Robotkirurgi när, var, hur?

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Intressekonflikter

Undervisning inom robotkirurgi för Intuitive

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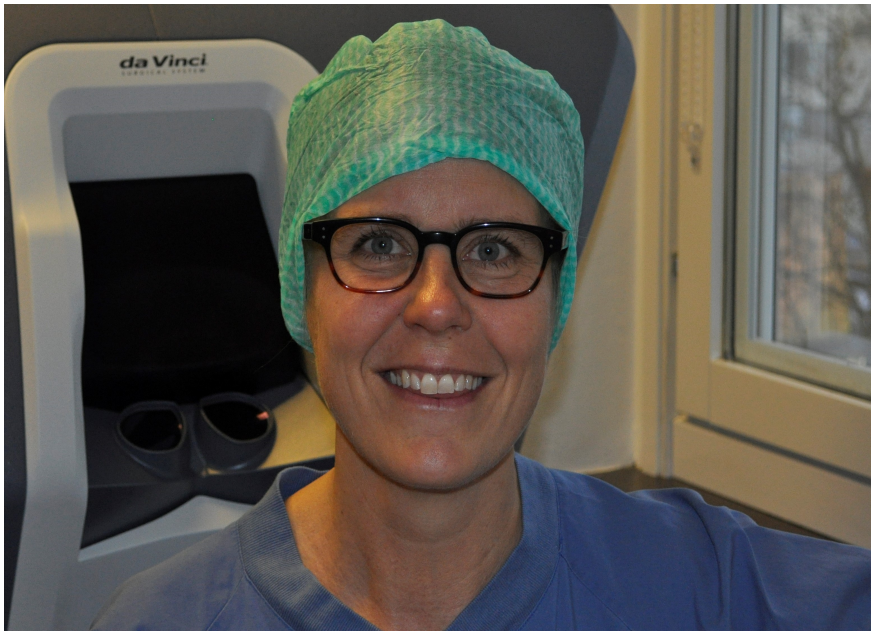

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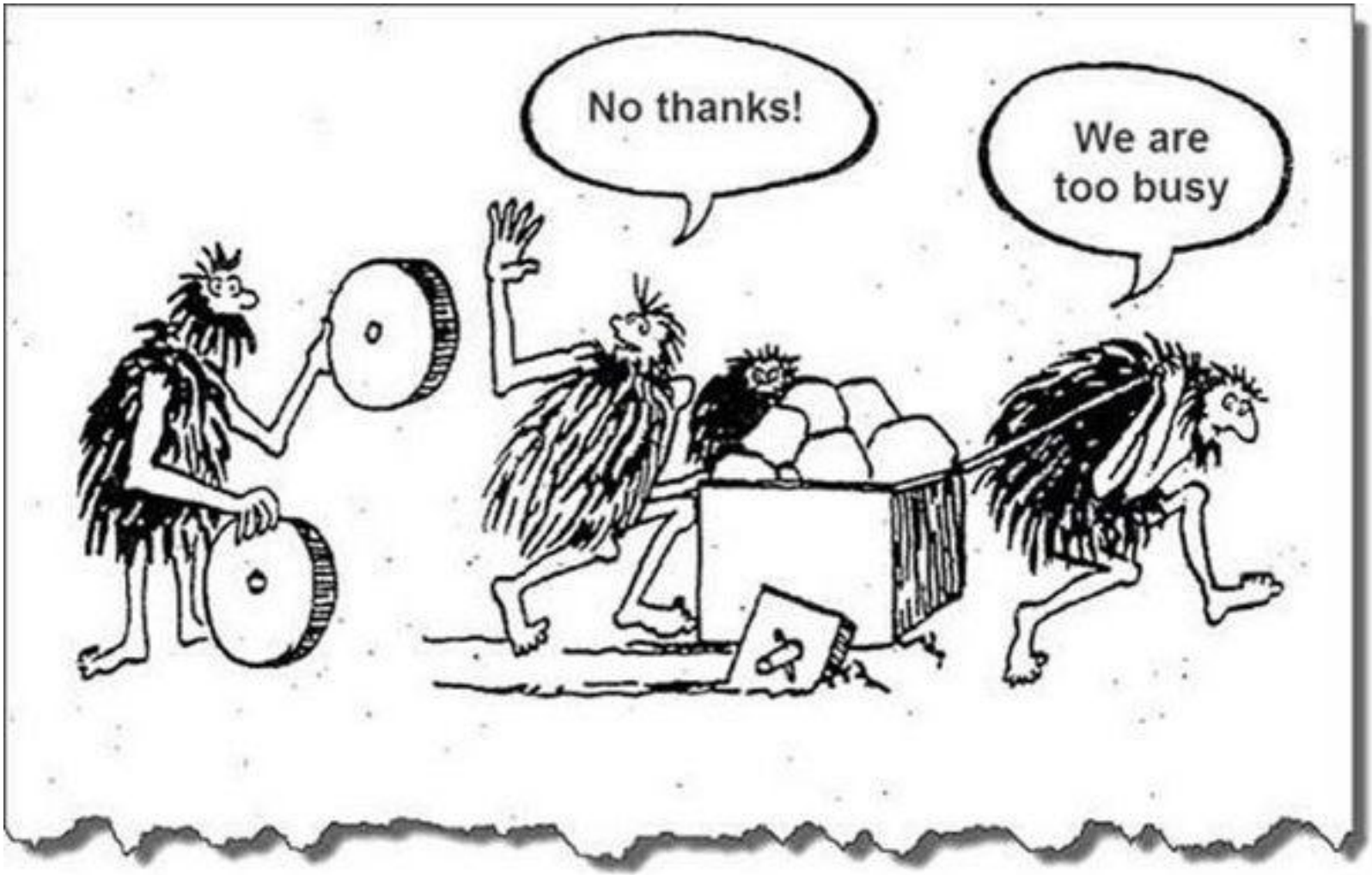

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Robotkirurgi = Laparoskopi

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Ergonomi

Robotic Surgery Is Less Physically Demanding Than Laparoscopic Surgery: Paired Cross Sectional Study.

Dalsgaard T[1], Jensen MD[2], Hartwell D[1], Mosgaard BJ[1], Jørgensen A[3], Jensen BR[1,2].

Ann Surg. 2018 Jun 19. doi: 10.1097/SLA.0000000000002845.

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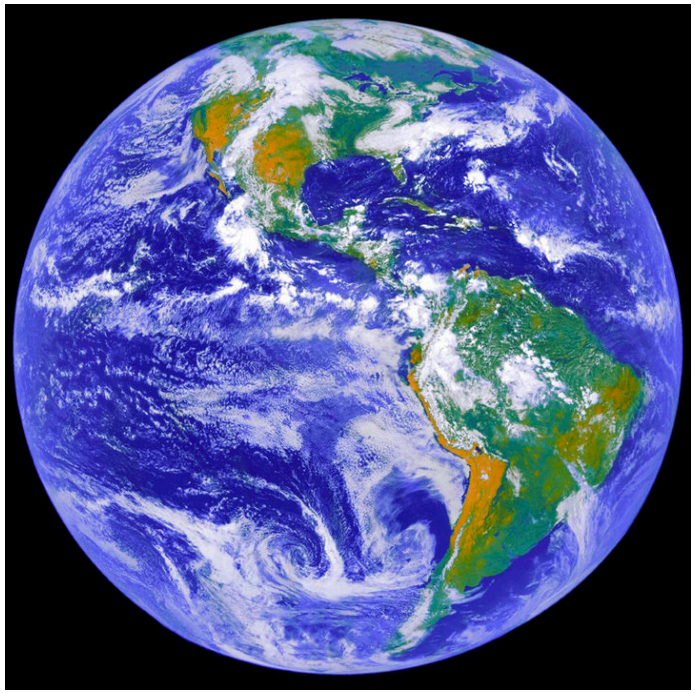
300 000 gynekologiska operationer

5000 operationsrobotar



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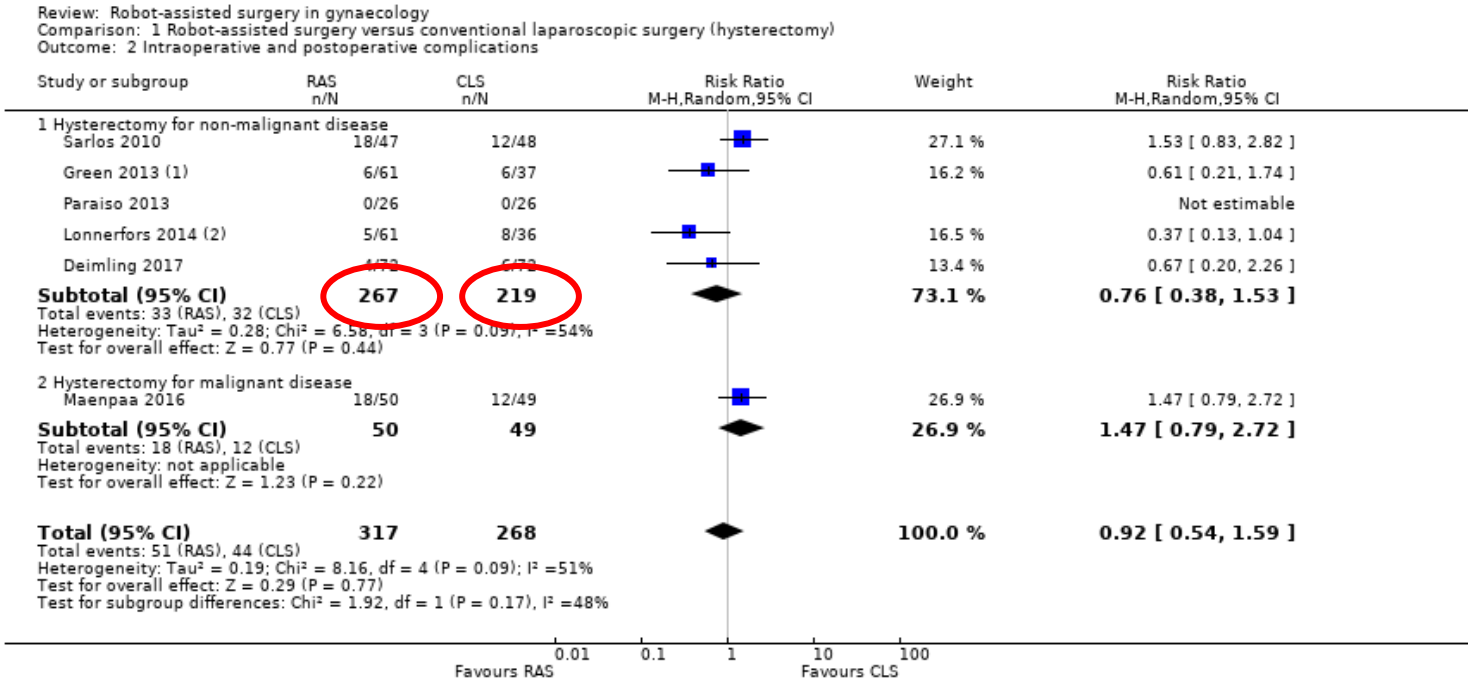

Comparison 1 Robot-assisted surgery versus conventional laparoscopic surgery (hysterectomy), Outcome 2 Intraoperative and postoperative complications.

Lawrie TA, Liu H, Lu D, Dowswell T, Song H, Wang L, Shi G. Robot-assisted surgery in gynaecology. Cochrane Database of Systematic Reviews 2019, 4. Art. No.: CD011422. DOI: http://dx.doi.org.sll.idm.oclc.org/10.1002/14651858.CD011422.pub2

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Robotic surgery has a role in benign gynecology. However, the specifics of this role are unclear.

Robotic surgery offers an advantage over abdominal surgery as a minimally invasive route of surgery.

Robotic surgery offers a safe and feasible minimally invasive surgical approach to the management of benign disease.

Robotic surgery is costly, and it is unclear whether the cost is worth its benefits.

The superiority of robotic surgery over laparoscopy has not been proved yet.

Robotic surgery should not be performed when vaginal surgery is a feasible option.

Robot-assisted laparoscopy in benign gynecology: Advantageous device or controversial gimmick?
Obianuju Sandra Madueke-Laveaux MD, MPH and Arnold P. Advincula MD
Best Practice & Research: Clinical Obstetrics & Gynaecology, 2017-11-01, Volume 45, Pages 2-6, Copyright © 2017

Gynop registret 2009-2015

	AH	VH	RAH	LH
Operationstid (min)	97	75	104	127
Blödningsmängd (ml)	250	149	65	171
Konvertering (%)		4,8	1,6	10

Vårdtid, återgång till ADL och återgång till arbete längre i AH gruppen.

Komplikationer lägst i VH grupp högst i AH och RAH

A Swedish population-based evaluation of benign hysterectomy, comparing minimally invasive andabdominal surgery

Nina K. Billfeldt,*, Christer Borgfeldt, Håkan Lindkvistc, Jan-Henrik Stjerndahl, Maud Ankardal

European Journal of Obstetrics & Gynecology and Reproductive Biology

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Variable	Procedure				p Value[b]
	Vaginal	Laparoscopic	Traditional minimally invasive	Robotic	
Patients	25	36	61 (50)	61 (50)	
Conversion to laparotomy	0	2 (5.6)	2 (3.3)	0	.50
Intraoperative bleeding, mL	50 (0–350)	100 (10–600)	100 (0–600)	50 (0–400)	.001
Intraoperative complications	0	1 (2.8)	1 (1.6)	1 (1.6)	1.0
Operative time, min	59 (29–118)	104 (54–223)	86 (29–223)	76 (43–210)	.54
Operating room time, min	91 (59–154)	163 (116–286)	148 (59–286)	140 (98–280)	.59
Uuterine weight, g	152 (30–433)	163 (31–694)	154 (30–694)	180 (54–1114)	.53
Concomitant procedures	4 (19)	27 (75)	31 (51)	36 (59)	.47
Inpatient time, day	1.4 (0.87)	1.4 (0.6)	1.4 (0.81)	1.1 (0.52)	.09
Postoperative complications	5 (20)	7 (19.4)	12 (19.7)	4 (6.6)	.01
Vaginal cuff hematoma	5 (20)	6 (16.7)	11 (18)	2 (3.3)	.02
Vaginal cuff dehiscence	0	1 (2.8)	1 (1.6)	1 (1.6)	1.0
Port infection	0	0	0	1 (1.6)	1.0
Repeat operation	2 (8)	2 (5.6)	4 (6.6)	1 (1.6)	.21
Readmission	3 (12)	4 (11)	7 (11.5)	3 (4.9)	.32
Change in hemoglobin concentration, g/L	15 (1–27)	18 (3–34)	16 (1–34)	8 (0–24)	.004
Postoperative temperature, °C	37 (36–37.5)	36.7 (35.6–37.7)	36.7 (35.6–37.7)	36.9 (36.0–38.0)	.23
Postoperative C-reactive protein concentration, mg/L	15 (4.6–69)	12 (0.6–34)	13 (0.6–69)	12 (1.4–90)	.72

A Randomized Trial Comparing Vaginal and Laparoscopic Hysterectomy vs Robot-Assisted Hysterectomy

CelineLönnerforsMDPeturReynissonMD, PhDJanPerssonMD, PhD

Journal of Minimally Invasive Gynecology Volume 22, Issue 1, January 2015, Pages 78-86

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A prospective randomized assessment of quality of life between open and robotic hysterectomy in early endometrial cancer

Evelyn Serreyn Lundin,1 Ninnie Borendal Wodlin,1 Lena Nilsson,2 Preben Kjölhede1

INTERNATIONAL JOURNAL OF GYNECOLOGICAL CANCER

Robotic hysterectomy in the setting of an enhanced recovery after surgery program led to
faster recovery in health-related quality of life compared with abdominal hysterectomy

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Minimalinvasiv kirurgi

Minskad blödningsmängd

Snabbare återhämtning

Färre sårinfektioner

Cochrane Database of Systematic Reviews 12 AUG 2015 DOI:
10.1002/14651858.CD003677.pub5
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003677.pub5/full#CD003677-fig-0005

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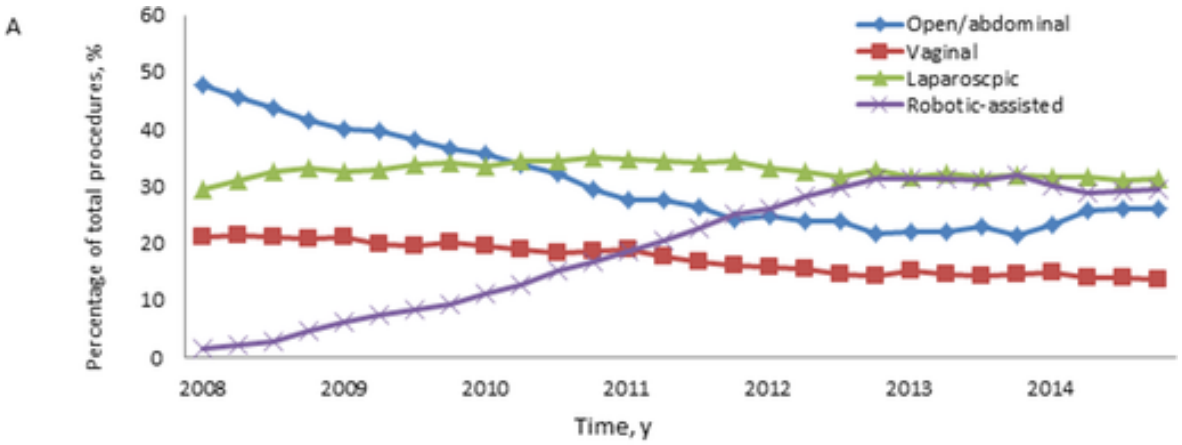
Trends for benign hysterectomy from 2008 through 2014.



Movement to outpatient hysterectomy for benign indications in the United States, 2008–2014.

Moawad G, Liu E, Song C, Fu AZ (2017)
PLOS ONE 12(11): e0188812. https://doi.org/10.1371/journal.pone.0188812
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0188812

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Europa
Hysterektomi
Laparoskopi 2016

- Finland/Slovakien/Tjeckien>50%
- Belgien 40%
- Frankrike/Tyskland/Litauen 30%
- Italien 25%
- Övriga < 25%

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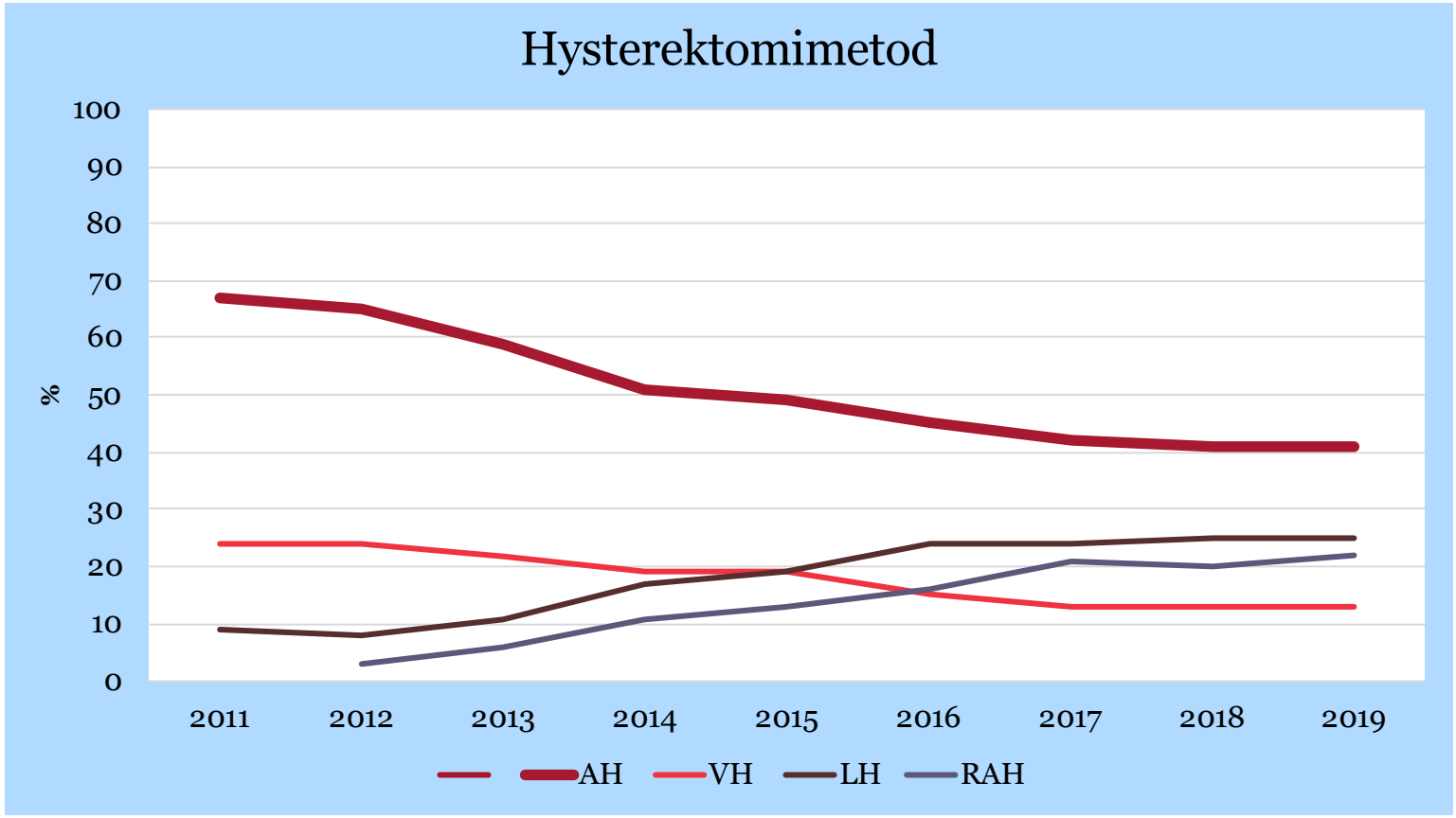
Sverige



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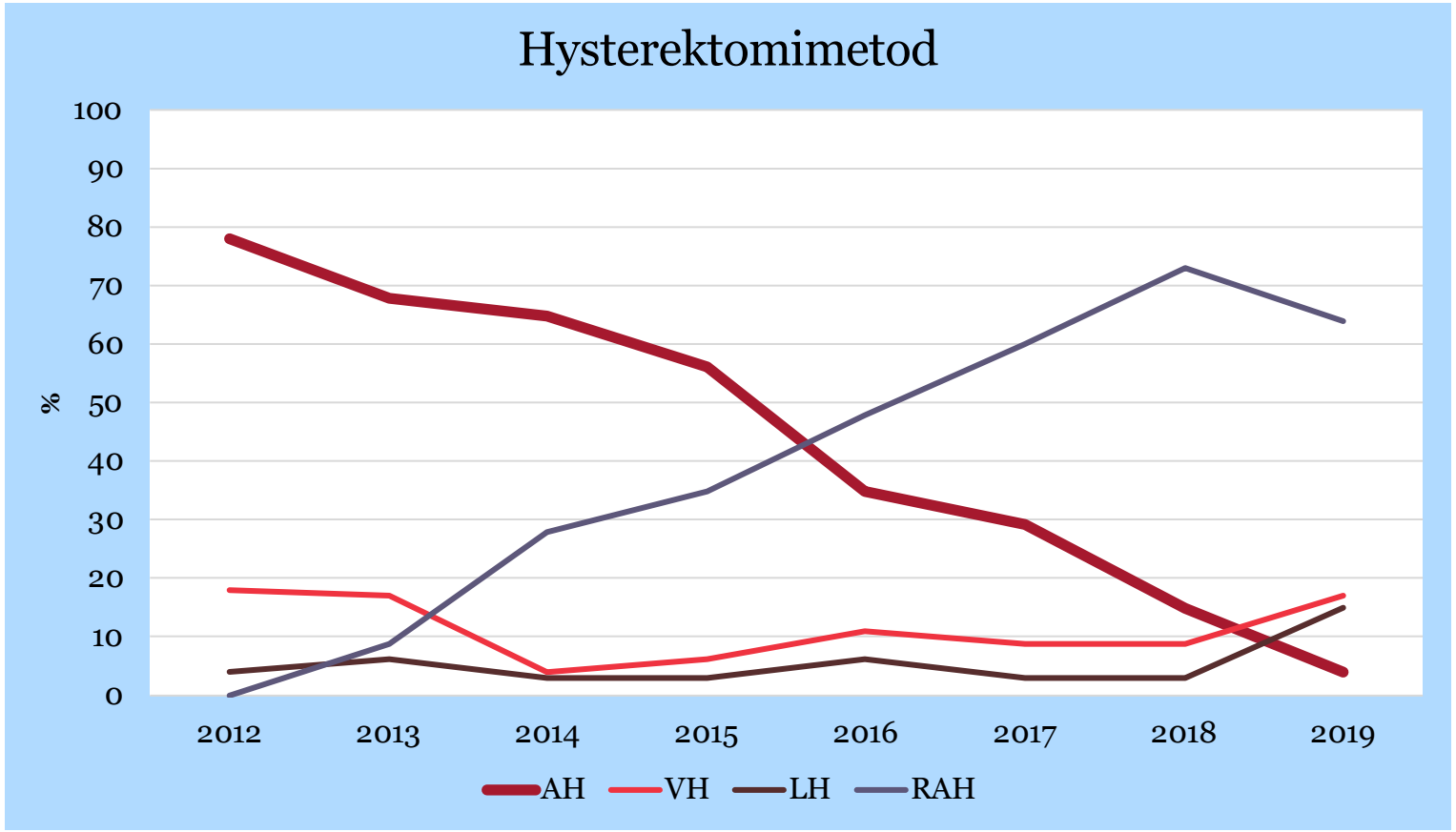

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19 Kvinnokliniker i Sverige använder idag Robotkirurgi

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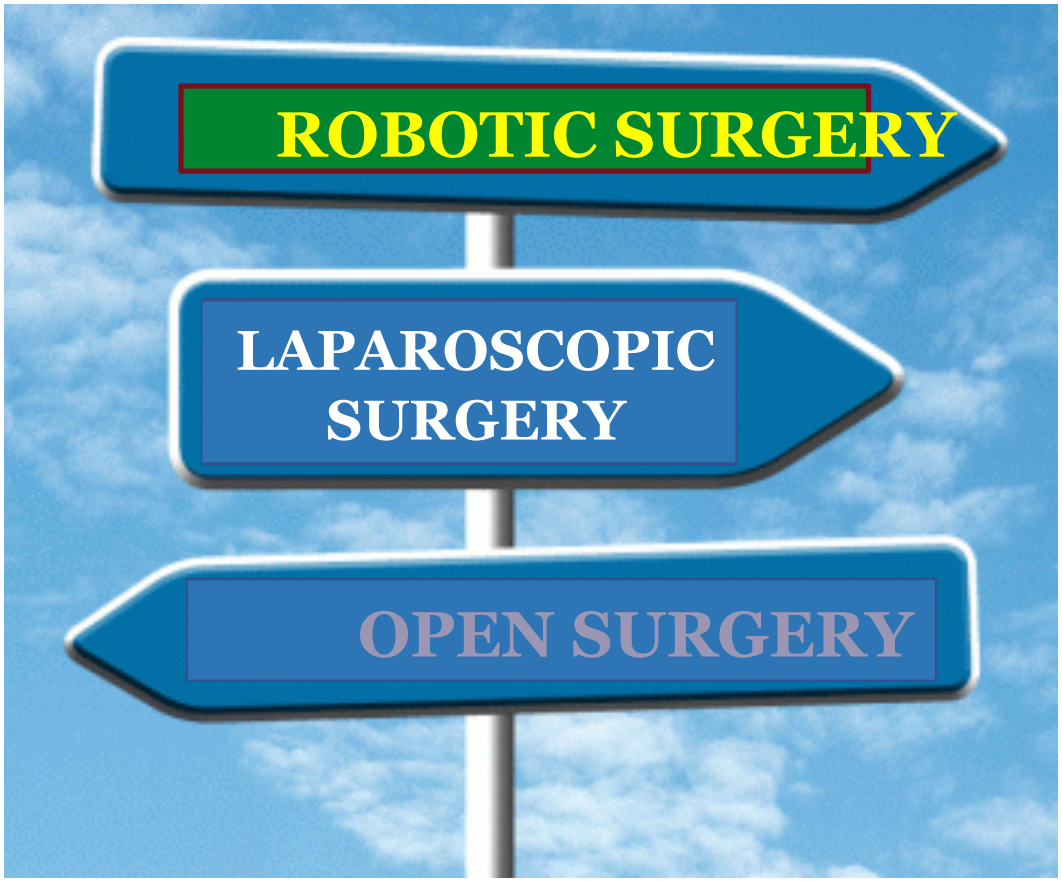
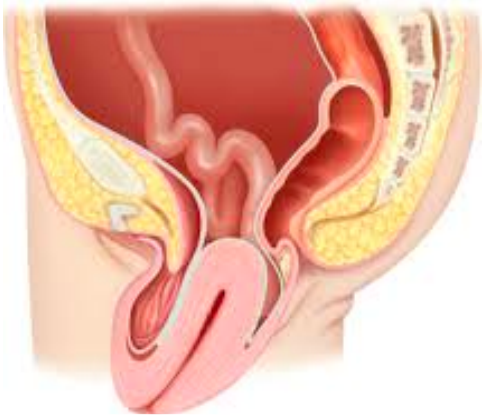
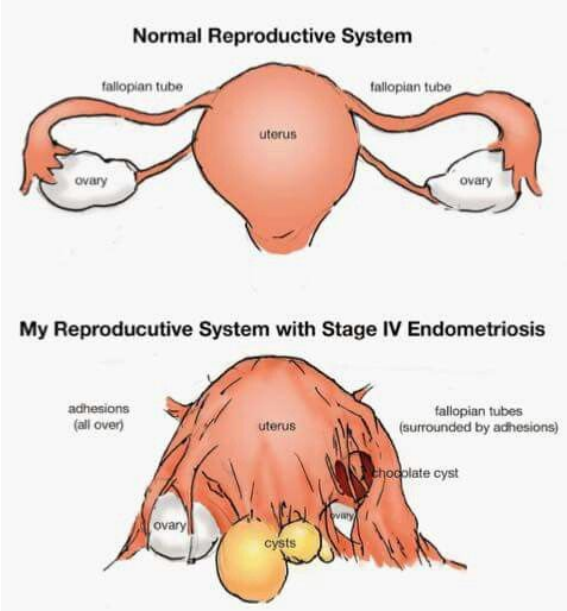
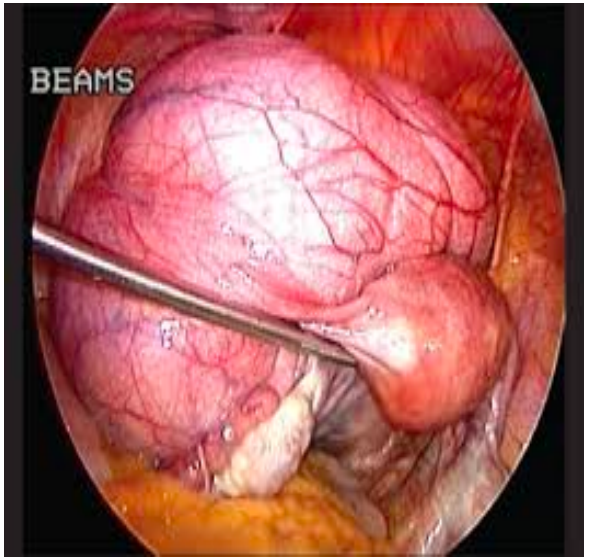

ROBOTIC SURGERY
LAPAROSCOPIC SURGERY
OPEN SURGERY







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