Royal College of Obstetricians & Gynaecologists

India South
International Representative Committee

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Editor: Dr A Tamilselvi

NEWS LETTER

Dear Friends & Colleagues,

A year ago, as we were coming out of the first lock down, most of us would not have envisaged that we would still be battling travel restrictions and preparing for a possible third wave a year on. Despite vaccination, one is uncertain about picking up a bag and making a trip, something that we did effortlessly and constantly.

The annual AICC RCOG meeting was meant to be in Kochi in 2020 and when we postponed it we had hoped to meet everyone at Kochi this year. As a microscopic particle continues to restrict our plans, conferences have moved to a virtual platform and opened the windows of knowledge into our homes and desks.

This edition of the the AICC RCOG annual conference is now being held virtually between the 1st -3rd October 2021. We have 4 workshops on Gynaecological Oncology, Fetal medicine, Operative Obstetrics and Reproductive Medicine. In addition, we have a main scientific program which has been put together with a lot of care in terms of content and to deliver this content we have invited excellent faculty, both international and national, who are stalwarts in their respective fields.

There are opportunities for oral and poster presentations as well as sessions for medical students and CRRIs. The entire conference committee is working to make the experience interactive and engaging. The conference registration is free until the 10th September and I urge you log on to www.aiccrcog2021.com for the updates.

On behalf of the team behind the 34th AICC RCOG annual conference I invite you to register and join us between October 1st to 3rd to delve into this academic bonanza

With regards

Uma

RAISING OUR VOICES FOR BIRTHING WOMEN

Dr Evita Fernandez

"Labour is what a woman says it is – she owns it!" These words caught my attention when I read a blog written by Helen Shallow, a senior midwife who worked on a study titled, "Are you listening to me?"

I have been reflecting on the words, "Labour is what a woman says it is" and, more importantly, on the last three words of the sentence, "she owns it". Does she? Do we, as obstetricians, believe this? Have we internalized this statement and accepted it fully? How we are born and how we give birth has significant implications for women's future health and their babies. However, many a time we are focused on the delivery of a baby without giving too much thought to the rights and preferences of the mother and her experience of the birth process.

The White Ribbon Alliance India (WRAI) ran one of the most extensive campaigns across the country: "HAMARA SWASTHYA HAMARI AAWAZ -- MY HEALTH MY VOICE!" The key objectives were to focus on women's needs for the best possible outcomes, hear their voices to understand what they want for quality, and present the highest political leadership the findings. One hundred and fifty thousand women from across 24 States and one union territory were asked what their topmost aspiration was in maternal healthcare -- 23% requested dignity and respect. Other requests included kindness, a clean bed and toilet, a birth companion and the freedom to move and birth in a position of choice.

LAQSHYA, a labour room quality improvement initiative promoted by the National Health Mission, aims to ensure respectful and high-quality maternal care is provided to every woman during labour, birth and immediate postpartum. The programme is being rolled out to medical college hospitals, district hospitals and other high caseload public health facilities.

In his foreword to the LAQSHYA document, Mr. J.P. Nadda, Minister for Health at the time, said this initiative would help build a relationship of trust and care between public institutions and the community. I firmly believe, the objectives of the LAQSHYA initiative applies to all public and private sector institutes offering maternity services.

Despite this, it is not uncommon to see authority and the threat of an adverse outcome being used when women are at their most vulnerable time of pregnancy and child birth. Every woman has the ability to think and understand if given time and explanations and do not need a rod to ensure they behave.

Even in larger hospitals where the workforce is overwhelmed by volume, there is no excuse for lack of privacy and kindness. A pull of a curtain to offer a women some dignity, a sheet to cover her so she is not exposed, naked and vulnerable to everyone, an explanation before any intervention ; these are simple but doable basic steps in offering respectful maternal care.

During the initial stage of the pandemic, women worldwide were subjected to isolation and so, birthed alone -- a result of fear and ignorance concerning the coronavirus and its rapid spread. Today, in July 2021, with extensive evidence emerging from global research and open sharing of data, we know a birth companion is not an added source of fear but vital for the labouring woman.

Research has shown that the single most effective intervention in helping reduce unnecessary interventions, including C. Sections, instrumental births, need for oxytocin or analgesics, is the constant presence of a trusted birth companion. Women, when supported, enjoy a positive and life-giving birth experience.

Every woman, anywhere in the world, regardless of caste, creed, colour, socioeconomic and literacy status, must have a birth companion. This is her fundamental human right. However, even today, we deny women this right. The pandemic has further worsened this situation. There is no valid reason for any woman, anywhere in this world, to birth alone.

Why do we restrict mobilityandupright postures? A birth companion helps a mother achieve both. Gravity helps in the descent of the head with the added benefits of shortening the duration of labour and the unrequired need for pharmacological pain relief methods.

After having epidurals during labour with her first two babies, Obstetrician and Gynaecologist Kyler Elwell-Silver opted to try natural childbirth for her third and shared her views.

"The most notable benefit was being able to move around during labour and after delivery. I was confined to the bed with my epidural deliveries since I was numb from the waist down. This time, I could walk around to ease my discomfort. Right after delivery, I could stand up, pick up the baby, and use the bathroom alone (I haven't really been able to do that since, with three kids at home!)."

Finally, why do we continue to birth women on the flat of their backs when the evidence AGAINST it was available since the early Eighties?

• Upright birthing positions take advantage of gravity to enhance descent of the fetal head in synchrony with uterine contractions while also widening the pelvic outlet. The risk of aorta-caval compression with its consequent effect on the fetal heart rate is avoided.

• The upright and left lateral positions are associated with the lowest risk of maternal perineal tears.

One of the main reasons for women to be restricted to a supine birthing position is the fact that we as obstetricians are not trained to deliver them in any other way. The time has come for us to re train ourselves and understand the value of non-supine positions in promoting easier deliveries.

How long will we obstetricians remain in our zones of comfort and continue to justify our practices?

WHEN will we return the ownership of labour and birth to the women we are privileged to serve?

What will it take to shake us out of our reverie?

As Madeline Albright, the first female U.S. Secretary of State, said: "It took me quite a long time to develop a voice, and now that I have found it, I am not going to be silent." Will you, my colleagues, join me in raising your voices, too?

Upcoming Health Awareness Months

September :
- Childhood Cancer & Blood Cancer Awareness
- Urology Health Awareness
- World Alzheimer's Month
- Gynecological Cancer Awareness

October :
- ADHD awareness
- Breast Cancer Awareness
- Menopausal Health Awareness

November :
- Diabetes Awareness
- Men's Health awareness

December :
- AIDS awareness

Knowing the City of Madras (Chennai) & its glorious past

Memorial to a Vaccinator

Sriram V

These are pandemic times when the conversation veers towards statistics on number of cases, fatalities and above all percentage of those vaccinated. There are also discussions on how many are reluctant to be vaccinated. This a new experience for much of the world, especially because the last epidemic that was truly global was the Spanish influenza of a century and more ago.

If Woodayagiri Singaudivakkam Swami Naick were alive today he would have merely smiled. To him all of this would have been par for the course, and he had seen it all. That mouthful of a name, shortened to Dr WS Swami Naick, was that of one of the pioneering vaccinators of the city of Madras that is Chennai, in South India. Born in the 1760s into a family that lived in Madras in the then fashionable district of Komaleeswaranpet along the river Cooum, Swami Naick entered the military service of the East India Company. He was employed as a native dresser, which meant a medical attendant. In that capacity he made a name for himself, especially in the Deccan operations in which he was wounded at a place called Magaralapollium.

It was in the 1790s that Edward Jenner successfully demonstrated in England that small pox could be prevented by vaccination. There was opposition as was to be expected. But by 1799 it was more or less accepted practice in England and within a year it had been adopted by Europe. Three years later, it would arrive in India. The country had had a long tryst with smallpox and Madras in particular was one of the hotspots.

Edward, Second Lord Clive then Governor of Madras, appointed Swami Naick the Native Superintendent of Vaccination in 1803 at a salary of 25 pagodas, the then currency. This was big money for those times but there were challenges at every step, not the least being scarcity in availability of vaccines. There was also the prevalence of variolation as a preventive measure as opposed to vaccination. The new method was therefore viewed with great suspicion. Swami Naick setting about vaccinating the local population generated great suspicion. This was to culminate in a group of Armenians waylaying and assaulting him in George Town, where he had gone to vaccinate people. But Swami Naick was not to be deterred. As is the case now, there was a reward given to each vaccinator for the number of people he covered. It is interesting to note that the same scheme is in place in the case of COVID as well.

Swami Naick retired as Chief Medical Practitioner in the Department of Vaccination in 1829. He lived in Pagoda Street, an upmarket neighbourhood of the city and died there in 1841. His wealth would enable his descendants to make the big jump into becoming landed gentry. Many played important roles in the civic life of Madras. In the 1960s, one of his descendants WS Krishnaswami Nayudu became a judge of the High Court of Madras. He used his good offices to erect a memorial for Swami Naick on land that the family forked out from its holdings on Pagoda Street which by then had morphed into Harris (now Adithanar) Road. There an obelisk bearing a medallion of Swami Naick's face in three quarter profile was erected. It still stands though mostly ignored by passers by. s interesting to note that the same scheme is in place in the case of COVID as well.

The author is an avid researcher of the history of Madras city. He can be contacted at sriramv2206@gmail.com

Enticing 4 Workshops

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- Gynaec Oncology

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HPV Testing for Cervical Screening

Dr Saritha Shamsunder, Senior Specialist & Professor,
Vardhmaan Mahaveer Medical College & Safdarjung Hospital,
Ms Mohini Agarwal, M Tech, ICMR Senior Research Fellow

World Health Organisation (WHO) has given a call for Elimination of cervical cancer by 2030 by vaccinating 90% of girls, screening at least 70% of woman at 35 & 45 year with a high precision test and treating 90% of precancerous lesions detected.

Carcinoma cervix is the second most common gynecological malignancy among Indian women aged 25-44 years with an incidence of 3.5% after carcinoma breast (28.6%). Due to the lack of an organized cervical screening program, the disease burden is high in India. Discrepancy in the resources and health care facilities across the country, has been a major factor limiting the establishment of an effective cervical screening program.

Currently opportunistic screening is practiced across the country and based on the resources available, the screening technique can be either a primary Human Papilloma Virus (HPV DNA) test, Co-testing (HPV DNA + Cytology), Cytology alone or Visual Inspection with Acetic acid (VIA). HPV testing for cervical screening has proven to be the most sensitive test with a high negative predictive value and recommended by the WHO for primary screening. The protective value of a negative HPV test lasts for 5-7 years and may be extended to 10 years.

Primary HPV testing:

Human Papilloma Virus (HPV) has been recognized as the causative factor for Cervical cancer. It is estimated at least 80% of sexually active women will acquire HPV infection and a large majority of them will clear the infection spontaneously within a year. However, those with persistent infection with high risk HPV (hrHPV) types are at risk of developing cervical cancer. Of the 30-40 subtypes of HPV that infect the human ano-genital tract, eighteen of them have been identified ashrHPV (16, 18, 31, 33, 35, 39, 45, 51, 52, 53, 56, 58, 59, 66, 68, 70,73, 82). The relationship between persistent hrHPV and cervical cancer lead to the development of HPV testing and vaccination.

HPV tests were found to have higher sensitivity than cytology (96.1% vs. 53.0%), hence better suited as a screening test. The high sensitivity and negative predictive value meant higher sensitivity to detect pre-neoplastic lesions, better reassurance of negative tests with safe prolongation of screening intervals. Initially, HPV testing was incorporated as a method for triage of atypical squamous cells of undetermined significance (ASC-US) cytology results by the American Society for Colposcopy and Cervical Pathology (ASCCP). Later the concept of co-testing with cytology emerged, and finally, it has found acceptance as primary screening test for cervical cancer.

Principle of HPV tests

Understanding the technical aspects of HPV assay is an integral part of the successful implementation of HPV-based screening because it is essential to choose a clinically validated test. Currently, more than200 commercial HPV tests are available in the global market, butonly some are clinically validated.

The various tests available and the principle behind the tests are outlined.HPVDNA tests are multiplex assays that detect DNA of targeted high-risk HPV types, using a cocktail ofprobes, either by direct genomic detection or by amplification of a viral DNA fragment using polymerasechain reaction (PCR). HPV genotyping identifies specific viral types (usually HPV 16 and18), thereby identifying those at greatest risk of persistence and progression. HPV mRNA tests detectthe expression of E6 and E7 onco-proteins, a marker of viral integration

DNA based HPV assays

Direct genome detection tests

• Hybrid Capture 2: (hc2) - Qiagen

A clinically validated test, detects high-risk HPV types (HR-HPV) by means of a probe cocktail for 13 HR-HPV. It is a technique in which DNA hybrids are identified with RNA probes. Originally developed by the Digene Corporation (Maryland, U.S.A), is currently produced by Qiagen (Maryland, U.S.A).

• careHPV

The careHPV test (Qiagen) is a clinically validated rapid test, that detects 14 high-risk HPV types in an automated, faster process - 2.5 hours to process 90 samples.

DNA Amplification Tests

• Cervista HPV HR and Cervista HPV 16/18: (Hologic)

The Cervista HPV HR test is an analytically and clinically validated in vitro diagnostic test for the qualitative detection of 14 HR-HPV types in cervical specimens. Cervista HPV 16/18 detects HPV 16 and 18. The test was approved by the FDA in 2009 to be used together with cervical cytology in women aged ≥30 years. Cervista uses, a signal amplification method for detection of specific nucleic acid sequences. This method uses two types of isothermal reactions that occur simultaneously: a primary reaction that occurs on the targeted DNA sequence and a secondary reaction that produces a fluorescent signal. The instrument has an internal control that reduces false negatives produced by a low number of cells. However; its limitations are cross-reactivity to two HPV types of unknown risk, HPV -67 and HPV- 70

• Polymerase chain reaction (PCR):

The PCR-based techniques are highly sensitive, specific, and widely used. In a conventional PCR, the thermostable DNA polymerase recognizes and extends a pair of oligonucleotide primers that flank the region of interest. In the final process, the PCR can generate one billion copies from a single double-stranded DNA molecule after 30 cycles of amplification. After amplification, the HPV genotypes can be determined separately, using techniques such as restriction-fragment length polymorphism (RFLP), linear probe assays, direct sequencing, or genotype-specific primers. These PCR techniques also have some drawbacks, mainly in competition for reagents, leading to false negative results for multiple type infections that are contained in samples at lower copy numbers. Amplification of samples containing DNA from more than one HPV genotype can lead to a much stronger amplification of one of the sequences present, which would complicate the detection of all genotypes in a sample with multiple infections.

• Cobas HPV Test: (Roche)

The Cobas HPV test detects 12 high-risk HPV types (31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68), and specifically reports on HPV 16 and 18. This is a clinically validated in vitro qualitative test. The system uses the β-globin gene as an internal control for specimen integrity, extraction, and amplification. The system is totally automated, facilitating laboratory workflow. It consists of a Cobas Z thermocycler and the necessary software for real-time PCR, using primers for the HPV L1 region. The procedure includes processing of DNA extraction samples and real-time PCR analysis. The technique does not cross-react with non-carcinogenic genotypes. Furthermore, the operator has minimal contact with the sample, preventing contamination. This system can carry out 96 tests in approximately five hours. The advantages of this system are reduction in processing and work time; reduction in repetitive motions; reduction in the risk of errors due to fatigue; reduction in the production of biohazard waste; and reduction in costs by eliminating the need for additional reagents.

• Abbott Real Time High Risk (HR) HPV assay:

The Abbott Real-Time High Risk (HR) HPV assay is a completely automated, clinically validated test for screening above 30 yrs. It detects 14 HR-HPV types (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68). This test reports on HPV 16 and 18 separately from the other high-risk HPV types. The system consists of an m2000sp instrument that prepares the nucleic acid and an m2000rt analyzer that carries out real-time PCR using a mixture of multiple primers and probes for amplification and detection of HR-HPV DNA and for the β-globin gene, as an internal quality control of cervical cells collected in liquid-based cytology. The response time of the process is from six to eight hours for 96 samples and depends on the DNA extraction method used. The advantages of this technique are the automation of the multiple steps—reducing personnel—time used, and risk of contamination. Subjective interpretation is one of the test's limitations.

• BD HPV Assay:

The BD HPV test is a clinically validated; CE approved real-time PCR that amplifies the region that codes HR-HPV E6/E7 oncoproteins. These regions are present throughout the stages of the disease's progression and the assay has been designed to detect specific regions according to virus type, instead of amplification of gene regions detected with L1 primer sets. The test provides individual information for six HPV types (16, 18, 31, 45, 51, and 52), as well as detection of all 14 HR-HPV. The BD HPV test performs as well as other tests approved by the FDA and those with European Commission CE marking—including HC2—and using cervical specimens collected in PreservCyt medium (Hologic, Marlborough, MA, U.S.A.). The samples are processed in the BD Viper system, which has an internal quality control. The system is totally automated and can process 1-30 samples per run and 120 results per day, including genotyping.

• Xpert HPV:

The Xpert HPV test is a real-time PCR that simultaneously detects DNA encoding for E6/E7 oncoproteins of 14 HPV types (HPV 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66 and 68). The samples are processed as individual cartridges in the GeneXpert platform from Cepheid (Sunnyvale, CA, U.S.A.). This is a molecular diagnostic platform with a capacity to process1- 80 tests, in one hour. Test results are reported for overall high-risk HPV status, as well as the presence of high-risk HPV genotypes.

E6/E7mRNADetection Techniques

The carcinogenic process is regulated by HPV E6 and E7 oncoproteins and, as a result, excessive expression of these genes is a risk marker for cervical cancer. It has been postulated that detection of E6/E7 oncogene expression could be more specific and be a better cancer risk predictor than the HPV-DNA test. Two methods use RNA detection: the Aptima HPV Assay test of E6/E7 messenger RNA (Gen-Probe), which detects 13 HR-HPV types and HPV-66; and the PreTect HPV-Proofer (NorChip) test, which detects RNA of HPV types 16, 18, 31, 33, and 45 utilisethis principle.

• APTIMA HPV Assay:

This qualitative test is based on direct detection of the expression of E6 and E7 mRNA oncoproteins, from the 14 types of HR-HPV (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68) through real-time amplification (48, 49). The APTIMA HPV Assay does not discriminate among the 14 types. The test can analyze cervical samples collected in tubes for ThinPrep cytology with PreservCyt solution. The assay includes an internal control to oversee nucleic acid capture, amplification, detection, as well as user or APTIMA HPV E6/E7 instrument errors. This system can carry out up to 250 tests in approximately five hours. It has several limitations, such as, that the test has not been evaluated in HPV-vaccinated individuals; that detection of high-risk HPV mRNA depends on the number of copies in the specimen and that, in addition and according to the literature, false positives can occur with low-risk HPV.

• PreTect HPV-Proofer assay

The PreTect HPV-Proofer assay (Proofer; Norchip AS, Norway) is a type-specific E6/E7 mRNA-based test for oncogenic types 16, 18, 31, 33, and 45, with both HPV detection and genotyping performed in the same reaction. It has a high specificity to triage ASCUS cytology

• AVantage HPV E6 Test (Arbor Vita Corporation)

The test uses high affinity monoclonal antibodies for the specific capture and detection of high risk HPV E6 oncoprotein in a lateral flow based format. using cervical swabs. It is a Point-of-care test detecting E6 oncoprotein of HPV16/18/45/31/33/52/58, useful for low resource settings. It is simple, inexpensive, no complex equipment required and can process45 samples within 2 to 21/2 hours.

Summary of HPV tests:

Test	Technique	Name
DNA	Direct Genome detection	Hybrid Capture 2 *care*HPV test
	Amplification	GP5+/GP6+ bio PCR-EIA Cervista HPV HR
RNA	Amplification and genotyping of HPV-16 and HPV-18	Cervista HPV 16/18 Cobas HPV test Xpert HPV Abbott Real time high risk HPV assay
	Amplification of E6/E7 proteins	Aptima HPV assay PreTect HPV-Proofer HPV
	Monoclonal antibody	AVantage HPV E6 Test

TEST	SENSITIVITY (%)	SPECIFICITY (%)
Hybrid Capture 2	97.5	84.3
CareHPV	90.0	84.2
Cervista HPV	100	
Cobas HPV Test	97.3	84.5
Abbott RealTime High Risk (HR) HPV assay	95.0	87.2
Aptima HPV Assay	97.6	90.2
Xpert HPV	100	81.5

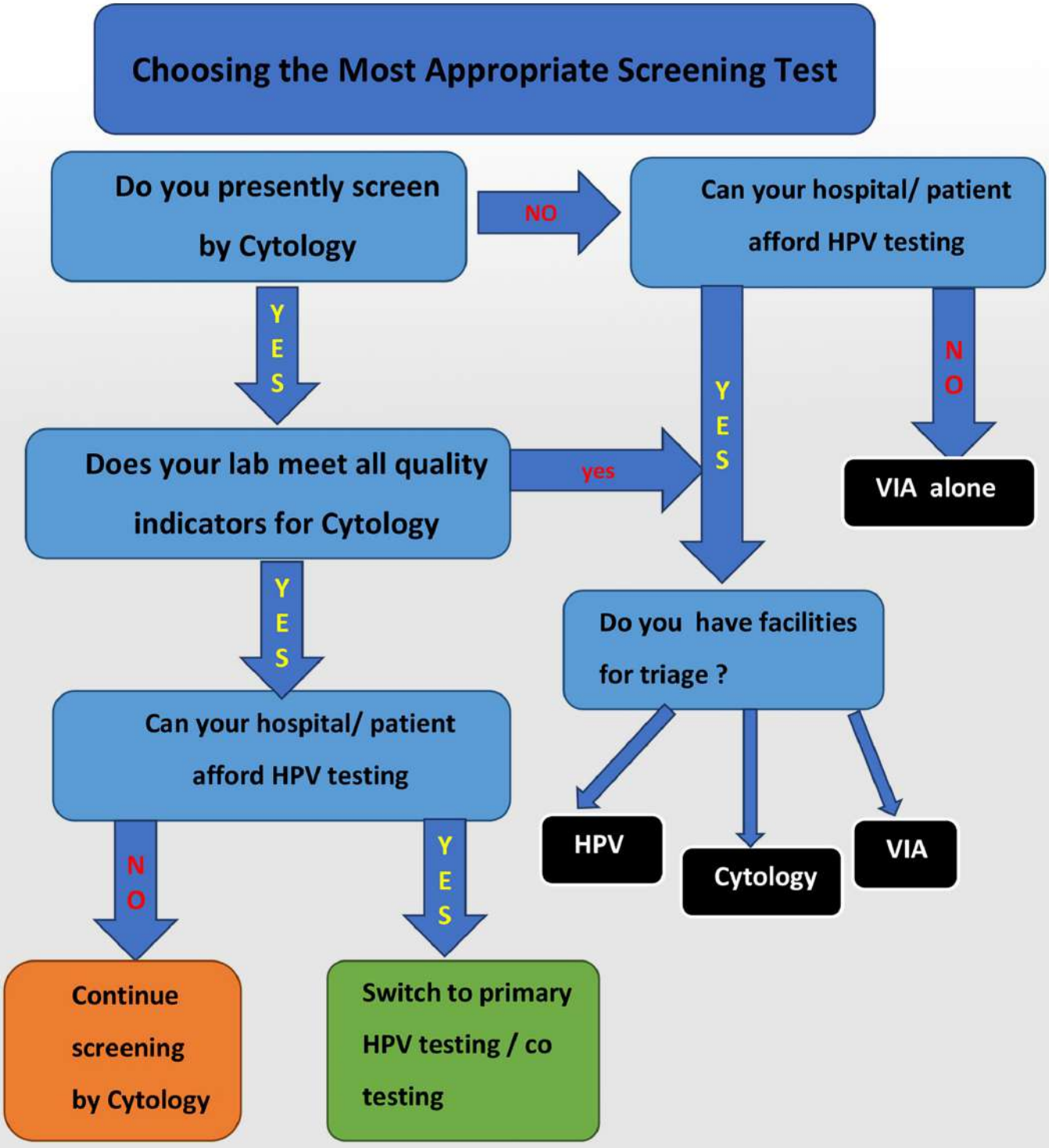
HPV tests & Sensitivity

Primary HPV Screening & Clinical Implications :

HPV testing is highly sensitive but cannot discriminate between transient andpersistent infections. A negative test result indicates low probability for developing CIN3 + disease inthe next 5 -10 years with accuracy, but a positive test result only indicates the presence of an essentialrisk factor. Therefore, if all HPVpositive cases are referred for colposcopy, the burden of colposcopyreferrals and associated procedures will be very high, which isof particular concern in younger women. The major advantage of HPV as primary screening tool is that, a negative HPV test on the other hand allows prolongation of screening intervals, reduced interventions and in the long run can become cost-effective.

Primary HPV screening is currently recommended by many organizations including the World Health Organization (WHO). Several countries including Australia, Norway, Italy, The Netherlands, Sweden, Finland, andGermany have already implemented primary HPV screening programs and many others are in the process of transition.

In India, the Federation of Obstetrics & Gynaecologic Societies of India(FOGSI), in its resource-based guidance, endorses primary HPV screening as a validated HPV test. The guideline, takes into consideration the varied resources available across the country and has created an algorithm for cervical screening, an adaptation of WHO screening guideline


Choosing the Most Appropriate Screening Test
Do you presently screen by Cytology
NO
Can your hospital/ patient afford HPV testing
YES
NO
Does your lab meet all quality indicators for Cytology
yes
YES
VIA alone
YES
Do you have facilities for triage ?
Can your hospital/ patient afford HPV testing
HPV
Cytology
VIA
NO
YES
Continue screening by Cytology
Switch to primary HPV testing / co testing
Colposcopy & Biopsy ➢ Appropriate Management

This resource -based strategy recommends in good resource settings, any of the screening tools to be employed by triage – ideally Primary HPV testing, Co testing (HPV &Cytology), Cytology alone or VIA. In low resource setting, VIA or if available low-cost HPV testing, including self-sampling.

Conclusion

Primary HPV cervical cancer screening is gradually replacing other screening modalities both indeveloped and developing countries. The high sensitivity of HPV test makes it ideal for population-based cervical cancer screening.Primary HPV screening is recommended 5-yearly from age 25 years.It detects more CIN lesions at lower cost. The negative resultsprovide better reassurance against development of CIN and cancer and, therefore, need less frequentscreening. For successful implementation of population-based screening, only a clinically validated testperformed in accredited laboratories should be used and simplified. Point of care, low cost HPV testing, if widely available will help significantly in achieving the recommended 70% screening coverage by 2030. Combined with HPV vaccination, it holds promise for the elimination of cervicalcancer.

Dr Saritha Shamsundar *FRCOG*

Senior Specialist & Professor

Year gone by so far in South Zone