



FOCUS ON RESEARCH

Human Papilloma Virus (HPV) Oral Prevalence in Scotland HOPSCOTCH: feasibility study

Researchers

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Aim

Oral Human Papillomavirus (HPV) infection is increasingly implicated in the rising incidence of mouth/throat cancer, which is the fastest increasing cancer in Scotland, especially in men. However, little is known about the extent, transmission, and determinants of oral HPV infection. We aimed to test the feasibility of conducting a full population wide study into the prevalence and incidence of oral HPV in Scotland. We examined the feasibility of recruiting dental patients; taking a lifestyle history and oral gargle/rinse samples for HPV detection; and recruiting dental practitioners/practices to participate in a future study.

Project Outline/ Methodology

Male and female patients aged 16-69 years were recruited by Research Nurses in 3 dental teaching/ outreach centres and 2 General Dental Practices (GDPs), and by Dental Care Teams in 2 further GDPs. Consented participants completed a questionnaire (via web-based tablet computer or paper) with socioeconomic, lifestyle, and sexual history items. Participants were followed up at 6-months via study or routine dental appointment, or via postal/online questionnaire. Saline oral gargle/rinse samples were collected at baseline and follow-up and sent to the Scottish HPV Reference Laboratory for processing and HPV genotype testing. We undertook an electronic questionnaire survey of NHS dental practitioners in Scotland to ascertain willingness and their practice premise suitability for a future full population study.

Key Results

It is feasible to recruit and follow-up dental patients largely representative/reflective of the Scottish population. 1168 patients were approached, 366 consented giving an overall participation rate of 31.3%. 355 completed baseline questionnaire and 341 provided baseline oral specimen that resulted in a valid HPV test. Follow-up rate was 63.8% at 6-months. Research Nurse and Dental Care Team approaches had similar recruitment rates. The Research Nurse model was more effective in terms of achieving target recruitment numbers on time,

however, was more expensive. Participants completed the detailed lifestyle and sexual health/behaviour questionnaire with few missing responses and high levels of disclosure of risk behaviours. Oral rinse/gargle sample collection and HPV testing was feasible. Preliminary analyses found an overall prevalence of oral HPV infection of 5.9%. The NHS dentists' survey identified a cohort of 41 willing and suitable practices for a future population study.

Conclusions

Our study demonstrates that it is feasible to undertake a study to investigate the prevalence, incidence and determinants of oral HPV infection in dental settings in Scotland.

What does this study add to the field?

This study provides the first preliminary estimate of oral HPV prevalence in the Scottish population. Research Nurses have been used in dental practices for research before, but rarely for this kind of patient investigation. This study demonstrated feasibility to recruit patients and dental practitioners/practices to participate in a study on a topic area that is potentially difficult and perceived to be "sensitive".

Implications for Practice or Policy

We know what resources and methods are needed to expand our prevalence study approach to assess the impact of Scotland's school-based HPV vaccination programme on oral HPV in girls/women who have received the vaccine, and also if there is any effect of herd immunity in boys/men. This would help determine whether or not the vaccine should be extended to boys. Our study also shows that the boundaries of the nature of research and potentially practice undertaken in dental settings could be stretched beyond current traditional remits.

Where to next?

Our plan now is to seek and apply for funds for a larger fully powered population study linked to assessing the impact of the HPV vaccination programme in Scotland. We will fully scope and explore options in Scotland, UK and Europe, and with potential industrial partners. We have also established a network of interested potential collaborators from across Europe.

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