HPV TESTIMINE ISE KOGUTUD PROOVIMATERJALIST

SELF-SAMPLING / SELF-COLLECTION

Kaspar Ratnik

Millest tuleb juttu

- Mis riikides ja kuidas seda juba kasutatakse

- Kas HPV määramine ise kogutud proovimaterjalist on adekvaatne lähenemine

- SYNLAB Eesti uus uuring „Emakakaelavähi riski analüüs HPV“ tutvustus

Emakakaelavähi sõeluuring

Uuringutele kutsutakse 30–55-aastaseid ravikindlustatud naisi iga viie aasta järel.

Emakakaelavähi peamiseks tekitajaks on inimese papilloomiviirus (HPV), mis levib puutekontakti kaudu, sealhulgas seksuaalsel teel. Kui naine nakatub HPV teatud tüüpidega, võivad emakakaela rakkude kasvus tekkida muutused, sealt edasi vähieelsed seisundid ja emakakaelavähk. See protsess on tavaliselt pikk ja võib kesta isegi 10–25 aastat. **Sõeluuringus osalemine aitab võimalikud rakumuutused ja vähieelsed seisundid avastada õigeaegselt, mil need on ravitavad.**

Rakumuutusi saab avastada tsütoloogilise (diagnoosimine rakkude järgi) uuringuga, mida tuntakse PAP uuringu nime all ja mis on üle maailma tunnustatud emakakaela rakumuutuste varase avastamise meetod. Regulaarne **PAP uuringu** andmine on oluline ka seetõttu, et tavaliselt ei tekita emakakaela rakumuutused ega vähieelsed seisundid muutusi Teie enesetundes.

- **2019. aastal kutsutakse emakakaelavähi sõeluuringule ravikindlustatud naisi sünniaastatega 1964, 1969, 1974, 1979, 1984 ja 1989.**

Emakakaelavähi avastamiseks või ennetamiseks tehtav PAP-testi tegemiseks ei pea kuuluma sõeluuringu sihtrühma. PAP- test on tavapärase naistearsti või ämmaemanda vastuvõtu osa ja test võetakse naistelt iga kolme aasta tagant.

Eksisteerib piisav tõenduspõhisus, et HRHPV-analüüsi võib kasutada järgmistel juhtudel:

1) HPV-analüüs primaarses sõeluuringus üksinda või koos PAP-testiga;
2) ASCUSe jälgimises;
3) Emakakaela düsplaasiate ravijärgses jälgimises.

HPV analüüsi ei tohiks kasutada:

1) < 30 aastaste naiste sõeluuringus eraldiseisva analüüsina või koos PAP testiga va. ASCUSe jälgimises;
2) meestel ja naistel HPV-st põhjustatud teiste vähkide ja genitaaltüügaste sõeluuringus;
3) mehel, kelle naispartneril on diagnoositud HPV infektsioon.

PAP-test koos HPV-testiga (kaksiktest) või HPV-analüüs üksinda 5 aastase intervalliga (eelistatud variandid)?

- kõrge tõenduspõhisusega on näidatud, et kliiniliselt valideeritud HPV DNA-test 30. aastastel ja vanematel naistel primaarses sõeluuringus on efektiivsem kui PAP-test.

- HPV-negatiivsete naiste skriiningu intervalli võib ohutult pikendada vähemalt 5 aastani.

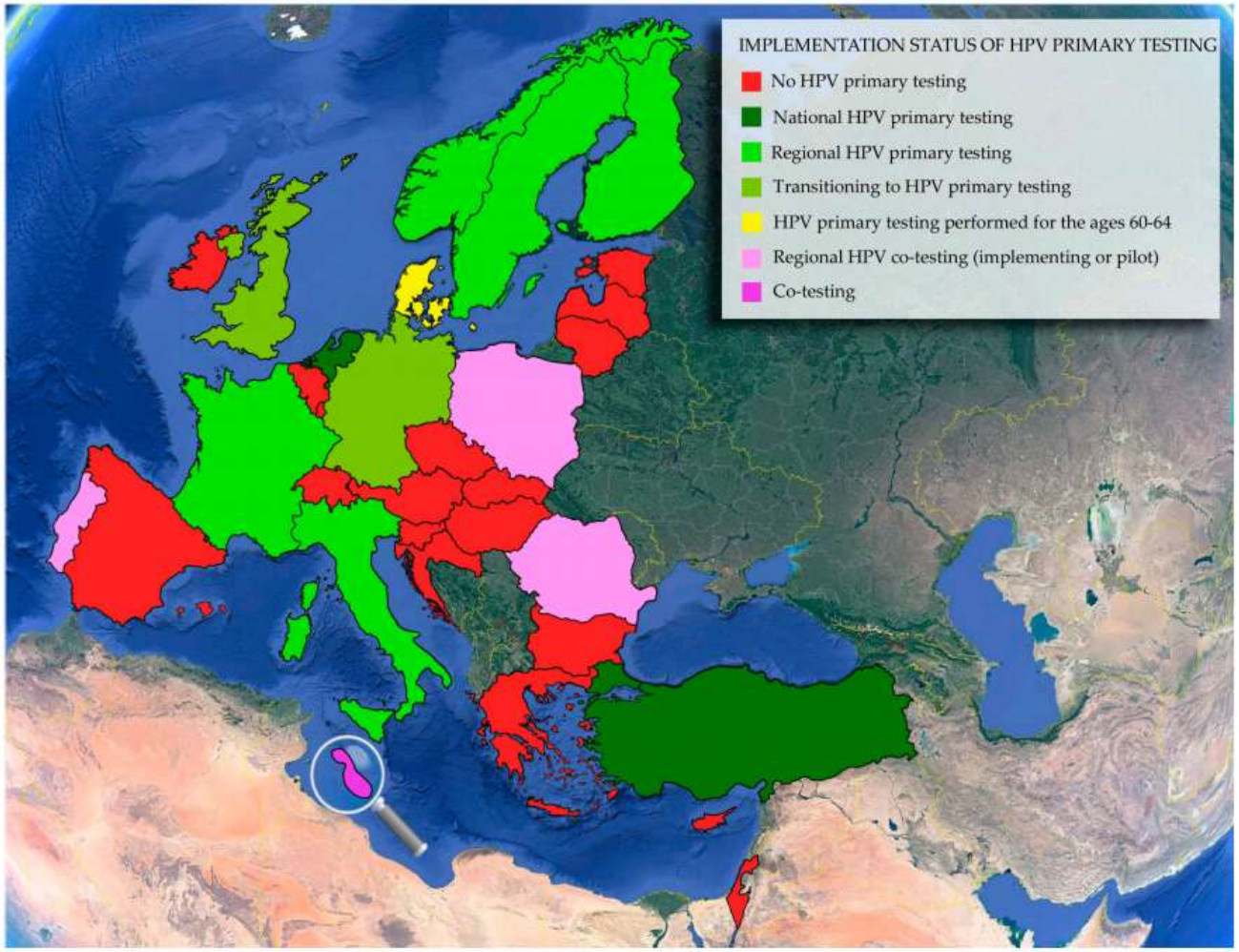


Figure 3. The implementation status of primary HPV testing in E.U. member states and some E.U. associated countries. The magnifying glass serves to enlarge the island of Malta. It is important to state that this is a rapidly changing field and that the status of implementation could not be confirmed for all countries from two independent sources.

CHRYSOSTOMOU ET AL 2018. CERVICAL CANCER SCREENING PROGRAMS IN EUROPE: THE TRANSITION TOWARDS HPV VACCINATION AND POPULATION-BASED HPV TESTING

In this topic

Publication date 12/18/2011 - 00:00 Modification date 08/21/2019 - 15:38

Screening for cervical cancer focuses on women between thirty and sixty years old. Once every five years, women in this age group are invited for participation.
The aim of the screening is the early detection of cervical cancer and the conditions that lead to cervical cancer.

The cervical cancer screening programme:
• If you turn 30, 35, 40, 45, 50, 55 or 60 this year, you will receive an invitation from the screening organisation.
• The screening has advantages and disadvantages. The government provides this screening because the benefits outweigh the disadvantages. Whether or not to participate is your decision.
• You can participate by making an appointment with the general practice for a smear test.
• The smear test is first examined in the screening laboratory for the presence of the human papillomavirus (HPV). Only if this virus is present, they will also establish immediately whether the smear test contains abnormal cells.
• If you feel very uncomfortable having a smear test performed by your family doctor and therefore do not want to participate, you can request a self-sampling device from the screening organization. You can use this to extract material from your vagina that is tested in the laboratory for HPV human papillomavirus. If HPV is found, you must have a doctor performing a smear test to assess whether there are abnormal cells.
• If you participate in the screening you can get the result that no HPV was found. No HPV in a smear test gives more certainty that there will be no cervical cancer within 10-15 years.

SELF-COLLECTION AND THE CERVICAL SCREENING TEST – FACTSHEET

TO BE PROVIDED ONLY BY A HEALTHCARE PROVIDER DURING A CONSULTATION

Regular screening is the best way to protect yourself against cervical cancer. It is important to have regular Cervical Screening Tests. About 800 women are diagnosed with cervical cancer in Australia each year, and about 80% of these cases occur in women who have never screened or were not up-to-date with their screening.

Who should have a Cervical Screening Test?

How do I collect my own sample?

If you meet the criteria for Self-collection and have decided this is the best option for you, your healthcare provider will give you a Self-collection device and instructions on how to collect your sample. This sample must be collected at your medical or healthcare clinic. Your healthcare provider will provide you with a private place to collect your sample.

Doug Hendrie

29 Jan 2019

Australia working with Malaysia on HPV self-test pilot program

Self-testing may hold the key to tackling cervical cancer deaths in Malaysia.

Dr Lara Roeske demonstrating a new HPV self-testing approach in Malaysia.

Cervical cancer is the third most common cancer in the country of 31 million people – accounting for six deaths every day – despite now being preventable and effectively treated if detected early.

News

HPV self testing to be piloted in two areas

BMJ 2019 ; 364 doi: https://doi.org/10.1136/bmj.l1357 (Published 25 March 2019)
Cite this as: *BMJ* 2019;364:l1357

Harriet Pike

Author affiliations

Women who fail to attend cervical screening in northeast London and north central London are to be sent human papillomavirus self sampling kits as part of a pilot, Public Health England has confirmed.

The agency is working with King's College London and the University College London Hospital Cancer Collaborative to test whether HPV self sampling can be implemented, as part of an initiative aimed at combating the low uptake of cervical cancer screening tests in England.

Anne Mackie, director of screening programmes at PHE, said that the pilot, which is due to start in September 2019, was "in its early stages."

The London pilot will offer 22 000 self sampling kits by post to women's homes or when women consult their GP for other reasons. Women can mail their sample directly for laboratory ...

Performance of human papillomavirus testing on self-collected versus clinician-collected samples for the detection of cervical intraepithelial neoplasia of grade 2 or worse: a randomised, paired screen-positive, non-inferiority trial

Nicole J Polman, Renée M F Ebisch, Daniëlle A M Heideman, Willem J G Melchers, Ruud L M Bekkers, Anco C Molijn, Chris J L M Meijer, Wim G V Quint, Peter J F Snijders, Leon F A G Massuger, Folkert J van Kemenade, Johannes Berkhof*

Summary

Background Human papillomavirus (HPV) testing on self-collected samples is a potential alternative to HPV testing on clinician-collected samples, but non-inferiority of its clinical accuracy remains to be assessed in the regular screening population. The IMPROVE study was done to evaluate the clinical accuracy of primary HPV testing on self-collected samples within an organised screening setting.

Lancet Oncol 2019

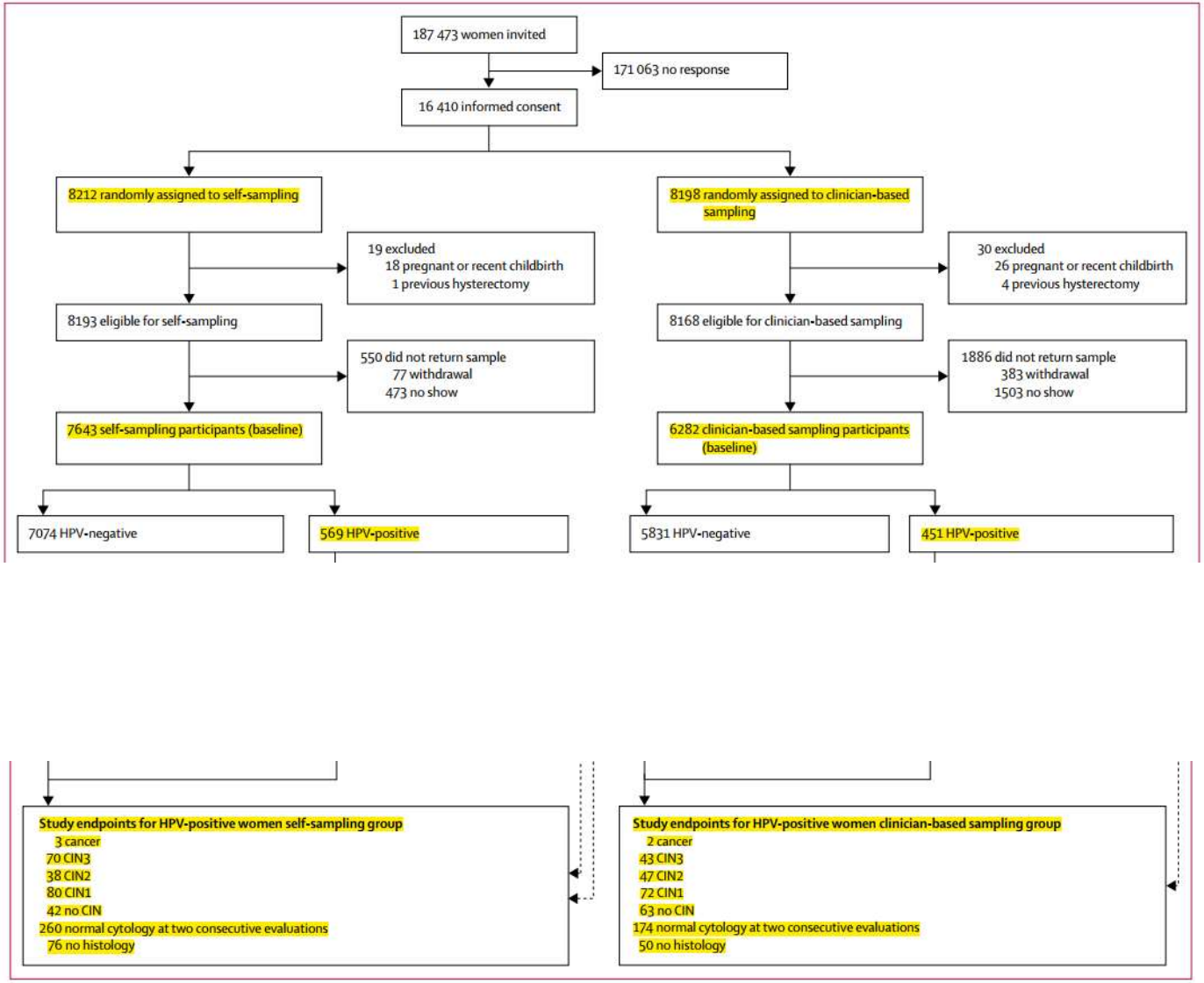
Published Online
January 15, 2019
http://dx.doi.org/10.1016/
S1470-2045(18)30763-0

2015, 2016 AASTAL SÕELUURINGUS OSALEMINE

Procedures

Women assigned to the intervention group received a package including a brush-based self-sampling device (Evalyn Brush; Rovers Medical Devices BV, Oss, Netherlands), an explanatory letter about the study, and written and graphical user instructions about the device. Women were requested to self-collect a cervicovaginal sample and return the dry brush to the laboratory in a freepost return envelope. The Evalyn Brush is designed for HPV self-sampling, including wings indicating the depth of insertion and audible clicks for counting the number of rotations. Use of the Evalyn Brush has been described previously.[15]

Women assigned to the control group were invited to their general practitioner's practice to provide a clinician-collected sample. These samples were obtained with the Cervex-Brush (Rovers Medical Devices BV), a brush device used for cervical sampling by a physician during internal examination, and were collected in a vial with 10 mL ThinPrep PreservCyt media (Hologic, Marlborough, MA, USA). The vials were sent to the laboratory by a staff member from the general practioner's practice.



	Total	HPV-positive	CIN2+	CIN3+
Self-sampling group	7643	569 (7·4%)	111 (1·5%)	73 (1·0%)
29–33 years	745	129 (17·3%)	34 (4·6%)	22 (3·0%)
34–38 years	888	96 (10·8%)	26 (2·9%)	19 (2·1%)
39–43 years	1055	68 (6·4%)	17 (1·6%)	13 (1·2%)
44–48 years	1394	82 (5·9%)	14 (1·0%)	7 (0·5%)
49–53 years	1154	82 (7·1%)	11 (1·0%)	9 (0·8%)
54–58 years	1333	69 (5·2%)	6 (0·5%)	2 (0·2%)
59–61 years	1074	43 (4·0%)	3 (0·3%)	1 (0·1%)
Clinician-based sampling group	6282	451 (7·2%)	92 (1·5%)	45 (0·7%)
29–33 years	600	98 (16·3%)	33 (5·5%)	19 (3·2%)
34–38 years	712	75 (10·5%)	12 (1·7%)	3 (0·4%)
39–43 years	839	58 (6·9%)	14 (1·7%)	7 (0·8%)
44–48 years	1149	74 (6·4%)	9 (0·8%)	5 (0·4%)
49–53 years	957	65 (6·8%)	17 (1·8%)	6 (0·6%)
54–58 years	1143	56 (4·9%)	5 (0·4%)	4 (0·3%)
59–61 years	882	25 (2·8%)	2 (0·2%)	1 (0·1%)

Data are n (%). HPV=human papillomavirus. CIN2+=cervical intraepithelial neoplasia grade 2 or worse. CIN3+=cervical intraepithelial neoplasia grade 3 or worse.

Table 3: **HPV prevalence and cumulative CIN2+ and CIN3+ detection among participants by study group and age group**

(45, 39–54) in the clinician-based sampling group. The proportion of women who did not provide a sample was lower in the self-sampling group (550 [6·7%] of 8193) than in the clinician-sampling group (1886 [23·1%] of 8168).

Baseline characteristics are shown in table 2. Time between randomisation and receipt of the sample at the laboratory was shorter in the self-sampling group (median 27·0 days, IQR 19·0–44·0) than in the clinician-based sampling group (44·0 days, 30·0–65·0).

VÕRDNE TUNDLIKKUS JA SPETSIIFILISUS

	Unadjusted data		Adjusted data*	
	n/N (% [95% CI])	Relative accuracy (95% CI)	% (95% CI)	Relative accuracy (95% CI)
CIN2 or worse				
Sensitivity				
Self-sampling	78/84 (92·9% [87·3–98·4])	0·96 (0·90–1·03)	93·1% (88·1–98·0)	0·97 (0·91–1·03)
Clinician-based sampling	106/110 (96·4% [92·9–99·9])		96·3% (93·0–99·7)	
Specificity				
Self-sampling	7074/7532 (93·9% [93·4–94·5])	1·00 (0·99–1·01)	94·0% (93·5–94·6)	1·00 (0·99–1·01)
Clinician-based sampling	5831/6190 (94·2% [93·6–94·8])		94·3% (93·7–94·9)	
Sensitivity (no under-screened)				
Self-sampling	72/78 (92·3% [86·4–98·2])	0·97 (0·89–1·04)	92·7% (87·4–98·1)	0·97 (0·90–1·04)
Clinician-based sampling	87/91 (95·6% [91·4–99·8])		95·4% (91·3–99·5)	
CIN3 or worse				
Sensitivity				
Self-sampling	39/41 (95·1% [88·5–100])	0·99 (0·91–1·08)	95·2% (89·1–100)	0·99 (0·92–1·07)
Clinician-based sampling	69/72 (95·8% [91·2–100])		95·8% (91·3–100)	
Specificity				
Self-sampling	7074/7570 (93·4% [92·9–94·0])	1·00 (0·99–1·01)	93·5% (93·0–94·1)	1·00 (0·99–1·01)
Clinician-based sampling	5831/6237 (93·5% [92·9–94·1])		93·5% (93·0–94·2)	
Sensitivity (no under-screened)				
Self-sampling	36/38 (94·7% [87·6–100])	1·00 (0·91–1·10)	95·0% (88·4–100)	1·00 (0·92–1·10)
Clinician-based sampling	54/57 (94·7% [88·9–100])		94·5% (88·8–100)	

CIN=cervical intraepithelial neoplasia. *Adjusted for HPV-positive women without histology or two times normal cytology.

Table 5: **Clinical performance of self-sampling compared with clinician-based sampling**

ELSEVIER

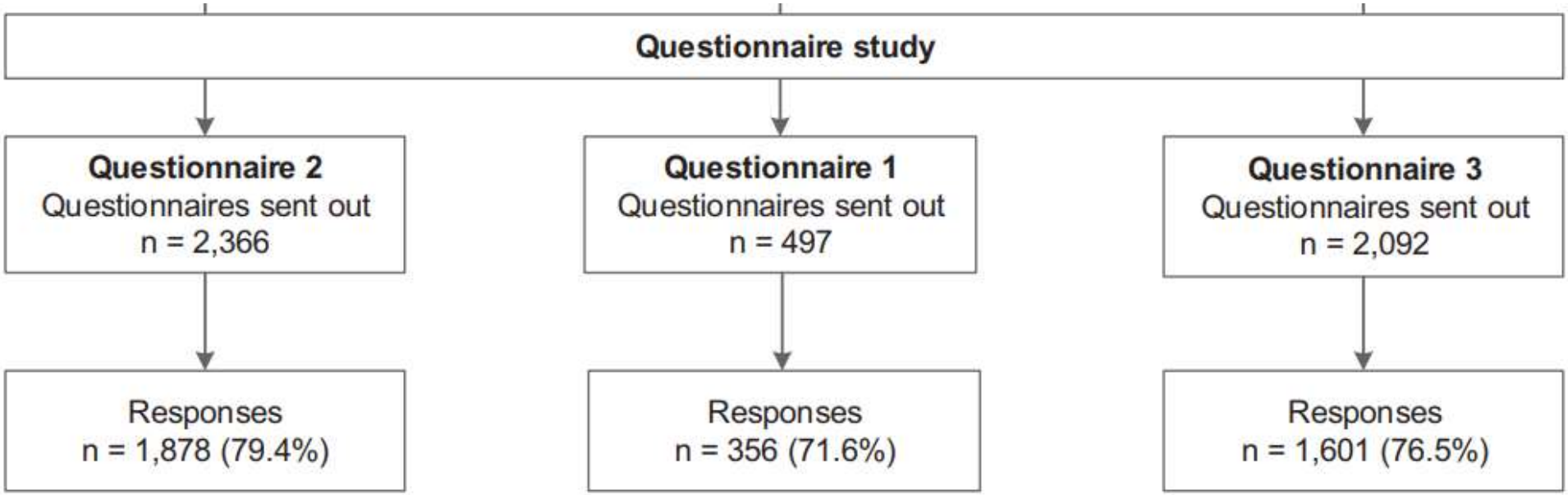
Preventive Medicine

Volume 125, August 2019, Pages 5-11

Experience with HPV self-sampling and clinician-based sampling in women attending routine cervical screening in the Netherlands

Nicole J. Polman [a], Yanne de Haan [a], Nienke J. Veldhuijzen [b], Daniëlle A.M. Heideman [a], Henrica C.W. de Vet [b], Chris J.L.M. Meijer [a], Leon F.A.G. Massuger [c], Folkert J. van Kemenade [d], Johannes Berkhof [b]

- IMPROVE uuring
- 2015. ja 2016. aastal sõeluuringus osalenud naised
- Küsimustik saadeti välja jaanuaris 2017



sampling and clinician-based sampling are shown in Table 3. Women reported significantly less discomfort during self-sampling as compared to clinician-based sampling: 68.7% reported no discomfort at all during self-sampling, compared to 19.2% during clinician-based sampling ($p = 0.002$). Additionally, 80.8% of women reported no pain at all during self-sampling, compared to 33.0% of women during clinician-based sampling ($p < 0.001$). Women reported significantly lower levels of nervousness and shame during self-sampling than during clinician-based sampling: 62.0% vs. 27.6% reported no nervousness at all ($p = 0.018$) and 92.1% vs. 37.3% reported no shame at all ($p < 0.001$). The vast majority of women experienced a high degree of privacy during self-sampling (93.2%), while only 31.4% reported this during clinician-based sampling ($p < 0.001$). Finally, 53.7% of women reported maximal trust in correct execution of the self-sampling procedure, compared to 73.3% that reported extreme trust in correct execution of the clinician-based sampling procedure ($p < 0.001$).

Among 356 HPV-positive women who participated in both self-sampling and clinician-based sampling within the IMPROVE trial (Q1), 353 filled in the question about a preference for future screening. The vast majority of these women (76.5%) reported to prefer self-sampling in future screening, 11.9% reported to prefer clinician-based sampling and 11.6% reported to have no preference for either method. The preferred screening method in future screening was not influenced by age, level of education, or screening history ($p = 0.502$, $p = 0.811$, and $p = 0.550$, respectively).

- BOSGRAAF ET AL 2015. COMPARATIVE PERFORMANCE OF NOVEL SELF-SAMPLING METHODS IN DETECTING HIGH-RISK HUMAN PAPILLOMAVIRUS IN 30,130 WOMEN NOT ATTENDING CERVICAL SCREENING.

- ENERLY ET AL 2016. SELF-SAMPLING FOR HUMAN PAPILLOMAVIRUS TESTING AMONG NON-ATTENDERS INCREASES ATTENDANCE TO THE NORWEGIAN CERVICAL CANCER SCREENING PROGRAMME.

- KETELAARS ET AL 2017. HIGH-RISK HUMAN PAPILLOMAVIRUS DETECTION IN SELF-SAMPLING COMPARED TO PHYSICIAN-TAKEN SMEAR IN A RESPONDER POPULATION OF THE DUTCH CERVICAL SCREENING: RESULTS OF THE VERA STUDY.

- OTHMAN ET AL 2016. SELF-SAMPLING VERSUS PHYSICIANS' SAMPLING FOR CERVICAL CANCER SCREENING - AGREEMENT OF CYTOLOGICAL DIAGNOSES.

Emakakaelavähi riski analüüs HPV

- Tellid uuringu **kohapeal** või lased saata komplekti **postiautomaati**
- Proovi kogumine ainult **evalyn® brush** proovikogumise komplektiga
- **Kõrge risk HPV** DNA määramine laboris
- **Positiivne**: patsiendi enda poolt kogutud proovist on leitud kõrge riskiga inimese papilloomiviirus (HPV), mis viitab kõrgenenud emakakaelavähi riskile. Edasisteks uuringuteks soovitame pöörduda oma või meie poolt soovitatud naistearsti vastuvõtule.
- **Negatiivne**: patsiendi enda poolt kogutud proovist ei leitud kõrge riskiga inimese papilloomiviiruse (HPV) tüüpe, mis viitab madalale riskile emakakaelavähi tekkeks. Antud analüüs ei asenda naistearsti läbivaatust. Juhul kui Teil esineb kaebusi, palun pöörduge oma günekoloogi või meie poolt soovitatud naistearsti poole. Naistel alatest 30. eluaastast on soovitatav korrata kõrge riski HPV uuringut iga 5 aasta järel.

Emakakaelavähi riski analüüs HPV

Kvaliteedi kontrollimine:

- Proovi kogumine ainult **evalyn® brush** proovikogumise komplektiga
- HPV DNA säilib kuni **32 nädalat 4° - 30°c** tingimustel

  Ejegod et al 2018. Time and temperature dependent analytical stability of dry-collected evalyn HPV self-sampling brush for cervical cancer screening
- Metoodiliselt kontrollime alati **B-GLOBIN DNA** esinemist (nö inimese rakkude olemasolu)

Emakakaelavähi riski analüüs HPV – UUS!

EMAKAKAELAVÄHI RISKI ANALÜÜS HPV

Emakakaelavähk on üks esimesi vähke, millel on teada kindel põhjustaja – haigestumine on 90% juhtudel seotud eelnevalt inimese papilloomiviirusesse (HPV ehk Human Papillomavirus) nakatumisega. HPV viirusel on sadu erinevaid tüvesid, millest osad on emakakalevähi kõrge riskiga tüved. Antud analüüsi soovitame naistele alates 30. eluaastast. Analüüs näitab tulemust, kas positiivne või negatiivne, ehk kas testijal on kõrgenenud risk emakakaelavähi suhtes. Analüüsi teeb eriliseks kodus proovi võtmise võimalus, st proovi andmiseks ei pea minema naistearsti juurde.

Mida tähendab tulemus?

- **Positiivne tulemus**

On leitud kõrge riskiga inimese papilloomiviirus (HPV), mis viitab kõrgenenud emakakaelavähi riskile. Labor soovitab pöörduda edasisteks uuringuteks oma või meie poolt soovitatud naistearsti vastuvõtule.

- **Negatiivne tulemus**

Ei leitud kõrge riskiga inimese papilloomiviiruse (HPV) tüüpe, mis viitab madalale emakakaelavähi tekke riskile. Analüüs ei asenda naistearsti läbivaatust. Juhul kui teil esineb kaebusi, palume pöörduda günekoloogi vastuvõtule. Naistel alatest 30. eluaastast on soovitatav korrata kõrge riski HPV analüüsi iga 5 aasta järel.

KOKKUVÕTE

- HPV staatuse (ja düsplaasia) määramise täpsus on sama kvaliteetne võrreldes patsiendi poolt vs arsti poolt kogutud proovi

- Patsiendi enda poolt kogumine võimaldab kiiret ja mugavat lahendust

- Patsiendi enda poolt kogumine tõstab hõlmatust
  30% sõeluuringus mitteosalejaid on valmis ise endalt proovi koguma

- Potentsiaalselt kulutõhusam

- Soovitame lisavõimalusena, kaasates rohkem naisi emakakaelavähi ennetusele

Aitäh kuulamast!