From cytology to full molecular cervical screening

Chris J L M Meijer
Vrije Universiteit Medical Center, The Netherlands

Evidence will be given why HPV testing should be used as primary screening test instead of cytology. It will be shown that a negative HPV test protects better than a negative smear against cervical cancer and the most advanced precursor lesion for cervical cancer i.e., CIN3. In addition, guidelines for clinical validation of HPV tests will be discussed. Since a considerable number of HPV positive women have a transient HPV infection triage of HPV pos women is necessary to detect in the group of HPV positive women those who have disease i.e., cervical (pre)cancer. This is presently done by cytology and/or HPV 16/18 genotyping. Principles for HPV triage testing will be discussed. New developments in triage testing are dual staining of cervical cells for Ki67/p16 and molecular testing by methylation marker. The use of HPV testing on self-collected cervico-vaginal specimens and direct molecular triage testing with methylation markers on the left overs of these self-collected samples opens the way to full molecular screening. Finally the way how The Netherlands is implementing HPV testing in population based screening including the possibility for women to use HPV-self-sampling will shortly be discussed.

Biography

Chris J L M Meijer received his MD in 1972 at the Leiden University Medical Center (LUMC), The Netherlands, and was awarded with his PhD during his medicine study in 1971 at the Vrije Universiteit Medical Center, (VUMC) Amsterdam. He is board certified as Surgical Pathologist (1977 Leiden) Medical Immunologist since1981. He was staff Pathologist at the Dept. of Pathology of LUMC till 1980, and staff member and Head of the Department of Immunopathology at the SSDZ, Delft, from 1980-1982. From 1983-2009 he was chairman and Director of the Dept. of Pathology of the VUMC, Amsterdam. He is and has been chairman or member of numerous national and international scientific and strategy committees advising in the field of oncology and pathology. He received several awards for his scientific work. Presently he works at the Dept. of Pathology, VUMC, Amsterdam heading a research group aiming to elucidate molecular aspects of HPV infections leading into transforming cervical intra-epithelial neoplasms and cancer and focuses on the role of promotor methylation of tumor suppressor genes involved in carcinogenesis.

cjlm.meijer@vumc.nl