HPV screening resers 2015 januar

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Self-sampling experiences among non-attendees to cervical screening.

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Abstract

OBJECTIVE:

High coverage and attendance is essential to positive cervical cancer screening results. Offering self-sampling for HPV-testing to the non-attendees of the program may improve attendance rates. Information on women's perceptions and experiences with self-sampling (acceptability) is needed to further optimize attendance by this method.

METHODS:

A questionnaire study focusing on women's experiences on the screening method was embedded in a trial investigating the effects and feasibility of self-sampling among non-attendees of cervical screening in 31 Finnish municipalities in 2011-2012 (n=4688). Reasons for non-attendance in routine screening were also surveyed.

RESULTS:

Response rate to the questionnaire was 98.8% (909/920) among women who performed self-sampling. Self-sampling participants reported mainly good experiences. Negative experiences (difficulties in sample taking, pain, fear, anxiety, insecurity) were reported rarely, but more commonly among women with a mother tongue other than Finnish or Swedish (immigrants). Most common reason for non-attendance in routine screening was a recent Pap-smear elsewhere (opportunistic screening). Practical reasons (pregnancy, scheduling difficulties) were reported by 42%, emotional or attitudinal reasons by 17%, and 16% forgot to take part. Response yield to questionnaire was unsatisfactory among those women who declined the self-sampling option.

CONCLUSIONS:

Optimizing the practical aspects of screening and offering a self-sampling option to non-attendees can help to overcome a large variety of both practical and emotional barriers to traditional screening. More research is needed among the non-attendees to routine screening who decline also the self-sampling option.

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Accuracy of human papillomavirus testing on self-collected versus clinician-collected samples: a meta-analysis.

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Abstract

BACKGROUND:

Screening for human papillomavirus (HPV) infection is more effective in reducing the incidence of cervical cancer than screening using Pap smears. Moreover, HPV testing can be done on a vaginal sample self-taken by a woman, which offers an opportunity to improve screening coverage. However, the clinical accuracy of HPV testing on self-samples is not well-known. We assessed whether HPV testing on self-collected samples is equivalent to HPV testing on samples collected by clinicians.

METHODS:

We identified relevant studies through a search of PubMed, Embase, and CENTRAL. Studies were eligible for inclusion if they fulfilled all of the following selection criteria: a cervical cell sample was self-collected by a woman followed by a sample taken by a clinician; a high-risk HPV test was done on the self-sample (index test) and HPV-testing or cytological interpretation was done on the specimen collected by the clinician (comparator tests); and the presence or absence of cervical intraepithelial neoplasia grade 2 (CIN2) or worse was verified by colposcopy and biopsy in all enrolled women or in women with one or more positive tests. The absolute accuracy for finding CIN2 or worse, or CIN grade 3 (CIN3) or worse of the index and comparator tests as well as the relative accuracy of the index versus the comparator tests were pooled using bivariate normal models and random effect models.

FINDINGS:

We included data from 36 studies, which altogether enrolled 154 556 women. The absolute accuracy varied by clinical setting. In the context of screening, HPV testing on self-samples detected, on average, 76% (95% CI 69-82) of CIN2 or worse and 84% (72-92) of CIN3 or worse. The pooled absolute specificity to exclude CIN2 or worse was 86% (83-89) and 87% (84-90) to exclude CIN3 or worse. The variation of the relative accuracy of HPV testing on self-samples compared with tests on clinician-taken samples was low across settings, enabling pooling of the relative accuracy over all studies. The pooled sensitivity of HPV testing on self-samples was lower than HPV testing on a clinician-taken sample (ratio 0·88 [95% CI 0·85-0·91] for CIN2 or worse and 0·89 [0·83-0·96] for CIN3

or worse). Also specificity was lower in self-samples versus clinician-taken samples (ratio 0·96 [0·95-0·97] for CIN2 or worse and 0·96 [0·93-0·99] for CIN3 or worse). HPV testing with signal-based assays on self-samples was less sensitive and specific than testing on clinician-based samples. By contrast, some PCR-based HPV tests generally showed similar sensitivity on both self-samples and clinician-based samples.

INTERPRETATION:

In screening programmes using signal-based assays, sampling by a clinician should be recommended. However, HPV testing on a self-sample can be suggested as an additional strategy to reach women not participating in the regular screening programme. Some PCR-based HPV tests could be considered for routine screening after careful piloting assessing feasibility, logistics, population compliance, and costs.

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HPV DNA, E6/E7 mRNA, and p16INK4a detection in head and neck cancers: a systematic review and meta-analysis.

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Abstract

BACKGROUND:

We aimed to provide updated information about the global estimates of attributable fraction and type distribution of human papillomavirus (HPV) in head and neck squamous cell carcinomas by doing a systematic review and meta-analysis.

METHODS:

We did a literature search on PubMed to identify studies that used PCR for detection of HPV DNA in head and neck squamous cell carcinomas with information about HPV genotype distribution. We included studies that tested 20 or more biopsies per cancer site and were published between July 15, 1990, and Feb 29, 2012. We collected information about sex, risk factors, HPV detection methods, and biomarkers of potentially HPV-induced carcinogenesis (E6/E7 mRNA and p16(INK4a)). If it was not possible to abstract the required information directly from the paper, we contacted the authors. We did a meta-analysis to produce pooled prevalence estimates including a meta-regression to explore sources of heterogeneity.

FINDINGS:

148 studies were included, contributing data for 12 163 cases of head and neck squamous cell carcinoma from 44 countries. HPV DNA was detected in 3837 cases. HPV16 accounted for 82·2% (95% CI 77·7-86·4) of all HPV DNA positive cases. By cancer site, pooled HPV DNA prevalence estimates were 45·8% (95% CI 38·9-52·9) for oropharynx, 22·1% (16·4-28·3) for larynx (including hypopharynx), and 24·2% (18·7-30·2) for oral cavity. The percent positivity of p16(INK4a) positive cases in HPV-positive oropharyngeal cancer cases was 86·7% (95% CI 79·2-92·9) and of E6/E7 mRNA positive cases was 86·9% (73·2-96·8). The estimate of HPV attributable fraction in oropharyngeal cancer defined by expression of positive cases of E6/E7 mRNA was 39·8% and of p16(INK4a) was 39·7%. Of subsites, tonsils (53·9%, 95% CI 46·4-61·3) had the highest HPV DNA prevalence. HPV DNA prevalence varied significantly by anatomical site, geographic region, but not by sex or tobacco or alcohol consumption.

INTERPRETATION:

The contribution of HPV prevalence in head and neck squamous cell carcinoma and in particular that of HPV16 in the oropharynx shows the potential benefit of prophylactic vaccines.

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