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Title: Will HPV vaccines reduce the oropharyngeal cancer burden? An Overview

Body: Background:

Human Papillomavirus (HPV) is the most common sexually transmitted infection. There has long been an association between HPV infection and oropharyngeal squamous cell carcinoma (OPSCC), accounting for 70% of OPSCC cases in the US. Diagnosis and treatment of OPSCC offers many challenges including combined chemotherapy and radiotherapy contributing to many comorbidities for patients and adding to the disease burden.

Objectives:

This review of the literature explores the link between HPV and OPSCC, the vaccines available and their effectiveness and who should get vaccinated.

Methods:

We conducted a search on the PubMed database using MeSH terms.

Results:

147 studies were identified. There is an abundance of evidence proving the HPV vaccine's effectiveness at reducing oropharyngeal infection rates, however there is a lack of evidence proving that the vaccine will prevent OPSCC directly. Alternatively we can look at evidence proving its effectiveness in reducing cervical cancer since HPV infection is implicated in both.

Conclusions:

Prophylactic vaccines aimed at preventing the HPV infection in the first place should have a positive effect on reducing the burden of HPV-associated OPSCC, saving the health service considerable costs of treatment and patients the pain and suffering associated with the condition.

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