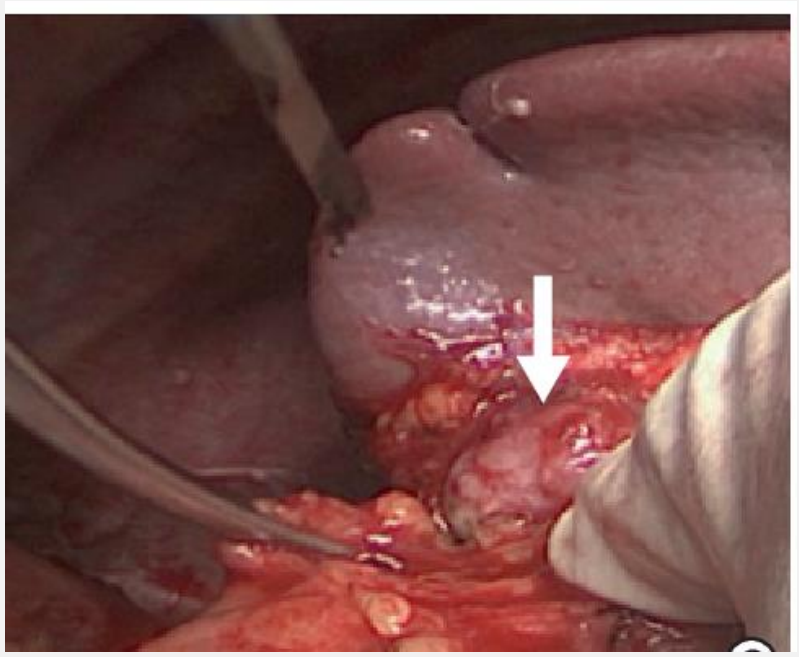


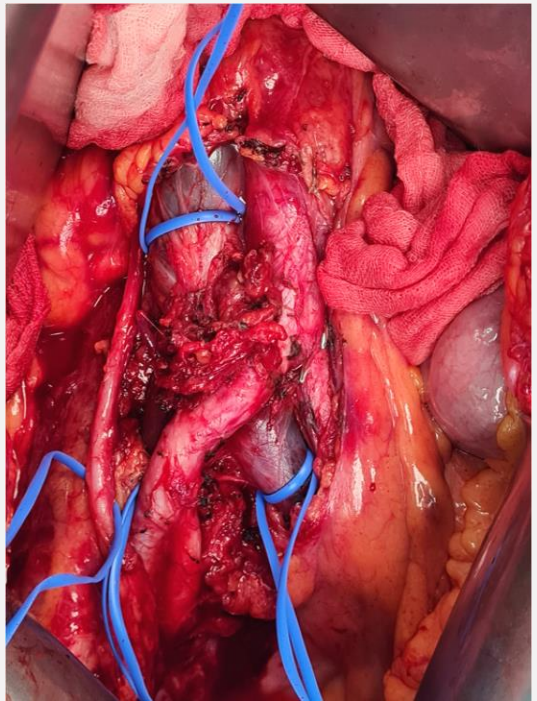
Surgical Aim: R0
No visible disease

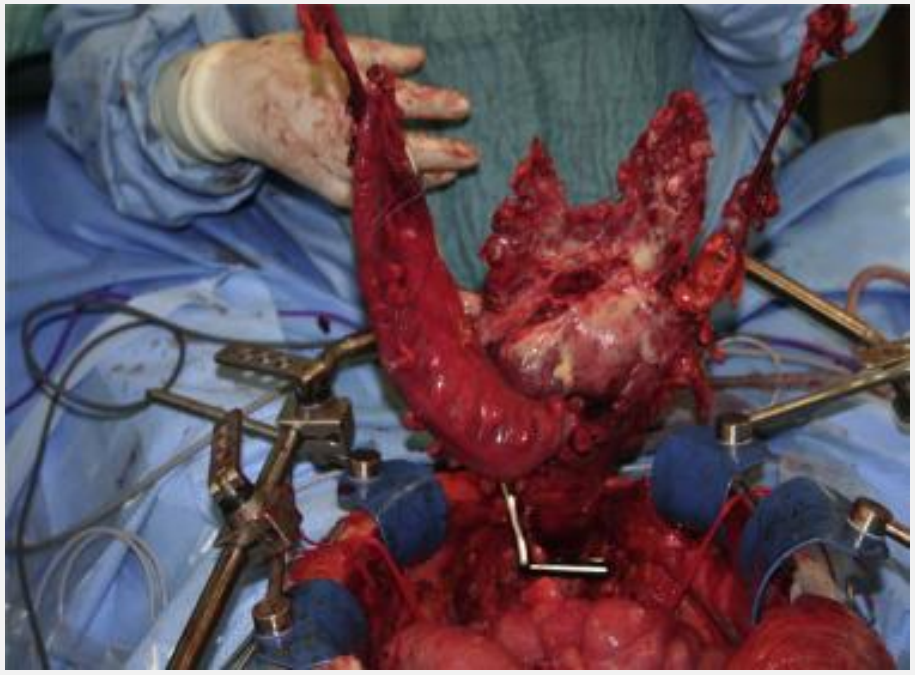
CHANGING OUR PRACTICE: RADICAL CYTOREDUCTION



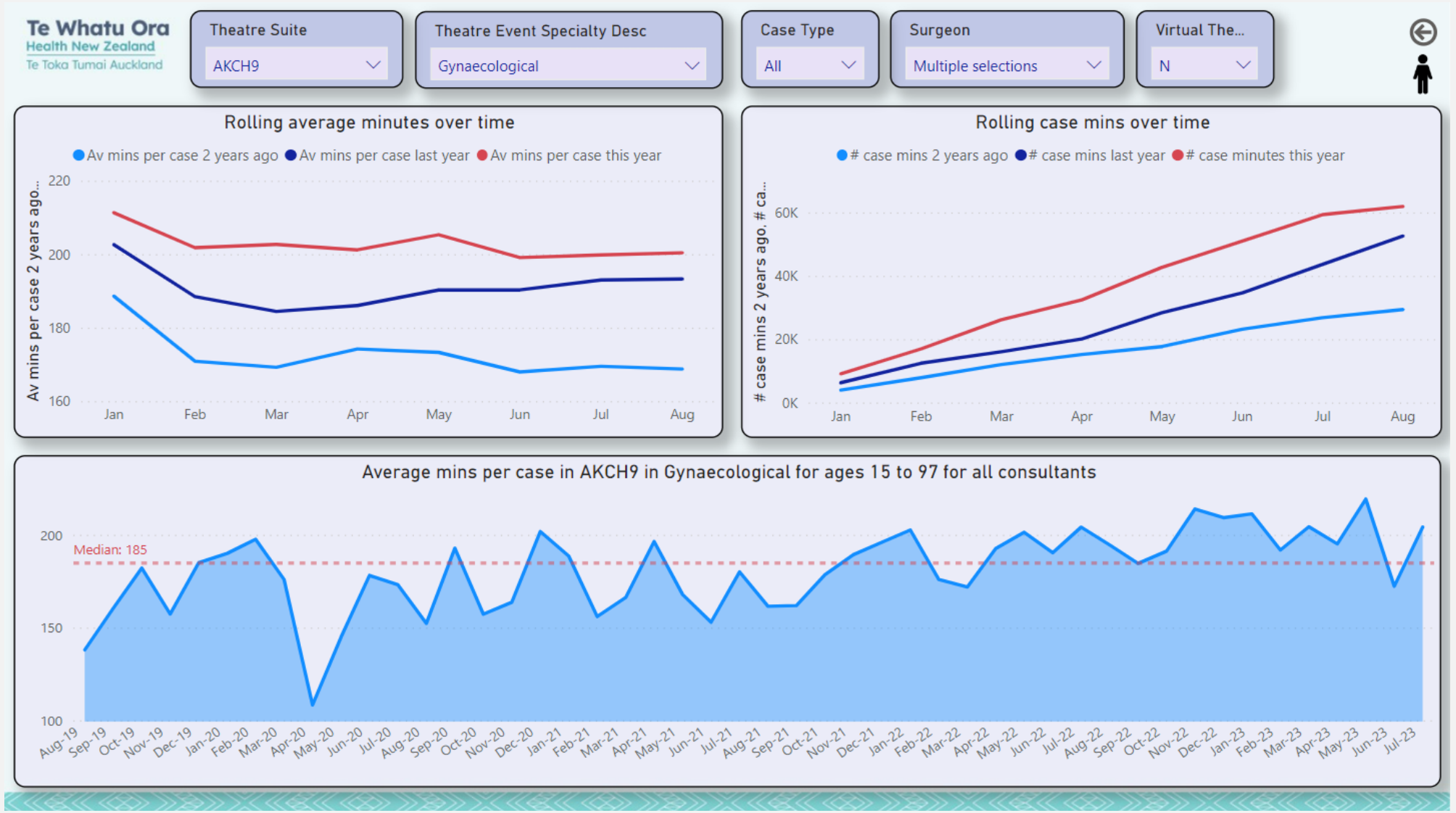








INCREASING THEATRE TIME



CAN WE PREDICT HOW LONG IT WILL TAKE?

TABLE 2. Studies using CT scan to predict surgical outcome

Study	Type	n	Age, yr*	Stage III/IV	RD, cm	OC, %	CA 125	Sens, %	Spec, %	PPV, %	NPV, %	Accuracy, %
Nelson et al[42]	Retro	42	61	81%	2	69	—	92	71	67	94	86
Meyer et al[43]	Retro	28	61	64%	2	57	—	58	100	100	55	79
Bristow et al[46]	Retro	41	67	Yes	1	49	—	100	85	87.5	100	93
Axtell et al[47]	Retro	65	—	Yes	1	78	—	79	75	—	—	77
Dowdy et al[44]	Retro	87	68	Yes	1	71	500	64	81	57	85	71
Byrom et al[48]	Retro	51	—	54%	2	51	250	88	98	95	—	73

*Median age.

TABLE 3. Studies using laparoscopy to predict surgical outcome

Study	Type	n	Age, yr*	Stage III/IV	RD, cm	OC, %	Sens, %	Spec, %	PPV, %	NPV, %	Accuracy, %
Fagotti et al[54]	Prosp	113	59	Yes	1	50	—	—	100	60	93
Fagotti et al[55]	Prosp	64	57	Yes	1	55	30	100	100	70	75
Brun et al[56]	Retro	26	60	Yes	1	69	46	89	89	44	60
Angioli et al[57]	Prosp	87	58	Yes	0	96%	—	—	—	—	—
Deffieux et al[58]	Prosp	15	54	Yes	0	99%	—	—	—	—	—

*Median age.
Prosp, prospective study.

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PREDICTION BY IMAGING OF BOWEL RESECTIONS

Sensitivity and specificity for CT predictors of surgical findings.

CT finding	Surgical finding	Sensitivity % (n/N)	Specificity % (n/N)
Diaphragm (any involvement)	Same	48% (15/31)	100% (15/15)
Pleural effusion	Diaphragm	65% (20/31)	87% (13/15)
Ascites on 2/3 of images	Ascites	44% (16/36)	100% (10/10)
Any sigmoid involvement	Same	54% (21/39)	100% (7/7)
Omental cake	Same	72% (21/29)	65% (11/17)
Splenic involvement	Same	100% (1/1)	96% (43/45)
Surface liver	Same	100% (1/1)	93% (42/45)
DPT	Mesenteric disease	36% (13/36)	90% (9/10)
Large bowel involvement	Same	29% (10/35)	91% (10/11)
parenchymal) disease			
DPT	Carcinomatosis	34% (13/38)	88% (7/8)

DPT, Diffuse peritoneal thickening.

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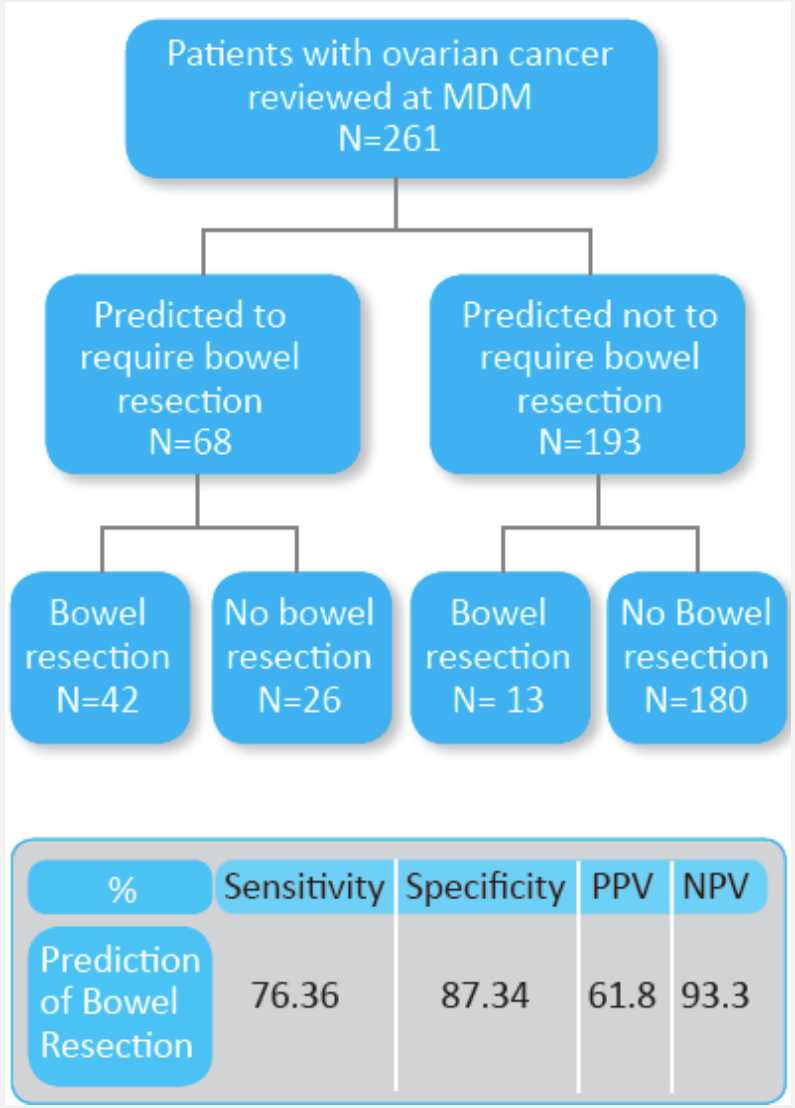

%	Sensitivity	Specificity	PPV	NPV
Prediction of Bowel Resection	76.36	87.34	61.8	93.3

P Walker, H Moore, L Eva IGCS 2018

TE TOKA TUMAI CYTOREDUCTION RATES

Table 11.17 Surgical debulking and bowel surgery at primary, interval and recurrence surgery for ovarian, fallopian tube and peritoneum cancer 2022

	Total	Primary treatment		Interval debulking		Surgery for recurrence
		stage 1/2	stage 3/4	stage 1/2	stage 3/4	
	N= 152	N= 63	N= 34	N= 2	N= 41	N= 12
	n %	n %	n %	n %	n %	n %
Residual disease						
None	141 92.8	63 100.0	29 85.3	2 100	35 85.4	12 100
<1cm	7 4.6	0 0.0	2 5.9	0 0	5 12.2	0 0
≥1cm	4 2.6	0 0.0	3 8.8	0 0	1 2.4	0 0
Bowel surgery						
Yes	12 7.9	1 1.6	5 14.7	0 0	4 9.8	2 16.7
No	140 92.1	62 98.4	29 85.3	2 100	37 90.2	10 83.3

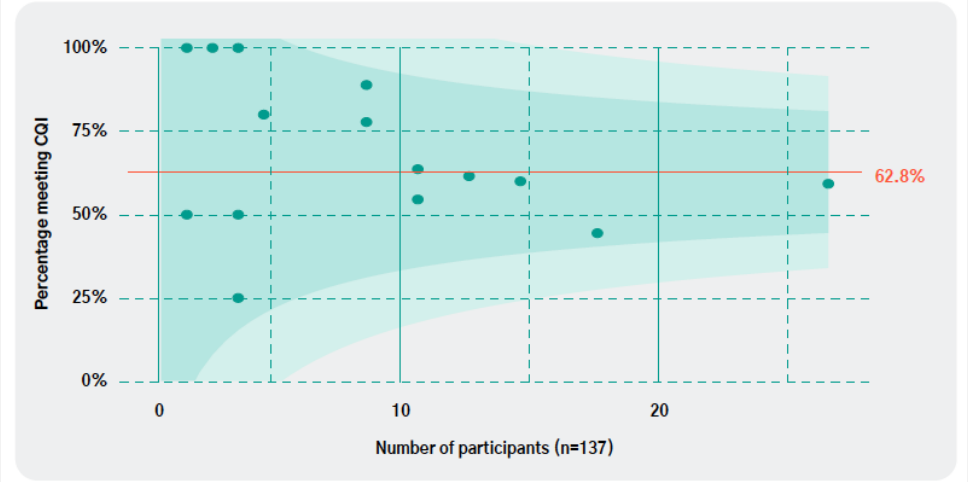

Figure 23: CQI #5a.

Proportion of patients with advanced OTP cancer who undergo primary cytoreductive surgery who have no macroscopic residual cancer.

X

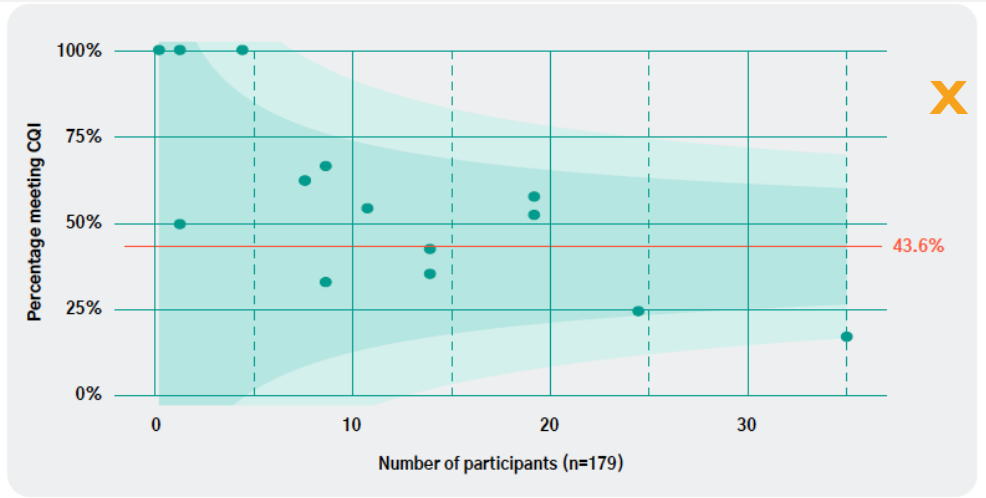

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Figure 25: CQI #6a.

Proportion of patients with advanced OTP cancer who undergo interval cytoreductive surgery who have no macroscopic residual cancer.

COMPLICATIONS

Table 11.19 Clinical outcomes/complications among inpatient surgeries with malignancy (n=surgeries) performed by the Gynaecological Oncology team by year (2015-2022)

	Total 2015* N=321		Total 2016* N=386		Total 2017* N=375		Total 2018* N=422		Total 2019 N=429		Total 2020 N=413		Total 2021 N=400		Total 2022 N= 399	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Intra-operative complications																
Anaesthetic Complication											2	0.5	2	0.5	2	0.5
>1000mls blood loss	20	6.2	18	4.7	13	3.5	22	5.2	13	3	24	5.8	32	8.0	35	8.8
Bowel injury	2	0.6	4	1	4	1.1	4	0.9	6	1.4	6	1.5	9	2.3	7	1.8
Bladder injury	1	0.3	5	1.3	5	1.3	6	1.4	2	0.5	1	0.2	2	0.5	5	1.3
Ureteric injury	1	0.3	1	0.3	2	0.5	1	0.2	1	0.2	1	0.2	0	0.0	4	1.0
Other	3	0.9	11	2.8	4	1.1	13	3.1	22	5.1	11	2.7	25	6.3	9	2.3
Post-operative complications																
Transfusion	45	14	49	12.7	42	11.2	76	18	51	11.9	58	14	76	19.0	92	23.1
Febrile morbidity	10	3.1	24	6.2	21	5.6	35	8.3	22	5.1	19	4.6	19	4.8	33	8.3
Wound infection	10	3.1	7	1.8	13	3.5	6	1.4	14	3.3	9	2.2	31	7.8	33	8.3
Thromboembolism	0		2	0.5	3	0.8	3	0.7	3	0.7	2	0.5	7	1.8	4	1.0
Cardiovascular	4	1.2	5	1.3	1	0.3	8	1.9	3	0.7	2	0.5	3	0.8	4	1.0
Gastro-intestinal	16	5	23	6	24	6.4	21	5	15	3.5	23	5.6	38	9.5	17	4.3
Urinary retention	22	6.9	26	6.7	21	5.6	27	6.4	30	7	17	4.1	15	3.8	17	4.3
Return to OT within 6 weeks	8	2.5	12	3.1	14	3.7	12	2.8	13	3	7	1.7	6	1.5	10	2.5
Readmission with complication within 6 weeks	17	5.3	43	11.1	38	10.1	38	9	34	7.9	35	8.5	39	9.8	42	10.5
Death	1	0.3	1	0.3	1	0.3	1	0.2	0		0		1	0.3	3	0.8

EVOLUTION OF VULVAL CANCER SURGERY

Basset 1912

- Vulvectomy combined with groin dissection

Taussig 1940

- En bloc, later modified to 3 incisions

Way 1948

- En bloc butterfly incision, groin and pelvic node dissection

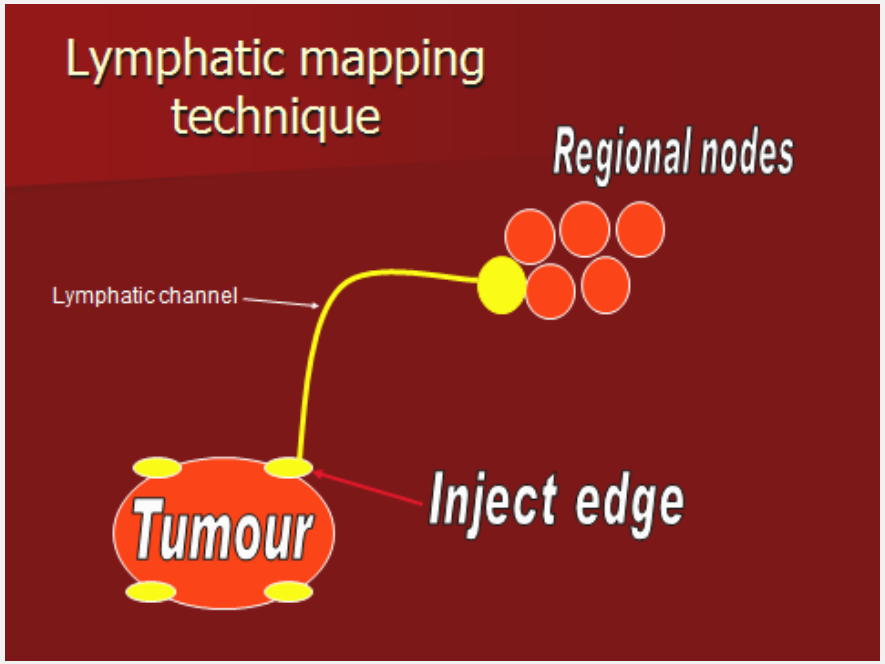
Hacker 1981

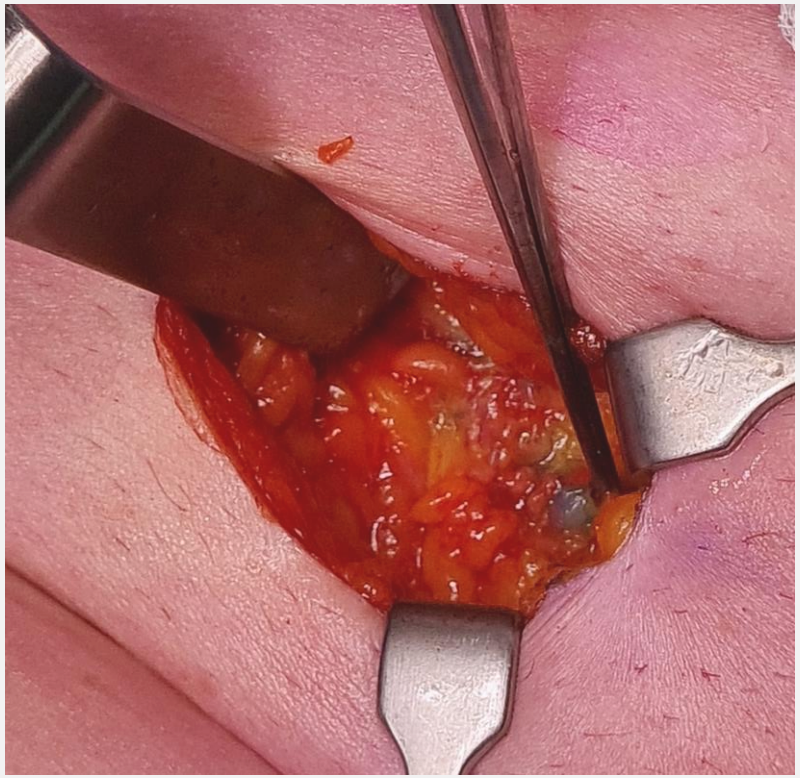
- Triple incision modified radical vulvectomy BLGND
- Unilateral GND with lateralised tumour

Van der Zee 2008

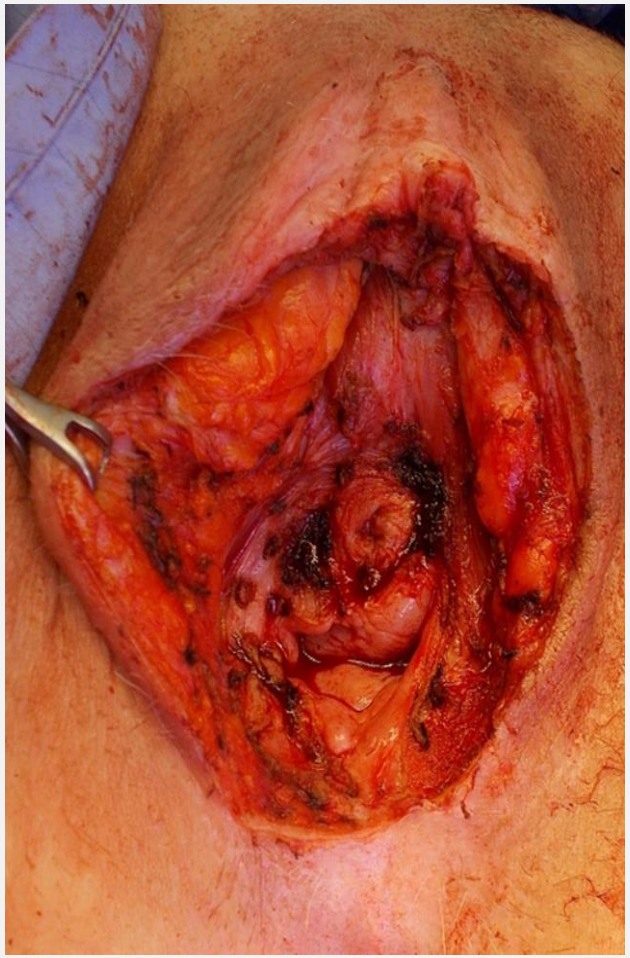
- Radical local excision with sentinel node

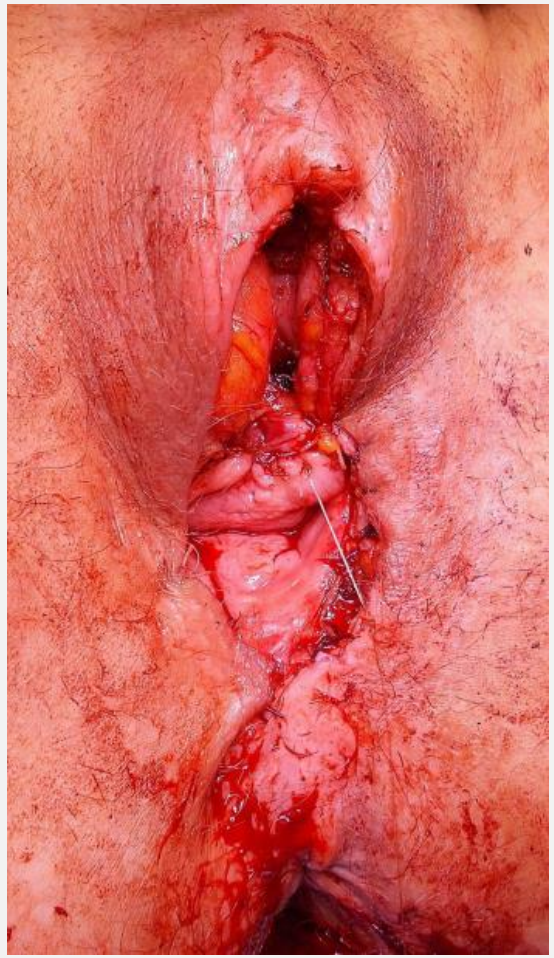
SENTINEL NODE BIOPSY



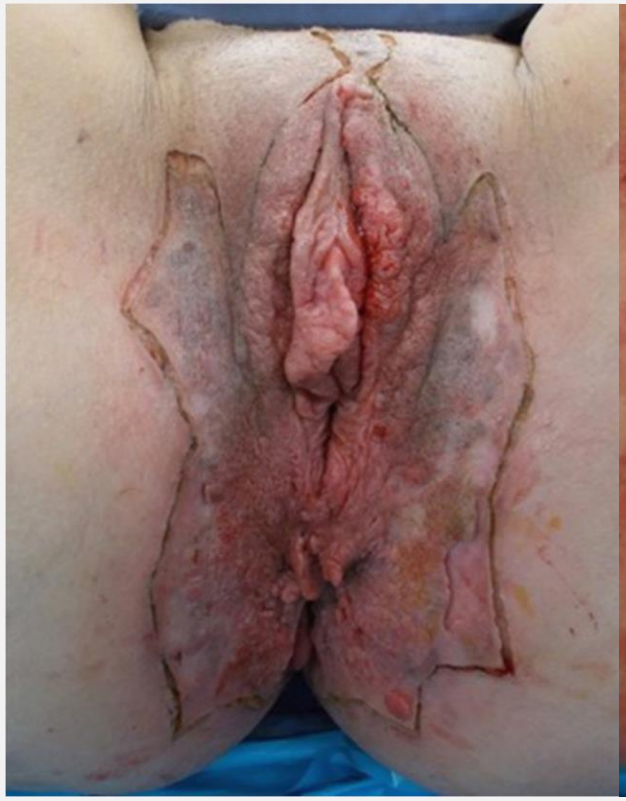


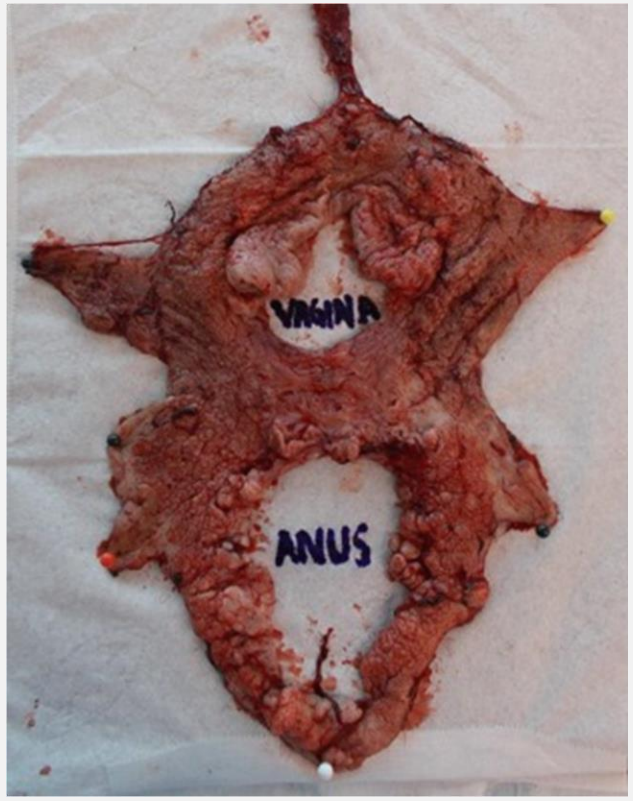
VULVAL CANCER AND RECONSTRUCTION



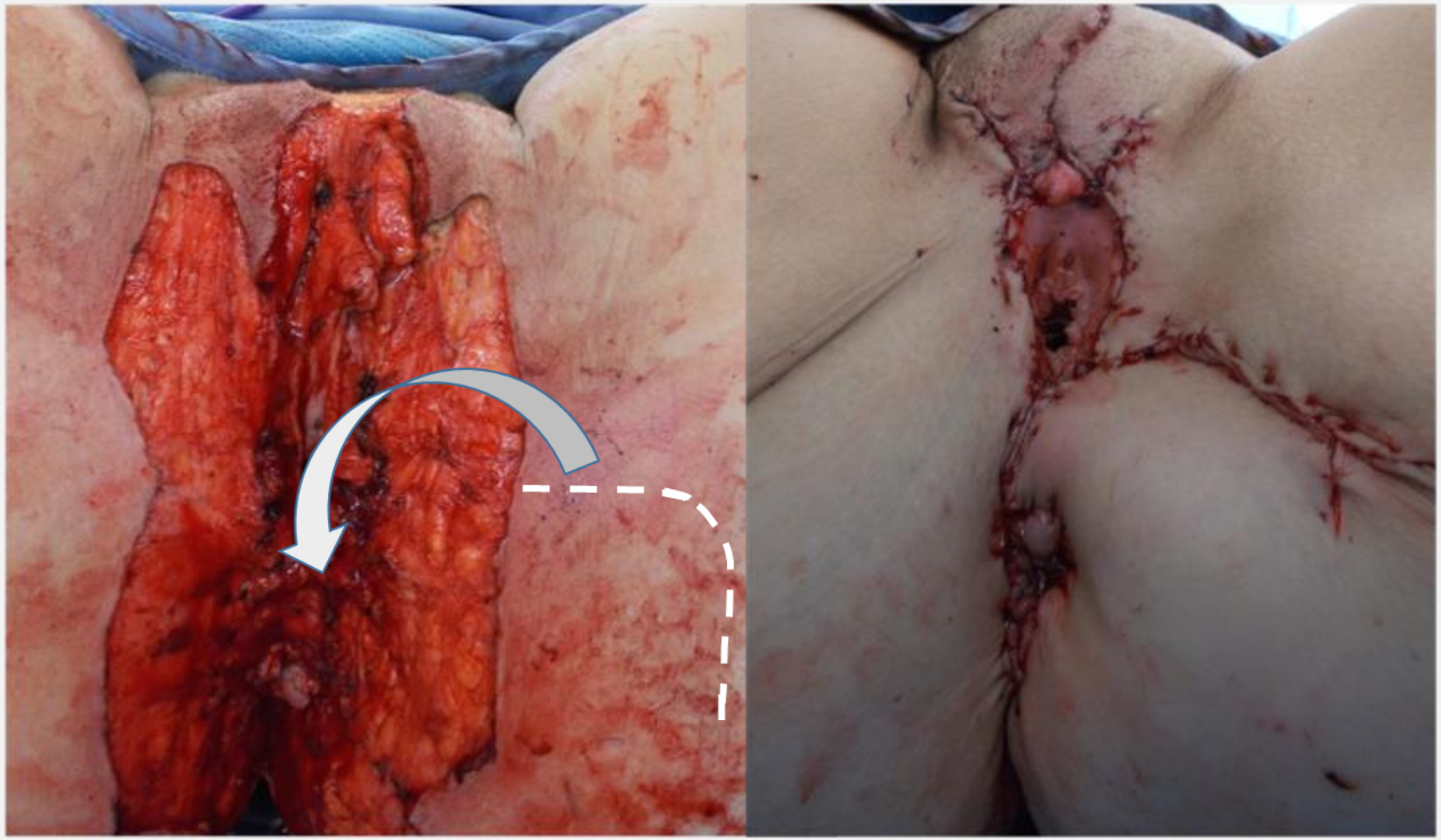


VULVAL CANCER AND RECONSTRUCTION

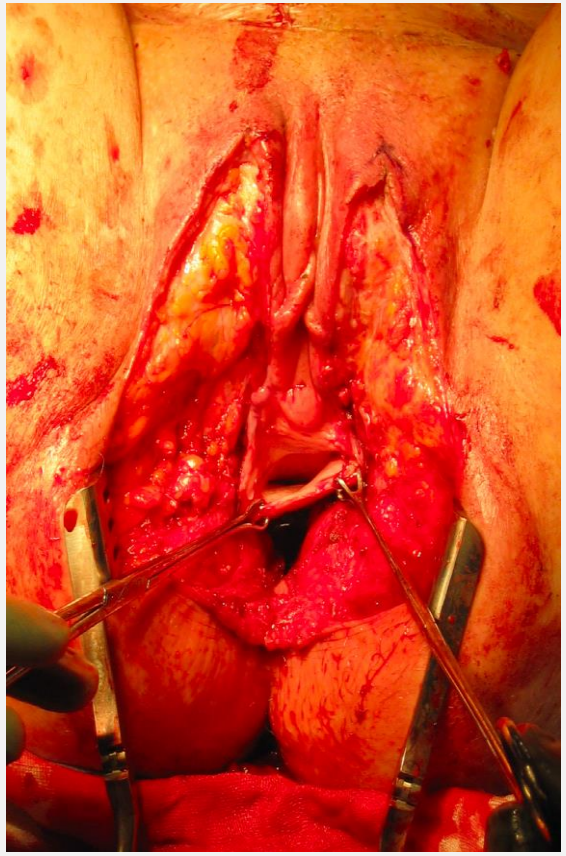


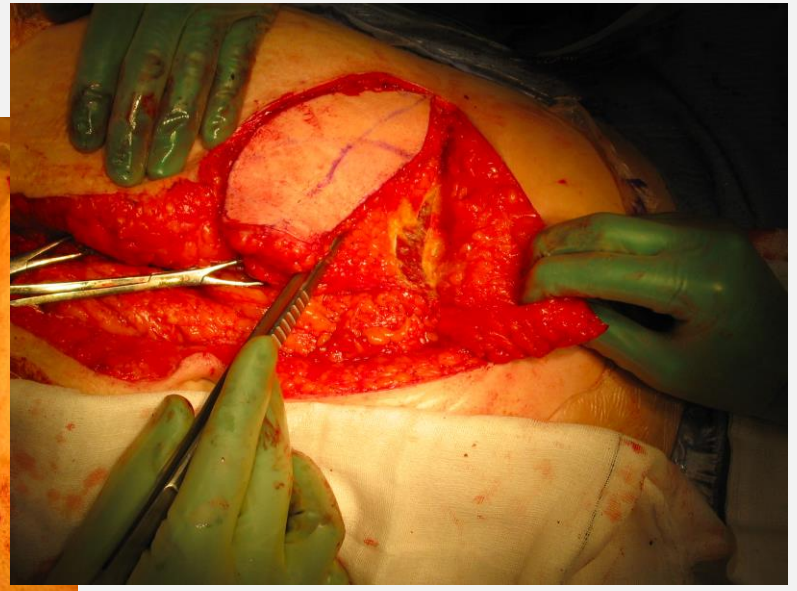


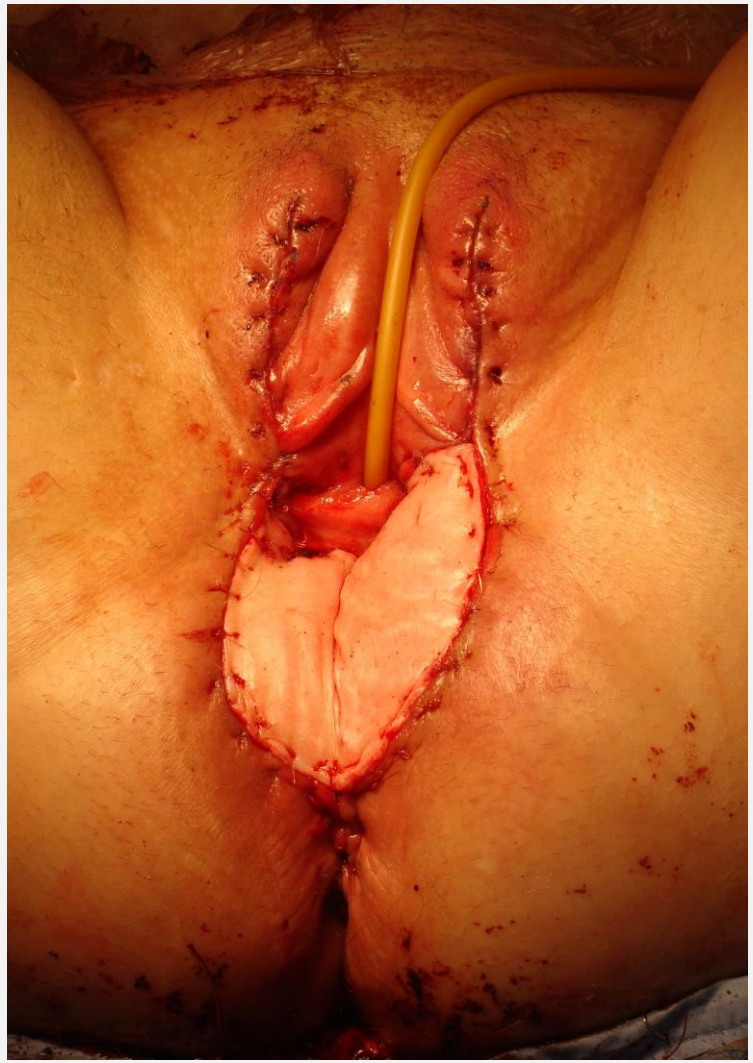
PRIMARY CLOSURE AND LEFT RHOMBOID FLAP



ANOVULVECTOMY – DISTANT FLAPS







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- Sub-types
- Presentation
- Diagnosis
- Staging
- Management
- Surgical options
- Lymph Node Assessment
- Post-operative management
- Recurrent Vulval Cancer
- Advanced Vulval Cancer
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- Living with Vulval Cancer
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Gynecologic Oncology 157 (2020) 450–455
Contents lists available at ScienceDirect
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Trends in HPV-dependent and HPV-independent vulvar cancers: The changing face of vulvar squamous cell carcinoma

Lois J. Eva [a,b,*], Lynn Sadler [b], Kah Leng Fong [a], Sukhwinder Sahota [a], Ronald W. Jones [a], Susan M. Bigby [c]
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[c] Department of Histopathology, Middlemore Hospital, Auckland, New Zealand

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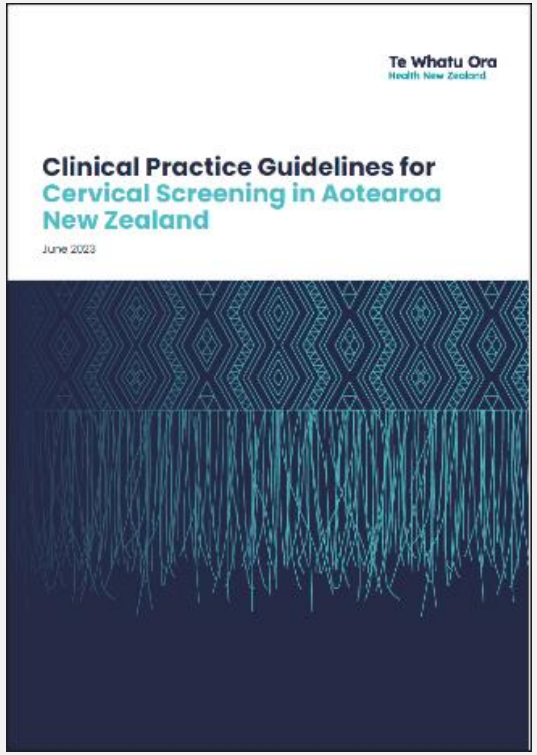

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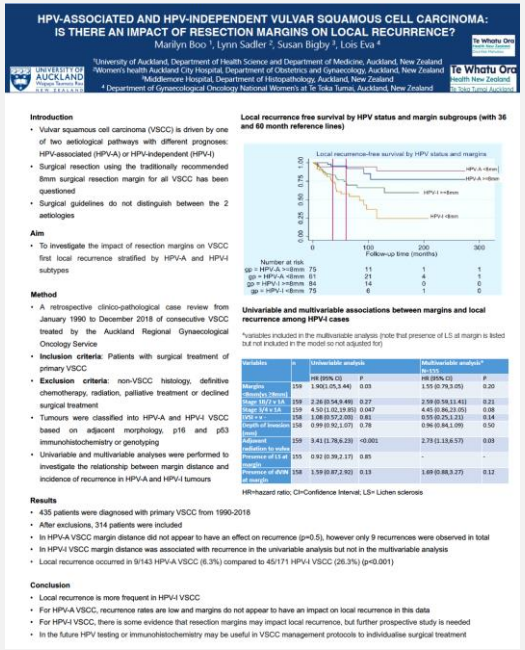

Original research

HPV-independent and HPV-associated vulvar squamous cell carcinoma: two different cancers

Lois Eva [1,2] Lynn Sadler,[3] John MD Thompson,[3] Sukwinder Sahota,[1] Kah Leng Fong,[1] Ronald W Jones,[1] Susan M Bigby[4]

GYN ONC IS A TEAM SPORT…AND CONTINUES TO EVOLVE

FORTUNATELY SO IS ANAESTHESIA…

THANK YOU