



EndoCervical Curettage

Dr Gabi Haran

JUST DON'T DO IT !!





ECC?

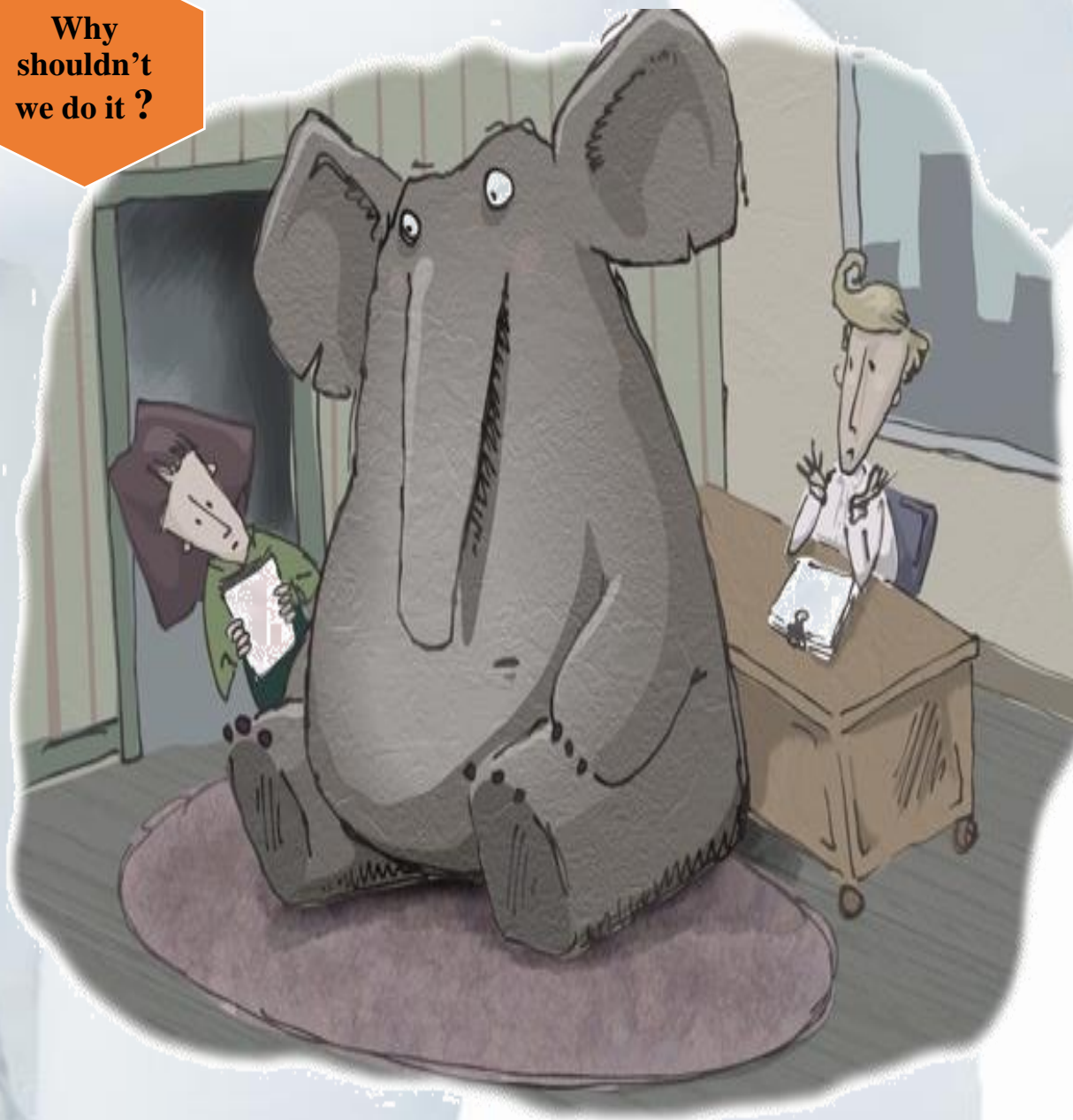
**Why
shouldn't
we do it ?**

**What is
the yield
?**

**What are
the
alternatives
?**

**What are
the cases
we should
do it?**

Why shouldn't we do it?



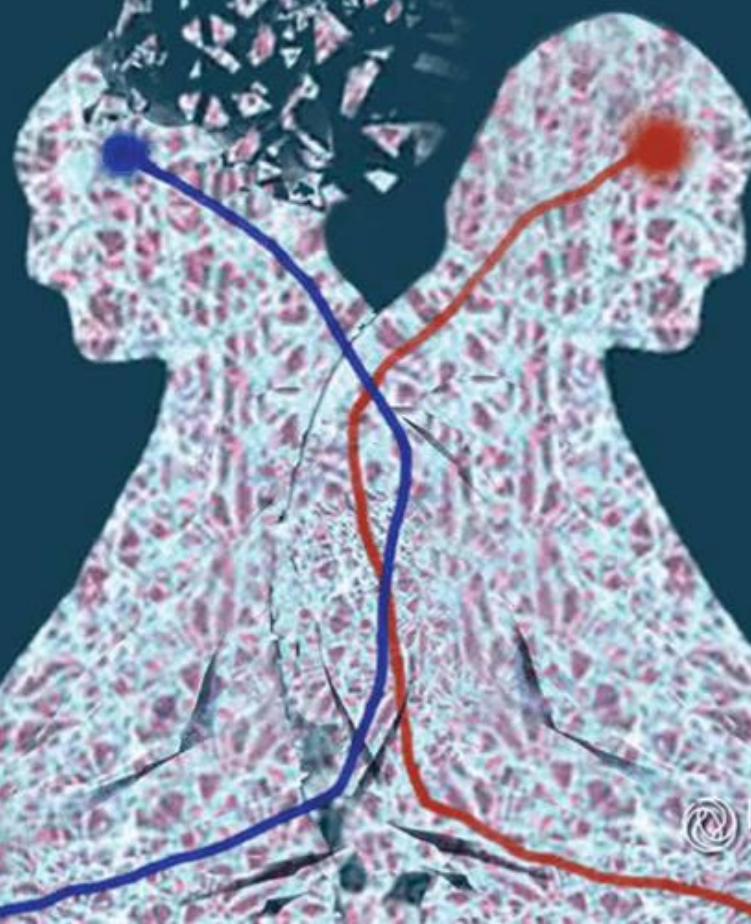
November 2022

www.painjournalonline.com

Volume 163, No. 11

PAIN[®]

The Journal of the International Association for the Study of Pain



IASP
International Association for the Study of Pain



Why
shouldn't
we do it ?



The Ungár laws

1. In surgery - start as slow as you can and then lower the pace.
2. Be pedant. Strive for perfection.
There is no second chance for this operation.
3. Always try to avoid making the second mistake.
4. Do not minimize yourself, you are not as big as you think.
5. Horses should learn to run in a circle before they can learn to jump.
6. A blood vessel will continue to bleed as long as you keep on cutting it.
7. Do not be afraid about the duration of your surgery, what matters is the patient, nothing else.
8. The world is not moving towards laparoscopy!
The world is moving towards the right operation for the right person.
9. Patience, patience.
10. If the only reason you have for doing something is because "this is how you do it" than don't do it, and nobody else will.
11. You need to understand the surgery, know the anatomy you are going to operate on, think about all the problems you can encounter, and know which anatomical structures can be sacrificed without hurting the patient - and all that, before you pick up the knife.
- ~~12. A stitch that needs more than 2 hands is not worth using (keep it simple)~~
13. When the operation seems impossible, start with the simple steps you can do. The complicated steps most often will unfold itself.



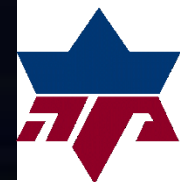
To my teacher, my mentor, my "neurotic old man" and my friend,
Thank you for making a gynecological oncologist out of me.
I promise to follow your rules and spread them.

Forever your trainee,

Gabi Haran
[Signature]

Why
shouldn't
we do it ?

INADEQUACY

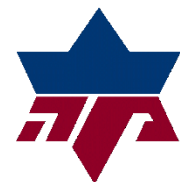
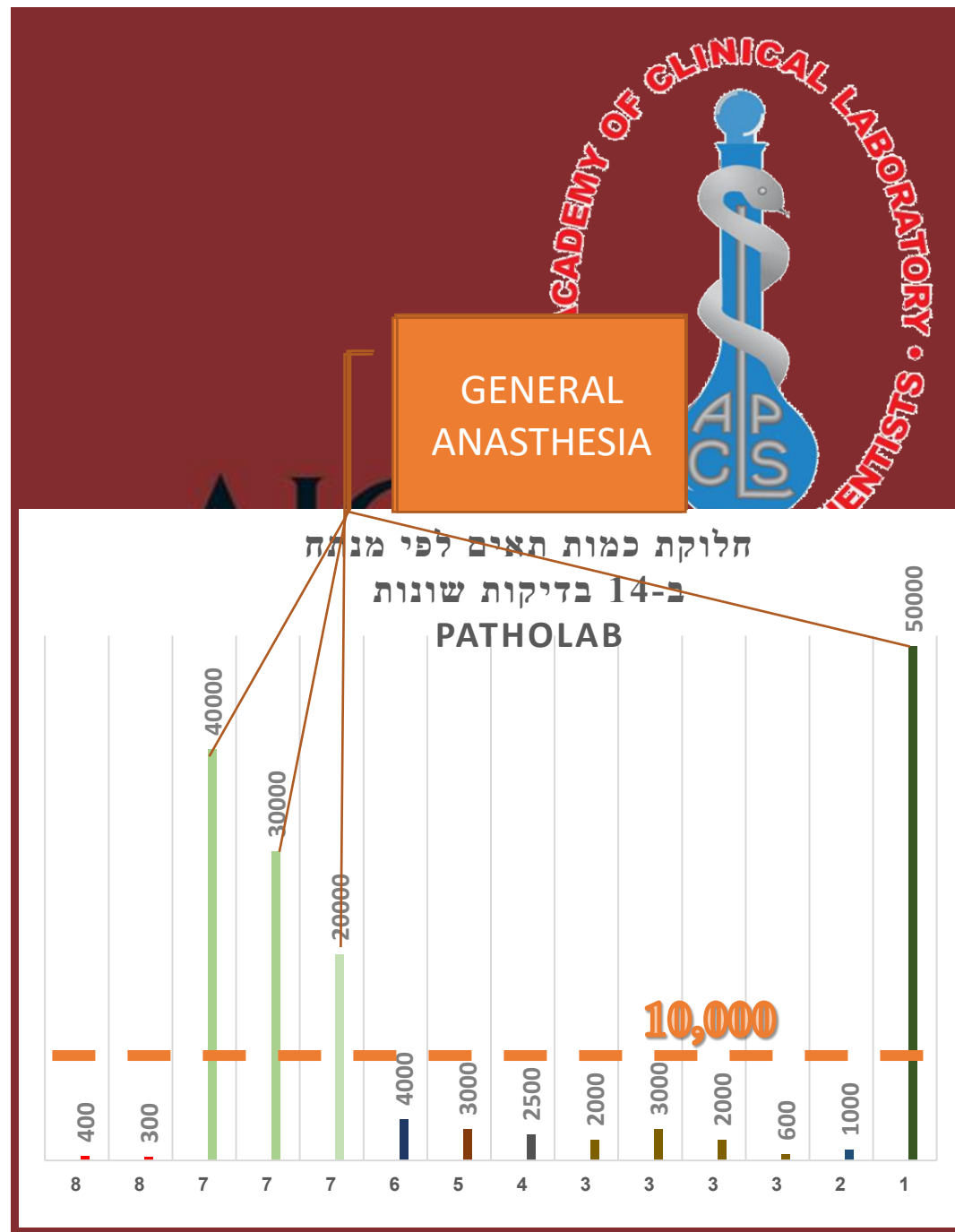


What is the yield ?

What do we need for a 'GOOD' ECC

- Alqabbani R, Chan J, Goldberg A. **Adequacy in Endocervical Curettage.** Am J Clin Pathol. 2022 Sep 2;158(3):378-382. doi: 10.1093/ajcp/aqac058. PMID: 35568991.

“We find cellularity of approximately **10,000** cells **Adequate** to diagnose HGD in an ECC specimen
Cellularity of approximately **1,000** cells to be **Inadequate.**”



What is the yield ?



What 'GOOD' ECC does?

Detection of cervical cancer and its precursors by endocervical curettage in 13,115 colposcopically guided biopsy exams

Julia C. Gage, PhD, MPH, Máire A. Duggan, MD, Jill G. Nation, MD, Song Gao, MSc, and Philip E. Castle, PhD, MPH
Am J Obstet Gynecol. 2010 November

- 13,115 colposcopy examinations + cervical biopsy and ECC
- 79.4% had concordant diagnoses
- ECC specimens were more likely to be **unsatisfactory** (4.2% vs. 1.2%, $p < .001$)
- **Less likely** to be diagnosed as CIN2+ (4.3% vs. 17.6% $p < .001$).
- Of the 16 cancers detected, 15 were diagnosed as CIN3+ by both cervical biopsy and ECC
- **One was diagnosed as <CIN2 by ECC.**



	Total		Age 16-45		Age 46-96	
	N	Column percent	N	Percent diagnostic yield	N	Percent diagnostic yield
p -value ^β				.005	.001	.711
Colposcopic impression						
Normal	724	5.5	453	0.7	271	1.5
Atypia	1089	8.3	675	0.7	414	0.5
Low Grade	7590	57.9	6376	0.9	1214	1.2
High Grade/Cancer	1892	14.4	1725	1.6	167	4.8
Missing	1820	13.9	1338	1.2	482	1.2
p -value ^{αβ}				.015	.035	.037
Referral cytology						
ASC-US	1471	11.2	1028	0.8	443	0.5
AGUS	145	1.1	89	1.4	56	1.8
LSIL	2940	22.4	2528	1.0	412	1.5
HSIL	2177	16.6	1873	2.4	304	5.3
Cancer	21	0.2	15	4.8	6	16.7
Unsatisfactory ^γ	15	0.1	11	0.0	4	0.0
Follow-up visit	6346	48.4	5023	0.6	1323	0.7
p -value ^δ				<.001	.003	<.001

What is the yield ?

What 'GOOD' ECC does?

Detection of cervical cancer and its precursors by endocervical curettage in 13,115 colposcopically guided biopsy exams

Julia C. Gage, PhD, MPH, Máire A. Duggan, MD, Jill G. Nation, MD, Song Gao, MSc, and Philip E. Castle, PhD, MPH

Am J Obstet Gynecol. 2010 November



- The **diagnostic yield of ECC was 1.01%**
- The diagnostic yield was worse with a fully visible transformation zone (satisfactory colposcopy, $p=.005$)
- Follow-up visit/LGSIL –Diagnostic yield of ECC remained low across all ages.
- The overall **NNT = 99 women** - for CIN2+ (95% CI: 85–2,400).
- NNT was **higher** for women age 46+ with ASC-US, AGUS, or LSIL referral cytology, regardless of colposcopy impression or satisfactory status.
- Women for a follow-up examination had a **NNT up to 284**

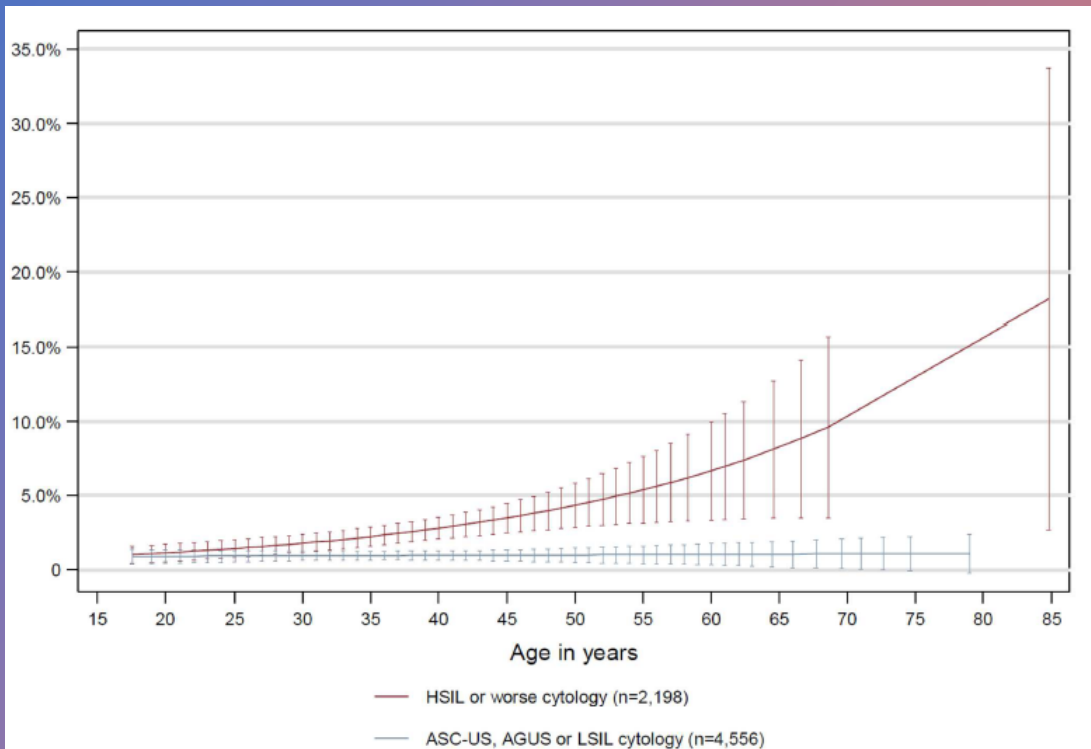


Figure 1. Projected diagnostic yield in colposcopically-guided biopsy examinations processed at Alberta Hospital 2003–2007: Percent of exams where endocervical curettage (ECC) detected CIN2* or worse that would have been missed by cervical biopsy alone (cervical biopsy diagnosis less than CIN2) by patient age and referral cytology
*Cervical Intraepithelial Neoplasia Grade 2
Error bars indicate 95% confidence interval. Follow-up exams ($n=6,346$) are not presented as the diagnostic yield was 0.6% and not correlated with age ($p=.99$).



What is the yield ?

What 'GOOD' ECC does?

Detection of cervical cancer and its precursors by endocervical curettage in 13,115 colposcopically guided biopsy exams

Julia C. Gage, PhD, MPH, Máire A. Duggan, MD, Jill G. Nation, MD, Song Gao, MSc, and Philip E. Castle, PhD, MPH

Am J Obstet Gynecol. 2010 November

- The *diagnostic yield* of ECC was 1.01%
- The diagnostic yield was worse with a fully visible transformation zone (satisfactory colposcopy, $p=.005$)
- Follow-up visit/LGSIL –Diagnostic yield of ECC remained low across all ages.
- The overall *NNT* = 99 women - for CIN2+ (95% CI: 85–2,400).
- NNT was **higher** for women age 46+ with ASC-US, AGUS, or LSIL referral cytology, regardless of colposcopy impression or satisfactory status.
- Women for a follow-up examination had a NNT up to 284

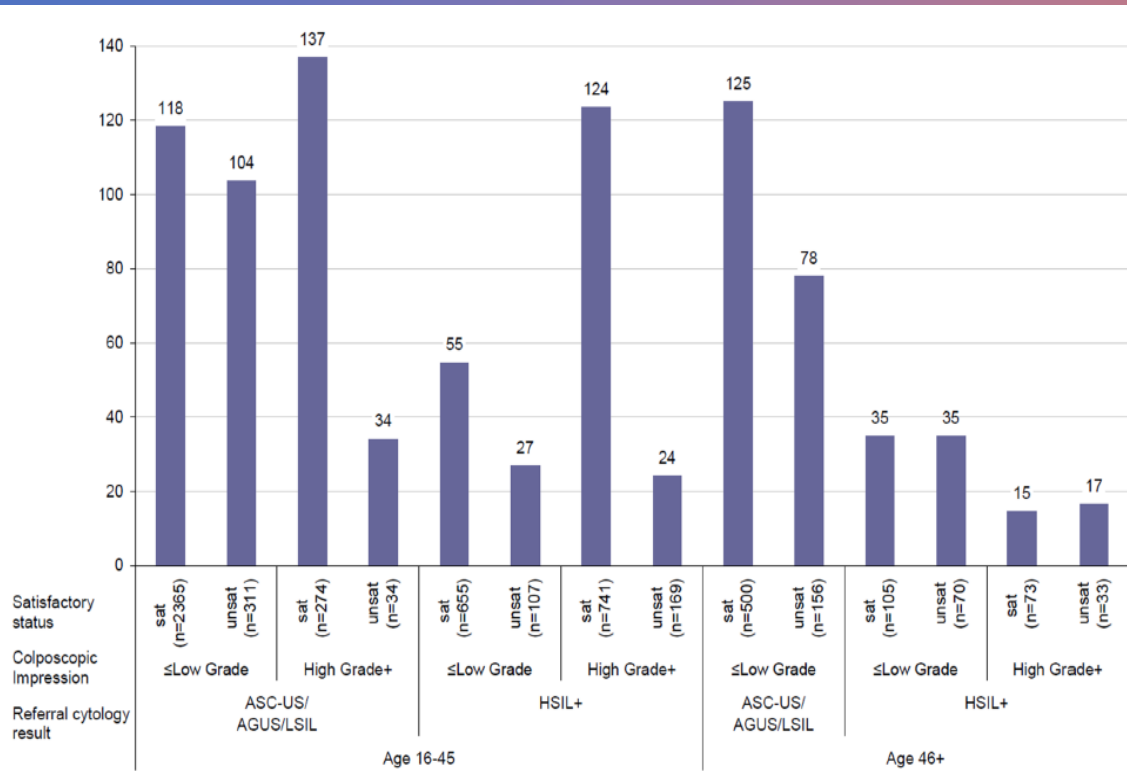


Figure 2.

Number needed to test with endocervical canal curettage (ECC) to detect one additional case of cervical intraepithelial neoplasia grade 2 or worse (CIN2+) among 5,593 referral colposcopically-guided biopsy examinations processed at Alberta Hospital 2003–2007

* NNT was undefined as no CIN2+ was detected in examinations among women age 46+ with ASCUS/AGUS/LSIL cytology referral, high grade colposcopic impression (n=18 satisfactory colposcopy and n=10 with unsatisfactory colposcopy). These categories are excluded from the figure.



What 'GOOD' ECC does?

Detection of cervical cancer and its precursors by endocervical curettage in 13,115 colposcopically guided biopsy exams

Julia C. Gage, PhD, MPH, Máire A. Duggan, MD, Jill G. Nation, MD, Song Gao, MSc, and Philip E. Castle, PhD, MPH

Am J Obstet Gynecol. 2010 November

A retrospective analysis of the utility of endocervical curettage in screening population.

Yan Song, Yu-Qian Zhao, Ling Li, Qin-Jin Pan, Nan Li, Fang-Hui Zhao, Wen Chen, Xun Zhang and You-Lin Qiao

Oncotarget, 2017, Vol. 8, (No. 30), pp: 50141-50147

ECC additional yield was 0.6%, but 6.6% with biopsies

Use and Utility of Endocervical Curettage at Colposcopy

Guan, Y. , Class, Q. & Litwiller, A. (2020). [21F].

Obstetrics & Gynecology, 135 , 66S-66S. Doi

“In most cases ECC did not change management”

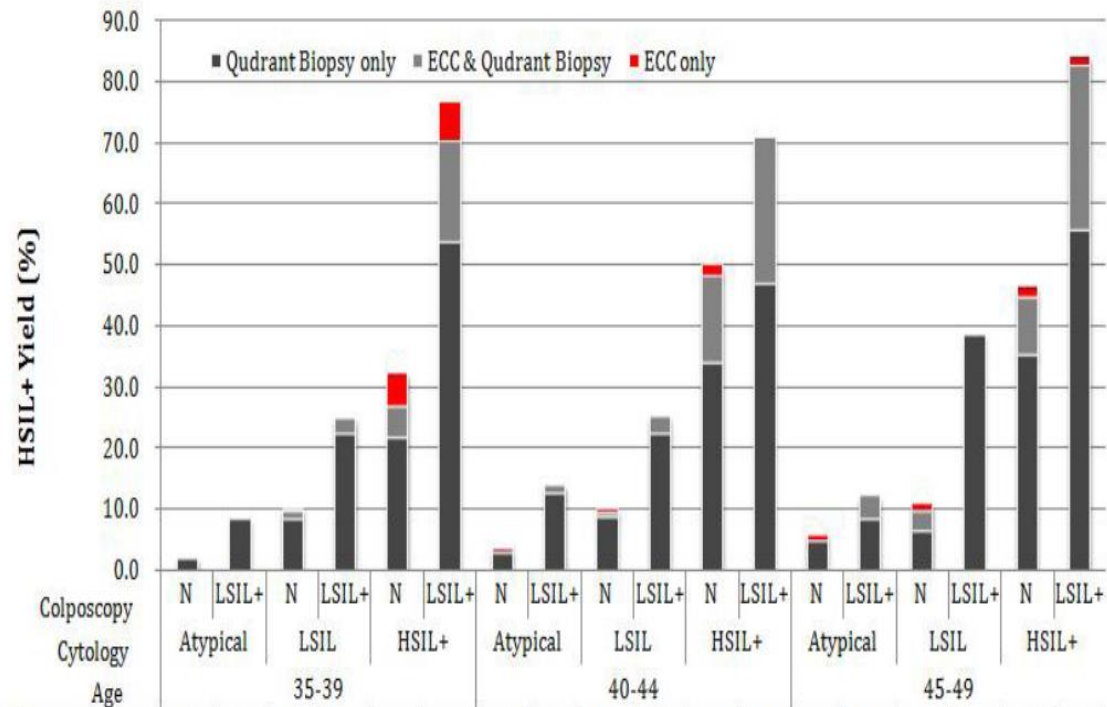


Figure 2: Yield of Histopathology Confirmed HSIL+ cases by ECC and/or Quadrant Biopsy. Data for women younger than 35 and older than 50 years were not shown. N: Normal colposcopic impression; cytology Atypical includes ASC-US and AGC; cytology HSIL+ includes ASC-H, HSIL and SCC.

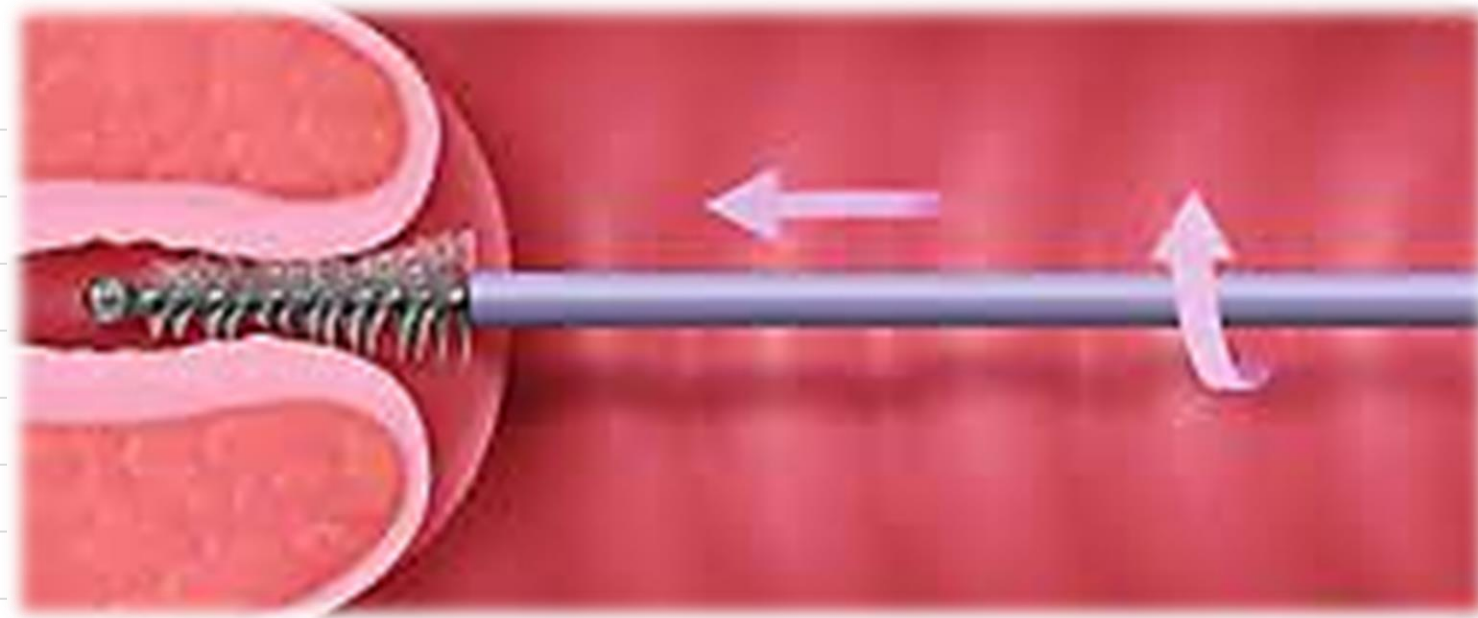
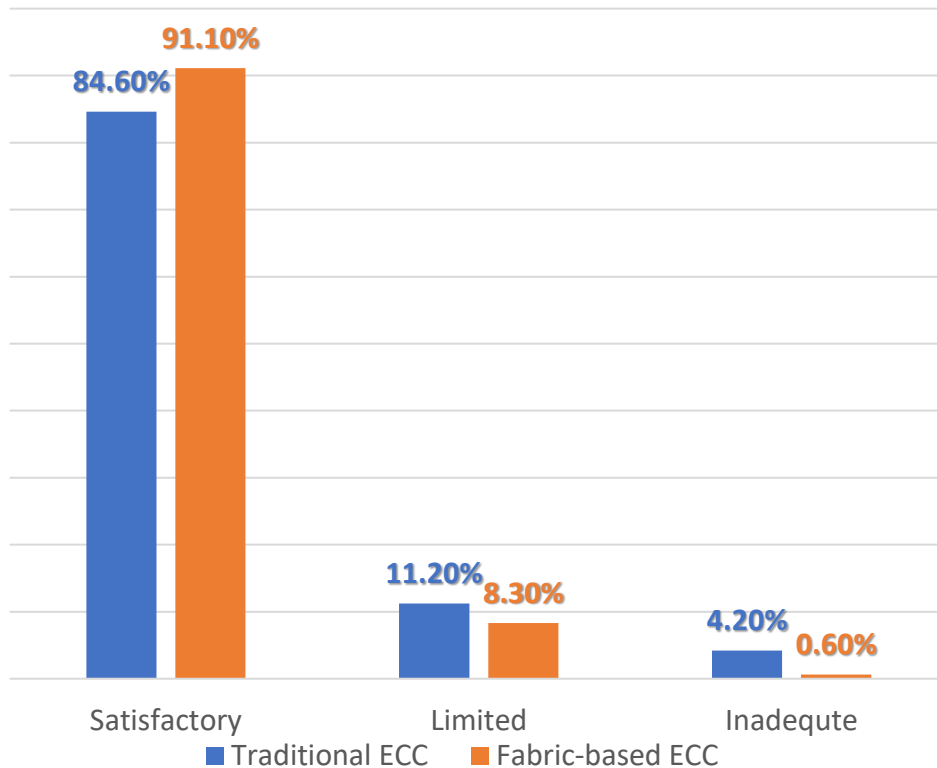
What are the alternatives ?

Alternatives?

Comparison of Tissue Yield Using Frictional Fabric Brush Versus Sharp Curettage For Endocervical Curettage

Justin T Diedrich, Sumra Rathore, Joel S Bentz 2017

9234 Conventional ECC Vs 774 Fabric based ECC



Significantly fewer inadequate specimens with the fabric-based ECC (4.2% vs 0.6%, $p < .001$).

What are the cases we should do it?

ECC- NO!?

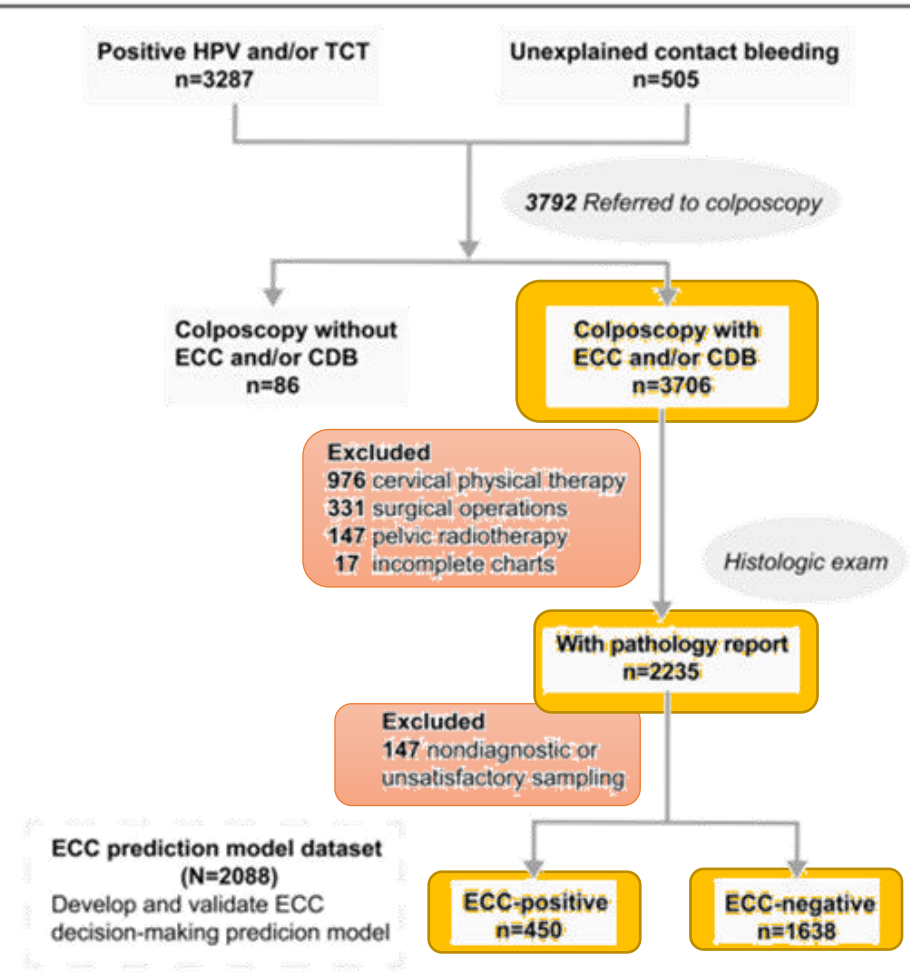


Fig. 1 Flow chart for the participants

Development and validation of a clinical prediction model for endocervical curettage decision-making in cervical lesions
Li Y, Luo H, Zhang X, et al *BMC Cancer* volume 21 issue 1 2021



What are the cases we should do it?

ECC- NO!?

- 3706 ECC taken → 2235 included → 450 positive
- **147 non diagnostic**
- Prognostic factors:
 - Age > 60 → 8.505 times higher (95% CI: 2.030, 35.630)
 - ASC-US, LSIL, ASC-H, HSIL → 1.532, 1.614, 2.980, 4.238 times higher

Positive HPV and/or TCT
n=3287

Unexplained contact bleeding
n=505

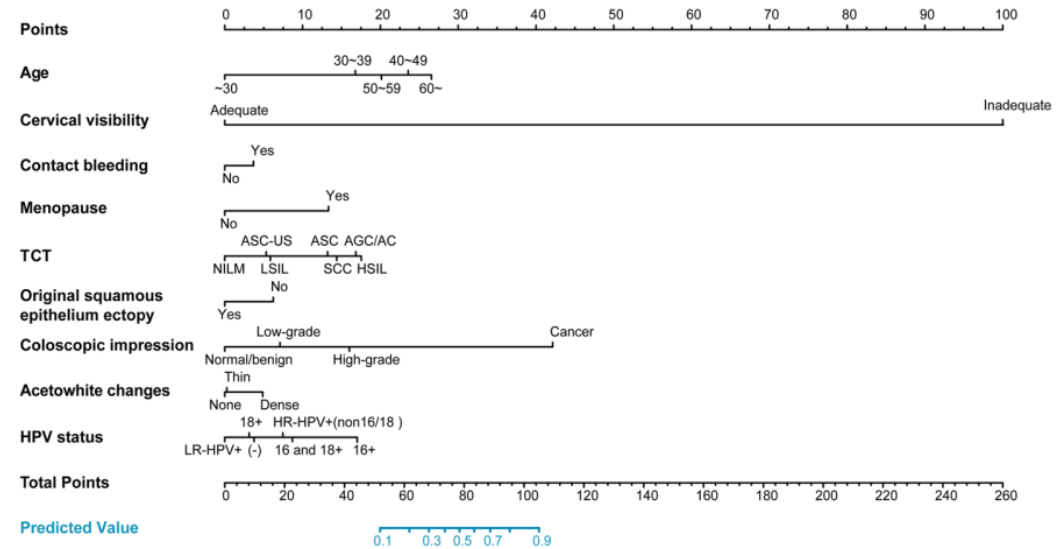


Fig. 3 Nomogram predicting ECC positivity

ECC prediction model dataset
(N=2088)
Develop and validate ECC
decision-making prediction model



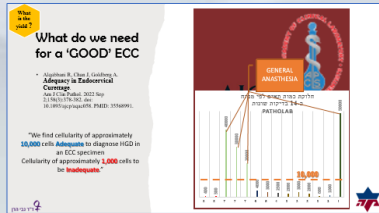
Fig. 1 Flow chart for the participants

Development and validation of a clinical prediction model for endocervical curettage decision-making in cervical lesions
Li Y, Luo H, Zhang X, et al *BMC Cancer* volume 21 issue 1 2021

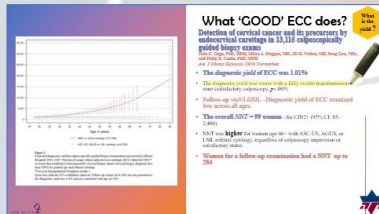
The use of conventional ECC should be replaced.



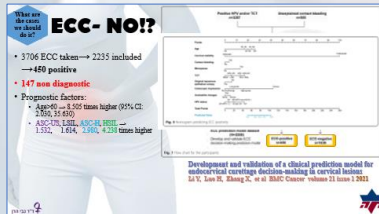
More than 10,000 cells needed to achieve diagnosis.



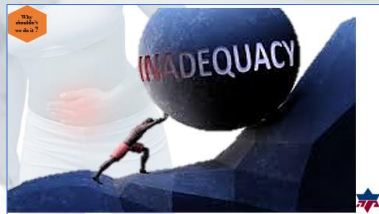
The overall NNT is 99 women and higher if no preconditions.
In most cases ECC did not change management.



ECC may be used only with strict prediction model.



Inadequacy cannot be an excuse for over doing.



Thank you for listening
Any questions?

