SCCPS Scientific Committee Position Paper on Primary HPV Screening for Cervical Cancer Prevention

Caveat: This paper outlines the position of the Society for Colposcopy and Cervical Pathology, Singapore on the use of primary HPV screening in cervical cancer screening. This document is a distillation of the available evidence on the subject, and the opinions of the members of the Scientific Committee and the Council of the SCCPS. The document is meant to guide decision-making and provide clarity in contemporary clinical medicine. The document is not meant not be a regulatory instrument.

Introduction

Persistent HPV infection has been shown to be a necessary condition for the development of cervical cancer in susceptible women. Consequently, contemporary cervical cancer prevention follows two broad protocol arcs, vaccinating age-appropriate populations against HPV and identifying at risk women by screening for the presence of high-risk HPV subtypes. These cervical cancer prevention strategies have been ratified by national and international organizations. [1-6] Further, primary HPV screening adds sensitivity to the detection of CIN3+ lesions which provides the opportunity for two possible scenarios: firstly, where the screening interval is increased without significantly compromising safety and, secondly, where the screening interval remains the same but the effectiveness of screening is improved. [7,8] The SCCPS believes that this will in turn improve the cost efficiency of cervical cancer screening in Singapore.

The SCCPS is committed to improving the health of women in Singapore and the region through education and thought leadership in organized medicine focused on female lower genital tract disease.

To this end, the Scientific Committee of the SCCPS has drafted a position paper on primary HPV screening in cervical cancer prevention which curates the evidentiary basis for and contextualizes the use of primary HPV screening in cervical cancer prevention in Singapore.

Effect of Age on Primary HPV Screening.

The prevalence of high-risk HPV is age-dependent. High-risk HPV prevalence in 25-29 year olds is close to 30%. The recommendation therefore is that primary HPV screening only be used in women aged 30 years and older. For women below the age of 30 in whom cervical cancer screening is indicated, we recommend the use of cytology. [7,8]

Format of Primary HPV Screening

Primary HPV screening should employ the use of a polymerase chain reaction (PCR) based assay to detect HPV DNA. The test should provide the following information to be clinically useful:

1. HPV 16 subtype identification
2. HPV 18 subtype identification
3. High-risk group identification which should include subtypes 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68.

The format of the HPV test employed should allow for type-specific identification of HPV16 and HPV 18. It is important that HPV 16 and 18 not be included in an aggregate “high risk HPV” result. This is because the level of risk of CIN3+ associated with HPV 16 and 18 infection is much higher compared to other high-risk HPV sub-types. Furthermore, the use of a non-type specific HPV test significantly increases the false positive rate.[9]

While the SCCPS Scientific Committee cannot endorse one particular test over another, it is noteworthy that at the time of publication of this paper, only the cobas® HPV test from Roche Molecular Diagnostics, is FDA approved for primary HPV screening.

The use of primary HPV testing as a screening tool for CIN3+ has been shown to be more cost effective than co-testing (HPV + cytology). Primary HPV testing also has the benefit of a high negative predictive value for CIN3+ and the testing process lends itself to automation improving throughput in high volume testing such as a national screening program. [7,9]

Testing Interval

The recommended screening interval is 5 years. [10,11]

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