

Surgical Gynaecology

Who should do what?

**Atlantic Society of Obstetrics and
Gynaecology**

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5000 Hysterectomies

Halifax Infirmary: 1992-1996

Women's Hospital, IWK: 1998-2003

Perioperative Morbidity

Surgical:

- Cystotomy
- Ureter
- VVF
- Bowel/injury
- Haemorrhage → OR
- Reoperation
- Tranfusion
- Haematoma

Associated:

- Ileus/obstruction
- Infection
- Thromboembolism
- Readmission
- ICU

Surgical Morbidity (1)

	Cystotomy # (%)	Ureter # (%)	VVF # (%)	Bowel injury # (%)
Abdominal (2291)	36 (1.6)	7 (0.3)	3 (0.1)	6 (0.3)
Abdominal+(497)	10 (2.0)	6 (1.2)	1 (0.2)	-
Total Abdominal (2788)	46 (1.6)	13 (0.5)	4 (0.1)	6 (0.2)
Vaginal (1543)	6 (0.4)	-	-	1 (0.06)
Vaginal + (669)	15 (2.2)	5 (0.7)	-	2 (0.3)
Total Vaginal (2212)	21 (0.9)	5 (0.2)	-	3 (0.1)
Total Abd & Vag (5000)	67 (1.3)	18 (0.4)	4 (0.08)	9 (0.2)

Surgical Morbidity (2)

	Haemorrhage Return to OR	Reoperation	Transfusion	Haematoma	Total
Abdominal (2291)	12 (0.5)	18 (0.8)	39 (1.7)	36 (1.6)	157 (6.9)
Abdominal + (497)	2 (0.4)	11 (2.2)	9 (1.8)	11 (2.2)	50 (10.1)
Total Abdominal (2788)	14 (0.5)	29 (1.0)	48 (1.7)	47 (1.7)	207 (7.4)
Vaginal (1543)	16 (1.0)	13 (0.8)	10 (0.6)	24 (1.6)	70 (4.5)
Vaginal + (669)	7 (1.0)	11 (1.6)	8 (1.2)	13 (1.9)	61 (9.1)
Total Vaginal (2212)	23 (1.0)	24 (1.1)	18 (0.8)	37 (1.7)	131 (5.9)
Total Abd & Vag (5000)	37 (0.7)	53 (1.1)	66 (1.3)	84 (1.7)	338 (6.8)

Surgical Morbidity

Statistical comparisons

Abdominal vs Vaginal	RR 1.51 (1.15 – 1.99) p = .003
Abdominal+ vs Abdominal	RR 1.47 (1.08 – 1.99) p = .01
Vaginal+ vs Vaginal	RR 2.01 (1.44 – 2.80) p <.001
Abdominal+ vs Vaginal+	RR 1.10 (0.77 – 1.57) p = 0.59

Associated Morbidity

	Ileus/ Obstruction	Infection	Thrombo- embolism	Readmit	ICU	TOTAL
Abdominal (2291)	18 (0.8)	77 (3.4)	5 (0.2)	39 (1.7)	11 (0.5)	150 (6.5)
Abdominal+ (497)	9 (1.8)	29 (5.8)	2 (0.4)	13 (2.6)	2 (0.4)	55 (11.1)
TOTAL Abdominal (2788)	27 (1.0)	106 (3.8)	7 (0.3)	52 (1.9)	13 (0.5)	205 (7.4)
Vaginal (1543)	2 (0.1)	39 (2.5)	1 (0.06)	44 (2.9)	3 (0.2)	89 (5.8)
Vaginal + (669)	-	26(3.9)	1 (0.1)	17 (2.5)	3 (0.4)	47 (7.0)
TOTAL Vaginal	2 (0.09)	65 (2.9)	2 (0.09)	61 (2.8)	6 (0.3)	136 (6.1)
TOTAL Abd & Vag (5000)	29 (0.6)	171 (3.4)	9 (0.2)	113 (2.3)	19 (0.4)	341 (6.8)

Associated Morbidity

Statistical comparisons

Abdominal vs Vaginal	RR 1.14 (0.88 – 1.46) p = 0.33
Abdominal+ vs Abdominal	RR 5.07 (3.50 – 7.34) p <.001
Vaginal+ vs Vaginal	RR 1.22 (0.87 – 1.71) p = 0.26
Abdominal+ vs Vaginal+	RR 1.58 (1.09 – 2.28) p = .02

Total Morbidity: Surgical and Associated 5000 hysterectomies

	Morbidities No (%)	Patients No (%)
Abdominal (2291)	307 (13.4)	173 (7.6)
Abdominal + (497)	105 (21.1)	54 (10.9)
Total Abdominal (2788)	412 (14.8)	227 (8.1)
Vaginal (1543)	159 (10.3)	79 (5.1)
Vaginal + (669)	108 (16.1)	57 (8.5)
Total Vaginal (2212)	267 (12.0)	136 (6.1)
TOTAL 5000	679 (13.6)	363 (7.3)

Total Morbidity

Morbidities:	
Abdominal vs Vaginal	RR 1.30 (1.09 – 1.56) p = .004
Abdominal+ vs Abdominal	RR 1.93 (1.58 – 2.34) p <.001
Vaginal+ vs Vaginal	RR 1.57 (1.25 – 1.97) p <.001
Abdominal+ vs Vaginal+	RR 1.31 (1.03 – 1.67) p = .03
Patients:	RR 1.47 (1.14 – 1.91) p = .003
Abdominal vs Vaginal	
Abdominal+ vs Abdominal	RR 1.44 (1.08 – 1.92) p = .01
Vaginal+ vs Vaginal	RR 1.66 (1.20 – 2.31) p = .002
Abdominal+ vs Vaginal+	RR 1.28 (0.90 – 1.82) p = 0.18

Incontinence procedures 1998 - 2002

Year	Bladder Repair* /- Other Procedures (Excluding Hysterectomy)	Morbidity Patients (%)
1998	76	21 (27.6)
1999	95	13 (13.7)
2000	84	8 (9.5)
2001	97	12 (12.4)
2002	89	17 (19.1)
Total	441	71 (16.1)

ORIGINAL ARTICLE

Randomized, prospective, double-blind comparison of abdominal and vaginal hysterectomy in women without uterovaginal prolapse

TARIQ MISKRY AND ADAM MAGOS

From the Minimally Invasive Therapy Unit and Endoscopy Training Center, University Department of Obstetrics and Gynaecology, Royal Free Hospital, London, UK

Acta Obstet Gynecol Scand 2003; 82: 351–358. © Acta Obstet Gynecol Scand 82 2003

Background. To determine under controlled conditions whether there are significant differences in the duration of hospitalization and recovery between abdominal and vaginal hysterectomy for indications other than uterovaginal prolapse.

Method. In a two-center prospective, double-blind randomized trial, 36 women with dysfunctional uterine bleeding, uterine fibroids or pelvic pain scheduled for hysterectomy were randomized to abdominal or vaginal hysterectomy. The primary outcome measure was the duration of hospital stay. Secondary outcome measures included analgesic requirements and return to normal health and function.

**RCT: Vaginal Vs Abdominal Hysterectomy
(Miskry & Magos. Acta Obstet Gynecol Scand
2003;82: 351)**

	Vaginal	Abdominal
Post op days	3 days	5 days
Analgesia (morphine)	75 mg	131 mg
IV fluids	25 hr	33 hr
'Domestic' activity	4.6 weeks	8.5 weeks
Return to work	7 weeks	14 weeks

Why audit?

- Fulfill audit obligations
- Modify surgical practice
- Guide informed consent
- Guide training requirements

Canadian Institute for Health Information (CIHI) 2000- 2001

	Hysterectomy Per 1000
Nfld	6.4
PEI	6.0
NS	5.6
NB	7.3
Que	4.2
Ont	4.3
Man	4.6
Sask	5.3
Alta	4.7
BC	4.0
Canada	4.5

CIHI 2000-2001

Percent	BMI (>27)	Smoking	Drinking (heavy)	Physical activity
Nfld	43	29	29	38
PEI	38	28	23	40
NS	39	28	26	43
NB	39	26	23	35
Que	29	30	18	39
Ont	33	25	19	43
Man	36	25	23	39
Sask	39	28	24	44
Alta	33	28	23	48
BC	27	21	20	49
Canada	32	26	20	43

CIHI 2000-2001

Percent	Life Stress	Self-rated health	Unemployment	Crime
Nfld	15	66	16	6
PEI	18	64	12	7
NS	23	60	10	8
NB	23	56	11	6
Que	30	61	9	6
Ont	26	63	6	7
Man	25	60	5	11
Sask	25	57	6	13
Alta	26	62	5	9
BC	24	59	8	11
Canada	26	61	7	8

Hysterectomy: Trends

Canada	1981 9.4/1000	1999 4.6/1000
Australia	1981 5.8/1000	2000 4.3/1000
Netherlands	1991→1998	↓24%
USA	1990 5.5/1000	1999 5.6/1000

Hysterectomy: Trends

- Nova Scotia -

	1992	2000	
Halifax	931	602	↓ 35%
Dartmouth	139	108	↓ 22%
Rest of NS	1440	1199	↓ 17%
Total	2510	1909	↓ 24%

OR Procedures

(per annum)

Surgical Procedures:

	1998 /99	2004/05
Inpatient	2047	1739(↓15%)
Day Surgery	2560	1910 (↓ 25%)
Total:	4607	3649(↓ 21%)

Patients:

Inpatient	1066	798 (↓ 25%)
Day Surgery	1640	1618 (↓ 1%)
Total	2706	2416 (↓11%)

Surgical Trends - Hysterectomy-

	1998	2005
Abdominal	336	205 (↓39%)
Vaginal	269	212 (↓21%)
Total	605	417 (↓31%)

Surgeons range: Abdominal 27→91%

Vaginal 9 →73%

Abdominal <10/year 6 surgeons

Vaginal <10/year 9 surgeons

Surgical Trends

	1998	2005	
Endometrial Ablation	56	221	
TVT/TOT	0	195	
Cystoscopy	35	287	↑
Diagnostic hysteroscopy	223	112	
Diagnostic laparoscopy	393	239	↓
Laparoscopy/Tubal lig	399	182	
Burch/MMK	107	58	
LUNA	25	2	

Surgical Trends

- Emergency cases -

Ectopic:	1998	2005
Surgical Rx	65	33
By Laparoscopy	19%	85%
D&C:		
	254	259

OR Resources

- 1990s 13 per week (HI 6, VGH 7)
- 2000s 9 per week

- 2003-2005
3382 hr → 3265 hr

- 2006 ↓ Anaesthesia

OR Utilisation

• Residents (R2-R5)		22
• Fellows		2
• Surgeons:	1998-2002	15
	2003	14
	2006	18

Hours (2005):

Range: 63-360 hrs

- 4 < 100 hr

- 6 100-200 hrs

- 8 > 200 hr

Resident Training

- Simulation training
- 'Stream' residents
- 'Grade' operations (R2/3 R4/5)
- Electives
- Use all opportunities

Staff Training

- Define local surgical needs
- Simulation training
- Short sabbaticals
- Limit type of surgery
- No surgery

‘The obstetrician-gynecologist should not misrepresent his or her experience with the proposed treatment or knowledge regarding potential long-term outcomes’

‘.....recognize their individual boundaries of expertise and provide only those medically accepted services and technical procedures for which they are qualified by education, training and experience.’

Ethics in Obstetrics and Gynaecology. 2nd Ed. ACOG,
Washington, DC, 2004

