

# Improving cervical cancer screening

A WOMAN dies every two minutes from cervical cancer worldwide. This woman is likely to be between the ages of 30 and 59 and living in a developing country. Cervical cancer is the second largest cancer killer among women in most low- and middle-income countries. In Malaysia, over 2,000 women are diagnosed with cervical cancer and 600 succumb to the disease each year. Tragically it could strike our sisters, daughters, and mothers in the prime of their lives and it can be devastating to the whole family, both emotionally and financially.

Unlike many other illnesses, the development phase of cervical cancer from a precancerous state of the cervix to invasive cervical cancer is well-understood. Physicians know the progression of the disease, therefore if detected in a precancerous lesion or at an early stage, cervical cancer can be cured. As such, there is much reason for optimism.

The majority of cervical cancer cases are caused by a persistent infection of the Human Papillomavirus (HPV), which is commonly sexually transmitted. Given the inherent stigma, it is noteworthy that nearly one in five Malaysian women are infected with HPV at some point of their lives. Among these patients, 73% have evidence of HPV Type 16 and 65.2% have HPV Type 18. Thankfully, 90% of the viruses are spontaneously cleared within two years without the women ever knowing she was infected.

Among women who have a persistent infection, the virus lives in the cells of the cervix (the lower part of the birth canal), often for decades without symptoms. Under these circumstances, certain subtypes of HPV may produce cancer-causing proteins that induce cell changes. Over time, these changes can lead to a pre-cancerous lesion and eventually up to 12% to 36% of these lesions will develop into frank cancer at which point the disease spreads rapidly and becomes difficult or impossible to cure.

Thus cervical screening was introduced as a method of preventing cervical cancer by detecting and treating early abnormalities on the cervix. A sample of cells is taken from the cervix for analysis. A doctor or nurse inserts an instrument

(a speculum) to open the woman's vagina and uses a small soft brush to sweep around the cervix (pap smear). Most women consider the procedure to be only mildly uncomfortable.

Pap smears can prevent 75% of cancers from developing but like other screening tests, it is not perfect. It may not always detect early cell changes that could lead to cancer. However, if cervical cancer is detected early, it can be treated successfully. Screening involves a simple gynaecological examination and the associated laboratory tests. It is these tests that have led to dramatic reductions in cervical cancer rates in the developed world. The Malaysian healthcare community hopes to emulate this.

The mainstay of detection for the last sixty years has been the pap smear, a test that detects cervical cell changes visually. While pivotal in reducing deaths in the developed world, it is inadequate for worldwide cervical cancer prevention in the 21st century, hence the initiation of the HPV vaccination programme. Cell changes are often not related to cancerous transformation.

Newer tests involve detecting the HPV virus, specifically its DNA, is a great advancement for the field.

"However, simply detecting HPV doesn't necessarily mean a woman will get cancer. After all, many women are HPV-positive but only a few will be diagnosed with cancer,"



Prof Noor Azmi (left) and Dr Andi.



Associate Professor Dr Andi Anggeriana, Gynaecology Oncologist and Deputy Director of Cancer Resource and Education Centre, University Putra Malaysia.

Since 80% of women will see the virus clear within two years, HPV

detection alone may subject women to treatment they don't need, and in the process, potentially compromise their fertility or generating unnecessary emotional stress.

What is needed is a more specific, yet affordable and cost-effective test that is fast and easy to use. The latest screening newcomer, the OncoE6 Cervical Test, just might deliver.

It specifically detects if the cancer-causing part of the virus, the E6 protein, is activated. This test can be performed without the need for complex and expensive equipment, and results are available in a few hours, thus eliminating the need for a very good call and recall system.

The OncoE6 Cervical Test with its ability to generate results within a few hours hopefully can encourage more women to come forward for this life saving examination.

"The OncoE6™ Cervical Test with its ability to generate results within a few hours, hopefully, can encourage more women to come forward for this life saving examination," says Assoc Professor Noor Azmi Mat Adenan, Obstetrics and Gynaecology Specialist, Faculty of Medicine University of Malaya.

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