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Cervical Screening in Malaysia: Is It Still Relevant?

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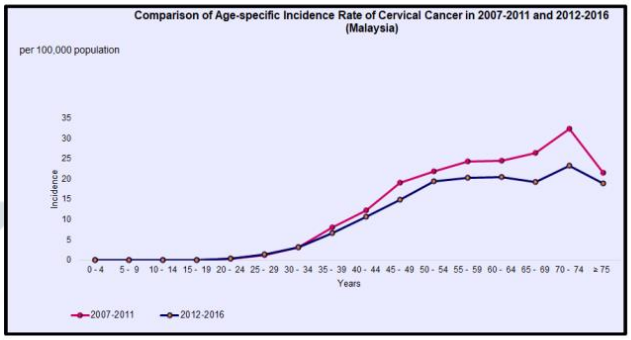
***Abstract*— Cervical cancer remains a major burden in many countries worldwide, especially those countries from the developing and underdeveloped world. Albeit having its own vaccine to prevent cervical cancer, we still see women suffering from this cancer, and it is shown that globally, cervical cancer ranks fourth as the most common cancer as well as ranking fourth most common cause of deaths among women (Azizah et al 2019). It is further noted that nine out of ten deaths actually occur in low- and middle-income countries. In Malaysia, the age standardized rate of cervical cancer is approximately 6.2 per 100 000 females. This data is retrieved from year 2012-2016, which made it the third most common cancer in females.**

***Index Terms*— Cervical cancer, Cervical Screening, Malaysia**

Cervical cancer remains a major burden in many countries worldwide, especially those countries from the developing and underdeveloped world. Albeit having its own vaccine to prevent cervical cancer, we still see women suffering from this cancer, and it is shown that globally, cervical cancer ranks fourth as the most common cancer as well as ranking fourth most common cause of deaths among women (Azizah et al 2019). It is further noted that nine out of ten deaths actually occur in low- and middle-income countries. In Malaysia, the age standardized rate of cervical cancer is approximately 6.2 per 100 000 females. This data is retrieved from year 2012-2016, which made it the third most common cancer in females.

As cervical cancer has a slow progression of deterioration once detected, this cancer has been shown to be one of the cancers with good prognosis and one of the most preventable and treatable cancer. Malaysia thus recognized the burden of cervical cancer in Malaysia, and hence, developed a National Cancer Blue Print 2016-2020 with the existing framework comprising of strategies to reduce the impact of cancer including training of healthcare providers, enhancing awareness campaigns, early detection, encouragement of collaborative efforts with multi-agencies, upgrading infrastructure and equipment and other related activities (Family Health Development Division 2023).

Cytology screening was introduced in 1969 as part of family medicine packages and it has progressed to be a cervical cancer screening modality nationwide in 1995. However, the screening modality has never met its target which was set at 40 per cent of eligible women aged 30 to 65 years (Othman & Rebolj, 2009). The discovery of HPV's role in causing cancer has also led to the development of HPV vaccine to prevent cervical cancer. A school-based HPV vaccination was first introduced in 2010, targeting 250,000 13-year old school girls annually. It is noted that the Ministry of Health Malaysia provides approximately 75% of the cytology screening in the country without incurring costs to the public (Strander, Andersson-Ellström, Milsom, Rådberg, & Ryd, 2007).



Source: Malaysian National Cancer Registry Report (2007-2011 and 2012-2016)

Malaysia has since integrated HPV vaccination into their National Vaccination Programme and since 2016, three vaccines have been approved by WHO for their global use, which are bivalent HPV-16/18 vaccine (Cervarix®), quadrivalent HPV-6/11/16/18 vaccine (Gardasil®) and nonavalent HPV-6/11/16/18/31/33/45/52/58 (Gardasil®). Malaysia has since successfully integrated HPV vaccination in its vaccination programme since 2010. Hence the graph of comparison of age-specific incidence rate of cervical cancer sees a drop from 2007-2011 compared to 2012-2016, where the incidence is much lower for the latter (Azizah et al 2019).

Persistent infection with high risk (HR) HPV is necessary for the development of cervical cancer and its precursor lesions. In the current guideline of cervical cancer screening among females which was developed in 2023, HPV test is recommended to sexually active women aged 30 to 65 years. However, women younger than 30 years can be offered cytology screening (conventional / liquid-based cytology).

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For women who exceed 65 years and never had any routine screening, HPV testing can be offered. Those eligible for cytology screening, the initial screening is yearly for two (2) years. If the results were normal, then a 3-yearly cytology is indicated. Those eligible for HPV test, the screening interval will be every 5 years for those who are tested HPV negative. Cytology based screening (including the Papanicolaou smear test and liquid-based cytology (LBC) identify atypical cervical cells through the preparation and interpretation of slides using microscopy by a trained expert (Family Health Development Division 2023).

In the liquid-based cytology, sample from the cervical scrape is obtained using a brush/broom and then suspended in a vial of preservative for transport to the laboratory. HPV self-sampling kit can be obtained from the Health Clinics. Hence, even with the advent of HPV Vaccine, it is concluded that there is a need for continuation of surveillance programme where cervical cancer is involved. This guideline provides succinct information with regards to cervical screening methods and flow charts in Malaysia (Family Health Development Division 2023).

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