

Extracts from Pertinent Current Literature

Global Human Papillomavirus Vaccination: Can it be Cost Effective?

EJ Crosbie, BJOG 2012;119:125-128

Human Papillomavirus (HPV) vaccines Cervarix and Gardasil target HPV 16 and 18 responsible for 70% of cervical cancers. Quadrivalent Gardasil additionally targets HPV 6 and 11. According to WHO 5yrs vaccination can prevent one million deaths from cervical cancer. Most deaths occur in poor socioeconomic countries whereas in rich developed countries where effective cervical screening programmes are in place mortality from cervical cancer has dropped to 1.8 per 1,00,000 women per year.

In this article cost effectiveness models have been used to describe the health and economic consequence of HPV Vaccination in Japan and Thailand. The models show that HPV vaccination combined with improved screening by cytology or HPV DNA testing would be a cost effective way of reducing the incidence of cervical cancer.

After HPV vaccine, the longevity of immune protection is uncertain but the recent data shows protection against HPV 16/18 for at least 8 to 10 yrs, sustained protection for 20 or more years. Boosting dose can be given required (if vaccine protection wanes). The cost-effectiveness model assumed 100% and 80%

vaccine coverage in Japan and Thailand respectively, while 84% vaccine coverage (with all doses) among teenagers girls in U.K.

Vaccination is cost-effective when given to women with poor access to cervical screening but it is relatively cost-inefficient in those who are regularly screened.

In addition to cost, public acceptability and political support are also important factors in this ground to make HPV vaccine tool to prevent HPV infection. As far as the costs of HPV vaccines are concerned these cost extremely expensive when compared to infant vaccines and developing countries have to face the burden of raised prices of vaccines. 2 new tests in low income settings VIA (visual inspection with acetic acid) and new care HPV test. The care HPV test has sensitivity 90% and specificity 84% at affordable cost. Vaccination and HPV testing shows 70% effectiveness in reducing cervical cancer, combining screening with vaccination costs 685 U.S. dollar per vaccinated girl.

Contributed By: Dr. Shermeen Kousar
Post Graduate Trainee, Gynae unit I, Holy Family Hospital, Rawalpindi.

Impact of Body Mass Index (BMI) on Antenatal Detection Of Congenital Anomalies

KE Best, PWG Tennant, R Bell and J Rankin, Aug20 2012||DOI:10.1111/j.1471-0528.2012.03462.x

This study investigates the relationship between antenatal detection of congenital anomalies in women with increasing BMI.

The study was carried out in north of England between 2006 and 2009, and it was a population based register study. In England all pregnancies with congenital anomalies are notified to northern congenital abnormality survey chromosomal (NORCOS) anomalies while the teratogenic anomalies were excluded.

It was shown in this multiple cohort study that sensitivity of antenatal ultrasound detection of congenital anomalies is further reduced with increasing BMI. Visualization of cardiac structure and soft tissues has been shown to be particularly impaired with increasing BMI. In this study data was collected from any scan which detected anomaly but NORCOS noted that gestational age at which anomaly was detected, self reported or measured BMI was also documented in NORCOS. Patients with detected anomalies were followed and confirmed after expulsion and delivery. BMI was categorized according to WHO recommendations

<18.5 Kg/m² is under weight

18.5 -24.9 Kg/m² recommended BMI

25 - 29.9 Kg/m² is over weight

>30 Kg/m² is obese

Three thousand and ninety six cases were confirmed in postnatal period among 132885 pregnancies during this 4 year study period. Anomalies occurred in 793 in recommended BMI women (47%), 468 in women who were overweight (27.8%), 358 (21.2%) in those who were obese. Detection rate decreased significantly with increasing BMI. Category odds of detection of an anomaly were significantly lower in obese women than in women of recommended BMI. Cardio vascular anomalies were most common congenital anomaly group notified to NORCOS but least commonly suspected antenatally. There was 3 folds increased odds of detecting a cardiovascular anomaly in underweight women compared with those of recommended BMI but no significant difference in antenatal detection of cardiovascular anomalies in overweight and obese women compared with women of recommended BMI.

This study is the largest to examine the effect of maternal BMI on antenatal detection of congenital anomalies.

Contributed By: Dr. Saima Khan
Postgraduate Resident, Gynae Unit I,
Holy Family Hospital, Rawalpindi

Caesarean Section on Demand

Mary Goodin, Malcolm Griffiths, Obstetrics, Gynaecology and Reproductive Medicine 2012; 22(12):368-370.

The National sentinel cesarean section UK audit found that a fifth of birth in England and Wales were caesarean section (CS), the majority of CS were emergencies (63%), with fetal distress in 22% only 7% were for maternal request. Understanding whether women should be able to demand a CS requires exploration of the reason for the woman's request. Many reasons are given, they are to be considered in turn. Tocophobia (fear of childbirth) affects up to 20% of pregnant women - 6% disabled by fear. Fear may focus around labour pain, capability of giving birth, concerns over poor outcome of motherhood. Compared to the lack of control felt around a planned vaginal birth, a planned CS give the luxury of a labour date of birth, a social convenience that may be an additional attraction to elective CS. Many women report fear of future deliveries after the birth of their first child, up to 48% after CS and 57% after an instrumental delivery compared to 10% of women who have a normal delivery resulting in voluntarily infertility. Undergoing pregnancy and vaginal delivery, changes a woman's body, some perceive this negatively, suggesting elective CS to avoid perineal trauma and preserving sexual function. Urinary

incontinence is more common among women who have had a CS and that stress incontinence is still more common after vaginal delivery. Anal sphincter injury and pelvic organ prolapse are more common after vaginal delivery than with CS. When a woman presents antenatally asking for CS without obvious medical reason, first and most important thing is to listen to her ideas for CS, i.e. concerns and expectations. Then make her feel more confident in aiming for a vaginal delivery by informing her about the risks of CS as they are more likely to have infection, haemorrhage requiring hysterectomy and a longer hospital stay and that admissions to neonatal unit are higher after elective CS than vaginal delivery. For those needing more input, referral to a birth options clinic or to a psychologist is recommended. Referral can also help give women confidence with tocophobia. CS and complications rates should not be the only concerns. Attention must be paid to the psychological needs of our patients.

**Contributed By: Dr. Sandleen Javad
Postgraduate Resident Gynae Unit I,
Holy Family Hospital, Rawalpindi**