



**AOGIN INDIA,**  
Issue 28, May 2023

*Reflections.....*



## From the President and Secretary

Dear AOGIN-India members,

This edition of the newsletter carries a perspective of cervical cancer screening over the ages from one of our stalwarts, Dr. Usha Saraiya. So much has been done with so much more to do. In the west, with HPV vaccination and the use of HPV screening -countries are already thinking about stopping cervical cancer screening. We do hope and pray that India will also be in a similar position at least in a few decades from now. In this context, the reports of events sent by members have been very encouraging.

We are closely watching the launch of the Indian HPV vaccine-Cervavac. The government will start the school-based HPV vaccination programme hopefully soon. Once the HPV vaccination countrywide, HPV tests will be the only method of cervical cancer screening. This will be less expensive obviously if we have indigenous, validated HPV tests for community screening. But more of that in our next issue...

Our monthly colposcopy MDT has been going on well with good attendance. Do save the dates for our next annual conference to be held from 15-17<sup>th</sup> September 2023 at Rishikesh. The organizing team led by Prof. Shalini Rajaram have been working hard to put together an academic extravaganza.

Warm Regards,

Rupinder Sekhon

Latha Balasubramani.

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## **Contents**

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Reflections on Cervical Screening by Cytology	4
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Journal Scan	
Variation in Human Papillomavirus Vaccination Effectiveness in the US by Age at Vaccination	7
IPVS policy statement on HPV nucleic acid testing guidance	9

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Being Frank: Life beyond the .... INs	11
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Colposcopy MDT: AIIMS Rishikesh: Experience & Evidence	12
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From the Youth, by the Youth:	
How to keep your parents grounded	13
Artwork	14
Screen Time Surge: Cause for Concern	15

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Events	16
--------	----



# Reflections on Cervical Screening by Cytology

By Dr. Usha B. Saraiya



In 1965 after my MD, I joined ICMR as a Research officer. A project was going on at that time - Cytology and Colposcopy on all long term contraceptive users to make sure that it did not lead to the development of cancer. The situation of Cervical Cancer was very grim in those days. The ASR was high 28-32 in Mumbai and even higher in Chennai. Cases were seen very late in Stage III and IV. There were very limited facilities for palliative care. There were very few centres doing Pap smear. Practising doctors were not aware or trained. Health status of women was very poor. There was high maternal mortality, anaemia was rampant and conditions of living were very poor.

In 1966, I was appointed to Grant Medical College, my alma mater, as an Hon. Assistant Professor in Ob-Gyn and posted at Cama Hospital. This organisation took the lead in setting up a Pap Smear testing unit and I had the opportunity to lead that project. *Thus began my journey in Cytology and Cervical Cancer Screening.*



I went to London to study cytology at Hammersmith Hospital with Dr. Erica Wachtel. On my return, Dr. Wahi, the DG of ICMR called me to read a paper on Cytology at the first ever Seminar on Pap Smear held in India by ICMR in 1969.

Dr. P. N. Wahi is considered the father of Cytology in India. He worked tirelessly on the subjects of oral and cervical cancer. His experimental work on Swiss albino mice established beyond doubt the fundamental understanding of the natural history of the disease.

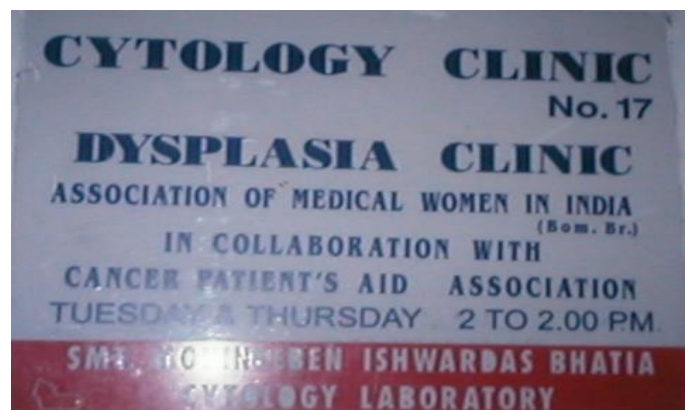
## History of Cytology and Colposcopy in western Maharashtra and Mumbai

Dr. Hannah Peters was perhaps the first cytologist in Mumbai. She started a nucleus of cytology at Tata Cancer Hospital. In 1967, the Association of Medical Women in India celebrated its diamond jubilee. At this time, funds were collected which were used to start a Cytology Clinic at the Cama and Albless Hospital which was spearheaded by the then Superintendent of Cama and Albless Hospital, Dr. Segulla Aptekar. In 1976 a special 'Dysplasia Clinic' was started where cases with abnormal findings were studied by colposcopy and long term study carried out.

**Formation of Indian Academy of Cytology** was a key intervention which started screening programmes. It was in 1969, that about 30 cytologists working in India met in New Delhi and became Founder members of Indian Academy of Cytologists. I am one of the Founder Members. Dr. P.N. Wahi was the 1<sup>st</sup> President. The Centre at Cama Hospital was started in 1970 with the support of ICMR and Government of Maharashtra. The IAC encouraged training of cytologists, cyto-pathologists, cyto-technicians and lab technicians. Its activities helped to establish Cervical Cytology as a definitive tool in the Control of Cervical Cancer in India. Today, the Indian Academy has completed 50 years and is well established all over India.



IAC Conference at Indore. I am seated at the left. Dr Wahi is in the 3<sup>rd</sup> place from the right.



## Formation of International Academy of Cytology and Acta Cytologica (1957). The Era of 2 Georges-George Papanicolaou and George Weid.



Diagnostic cytology developed exponentially post World War II. George Papanicolaou started several screening programmes in USA. The time was ripe for Americans and Europeans to meet and share their knowledge and experience. Accordingly, George and Mary Papanicolaou took the first journey back to Europe since their arrival in USA in 1913.

In 1957, George Papanicolaou and George Wied attended an International Conference in Belgium and collaborated in the formation of The International

Academy of Cytology. At the same time, a co - editors they launched the Journal of Clinical Cytology and Cytopathology “Acta Cytologica”. Today this Journal has completed 6 decades of its existence. I had the pleasure of being accepted as Member of The International Academy of Cytology in 1969 and was elevated to Fellowship in 1972 .Till today I receive and read Acta Cytologica seriously. I had the good fortune to serve as the National Editor for India on the Editorial Board of IAC for 5 years (from 1994-1998 ).

### Era of Expanding Technology:

Pap Smear was a low cost, low technology test. With increasing screening coverage there was a marked decrease in cervical cancer.

#### a. Developments in Cytology and colposcopy

Pap-net was introduced which enabled the slides to be screened by programming the computer. It would mark all the abnormal slides and the technician/pathologists had to only study the marked slides. Thousands of slides could be screened. However, Pap-net did not become popular.

Next was the introduction of Liquid based Cytology by Becton Dickinson. By 2008, both Surepath and Thin Prep had FDA approval and were introduced in clinical practice. In 1970, colposcopes were manufactured all over the world. By the end of the 20<sup>th</sup> Century, there was an increase in the use of cytology and colposcopy.

#### b. Viral origin of cervical cancer- The Era of Zur Hausen



2013  
Poland

It was in the 1970s that Zur Hausen in Germany implicated that the Human Papilloma Virus was the causative organism which led to the development of Cervical Cancer. In 2008, Harald Zur Hausen received a Nobel Prize for his research on cervical carcinogenesis due to HPV Infection. **The entire approach to Cervical cancer changed with this information.** With the dawn of 21<sup>st</sup> Century, HPV tests and HPV vaccines were introduced in practice.

**Zur Hausen H**

### Changing strategies from Cure to Control to

### Elimination

Initially in 1970's we talked of “War on Cancer” and strategies for the same were established. Then the strategy was suitably changed to “Control of Cancer” which meant early detection and prompt and adequate treatment. In most parts of the developed world, it was time to move on from Control of Cervical Cancer to Elimination of Cervical Cancer. The final announcement came in 2018, exactly 51 years after the one in 1967 which stated the Cervical Cancer is a preventable disease.

For this programme to succeed all like-minded organization like FOGSI, ICOG, AOGIN, ISCCP and AGOI must work together synergistically.

1. At present coverage is important. It must reach women in towns and rural areas.
2. Training programmes must be held to involve paramedical and medical workers.
3. Quality must improve. Proper data keeping and cyto-histo-colpo correlation should be studied.
4. All Medical Colleges and Institutions must be involved.

Our goals will be reached only when primary prevention is achieved by vaccination. Hopefully it will be introduced in the National Immunisation Programme. It may also be incorporated in the school health programme. If this happens then we will have started on primary prevention of this deadly disease. *It may take a while but in 25 years, the sun will then finally set on invasive cervical cancer. It will be a great achievement for humanity. And a new era will begin.*





## Variation in Human Papillomavirus Vaccination Effectiveness in the US by Age at Vaccination

Dr Jayashree N, Assistant Professor, Cancer Institute (WIA), Adyar, Chennai.

**Introduction:** WHO recommends routine Human papilloma vaccination for girls between 9-14 years. In countries where this practice is planned to be newly introduced, the following questions i.e., the need and advantage of giving catchup vaccine or vaccinating girls more than 14 years is discussed in many forums. The present study discussed throws clarity based on the experience of vaccination programme at US. This study used data from the National Health and Nutrition Examination Survey (NHANES) to estimate the proportion of female individuals who were vaccinated before sexual debut, assess the association of delayed vaccination with HPV-16/18 prevalence, and factors affecting it.

**Aims and objectives:** the study aimed at assessing the proportion of girls vaccinated before sexual debut and to quantify potential racial and ethnic disparities in timely vaccination.

**Method:** The data were collected from NHANES. It's a biennial ,cross-sectional, multistage probability sample, representing the noninstitutionalized civilian US population. With written informed consent, the study was conducted by participants self-reporting race and ethnicity, HPV vaccination, and sexual history. All patients in the study underwent vaginal HPV testing. Using responses to NHANES cycles 2011 to 2018, authors identified female individuals who were 26 years or younger in 2006 during the introduction of routine HPV vaccination and were eligible for routine or catch-up vaccination as per recommendations. The HPV-16/18 prevalence was compared among unvaccinated participants, those vaccinated before sexual debut (pre-debut group), and

those vaccinated after (post-debut group) sexual debut. Routine vaccination rate (RV), vaccine uptake and proportions vaccinated were compared between racial and ethnic subgroups.

**Results:** The study showed that among the 4727 female individuals (mean [SD] age, 17.9 [0.2] years) eligible for vaccination, vaccination coverage was only 38% of ever-eligible participants, increasing to 56% when restricted to those eligible for RV. Girls vaccinated before 12 years were only 21% (95% CI, 14%-28%) and the mean age at first vaccination dose, 14.5 [95% CI, 14.1-14.8] years). Among them, 33% were vaccinated before and 23% after sexual debut. Thus, 41% of vaccinated participants received post debut vaccination.

Cervical HPV-16/18 prevalence decreased among the group vaccinated compared to the unvaccinated group, more so in girls vaccinated before sexual debut as shown in Table 1.

Group	HPV 16/18 prevalence N(CI)
Unvaccinated group	6%(4-7%)
Post-debut group	3%(1-6%)
Pre-debut group	1% (<1%-1%)

HPV-16/18 prevalence was 89% ( $P < .001$ ) lower in the pre-debut group but only 41% ( $P = .29$ ) lower in the post-debut group compared with the unvaccinated group. Compared with post-debut vaccination, pre-debut vaccination was associated with an 82% ( $P = .08$ ) reduction in HPV-16/18 prevalence. Among the study population, there were negligible differences by race and ethnicity. Proportions of vaccinated Asian and White participants were slightly higher than those of Black and Hispanic participants. Similar

proportions of participants were vaccinated before sexual debut (32%-35%).

**Discussion:**

This study shows the significance of timely vaccination against HPV, particularly before sexual debut. The study also showed that among the population vaccinated, all were not within the recommended age for vaccination. Vaccination by age 12 years prevented most lifetime cervical cancers caused by HPV-16/18, and the benefit of vaccination was shown to decrease by one-fourth as the vaccination age increased to 16 years. The study has the limitation of recall bias but the study results are relevant for all practitioners

involved in planning, implementation and execution of HPV vaccination in our subcontinent. The need for getting together and working in unison with general practitioners, paediatricians, gynaecologist and policymakers is the key for successful implementation of HPV vaccination in our subcontinent.

Journal access : [Egemen D, Katki HA, Chaturvedi AK, Landy R Cheung LC. Variation in Human Papillomavirus Vaccination Effectiveness in the US by Age at Vaccination. JAMA Netw Open. 2022 Oct; 5\(10\): e2238041](#)

## Journal scan 2

### IPVS policy statement on HPV nucleic acid testing guidance for those utilising/considering HPV as primary precancer screening: Quality assurance and quality control issues.



*Dr Vinotha Thomas, Associate Professor, Dept of Gyn Oncology, CMC, Vellore*

**Introduction:** The second pillar of action in the WHO global cervical cancer elimination strategy is increased coverage of cervical cancer screening using high precision assays. Molecular Nucleic acid testing (NAT) in detecting HPV DNA and RNA for cervical cancer screening is superior to cervical cytology as it is more sensitive, with high negative predictive value, more objective with less inter-operator variation.

**International performance guidelines:** The International Agency for Research on Cancer [IARC] has classified 12 HPV types as oncogenic for cervical cancer (16,18,31,33,35,39,45,51,52,56,58 and 59) (group I carcinogens). Often hrHPV assays target two more types: HPV68 (group IIa, = probably carcinogenic) and HPV66 (group IIb = possibly carcinogenic). In addition, certain HPV tests target more possibly carcinogenic types (26, 53, 67, 70, 73, 82). However, for cervical cancer screening, it is sufficient to target only the 12 oncogenic types, since adding more types only marginally increases the sensitivity for precancerous lesions but decreases the clinical specificity. HPV16 and HPV18 carry the greatest oncogenic risk.

In 2020 about 254 HPV assays with 425 variants were available on the global market. Yet most had no analytical or clinical evaluation nor regulatory evaluation. In April 2021, an updated list of HPV assays suitable for primary cervical cancer screening was published to guide countries in choice of HPV NAT assay (Table 1). In addition, three HPV assays have been through the WHO prequalification process [PQ]. WHO PQ is a process created to provide assurance as new in vitro diagnostic medical devices/ products enter the global market, with respect to their quality, safety and performance and serves as a quality assurance mark for WHO Member

States, UN agencies, and international procurers and focuses on relevant aspects for resource-limited settings. The VALGENT (VALidation of HPV GENotyping Tests) framework helps expedite the evaluation of HPV tests according to the Meijer 2009 criteria, which assesses the performance of HPV tests based on reproducibility and non-inferior accuracy (clinical sensitivity and specificity) compared to Hybrid Capture-2 or GP5+/6+ PCR–enzyme immunoassay to detect CIN 2+ lesions.

Table 1

List of HPV assays validated for cervical cancer screening as stand-alone test or in combination with cytology.
<ul style="list-style-type: none"><li>• Hybrid Capture 2 HPV DNA Test (Qiagen, Gaithersburg, MD, USA)</li><li>• GP5+/6+ PCR-EIA (Diassay, Rijkswijk, the Netherlands)</li><li>• Abbott RealTime High Risk HPV Test *** (Abbott Molecular, Des Plaines, IL, USA)</li><li>• Anyplex II HPV HR Detection (Seegene, Seoul, South Korea)</li><li>• BD Onclarity HPV Assay*(BD Diagnostics, Sparks, MD, USA)</li><li>• Cobas 4800 HPV Test* (Roche Molecular Diagnostics, Pleasanton, CA, USA)</li><li>• HPV-Risk Assay (Self-Screen BV, Amsterdam, The Netherlands)</li><li>• PapilloCheck HPV-Screening Test (Greiner Bio-One, Frickenhausen, Germany)</li><li>• Xpert HPV *** (Cepheid, Sunnyvale, CA, USA)</li><li>• Alinity m HR HPV Assay (Abbott Molecular, Des Plaines, IL, USA)</li><li>• Cobas 6800/8800 HPV Test* (Roche Molecular Diagnostics, Pleasanton, CA, USA)</li><li>• APTIMA HPV Assay ** (Hologic, Bedford, MA, USA)</li></ul>
<p>* FDA approved for HPV alone primary screening ** FDA approved only with co-testing with cytology *** WHO Prequalification of In Vitro Diagnostics NB CareHPV™ ***Test is prequalified (2018), but not formally validated according to Meijer's criteria and/or VALGENT</p>

Besides the use of validated assays, all laboratory services should be accredited by showing evidence of its ability to correctly assess the content of blinded samples (proficiency testing panels) (Table 2)

Table 2:

Recommended QC measures for HPV NAT cervical cancer screening tests.
<u>Assay-specific:</u> <ul style="list-style-type: none"><li>– Including the 12 HR-HPV genotypes classified as carcinogenic (IARC group I)</li><li>– Not including more than 13 to 14 genotypes in total, if not a fully genotyping assay</li><li>– No additional HR-HPV that reduce the clinical specificity</li><li>– No low-risk HPV genotypes included</li><li>– Clinically validated assay or validated in comparison to standard comparator tests HCII or GP5+/6+ PCR</li><li>– Internal control for sample cellularity</li><li>– Positive control for assay performance</li><li>– Negative control for excluding contamination</li><li>– Approved as IVD by relevant approval bodies (e.g., FDA, CE, WHO)</li></ul>
<u>Laboratory-specific</u> <ul style="list-style-type: none"><li>– Infrastructure to prevent sample contamination with post PCR products – Participation in regular proficiency testing of external samples</li><li>– Monitoring of processes</li><li>– QC/QA management</li></ul>

### The future:

With time, the role of extended genotyping over partial genotyping for HPV16/18 of those women found positive on screening will become evident. Addition of bio- markers of progression (for example host and/or viral methylation markers) will predict those with HPV 16/18 CIN2+ requiring treatment and reduce unnecessary treatment. Women living with HIV may benefit from a restricted genotype detection (to 8 genotypes) for cervical screening and potentially an altered threshold for positivity.

### Self-sampling tests.

Self-sampling tests have overcome barriers in cervical cancer screening. However, before adoption of self-sampling based screening programs, appropriate validation of each component of screening needs assessment which includes 1) the collection and transport devices 2) the HPV assay combination, in the laboratory(s). Few tests have a formal claim for self-sampling.

A new validation protocol for emerging HPV tests is being developed which incorporates the contemporaneous collection of a self-sample as well as a clinician taken sample.

The VALHUDES protocol generates evidence on tests with similar clinical accuracy on self-versus clinician-taken samples. The HPV test validated on clinician collected samples should have similar performance on self-collected samples before it being employed for self-collection.

### HPV NAT primary screening in LMIC:

In view of high HPV prevalence and insufficient resources for triage in LMIC, HPV NAT testing needs adequate modification to ensure specificity. Reduction in the spectrum of types tested for to the eight most carcinogenic HPV types (16, 18, 45, 31, 33, 35, 52, and 58) has been proposed. The addition of biomarkers, such as cellular HPV-induced proteins or gene expression modifying promoter methylation tests, to the screening program may be necessary to identify women in true need of therapy and to avoid overwhelming the health care system.

### Conclusion:

Guidelines for cervical screening recommend regulatory approved NAT assays which undergo continuous and rigorous QA and QC checks.

These tests should be able to detect those with prevalent or incipient CIN3+ and are different to those adopted for surveillance (vaccine impact/effectiveness) which are of higher analytical sensitivity, detecting a lower quantity of HPV, not necessarily of clinical relevance. The cost of clinical screening assays needs to be affordable. In processing self-collected samples, amplification assays should be used. Due to the COVID-19 pandemic more laboratories are now equipped with the knowledge and rapid large-throughput instruments which can be used for HPV assays.

[Journal Access: Garland SM, et al IPVS Policy Committee. IPVS policy statement on HPV nucleic acid testing guidance for those utilising/considering HPV as primary precancer screening: Quality assurance and quality control issues. J Clin Virol. 2023 Feb;15.](#)

## Being Frank: Life beyond the .... INs

*Dr. Rachel George Chandy, Professor,  
Department of Gynaecologic Oncology, Christian Medical College, Vellore*



I first met Suparna\*, Ranajit\* and their eighteen-year-old son Taposh\* when I visited the rehabilitation ward. Taposh was physically challenged, and his parents were looking after him in the ward. He had been admitted for assessment and physiotherapy.

Taposh was born with cerebral palsy and had spasm and contractures of the muscles in his upper and lower limbs. However, he could speak with difficulty. His parents left no stone unturned in looking after him. They bathed him, fed him, and helped him with physiotherapy. Their aim in coming to the Physical Medicine and Rehabilitation department was with a hope that he would be able to bathe himself, wear his clothes and be ambulant. They did not ask for much.

Suparna lived with her small family in a village on the outskirts of Kolkata. Their house had two small rooms and a tin roof which was so often blown away when there was a storm. Ranajit worked as a manual labourer and Suparna worked in an NGO. They earned Rs 10,000 together.

After a couple of visits, they stopped coming for physiotherapy. The travel, the stay in hospital and all the work they had to do in the ward in helping Taposh was becoming very difficult. They earned no money when they were off work. Their hope that Taposh would be able to look after himself was shattered. Suparna often asked me whether I would look after Taposh when she was no more.

Meanwhile Suparna developed pigmentation in the vulva. She had vulval biopsy which showed VIN3. Then followed a long period of being in and out of hospital. She also had CIN3 and carcinoma vulva.

Finally, she had extra-fascial hysterectomy and vulvectomy. Following that she had two vaginectomies for VAIN3. However, her VIN 3 persisted, and she could not tolerate imiquimod. She finally even received radiation.

Two years after radiation her VIN3 persists. Now I have advised to go on with her life and not to be slowed down by all these problems. Our dermatology department has planned laser ablation at later date. She came alone this visit, because bringing her Taposh and Ranajit was not possible because of the finances and the effort in travelling with Taposh.

To add to her woes, she developed ulcerative colitis and was put on salazopyrin. She had a couple of exacerbations when she needed long periods of steroids.

Life goes on for Suparna and her family. They are content with their lot, I think. So many unanswered questions. Will I get better? My standard answer is that we don't know. Take one day at a time. Our God holds our future in his hands, and he will only do good for us.

*\*Names changed*

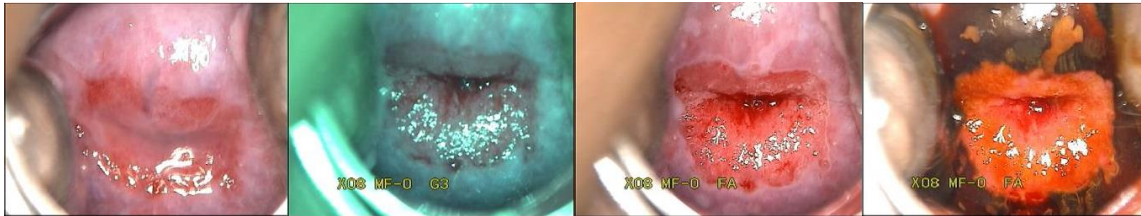
# Colposcopy MDT: AIIMS Rishikesh: Experience & Evidence

Dr. Shalini Rajaram \*, Dr. Ipshita Sahoo \*\*

\*Professor & Program Lead MCh Gynae Oncology, \*\*MCh Trainee, Gynaecologic Oncology  
Dept of Obstetrics & Gynaecology, AIIMS Rishikesh

1. 36-year-old, P2 L2, underwent routine screening with HPV DNA testing which was positive for HPV 18. Triage Pap Test was reported as HSIL. Colposcopy showed type 1 TZ with a Swede score of 4. She underwent LEEP which reported a small focus of LSIL. How would you follow-up?

Case 1: Colposcopy Findings; Minor lesion, Swede score



*HPV/pap test to be done after 1 year (conditional recommendation, low evidence) and if negative she is returned to regular follow-up but must be followed for at least 25 years.*

2. 30-year-old P2, L2 underwent community-based HPV self-sampling which tested positive for hrHPV DNA 16. The colposcopy pictures are given below. Pap smear was reported as AGC (atypical glandular cells). How will you proceed?

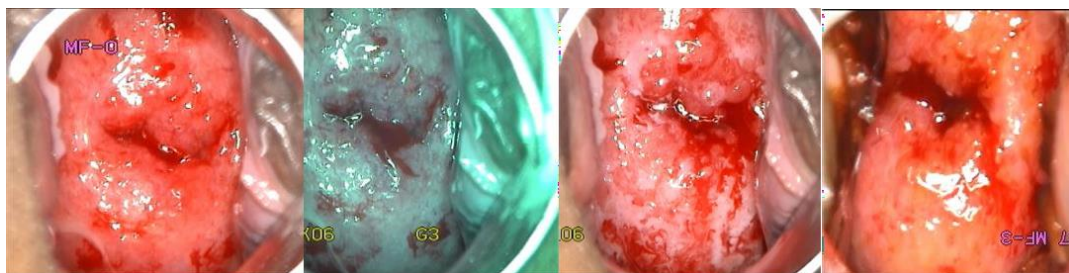
Case 2: Colposcopy findings; Type 2 TZ, Swede score 3



*Endocervical curettings with/ without endometrial biopsy depending on high risk factors like chronic anovulation and age > 35 years.*

3. 42-year-old P2, L2 with no gynecological complaints underwent community-based HPV DNA self-sampling which was reported to be positive for HPV 16/31. Colposcopy showed a large irregular lesion involving both anterior and posterior lips, bleeding on touch with Type 1 TZ, inner border sign +, rag sign+ How do these signs look like?

Case 3: Major lesion on colposcopy with rag sign +, inner border sign +, Swede score: 9



*Inner border sign- Low- and high-grade lesions may co-exist and there may be internal margins where the grade of the lesion changes. Inner border is a sharp acetowhite demarcation within a less opaque acetowhite area.*

*Rag sign- In high grade lesions and cancers, the epithelium peels off easily. The eroded area is visible with the peeled off epithelium seen to be hanging like rags.*



# From the Youth, by the Youth: 1

## How to keep your parents grounded!

Jeremiah and Joanne are 10 years and 6 years old. Their mother who works as a gynaecologist and their father as an intensivist think that they lead a balanced life, but this is how their children keep a reality check on them.



Jeremiah ensures that his father wakes up early and with a start.



When Daddy does not listen to healthy eating advice, Joanne can be quite blunt and speaks to cut to the bone.



Neither does Jeremiah mince his words.



His sister watches "Avengers" on the sly but then when Daddy watches instead of moving, she knows how to get him off the couch.



It is usually tit for tat from overheard online meetings.



And at the end of the day, they know how to get their mother to realise that life is from God and that she needs to pray.

Art by Jeremiah, utterances by Joanne, script by Vinotha

## From the Youth, by the Youth-2



Advika Aditi Khanna is an inquisitive 11-year-old girl, who asks too many questions. Her interests are classical vocal music, sketching and reading Nancy Drew. She enjoys social work with her dad.

## From the youth, by the youth- 3

### Screen Time Surge: Cause for Concern

**AKSHAJ MEHTA**  
**UCMS, Delhi, Third year (6<sup>th</sup> Semester) student**



The booming increase in the usage of digital devices has backfired in increase in screen time. In 2019, the Common-Sense Media reported that the daily average screen time of 8–12-year-olds was 5 hours while it was 7 hours 22 minutes for 13-17 years old. This is in total contrast to the recommendations made by WHO on the maximum recommended screen time of 2 hours irrespective of age, with shorter periods for children. During the COVID-19 pandemic, with lockdowns and social curtailments, there has been a tremendous increase in usage of digital devices.

Increasing screen time leads to poor mental, physical, and emotional health. There has been increase in complaints of irritability without internet connectivity, inability to concentrate, and absenteeism in online educational classes. Screens can be as addictive as drugs or alcohol and leads to social isolation in a similar way. It is important to realize that virtual connectedness can provide a feeling of well-being only if restricted. People who spend some time using social media are happier than those who do not use internet at all but internet in excess leads to stress and unhappiness. Social media especially Snapchat, Instagram and TikTok not only eat up a lot of time but also tend to attract a lot of social pressure and anxiety. The ‘ting’ of a message alert is highly addictive.

Physical activity is also affected due to increasing screen time besides collaterally damaged the optical health, sleep routines and eating habits. Due to light emitted by the screens, melatonin production is decreased leading to poorer sleep efficiency, sleep quality as well as longer sleep onset latency.

We undertook a [study\\*](#) to assess the mental, emotional, and physical effects of increasing screen time as well as evaluating the incidence of computer vision syndrome among MBBS students of Delhi, using an integrated approach. A google form consisting of 14 pre-set questions was used that assessed the physical activity using NPAQ-short questionnaire while mental and emotional health were evaluated using PHQ-2 and GAD-2 questionnaire. Majority of students (52.5%) had a screen time of 6-9 hours while screen time  $\geq 10$  hours was seen in 28.5% of students, mostly due to online classes. 54.4% of students scored  $\geq 3$  on PHQ-2 and 48.3% scored  $\geq 3$  on GAD-2 indicating depressive and generalized anxiety disorder respectively. Average daily sleep time was inadequate being less than 6 hours in 40.87% of the students. Symptoms of computer vision syndrome were regularly observed among most students; most common being headache (56.6%), focussing problems (50%) and neck/shoulder pain (47.7%). Other symptoms like dry and red eyes, photophobia and double vision were also seen in several students. These highlighted detrimental effects of increased screen time on health are very concerning.

Digital detox which entails taking breaks in between long hours of screen display can be one of the methods to decrease screen time. Intermittent social fasting wherein social media is avoided while working is also a good option. “Digital free” family time wherein all family members interact with each other especially during meals together can have a positive effect on the mental health. Setting screen time limits is very important and one should try to reduce this by setting goals over time. We need to address the excessive and compulsive use of digital devices urgently and aim at building healthy digital habit.

## Events gone by.....

**“We can end cervical cancer”: UP-AGOI and SGPGI BCCAEDP,  
21<sup>st</sup> January 2023**



January is cervical cancer awareness month. Under the aegis of UP – AGOI and SGPGI BCCAEDP, a Poster competition was organized for the age group of 14 to 25 years and the public forum for general population on January 21<sup>st</sup>, 2023. There was overwhelming response especially from the younger generation who participated in large numbers. We motivated them for vaccination and screening.

## **Cancer Awareness Camp Conducted at Command Hospital, Chandimandir, 4<sup>th</sup> February, 2023**



A cancer awareness camp was conducted at Command Hospital, Chandimandir on the occasion of World Cancer Day (4 Feb 23). The camp enlightened over 500 participants regarding various aspects of breast and cervical cancer. This was followed by a 3 day-screening camp conducted at the hospital to screen eligible women for cervical and breast cancer.

## **5<sup>th</sup> VIA Training Program for Staff Nurses Uttarakhand Govt, 20<sup>th</sup> February to 1<sup>st</sup> March 2023, AIIMS Rishikesh**



The VIA training for staff nurses was a structured 10-day program conducted at AIIMS Rishikesh in the last week of February 2023. A total of 27 community health officers and nursing officers from various health and wellness clinics and PHCs from Uttarakhand were trained. Community health officer is a relatively new cadre of nursing primarily involved in non-communicable disease (NCD) management.

To date a total of 120 officers have been trained over 5 training programs. Emphasis was laid on the adolescent vaccination program due to be rolled out by government of India. Feedback from trainees was very good.

## Reaching the unreached - Cancer Awareness Program for Transgender, Cancer Institute (WIA), Chennai, 16<sup>th</sup> February 2023

Cancer Institute (WIA) Chennai has multiple district outreach primary cancer care centers across the state of Tamil Nadu. On February 16, 2023, to mark the event of World cancer Day, an awareness program was organized in Pudukkottai district cancer center in collaboration with the Pudukkottai Multipurpose Social Service Society (PMSSS).



Around 86 participants, a mix of 36 trans-women and 50 cis- women attended the program. The focus of discussion was on risk factors for common cancers, importance of safe sexual practices, tobacco, alcohol and substance abuse and lifestyle modification towards a healthy life. The major fear among the members of transgender community is about their increased risk due to exogenous hormones

usage, breast prostheses and risk of cancers. The transgender community has heard about HPV vaccines but there is no knowledge about HPV infection and risk of cancers. The members reemphasized among themselves the need for safe sexual practices.

It was an inclusive program that overcame social barriers and gender stigma and allowed all the participants to discuss and share knowledge. It was a learning experience and equally enlightening for the health providers.

### Community Level Cancer prevention services: Chittaranjan National Cancer Institute



CHITTARANJAN NATIONAL CANCER INSTITUTE, KOLKATA



WHO pledge on cervical cancer elimination—second anniversary



Community cervical cancer awareness and screening camp



Training of the district hospital doctors for colposcopy



Mobile mammography van for breast cancer screening



HPV Self sampling by door to door visit in pandemic



Vaccination of school children

In service to the nation, for more than two decades Chittaranjan National Cancer Institute has been working towards cancer awareness and prevention activities by means of screening, treatment and vaccination camps in the community.

With the COVID pandemic just round the corner, self-vaginal high risk HPV sampling from more than a thousand women in the first quarter of this year has been completed. Second

dose HPV vaccine has also been distributed among 2,556 girls and plans for vaccinating many more has been made.

The latest addition to cancer prevention efforts has been through a mobile breast cancer screening van equipped with a mammography and colposcopy unit which has been well received by the participants in outreach camps.

Colposcopy training workshops have been held throughout the year to educate and train doctors working under State Health Department, to extend awareness and screening works to their respective district hospitals.

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**AOGIN India**  
**Conference 2023**  
15<sup>th</sup> - 17<sup>th</sup> September, 2023  
AIIMS Rishikesh

**Theme:**  
**Vanquish Lower Genital Cancers**

**Abstract Submission**

**Online Registration**

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We thank all those who contributed to the contents of the newsletter. The next newsletter is due in January 2024. Please send in your written contributions to [latha@gknmh.org](mailto:latha@gknmh.org) or [vinotha@cmcvellore.ac.in](mailto:vinotha@cmcvellore.ac.in)





