Effective Health Care

Prevention, Testing, and Treatment for HPV-Associated Head and Neck Cancer Nomination Summary Document

Results of Topic Selection Process & Next Steps

- The topic, *Prevention, Testing, and Treatment for HPV-Associated Head and Neck Cancer,* is not feasible for a full systematic review due to the limited data available for a review at this time.

Topic Description

Nominator(s): Individual

Nomination Summary: The nominator is interested in understanding strategies and interventions for the prevention, testing, and treatment for human papillomavirus (HPV)-positive head and neck cancer.

Staff-Generated PICO
Population(s): Individuals at risk for HPV-associated head and neck cancer.
Intervention(s): Prevention- vaccination
Testing- genotyping
Treatment- any treatments for HPV-associated head and neck cancer
Comparator(s): Other prevention, testing, and treatment strategies.
Outcome(s): Incidence of HPV-associated head and neck cancer; overall, disease-specific, disease-free, and metastasis-free survival.

Key Questions from Nominator:
1) What are strategies and interventions for the prevention of HPV-associated head and neck cancer?
2) What are the testing recommendations for HPV in head and neck cancer?
3) What are treatment strategies for HPV-associated head and neck cancer?

Considerations

- The topic meets EHC Program appropriateness and importance criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)

- Rates of head and neck cancers are on the rise in the US, and an increasing proportion of these cases are caused by the human papillomavirus (HPV). The most common type of HPV-associated head and neck cancer occurs primarily in the oropharynx. Oropharyngeal cancers are more common in white men.

- There are currently no interventions approved by the Food and Drug Administration (FDA) to prevent HPV-associated head and neck cancers. Additionally, there are no recommended screening methods similar to a Pap test for detecting cell changes caused by HPV infection in anal, vulvar, vaginal, penile, or oropharyngeal tissues, and no FDA-approved tests to detect HPV infections in men.
- A guideline published in 2013 by Cancer Care Ontario (CCO) on HPV testing for individuals presenting with head and neck cancer notes that HPV-positivity is a strong predictor of prognosis in patients with oropharyngeal squamous cell carcinoma; and although at this time, no recommendation can be made regarding clinical management decisions on HPV status, the valuable prognostic benefits of HPV testing are sufficient to warrant routine testing. The guideline concludes that the current evidence suggests that polymerase chain reaction (PCR), deoxyribonucleic acid in situ hybridization (DNA ISH), and immunohistochemical (IHC) staining are all comparable.

    - Lacchetti C, Waldron J, Perez-Ordonez B, et al. Head and Neck Cancer DSG. Routine HPV testing in head and neck squamous cell carcinoma. Toronto (ON): Cancer Care Ontario (CCO); 2013 May 13. 58 p. (Evidence-based series; no. 5-9).

- The National Comprehensive Cancer Network (NCCN) published a guideline in 2013 on head and neck cancers. The guideline recommends testing tumor cell nuclei for detection of HPV with either immunohistochemistry for analysis of p16 expression or situ hybridization. The guideline also states that the results of HPV testing should not change management decisions except in the context of a clinical trial. The guideline indicates that consensus is increasing that HPV status should be used as a stratification factor, or should be addressed in separate clinical trials (HPV-associated vs. unrelated). It also notes that additional studies are needed to understand the effect of HPV status on response to different therapies, treatment outcome, and patterns of failure.

    - National Comprehensive Cancer Network. Head and Neck Cancers (Version 2.2013). http://www.nccn.org/professionals/physician_gls/pdf/head-and-neck.pdf. Accessed February 27, 2014.

- The only systematic review identified was a 2014 Cochrane systematic review on treatment of HPV-associated head and neck cancer. This review did not identify any completed randomized controlled trials that met the inclusion criteria.

    - Masterson L, Moualed D, Masood A, et al. De-escalation treatment protocols for human papillomavirus-associated oropharyngeal squamous cell carcinoma. Cochrane Database of Systematic Reviews 2014, Issue 2. Art. No.: CD010271. DOI: 10.1002/14651858.CD010271.pub2

- Only 4 published studies were identified in the literature. Two focused on treatments, one focused on testing for HPV in the tonsils, and one focused on the prevention of oral HPV with the HPV 16/18 vaccine. Given the limited body of evidence, this topic is not feasible for a full systematic review at this time.