



SILVER JUBILEE COLLECTION OF LATE SHREE HIRA NANDA VAIDYA MEMORIAL ORATIONS

17th April 2026



PUBLISHED BY

Nepal Society of Obstetricians and Gynaecologists (NESOG)
Hirananda Vaidya Family Members



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ONE WEEK BEFORE HEAVENLY ABODE

PREFACE

Date: 25th March, 2025
(2081 Chaitra 12th)

It is a great honor and privilege to announce that the family of the late Shree Hirananda Vaidya, in collaboration with the Nepal Society of Obstetricians and Gynaecologists (NESOG), is celebrating the *Hirananda Vaidya Silver Jubilee Oration* this year. The ***Shree Hira Nanda Vaidya Memorial Oration*** was established on December 29, 1998, by Professor Dr. Sanu Maiyan Dali and the Vaidya family to recognize distinguished international and national obstetricians and gynecologists during NESOG's national and international conferences. This special occasion also coincides with the *Tenth Anniversary of NESOG*.

NESOG proudly commemorates this memorial oration with a prestigious *Gold Medal*, sponsored by the Vaidya family, which is awarded annually to an outstanding invited speaker at the NESOG conference. The first international orator for this lecture was the late Professor Dr. Sabitabha Dasgupta, who delivered his address at the NESOG International Conference in February 1999. The first national orator, Professor Dr. Heera Dongol, presented the lecture at the Sixth National Conference in March 2000.

To date, we have had seven National Orators and eighteen International Orators, all esteemed experts in Obstetrics and Gynaecology, carefully selected to present their orations at NESOG's international and national conferences held biennially. National Orators have been chosen from among Nepal's most senior and respected professionals in the field. Their presentations have significantly enriched our scientific knowledge, particularly in areas such as Reproductive Health and Perinatal Health, offering valuable insights into the daily healthcare challenges faced by Nepalese women and potential solutions.

We tried to contact all 25 orators for their presentation but unfortunately we could not contact some of them due to various reason.

The collection of these orations stands as a treasured resource for NESOG, serving as a guiding light for future generations, as well as a valuable reference for researchers and scholars in the field.

On this momentous occasion, we extend our heartfelt gratitude to all the distinguished Hirananda Vaidya Memorial Orators for their invaluable contributions to NESOG conferences and the broader OB/GYN community. We are also deeply grateful to the NESOG family for their unwavering support in organizing the HV Memorial Orations annually over the past 25 years. We look forward to continued collaboration in the years ahead.

Furthermore, we express our sincere appreciation to the dedicated Presidents, Executives, Organizing Committees, and Scientific Committees for their steadfast commitment to ensuring the continuity of these orations. We eagerly anticipate their continued support and goodwill in the future.

LONG LIVE NESOG.

Professor Dr. Sanu Maiyan Dali and Family Members

FOREWORDS



Medicine, Biomedical Sciences, Health and Social
care Science

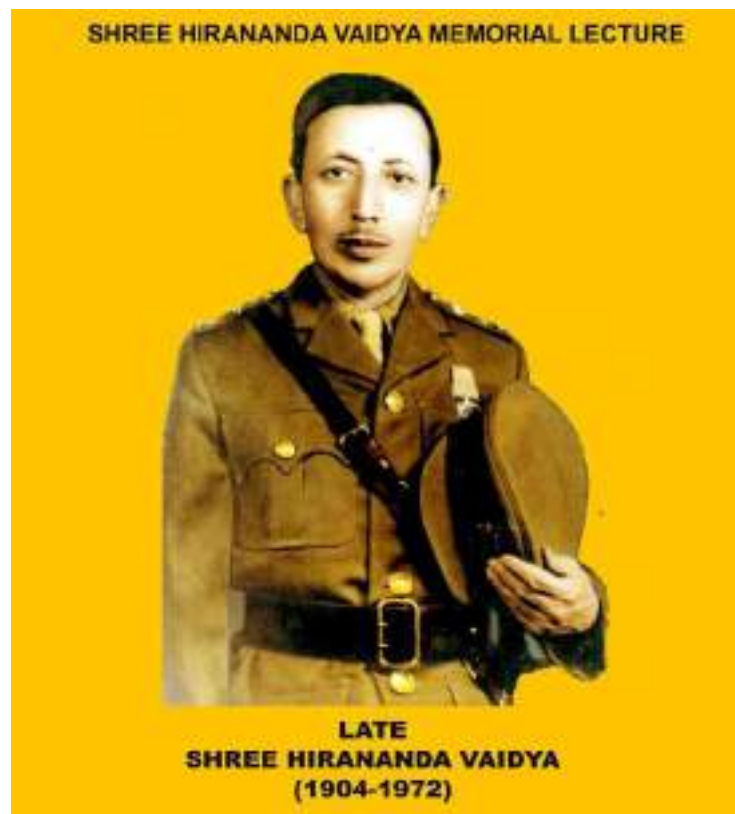
Cranmer Terrace
London SW17 0RE

e.mail:sarulikum@sgul.ac.uk
Direct
+44 7710470270
e,mail;sarulikum@sgul.ac.uk
www.sgul.ac.uk

Sir Sabaratnam Arulkumaran
PhD DSc FRCS FRCOG

SHREE HIRANANDA VAIDYA

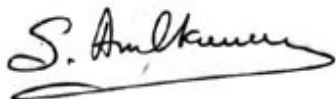
I had the distinct pleasure of learning about one of the most respected and much liked medical practitioner Shree Hirananda Vaidya following the request of his daughter Professor Sanu Maiyan Dali and the Hirananda family to deliver an oration in the memory of their late father. On my inquiry it was pleasing to note that he was a reputed Physician/ Surgeon well known for his surgical skills at a time when modern medicine was still in infancy in Nepal. He was very popular amongst the public and the patients, poor and rich alike, during his career spanning more than 4 decades since 1930's. Hirananda had the distinct honor of attending to His Majesty, Late King Tribhuvan Bir Bikram shah Dev many a times.



Shree Hirananda believed that medical practice was a continuing learning process and kept himself updated through the available medical literature. He was a strong advocate of girls and women's empowerment by education of girl child. He led by example by encouraging his daughters to pursue higher education. He took the message of education, empowerment and equality for women to his patients and relatives when he had the

opportunity of treating patients. Shree Hirananda Vaidya was a visionary in spreading the message education, empowerment and equality of girls/ women was a dire National need for Nepal if it was to survive, thrive and prosper.

He sacrificed his time money and energy in serving patients from poor communities - a saviour at times of medical need. It is pleasing to note that Late Shree Hirananda Vaidya's life as a philanthropist who served humanity with distinction is remembered by his four daughters and son in the form of a memorial lecture during the annual scientific proceedings of the Nepal Society of Obstetricians and Gynaecologists (NESOG). This helps us to remember and put into action Shree Hirananda Vaidya's visions and wishes.



Sir Sabaratnam Arulkumaran

8th March 2025

Professor Emeritus -Obstetrics & Gynaecology, St George's University of London

Foundation Professor of O&G, University of Nicosia, Cyprus

Visiting Professor Institute of Global Health, Imperial College, London

Past President of the Royal College of Obstetricians &Gynaecologists (RCOG), International Federation of O&G (FIGO) & the British Medical Association (BMA)

MESSAGE

It is my privilege to write this message on the occasion of completion of twenty-five years of oration instituted by Prof. Sanu Maiya Dali and the family members at NESOG conference, established in 1998 in the cherished memory of her father Late Hiranand Vaidya. Late Hirananda Vaidya was a distinguished medical practitioner who devoted more than four decades of self-less service, beginning in 1930 to care community. At a time when access to medical care was limited and there were many social barriers, he practiced medicine with compassion, integrity and unweaving commitment to ethical value. His life stood as testimony to the ideals of dedication, service, and social responsibility that continue to inspire generations.

Beyond his professional excellence, late Hirananda Vaidya was strong advocate of girl education, a belief for a head of its time. He firmly believed that education was the most powerful tool for empowerment and social progress.

In keeping with her father's values and legacy Prof. Sanu Maiya Dali and the family members instituted this oration to commemorate his life and to promote academic excellence and thought, leadership within the medical fraternity. Over the past twenty-five years, the oration has grown into prestigious academic platform enriching the NESOG.

May this commemorative booklet serve not only as tribute to late Hirananda Vaidya and the foresight of Prof. Sanu Maiya Dali and the family members but also a reminder of the enduring values of service, education and excellence in medicine.

Prof. Dr. Padam Raj Pant
President
Nepal Society of Obstetricians and Gynecologists

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INTRODUCTION

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

CURRICULUM VITAE OF SHREE HIRANANDA VAIDYA

This lecture, instituted in the year 1998, December 29th by Prof. Sanumaiya Dali, is in the memory of her father, late Shree Hirananda Vaidya, a reputed Medical Practitioner. Late Shree Hirananda Vaidya was specially known for his surgical skills, particularly at a time when modern medicine was still in its infancy in Nepal. He was very popular amongst the patients, poor and rich alike, during his career spanning more than 4 decades since 1930's. He also had a distinct honour of attending to His Majesty, Late King Tribhuvan Bir Bikram Shah Dev many a times.

He always believed that medical practice was a continuing learning process and kept himself updated through whatever medical literature that was available in those days. A strong Advocate of education of Girl child, he not only encouraged his own children to pursue education higher and higher, but he never lost any opportunity of his medical visits to convince the parents and guardian about the education of girls being a national need. The patients, in the poor communities, he served, still remember him as a saviour at all times of medical need. Late Shree Hirananda Vaidya was in fact a true Philanthropist in the real sense of the term.

Nepal Society of Obstetricians and Gynaecologists is very happy to establish this Memorial lecture Oration with a gold Medal sponsored by his family Members, to be awarded to a distinguished Invited Speaker at the time of NESOG Conference every year.

IV International Conference of NESOG, Feb. 22nd, 1999
SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Sabitabha Das Gupta

ORATION : “Immunological Aspects of Pregnancy”



Professor Das Gupta, is the First Orator, to deliver Hira Nanda Vaidya Memorial Oration on ‘Immunological Aspects of Pregnancy “ in NESOG International Conference in 22nd FEBRUARY,1999

Sabitabha Dasgupta, Professor and Head of the department of Obstetrics and Gynaecology, M.G.M. Medical College, Jamsedpur, is one who has made outstanding contributions in the field of OB/GYN at both the national and international levels.

He had graduated from Calcutta Medical College in 1946. He also got D.A. from Bombay in 1951 and F.R.C.S. (Edin) in 1964. He is also a M.R.C.O.G. and a F.R.C.O.G. and F.L.C.O.G. He has been awarded Honorary Fellowship by A.O.F.O.G.



National distinctions include the fact that he was a founder and Director of Medical Research center, Tata Main hospital Jamshedpur and a past President of federation of Obstetric and Gynaecological societies of India. He has held important positions in numerous international committees, which include Maternal and Perinatal health care and Safe Motherhood.

He is a Visiting Professor in prestigious institutions like PGI, Chandigarh, Postgraduate continuing Medical Education, Dubrovnik (Yogodavia), KMC, Manipal and Nowrosji Wadia Hospital, Bombay.

Author and Editor of several books and journals, Prof. Dasgupta has contributed chapters in many reputed and authoritative books on Obstetrics and Gynaecology. He has also delivered a series of guest lectures and orations in both national and international scientific forums.

Professor Das Gupta expired in 2016

Condolence: It was with great sorrow that we received the news of demise of the distinguished Obsterician and Gynecologist, Dr.S.N.Dasgupta,the AOFOG President and a good friend of NESOG. Received during 10th National Conference Of NESOG.



VI National Conference of NESOG, March 21st, 2000

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Dr. Heera Dongol

ORATION : “HIV and AIDS in OBSTERICS AND GYNAECOLOGY”



V International Conference of NESOG, April 9th-10th, 2001

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Dr. Noel Mckintosh

ORATION : “Cervical Cancer Prevention – A new Approach”

Biosketch

Noel McIntosh is a senior international reproductive health professional with extensive basic science and clinical research experience, including 12 years as a bench researcher studying control mechanisms in steroid synthesis that led to the development of two drugs still used for the treatment of breast and ovarian cancer and Cushing’s syndrome.

His career in international public health began when he served as health assistant to Dr. Albert Schweitzer, in Lambaréné, Gabon following graduation from the University of Michigan. Over the past 40 years, Noel has worked globally in more than 40 developing countries, including living for extended periods in Nepal and Ethiopia, specializing in the fields of population and family planning; contraceptive research and development (clinical trials, acceptability and feasibility studies, and program effectiveness evaluations); cervical cancer prevention; infection prevention and medical waste management; health education (performance-based learning and e-learning); and health policy.

For 16 years, he served as president and director of the JHPIEGO Corporation, a nonprofit affiliate of Johns Hopkins University. Under his leadership, JHPIEGO grew from a small, narrowly focused family planning project to a large, multifaceted organization working to improve the health of women and their families living in the poorest countries globally through reproductive health education, clinical training, capacity building and operations research. Noel also dedicated 35 years to academic



Right to left: Kat (daughter), Linda and Noel at Cape Perpetua (Photo by K Heitzman, 2021)

service, having held faculty appointments in five universities (Harvard, Johns Hopkins, New Mexico, Tulane and West Virginia) and professorships in four. Co-author of 75 articles and co-author/editor of 15 books and manuals, Dr. McIntosh has presented his work internationally at numerous conferences and symposia, has served on countless WHO committees and working groups, and was a member of the USAID/CONRAD Technical Advisory Group from 1991-1999. He is a graduate of Harvard Medical School and Harvard T.H. Chan School of Public Health (SM-reproductive physiology) and SD-population sciences) and is board-certified in obstetrics and gynecology (1973) and reproductive endocrinology (1976).

Noel retired (professionally) in 2016 after completing a long-term, consultancy with Gaumard Scientific designing and developing healthcare training simulators, such as the NOELLE whole-body, wireless birthing simulator. Since then, he has written and self-published two books – *Africa Stories: Memories of a Young Traveler* (2021) and *My Life Before Kat* (2023) and several short stories. He now lives with his wife, Linda, of 40 years in a small, former Native American fishing village (1,500 in the summer and 800 in the winter) called Yachats on the Central Oregon Coast.



Hirananda Lecture

In April 2001, I was invited to Nepal to give the Shree Hirananda Vaidya Memorial lecture, “An Innovative and Simple Approach to Cervical Cancer Prevention”. It was an honor, a privilege and truly a pleasure to be asked to give the lecture.

Nepal holds a special place in my heart. I first came to Kathmandu in the spring of 1982. Over the nearly five years I served as Population and Family Planning Advisor to the King, (even met him once) I traveled throughout the country – visiting nearly every district from north to the Tibetan border, South to India, west to Kashmir and east to Bhutan. During that time, I came to love the majestic snow-capped peaks, the dignity of the village people I met and worked with, the respect accorded the religions, and the many friends I’ve made then, and during several subsequent trips over the intervening years.

The text of my presentation dealt with the introduction of a simple, cost-effective way of preventing cervical cancer – the second most common cancer among women and the leading cause of cancer deaths in countries, such as Nepal. Most importantly, most of the women who die are in their late 30s or 40s. Without a mother, the health of the family, especially young children, is drastically compromised.

At that time (2001), a vaccine to prevent the cause of cervical cancer (HPV virus) had yet to be developed. The new technology was called VIA, which stands for visual inspection of the cervix after applying dilute acetic acid (vinegar) to cervix. It is a simple test that JHPIEGO demonstrated to be more sensitive than Pap smears, provides immediate results, and can be performed by nurses (University of Zimbabwe/JHPIEGO Cervical Cancer Project, 1999.) And, when combined with cryotherapy (freezing the abnormal cervical tissue with a liquid coolant, such as carbon dioxide) given at the at the same visit, cervical cancer is prevented. (Cryotherapy has been successfully used for more than 40 years to treat cervical dysplasia – Cox 1991, Michell et al 1998). Combining VIA testing with this inexpensive, outpatient treatment at the same time that nurses can provide, puts cost-effective cervical cancer prevention programs (less than \$11 dollars person life saved) within reach of even the poorest countries (Goldie et al 2001).

Following my presentation, Queen Aiswarya Rajya Laxmi Devi Shah presented me with the Hirananda Vaidya medal for my many years of service to Nepal. (I still have the medal.)



VII National Conference of NESOG, April 10th, 2002

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Dibyashree Malla

ORATION : “Audit and skilled attendant at birth”

Born on September 19, 1934, Professor Dr Dibya Shree Malla (FRCOG) is a well-known name in the field of Obstetrics and Gynaecology in Nepal and at present is associated with the Nepalese Army Institute of Health Sciences, Kathmandu.

Finding difficulty to serve the women in need as a newly graduated doctor from India, she went for higher study in UK and acquired professional membership MRCOG in 1967. After her education she came back to Nepal and contributed to establish speciality and sub speciality in women care while serving in different position including Hospital Director at Bir Hospital and Maternity hospital of Nepal. She has been chairman of Maternity hospital. She has been founder president of Nepal Society of Obsterician and Gynaecologists since 1988.



The belief, that research and education is the backbone of quality service, had enabled Prof. Malla to develop Post graduate education programme (for national and international doctors) in Nepal. Prof. Malla has also been involved in a number of research studies on maternal and neonatal mortality and morbidity in collaboration with the WHO and keeps keen interest in Nepal's achievement in MDG 4-5.

Prof. Malla also served as Vice-Chair of the Nepal Health Research Council (NHRC) from 1991-1994 and as the Dean of the National Academy of Medical Sciences, Kathmandu from 2003 till 2006. Besides her work in Nepal, Prof. Malla also served as Examiner of Postgraduate programme in the UK, Bangladesh and Pakistan. In addition, she also chaired the Royal College of Obstetricians and Gynaecologists (RCOG) International Representative Committee in Nepal from 2007 to 2012.

She has received many National & International Awards. She has received "Women in Medicine" Award by Right Honourable President Bidya Devi Bhandari on 22nd Shrawan 2078.

Her aim is to serve women and children with dignity and respect.

SHREE HIRANANDA VAIDYA MEMORIAL LECTURE

BY:
Dr Dibya S. Malla

Audit and skilled attendant at birth

- 7th national conference of NESOG

Audit

- Audit simply means systematic and critical analysis of available information or an activity or a performance

Medical audit

- When we apply this process to medicine ,it is called medical audit
department of health 1989

Clinical audit

- If we want to audit different aspect of medicine including environment and cost we call it clinical audit

Clinical audit is :

- ‘the systemic and critical analysis of the quality of clinical care ,including the procedures used for diagnosis ,treatment and care, the associated use of resources and the resulting outcome and quality of life for the patient “
promoting clinical effectiveness NHS executive 1996

The change reflect

- “An acknowledgement that audit should be multidisciplinary”

Audit involves

- Systemic (structured)
- Critical (peer review)
- Appraisal of both the process and outcome intervention
- Resource use(efficiency)

Clinical audit

- Ensures that the thing is done right

Clinical research

- Is concerned with finding the right things to do
- the purpose of research is to determine if clinical intervention (whether for diagnosis or treatment are effective)
- And the purpose of audit

- “Too many children die or their children die , all from preventable causes”

Judy Woodruff
State of the world's mothers 2000
Save the children

- Promoting clinical effectiveness and rejecting non effective activity constitute the initiative for safe motherhood and child survival . Audit is viewed as a fundamental component of most initiative

There are different types or style of clinical audit

- A) critical incidence or adverse event audit
- B)topic or criterion based audit

Critical incidence or adverse event audit

- Confidential enquiries on maternal death (CEMD)is one of the examples
- The confidential enquiries intra maternal deaths were introduced in UK in 1952 nearly half a decade ago

The process are

- Identification of the woman
- The management of this case
- A panel of experts
- A lesson learnt
- Effective methods

- Confidential enquiries into still birth and death of infants (CESDI)

National confidential inquiry into preoperative death (NCEPOD)

- Individual who died within 30 days of surgical procedure (exclude maternal death) 1989 appraisal of death following hysterectomy 1994
- Enquiry forms are administered to surgeons and anesthetists
- Identify recurring element of substandard case

Maternal mortality and morbidity study (1999) in Nepal

- 72% of avoidable factors
- Hospital death audit (132 case)

Avoidable factors

- Medical service factors -78.6(66/84)
- Institutional delay in diagnosis/treatment 57.1 (48/84)
- Nearly 19% receive inappropriate treatment
- Delay in treatment – delay n obtaining blood/lack of co-ordination .

The recent CESDI report(1997)

- “intra partum related death among mature normally formed infant “
- Substandard care in 78% of cases
- 70% occurred during labour

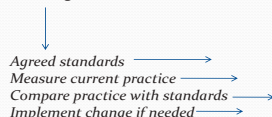
- 75% of the instances related to practice of obstetricians and hospital ,midwives .The main problems indentified were fetal heart rate monitoring and blood supply

Topic or criterion based audit

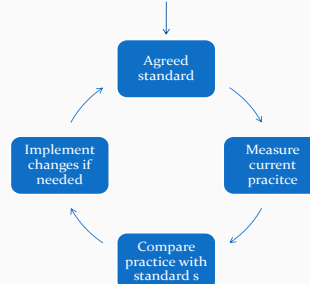
- Charles Shaw (1992)
- approach follows the steps of audit cycles

The steps of audit cycle

- Pick a topic



Pick a topic



Pick a topic :

- The narrower an audit topic ,greater is the likelihood of success.
- Infertility
- Post abortion care

Better choice of topic

Confirmation of ovulation in woman presenting with infertility

Provision of contraceptive following PAC

Other topic

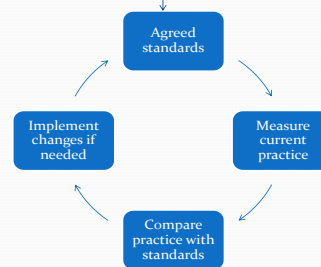
Management of infertility

Management of abortion

Points related to choose a topic

- Important in term of impact effectiveness
- Feasible
- Subject of agreed standard or consensus developed and expressed in literature
- Sufficient evidence available

Pick a topic



Agreed standards

- Numerical standard
- Target percentage

VI International Conference of NESOG, March 27th-29th, 2003

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Emeritus Professor Hiroaki Soma

ORATION : “Does Placenta Respire”

In 1946, graduated from Kyushu University, School of Medicine and passed the National Board Examination of Physician in 1947. After training pathology at Tottori University, School of Medicine, Department of Pathology in 1952, transferred to Dept. of Obstetrics & Gynecology, Tokyo Medical College and became lecturer in 1952. Obtained degree of Medical Science (Ph.D.) in 1953. In 1959, nominated Research Fellow at Pathology Department of Boston Lying-in Hospital and Harvard Medical School (Directors: Prof. Arthur T. Hertig and Prof. Kurt Benirschke), U.S.A.. In 1966, Associate Professor and in 1975, Professor, Tokyo Medical College, Dept. of Obstetrics & Gynecology. In 1970, Visited and engaged research, Dept. of Pathology, Dartmouth Medical School (Director : Prof. Kurt Benirschke), U.S.A and since 1971, Research fellow, San Diego Zoo, Research Institute (Director : Prof. Kurt Benirschke), U.S.A.. In 1988, Professor emeritus, Tokyo Medical College and Visiting professor, Saitama Medical School, Dept. of Obstetrics & Gynecology. Since 1988, Honourary Consultant, Maternity Hospital, Kathmandu, Nepal. Visiting Professor, Institute of Medicine, Tribhuvan University, Nepal. In 1992, Awarded Ghorka decoration from the King of Nepal owing to an effort for establishment of Nepal Society of Obstetrics & Gynecologists (NESOG). In 1999, awarded prize of Distinguished International Medical Service from the Yomiuri Shimbun. Since 1988, consultant, Josai Hospital, in Yuki, Ibaraki Prefecture.



Contributions to development of Japan Placental Study Group (JPG) and International Federation of Placental Association (IFPA).

Hiroaki Soma, M.D

Since 1964, small scientific meeting on placenta research by use of electron microscopic and clinico-functional methods has been held in Japan every year under collaboration with our medical colleagues.

Meanwhile, I attended 1st meeting of EPG (European Placental Group) held at Cambridge, England in 1986 where I presented my paper. After that, I have made acquaintance with Prof. R.K.Miller, main person of Rochester Trophoblast Conference (RTC). Thus, in 1990, the International Conference on Placenta-Tokyo as joint meeting with EPG and RTC groups were held in Tokyo Medical College Hospital under my responsibility.

The results have been published as a proceeding entitled “Placenta: basic research for clinical application” from Swiss Karger, 1991 (Editor: H.Soma). In 1994, JPG was established and the first meeting was held in Osaka (President: Prof. Sawaragi) which the content was introduced in Placenta, 15:441-448, 1994 by me. Since then, JPG conference has been held once a year and continued until 2011. By the way, President of JPG is now Prof. Takayama and I am serving as an auditor of JPG. When IFPA was first established, I played a role as a representative of JPG to set up the formation. After that, I served as a treasurer for IFPA since 1997 for 3 years. (President: Prof. P.Kaufmann, Secretary: Prof. R.K.Miller). Since then, I participated in workshops of IFPA meeting over 10 times. When IFPA conference was held in Hiroshima on September, 2012 under President, Prof. Y.Kudo, Hiroshima University. I was invited to deliver a lecture as keynote speaker for the conference.



In 1882, Prof. Langhans, University of Bern, Switzerland illustrated beautifully two types of cells in the chorionic villi by primitive monocular microscope, after which mononuclear cells of inner site were named Langhans cells and large polynuclear cells of outer-layer were named syncytium. Since then, researches on biological functions of trophoblast have shown that both trophoblast layer cells are fetal origin and the syncytium is derived from Langhans cells. The development of the electron microscope and tissue culture work clarified fine structures of trophoblast layer.

The surface ultrastructure of the terminal villi appeared protrusion of syncytial budding or knotting. Through a semi-cutting section, small syncytial sprout is also protruded from the trophoblast layer. In the human placenta, trophoblast shows not merely nutritive function, but it is also capable of hormone synthesis such as gonadotropin and steroid secretion.

From a histochemical study on the chorionic villi, trophoblast layer cells including syncytial knots and sprouts are stained well with placental proteins such as hCG and PP5. The placenta is an important functional unit for gas transfer between mother and fetus for which the placental membrane consisting of trophoblast layer interposed between maternal and fetal blood plays an active role for intensity of respiration.

Syncytial trophoblast cells in the placental junctional zone can migrate in the decidual vein and Langhans cells can wander in the decidual artery. During normal pregnancy in human, syncytial sprouts break away from the chorionic villi and they are deported into the maternal blood from the intervillous space.

It is, therefore, the most striking feature that syncytial trophoblast is discovered in the pulmonary capillaries of women who have died during or shortly after pregnancy. Embolism to the lungs by trophoblast has been reported by old description in 1893.

FORSTOB SMC RUE OTS! FEL SPAY O680-96 8088

According to my investigation, pulmonary embolism by trophoblast was detected considerably high. It seems probable that tissue culture of human trophoblast cells might need a feeder layer such as decidua,

amniotic membrane or lung in order to maintain its growth in vitro culture. We have demonstrated a successful outgrowth of syncytiotrophoblast in organ culture of human trophoblast cell and lung tissue. The significance of trophoblast deportation is unknown, however, possible function of deported trophoblast in the lung might be considered as a mechanism for gas transfer. The chinchilla laniger which inhabits in the high andes-is well known as a small rodent with the beautiful furs. If trophoblast deportation to the lung is an event of fundamental biological importance, it might reasonably be expected to occur in other mammals. In fact, of these species examined, only the chinchilla shows a comparable phenomenon. The chinchilla has 110 days of gestational period and usually one or three young.

The chinchilla placenta shows a discoid and hemomonochorial structure. Giant cell layers in the basal plate were present and giant cells in the postpartum uterus were found. Trophoblastic giant cells deported were histologically recognized in the lungs of pregnant chinchilla. Morphometric sizes of giant cells among placental basal layer, postpartum uterus and lung in the chinchillas are compared. As a result, it is evident that pulmonary giant cells are derived from chinchilla placenta. Histopathological characteristics in the intervillous circulation between Nepalese and Japanese placentas were compared.

As histopathological lesions, Nepalese group includes high incidence of marked subchorionic fibrin deposits, low incidence of intervillous thrombosis and increased incidence of chorangiosis - and chorangioma.

The incidence of chorangiosis and chorangioma was compared between 286 Nepalese placentas and 932 Japanese placentas examined from 1995 to 2002. The incidence of chorangiosis are significantly higher in the both of group.

JIFE CEN ATERINRR EES

These pathological lesions could be caused by hypervascularization of the villous capillaries leading to chronic hypoxia at high altitude. Case(NP20-54): A 20-year-old Nepalese woman, para 1 was delivered of a female infant weighing 2500g at 39 weeks of gestation. Placenta weighed 400g. Gross diagnosis exhibited slight circum-margination and marginal infarcts. Histology of the villi showed chorangiosis, of which villous capillary walls were stained well with CD34 and revealed localization of VEGF(vascular endothelial growth factor).

Case(NP20-61): A 20-year-old Nepalese woman, para 1 was delivered of a female infant weighing 3400g at 39 weeks of gestation. Placenta weighed 410g with meconium staining and circummargination.

Although marginal infarct(4x1x1.5cm) was suspected, it was histologically diagnosed as chorangioma (mixed type) which angio-Matous cell walls were stained well with CD34.

Case (NP98-32): A 22-year-old Nepalese woman, gravida 1 gave birth to a female infant weighing 2905g at 39 weeks of gestation. Placenta weighed 350g. In the chorionic villi, a small lesion of chorangiomatosis was histologically observed.

Case(NP21-26): A 25-year-old Nepalese woman, gravida 2 was delivered of a female infant weighing 2600g at 39 weeks of gestation. Placenta weighed 350g with marginal infarct. Histology of the villi presented vasculo-syncytial membrane(VSM). In ultrastructure of trophoblast layer, mitochondria were vacuolated and increased.

As you know well, mitochondria are sources of oxygen radicals, therefore, an important source of oxydative stress and lipid peroxides. The alveolar epithelium consists of two principal cell types, known as I and II. Type II alveolar epithelial cells show microvilli and the cytoplasm includes mitochondria, endoplasmic reticulum(ER), Golgi apparatus and lamellar structures which represent the secretory vacuoles of pulmonary surfactant.

Thus, the alveolar epithelium type II cells are stained well with Clara cell 10 protein(CC10).

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In the chorionic villi of preterm placenta at 29 weeks of gestation, trophoblast layer was also well stained with CC10 like type II alveolar epithelial cell. Case(NP22-12): A 27-year-old Nepalese woman, gravida 3 was delivered of a male infant weighing 2800g at 41 weeks. Placenta weighed 355g. Histology of the villi showed chorangiosis and CVH (chorionic villus hemorrhage). In ultrastructure of the villi pretreated with cytochrome oxidase reaction, mitochondria membrane in the organella of syncytium was illustrated by cytochrome oxidase staining. Lamellar body with myelin structure was existed in the organella of the syncytium and its lamellar body is about to pinch off from the surface of syncytium like alveolar epithelial cell type II.

In conclusion,

- 1) As characteristics of histological findings of chorionic villi between Nepalese placentas and Japanese preterm placentas, an incidence of chorangiosis was so high in both groups.
- 2) Ultrastructural features of chorionic villi of Nepalese placentas showed aon increase of mitochondria and cistern formation of rough endoplasmic yet+clum (rER) in addition to appearance of myelin figures similar to alveolar epithelial type II cell in organella of the syncytium.
- 3) These features may be ascribed to hyper-vascularization of villi vessels caused by chronic hypoxic state.

Thus, from these findings, it is suggested that syncytial cells play an active function for respiration like alveolar epithelial type II cells in the intervillous circulating blood.

VIII National Conference of NESOG, April 10th, 2004

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Kanti Giri

ORATION : “Health of Nepali Women Beyond the Reproductive age”



CURRICULUM VITAE Professor Dr. Kanti Giri

MBBS Calcutta Medical School 1954

OB/GYN MRCOG 1963 FRCOG 1967

Dr. Kanti Giri returned to Nepal in 1963 after completing her training as Obstetrician/ Gynaecologist in the UK and was the first Superintendent of Prasuti Griha Hospital in Thapathali, a post she held upto 1975.



During her time there she pioneered Laparoscopic sterilisation for women in 1969 (even before the West started using Lararoscopy!). Her motive in introducing Ambulatory laparoscopic Sterilisation was

that women being the major work force were unable to be hospitalised and hence she took the surgery to them instead of then having to come to the hospital. Hence women were operated in the morning and could return to the fields the next day. She was passionate about family planning already from the late 1960s and later encouraged and initiated the programme for reversible vasectomy in men.

She worked as Director of the Maternal and Child Health Section for the World Health Organisation South East Asia Regional office (SEARO) in new Delhi from 1975 upto her retirement in 1992 when she returned to Kathmandu, Nepal.

After her retirement from the WHO in 1992 she entered into a collaboration with Professor Helen Wallace from the UC Berkeley School of Public Health (where she was also a Visiting Professor) with whom she authored a book titled Health Care of Women and Children in Developing Countries in 1995. She continued working with Professor

Wallace until 2010.

On her return she became HOD of OBG/GYN at TUTH until she left to head the Department of OBG/GYN at KMC in 2002 until 2007 when she retired from clinical practice and academic life.

HEALTH OF NEPALI WOMEN BEYOND THE REPRODUCTIVE AGE

-Prof. Kanti Giri

In Nepal, women between the age of 15-49 years are categorized under the Reproductive Age Group and comprise 23% of the total population. The average age of marriage has increased from 15.7 to 18.1 years in the last thirty years. This age group comprises a higher risk group with high incidence of pregnancy related mortality and morbidity rates and also vulnerable to infections of reproductive tract, HIV/AIDS and sexually transmitted diseases. In recent decades, owing to International and national efforts with programmes such as Safe Motherhood and Reproductive Health there has been reduction in both maternal and infant mortality and morbidity rates.

The Cairo International Conference on Population and Development (ICPD) in 1994 spelt out a holistic New Vision promoting Reproductive Health. Accordingly in 1996 His Majesty's Government's the Ministry of Health in Nepal formulated the "National Reproductive Strategy" It identified 9 essential elements under the scope within the context of Primary health Care. The ninth element addresses "the elderly women issues and reads as " Life cycle issues including breast cancer, cancer of the reproductive system and care of elderly". In the 2001 Report of "Nepal Country Profile on Women and Development" under Reproductive Health it says reveals that Reproductive health problems in elderly women such as breast and cervical cancer osteoporosis and urerine prolapse are highly prevalent. Major causes have yet to be established.

The above mentioned statement is not very encouraging. First of all the identification and definition of who are elderly women is not clear and at what age are women called elderly, It seems that after the end of Reproductive function of women at the age of 49 years, a woman is called elderly from 50 years onwards. This sounds logical because a woman around the age of 50 years starts the Menopausal symptoms a physiological phenomenon due to loss of ovarian activity causing oestrogen hormone deficiency. Any woman who lives beyond 45 years has to undergo this physiological phenomenon



which heralds the end of reproductive function in a woman. Many women suffer from pre and post menopausal symptoms which need counselling and treatment. The average age of women in Developed countries is 51.2 yrs and in Nepal the two studies carried out (year 2000) in the urban area and the other in the community rural area (Year 2001) puts the average age as 49.5 yrs and 47 yrs respectively. In Nepal, the most common symptoms were loss of sexual interest, decreased vision, joint and body pain and urinary problems. The long term effect of menopause is osteoporosis resulting in fractures.

The other specific ailment of Elderly Women is uterovaginal prolapse. It actually starts during the early reproductive period, even during the first childbirth and gets worse with every childbirth. Women usually seek advice at the end upon the completion of reproductive period cycle i.e. the children are grown up.

In Nepal, Utero-vaginal prolapse cases are most common. 23% to 40% of all gynaecological cases that are examined at health camps are women with prolapse of various degrees with duration of 2 years to 30 years. In fact this is preventable ailment if the birth deliveries are supervised by qualified birth attendants at home or in hospitals. The Nepal 2001 Demographic and health survey reported 89% Home deliveries with 55% conducted by relatives and friends and only 10% Institutional deliveries. Home deliveries will go on for another 30 years but under the Safe Motherhood programme training of health personnel for supervision of deliveries is one of the regular activities therefore, we can hope that in the future the incidence of prolapse will decrease. Most of the women with prolapse need surgical treatment.

The ageing process is a biological reality beyond human control. Since 1948, the work has aged dramatically. Over the last 50 years, the mortality rates in the developing countries have declined raising the average life expectancy at birth from around years in 1950 to almost 62 years in 1990 and is projected to be 70 years in 2020. 2000, the world population of people in the 60 year and over age bracket were million and is expected to double in 2025 and reaching to two billion by 2050. globally the World Health Organization and other agencies of the United Nations have been involved since 1979 for taking action on AGEING through various International forum in Vienna in 1982 and in 1996 the programme was reviewed and renamed to "Aging and Health Programme" from "Health of the Elderly".

The various policies and programme have been developed by WHO for the promotion of Healthy Ageing and some countries have been formulating policies according the Republic of Korea in 1981 enacted the law on the Elderly Welfare Laws, and Health Service Law was legislated in 1983 by the Japanese Government. In 1996 Philippines Congress legislated the "Senior Citizen Act". Recently in 1997 "Aging Act" was enacted by the Australian Parliament.

Nepal also has taken up the issue of the ageing population of 60 years and above population of this section in Nepal was 6.5% of the total population of Nepal . It was totalling to 1.417 million. the growth rate of this section as compared national average of 2.1% was 2.5% per annum.

5th Conference of SAFOG & VII International Conference of NESOG,
June 2nd-5th, 2005

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Harsha Senviratne, Srilanka



Professor Dr. Sanu Maiyan Dali deliver SAFOG oration on "Making Pregnancy Safer, Community, Perspectives



IX National Conference of NESOG,” May 20th, 2006 (6th, Jesth, 2063)

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. June Thapa, Kathmandu Medical College

ORATION : “Adolescent Health and Development in Nepal- Status, Issues, Programs and challenges”

Born in Tansen, Palpa in 1936, Prof. June Thapa was deeply inspired early on in life by her father Shri Shyam Krishna Malla who was a reputed and dedicated medical practitioner who attended to both the affluent Ranas and Zamindar families as well as rural communities in and around Palpa. Due to his strong support and motivation, she was able to go to school at a time when even the wealthier families kept their daughters at home.



She took her High School Board Exams from Varanasi in 1952 and her ISC. from TriChandra College, Kathmandu in 1955. She then received a government scholarship for undergraduate medical education at the Lady Hardinge Medical College in New Delhi which she completed in 1961. On returning to Nepal, she started her medical career as a Medical Officer in Rajbiraj and later in Doti in the far west hills. After six years of working in these extremely low resource settings, she was selected for postgraduate education in the U.K. where she took her DRCOG, London in 1969 and MRCOG in 1973.

After this she returned to Nepal and worked as a Consultant Obstetrician & Gynecologist in Biratnagar (1973-1982), Bir Hospital, Kathmandu (1982) and Prasuti Griha (1983-1994) during which she was involved in specialist training of DGO students. After her own training in Laparoscopic Sterilization in Singapore, Philippines, U.K. and USA, she went on to lead laparoscopic sterilization camps in various parts of Nepal where she performed over 40,000 cases. Her remarkable record of performing 108 cases in a single day was highlighted by the media. She was HOD(Ob/Gyn) at Patan Hospital (1994-2000) and then Professor & HOD at Kathmandu Medical College (2001-2007) during its early years.



Prof. June Thapa received the Gorkha Dakshin Bahu in 1983 and was selected "Woman of the Year 2004" by The American Biographical Institute based on her "outstanding accomplishments and the noble example she has set for other peers and entire community". She also received the Vikas Rattan Award in 2007 and Tansen Gandhi Samman in 2008. Her husband Prof. Loke Bikram Thapa is an esteemed Cardiothoracic Surgeon whose many accomplishments

include being the first Coordinator of Postgraduate Medical Education in Nepal. Her elder daughter Roshan is a Consultant Gynecologist at Himel Hospital and her younger daughter Rita works in banking in Canada. She has 3 grandchildren who love her dearly.

VIII International Conference March, 2007

ORATOR: Professor Dr. Urmil Sharma

Dr. Urmil Sharma, the ageless, dignified Eternal President of Delhi Gynaecologist Forum is awarded the “LIVING LEGENDS AWARD” by the members of the DGF with immense humility and pride.

A protagonist of ethical practise, professional conduct and unity among doctors, Dr. Urmil Sharma's life is a living inspiration for all the gynaecologists of India.

Dr. Urmil Sharma started her journey in the world of Obstetrics and Gynaecology in 1957. With a mission to provide the Indian woman the best health care, she underwent training in UK but returned back to India to serve her people.

As a Faculty in MAMC and AIIMS, she worked tirelessly as a Teacher, Clinician and a Visionary to enhance the skills and academic knowledge of the young gynaecologists. She was a crusader for providing comprehensive health services for all woman and for decreasing maternal morbidity and mortality.

It was her courage and confidence in her professionalism that made her enter into solo private practice. She was recognised and appreciated for her ethical practise, wholesome patient care, sincerity and professional skills by all her patients and her colleagues.

Under her charismatic leadership as a chairperson of North Zone of AICC RCOG India, she ensured recognition of Indian Obstetricians in the RCOG and started the MRCOG examinations and training in India. She is the banyan tree under whose umbrella AICC-RCOG has grown and made its enviable position in RCOG.

Dr. Urmil Sharma has proved that youthfulness and zest for life and learning is not determined by age. She explores, experiments, learns and teaches the secrets of leading an exciting, proactive, healthy and joyous life. Her passion for gardening, use of natural herbs and writing is an inspiration for all.

She is a strong advocate of ethical practise, professional conduct and respect and unity among doctors. She uses every opportunity to inculcate in the gynaecologists the moral code of conduct as doctors.

As a president of Delhi Gynaecology Forum, she has been a guiding force for the growth and unity among the gynaecologists. Her congenial disposition, negotiation skills and magnanimous inclusive nature has made her the most cherished, loved, admired and respected person in the forum.

With deep conviction and belief, she says” I have lived a full and fulfilling life with no regrets and wish the same to you all”





Professor Dr. Urmil Sharma felicitating, Professor Dr. Sanu Maiyan Dali for Fellow ad Eundem (FRCOG) by Royal Collage of Obstetricians & Gynaecologists

X National Conference of NESOG, March 28-29, 2008

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Saraswati M Padhye

ORATION : Rupture Uterus

Prof. Dr. Saraswati Padhye born at Kathmandu, Nepal on 21st September 1939, had school education at Padma Kanya Vidyasram, a Govt. school, Dillibazar Kathmandu Nepal, passed SLC Examination in the first division in 1957.

She passed I.Sc, in second division from Tri Chandra (Govt.) Colledge (Under Patna University), Kathmandu in 1959.

She did MBBS from Darbhanga Medical College, (Bihar University) in 1964 through the Colombo Plan and completed 1 year House-surgeonship in Obs & Gynae at the same college hospital.



As a Medical Officer she joined the HM Government (Nepal) service and served different hospitals of Nepal since 1965.

She went to London under Colombo Plan in 1971 and passed D (Obs) RCOG in 1973 and MRCOG in 1974 from the Royal College of Obstetrician & Gynaecologists London, UK and got FRCOG in 1989 from the same.

She has undergone many trainings, attended many seminars and conferences at different parts of the world.

She, as a specialist in Obs/Gynae, has served the HMGovt. in different hospitals since 1974.

She has conducted many Laparoscopic Sterilization Camps and surgical Obs/Gynae Camps in different parts/ remote hospitals of Nepal after specialization for 10 years from 1976.

She was a Preceptor in Post Graduate Obs/Gynae.Govt. Programme of HMG Nepal since 1992, for a decade from its inception and was a member of Subject Committee for PG Programme Ob/Gyn. PGMECC till it was dissolved though the PG program me continued in the name of "NAMS"

She was a Medical Director in the largest Maternity Hospital, (Prasuti Griha), Thapathali, Kathmandu Nepal for 7 years and retired on Sept. 21st 2001. She did many researches in women's health and published in many medical journals and Smarika of Prasuti griha, Nepal during her service.

She joined as a Professor of Obst/Gynae. at Kathmandu Medical College Teaching Hospital, Sinamangal (Kathmandu University, Nepal) after retirement from Govt. job and also worked as HOD in Obst/Gynae. Dept.

She was a preceptor of PG programme of KMC Teaching Hospital where she continued teaching the PG students of Ob/Gyn. for 7 batches..

She has done several researches and published in National & International Journals. She has supervised various community based studies and Thesis of Postgraduate students of Obs/Gynae. of KU.

She was a member and chairman of Ethical Subcommittee of Research Committee at Kathmandu Medical College in collaboration with NHR for last 13 years.

She has undergone Mid Trimester Abortion training and involved in training and mentoring the doctors.

She worked as a Prof. Ob/Gyn at Kathmandu Medical College Sinamangal for last 17 years till June 14, 2020

The services given by elderly doctors were terminated by the College because of the risk of Covid19.

She had been appointed as is a Board Member of National Health Research Council, Bir Hospital and Prasutigriha Development Boards by HMG where she served as a chairman before she was retired.

She was Chairperson, Management Committee of Vijaya Memorial Govt. High School, Dillibazar.

She had decorated with “ Prabala Gorkha Dakshinabahu”, Trishaktipatta” by HM King of Nepal, Samajseva Padak, Dharma Pahari Seva Padak, Birendra Aishwarya Sevapadak, “Menopause Award” RCOG London in 2000.

She was appointed as a Chairman of RCOG IRC Nepal since Feb.6 2015 by Royal College of Obstetrician and Gynaecologists, London, Re-appointed a Chairman RCOG IRC Nepal on 16 Feb.2019, handed over last year, 2022. to a colleague.

She is life member of many social and professional societies of Nepal and Indian.,

{of which she was President of Nepal Society of Obs/Gynecologis(NESOG) for the year 2003-2005}.

She is life member of Nepal Deaf and Dumb Society, Nepal Cancer Society and Fellow of Gynecological Society of India, (Bihar).

She has received certificates of Appreciation and honors from Nepal Govt. and many organizations including from Norvic International Hospital on its Silver Jubilee at of Nepal. She was a Chief Guest of Honour to DOCTORS’ MEET on 71th Democracy Day, 19 February 2021, (Fagun 7, 2077).

She has received “ Ni Vhavi Puraskar “ , 2 pieces of Naee coins and Rs.100000/(one lac) from Naee Prakashan on 24th April 2024 (30.12.2080) from the First Chancellor Mrs . Indira Prasai, which I have donated to the Valley Hospital to help in the treatment of poor female patients as mentioned in the paper..

Felicitations and Award-“Women in Medicine in Nepal” by Rt.Hon. President Mrs Bidya Devi Bhandari on August 6, 2021 (Shrawan 22, 2078) and “Legends of Medicine Awards” by Rt.Hon. President of Nepal Shree Ramchandra Poudel on 4th March 2025 (20.11.2081).

She was honored with “D.S Malla Academic Excellence Award” at the 17th International Conference of NESOG on 18th March 2025 (15.12.2081).

She is serving Nepali women of different parts of Nepal till the date, March 2025.

"It's my great honor and privilege to deliver "Hirananda Vaidya Oration" in an International Conference of Nepal Society of Obstetrician and Gynaecologists in 2008.

The subject was about "Rupture of the Uterus" of which I was studying at IRLD Maternity Hospital, largest women's hospital of Nepal where most of difficult cases of Obstetrics from the nook and corners were admitted in the moribund conditions. At the time of discharge their smiles will touch the bottom of your heart !

I had the pleasure to know the late Hirananda Vaidya long before my medical Education. Sanu Mayian and I used to be together every Saturday (weekend) for combined study for two years. During those days, I had the opportunity to see him working hard in the midst of young and old males, and females of all ages, examining the patients. Many patients brought organic vegetables grown in their field specially for their beloved physician. He was very generous towards educating girls because in those days it was not that easy to get girl-child educated as the belief was the girls are get married and go to someone else's home.

He was soft spoken, interrogative, very intelligent, with a gentle smile examined the patients. He not only treated the disease but spent a lot of time counseling them.

Thus we had an opportunity to learn how to behave with the patients.

We miss him very much.

I pray to the Almighty God to bless his family.

IX International Conference of NESOG,” March 30th, 2009

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Prof. Abdul Bayes Bhuiyan

Prof. Abdul Bayes Bhuiyan
MBBS, FCPS

Post held in GOB service: -

- Assistant Surgeon - 20.03.63 to 03.08.71
- Junior Consultant (Obs & Gynae) 04.08.71 to 26.06.73
- Associate Professor (Obs & Gynae) 27.06.73 to 28.12.80
- Professor (Obs & Gynae) 29.12.80 to 08.05.95 • Last appointment-
- Professor and Head of the Dept. of Obs & Gynae, Dhaka Medical College



Publications:

1. Labour following Caesarean Section. Bangladesh Medical Journal; pp 57-60, October, 1973.
2. A new simple approach to the correction of retroverted gravid uterus. Journal of the Bangladesh College of Physicians and Surgeons; pp 26-27, August, 1983.
3. Abdominal pregnancies - A report on three cases, Bangladesh Journal of Obstetrics and Gynaecology; pp 22-26, September 1989.
4. Outcome of prolonged labour - A study of 100 cases. Bangladesh Journal of Obstetrics and Gynaecology; pp 1-7, March 1991.
5. Invasive mole - A case report. Bangladesh Journal of Obstetrics and Gynaecology; pp 34-37. March 1991.
6. Maternal Mortality: National versus hospital situation, International Journal of Gynaecology and Obstetrics, 500 Suppl. 2 (1995), SI 165-168.
7. Management of complication of pregnancy induced hypertention proc. XV Asia Ocaenia Congress Obstet & Gynae 1995, 159-162.
8. Increase concentrations of Plasma epinephrine and norepinephrine in patients with eclampsia, European Journal of Obstetrics and Gynaecology and Reproductive Biology 69 (1996), 61-67.
9. "Change in Utilization of EOC Services after Training of the MCH Service Providers in Greater Mirpur Area of Dhaka City". Accepted by AOFOG Journal for publication.

Experiences:

1. Project Director, BAVS Rangpur 1975 to 1982.
2. Project Director, EOC Project July 1994-Oct 1997.
3. Project Director, Improvement of Women and Maternal Health from Jan '98 - Dec '98.
4. Ex-Project Director, OGSB Maternity Hospital, Mirpur, Dhaka.
5. National Consultant, MTR-World Bank (HPSP), October 2000
6. National Consultant, APR-World Bank (HPSP), October 2001
7. National Consultant, APR-World Bank (HPSP), January 2003
8. Ex-Syndicate Member - Banga Bandhu Sheikh Mujib Medical University, Dhaka
9. Ex-Focal Point - Skilled Birth Attendant Training Program in Bangladesh - on going
10. Past President-South Asian Federation of Obstetrics & Gynaecology (SAFOG)

Social Services:

1. Past President, Obstetrical & Gynaecological Society of Bangladesh (OGSB).
2. Ex-vice President, Bangladesh Medical Association (BMA).
3. Ex-chairman, Faculty of Obs & Gynae

Foreign Training and Visits

- Nepal, Kathmandu - July 1991 - Who Consultancy
- Nepal, Kathmandu - Dec. 1993 - UNFPA Program (Consultancy)
- Nepal, Kathmandu - Feb 1997 - attended EOC Conference.
- Nepal, Kathmandu - October, 2002 - to attend Regional Consolation on PMTCT
- UNICEF ROSA/SAFOG Consultative meeting at Kathmandu on 12th April 2004 (Agenda: Maternal mortality reduction program, HIV/AIDS PPTCT/ infant feeding)
- To attend South Asia Regional Network on Maternal and Neonatal Mortality/ Morbidity Reduction” held on January 26-27, 2006, Kathmandu, Nepal.



*Prof. Sanu Maiyan Dali with
Prof. Abdul Bayes Bhuiyan*

Award:

Hirananda vaidya oration 2009

Distinguished Community Service Awards for Emergency Obstetric Care from FIGO in collaboration with AMDD program of Mailman School of Public Health at Columbia University 2004.

XI National Conference of NESOG, March 28th-29th, 2010

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Dr. Sudha Sharma

Short Bio Sketch: Dr. Sudha Sharma

Dr. Sudha Sharma is currently working as Co-Director at Ciwec Hospital, Kathmandu, Nepal and as the Chair of International Representative Committee of the Royal College of Obstetricians and Gynaecologists (RCOG) in Nepal. Her educational qualifications include **MBBS, DGO, MRCOG, FRCOG and MPH**. In addition to being an obstetrician and gynaecologist she is a public health expert with major experiences in Policy, Governance, Health Systems and Quality of Health Care.



She has held several important positions including Secretary, Ministry of Health and Population in Nepal. Prior to that she was a Professor at the National Academy of Medical Sciences and Director of Paropakar Maternity and Women's Hospital. She has also served as the Chief of Health and Nutrition in UNICEF Tanzania and Chair of the Development Partners Group.

She has served for several years in various capacities in professional organizations, culminating into positions of leadership. These include President of Nepal Medical Association, President of Nepal Society of Obstetricians and Gynecologists, President South Asian Federation of Obstetricians and Gynecologists and Chair of Education Committee of the Asia Oceania Federation of Obstetrics and Gynecology. She has also served as advisor to UN agencies, WHO, UNICEF, UNFPA and various international NGOs. She has provided public health consultancy services to several organizations including Columbia University, London School of Hygiene and Tropical Medicine, Doctors of the World USA, Margaret Sanger Center International, DFID, KfW and Government of Nepal.

She was the founding member of Rotary Club of Kathmandu North East and served as its President. She is also a Paul Harris Fellow. She has several research papers and scientific publications to her credit, and has authored four books including her memoir in Nepali language. She has received several awards including the FIGO award in 2012 and Distinguished Services Award from the Rt. Honourable President of Nepal in 2021.

X International Conference of NESOG,” April 8th-10th, 2011

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Pratap Kumar

ORATION : Recurrent pregnancy loss – evidence based management

Dr. Pratap Kumar

*Senior Consultant, Department of Reproductive Medicine & Surgery
Kasturba Medical College, Manipal Academy of Higher Education
Manipal, Karnataka, India*



Positions Held	Awards & publications
National Vice President of the Federation of Obstetrics and Gynecology for the year 1999	“Fertivision 2018 Leading Lights in the field of Reproductive Medicine” for the year 2018 by Indian Fertility Society (IFS)
Inspector, Examiner and Advisor, National Board of Examinations	Dr Duru Shah Life time achievement award for the 2017 by Indian Society of Assisted Reproduction (ISAR)
Examiner of Undergraduates and Postgraduates in several universities	FOGSI – Dr Kutty Lifetime Achievement Award for 2011-12
Appointed on the Editorial committee of the several Journals	Dr. D K Tank Reproductive Health Care Promotion Trophy – 2011-2012
President, Karnataka State Obstetrics and Gynaecological societies of FOGSI (2011-12)	Has more than 300 publications and presented more than 1000 presentations in National and International congresses.
Member of Task force of Human Developmental & Disease Biology, Department of Biotechnology , New Delhi (2014-2021)	Editor of ten Text books & contributed to several chapters
Member of the Project Review Group (PRG) on Reproductive and Child Health – Indian Council of Medical Research, New Delhi (2013 – 2022)	

Recurrent pregnancy loss – evidence based management

Dr Pratap Kumar

Professor and Head
Obstetrics and Gynecology,
Head, Division of reproductive medicine
Kasturba Medical College
Manipal 576104 (Karnataka)

Recurrent miscarriage (RM) is traditionally defined as three or more consecutive miscarriages occurring before 20 weeks post-menstruation. Around 1% of fertile couples will experience recurrent early pregnancy losses. Recurrent miscarriage has been directly associated with parental chromosomal anomalies, maternal thrombophilic disorders, structural, uterine anomalies and indirectly with maternal immune dysfunction and endocrine abnormalities. However, as the majority of RM cases following investigation are classified as idiopathic, that is, no identifiable cause in either partner, it is generally accepted that within the idiopathic group there is considerable heterogeneity and it is unlikely that one single pathological mechanism can be attributed to their RM history. Although benefits have been reported for a variety of endocrinologic and immunologic treatment, many therapeutic approaches remain controversial, mainly because of wide variations in patient-selection criteria and treatment protocols.

Coagulation investigations

Acquired maternal thrombophilia is a well-recognized cause of RM. All women with a history of three or more early pregnancy losses, that is, before 10 weeks, or 1 or more unexplained deaths at ≥ 10 weeks of a morphologically normal fetus, or 1 or more premature births at ≤ 34 weeks with severe preeclampsia or placental insufficiency, should be offered a testing for lupus anticoagulant (LAC) and anticardiolipin antibodies (aCL), known collectively as antiphospholipid antibodies (APA), to exclude an antiphospholipid syndrome (APS). More recently, an increased incidence of early and recurrent fetal loss has also been suggested in women with inherited thrombophilia, including Factor V Leiden deficiency, activated protein C resistance, prothrombin G20210A and protein S deficiency; however, some authors have found no association between maternal thrombophilia and pregnancy loss < 10 weeks of gestation. Some studies reported a decreased risk of miscarriage in women with inherited thrombophilia. Larger epidemiological studies are clearly needed to justify testing couples with RM for inherited thrombophilia in routine clinical practice. Other coagulation abnormalities, including impaired fibrinolytic activity, factor XII deficiency and reduced activated partial thromboplastin time have also been reported to be associated with RM, but the corresponding epidemiological data are limited, and the assay for these abnormalities should only be performed as part of prospective clinical studies.

Endocrinologic investigations

Early epidemiological data have shown an association between RM and hypothyroidism or diabetes mellitus. Although current evidence indicates that treated hypothyroidism and well controlled diabetes are not associated with RM. Obesity is associated with a statistically significant increased risk of first trimester and recurrent miscarriage. Weight loss should be considered as a first option for women who are infertile and overweight

Immunologic investigations

An excessive maternal immune response against paternal antigens resulting in abnormal immune cells and cytokine production has and is still thought to be one of the causes of RM. Although much of the evidence is contradictory, these studies suggest differences in the peripheral blood NK-cell levels in women with RM. NK cells are also found in the endometrium and decidua, but the knowledge on their role in human placentation is limited.

Parental cytogenetic investigation

The incidence of structural chromosome abnormalities, usually a balanced translocation is increased in couples with RM. chromosomal analyses of the products of conception in couples with RM indicate that a normal conceptus karyotype in a previous pregnancy is a predictor of subsequent miscarriage

Anatomical investigations

The prevalence and impact on reproduction of uterine malformations in the general population have not been clearly established. A large comparative study of the ultrasound morphology of congenital anomalies in women with and without RM has shown no difference in the relative frequency of various anomalies between the two groups of women

Other investigations

High level of homocysteine (hyperhomocysteinaemia) can be associated with RM. Infections with bacteria, viruses or parasites can all interfere with early pregnancy development, but none seems to be a significant

cause of RM. Toxoplasmosis, Rubella, cytomegalovirus, herpes (TORCH) screen is therefore of limited value in the investigation of RM, outside an acute infectious episode

Evidence-based medical therapies for couples presenting with RM

Anticoagulants

Aspirin and/or heparins have become routine treatment for women with APS and inherited thrombophilias and a history of RM, on the basis of limited evidence. Overall combined unfractionated heparin and aspirin could reduce further pregnancy loss by 35%-54% in various studies.

Progestational agents

Progesterone has been administered orally, intramuscularly and vaginally for more than five decades in an attempt to prevent miscarriage in early-to-mid pregnancy. Overall, despite considerable medical use, there is currently insufficient information to allow recommendations regarding optimal dose, route and timing of progesterone supplementation.

Immunosuppressant and immunomodulator agents

The use of intravenous immunoglobulin (IVIG), anti-TNF, glucocorticoids or cellular therapies in order to prevent or reduce an 'excessive immune response' and/or abrogate maternal- fetal incompatibility in women with RM remains controversial.

Other treatments A small number of non-randomized studies have reported that psychological support, that is, tender loving care (TLC) in early pregnancy, decreases miscarriage rates in women with unexplained RM

XII National Conference of NESOG,” March 30th-31st, 2012

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Jaideep Malhotra

ORATION : “ Estrogen from Womb to Tomb ”

Prof. Dr. Jaideep Malhotra

MBBS, MD, FICOG, FICS, FIUMB, FICMCH, FMAS,
FRCPI, FRCOG, FIMS, FICRM, AFIAPM

- Imm. Past Chair FIGO REI Committee
- Member of Accountability Group of PMNCH (WHO)
- President Elect InSARG
- Past President ASPIRE, FOGSI, ISAR, IMS, SAFOMS, ISPAT
- Editor-in-Chief SAFOG & SAFOMS Journals & Many Books.
- (Co-Editor of more than 65 Books)
- Regional Director South Asia Ian Donald School of Ultrasound
- Professor Dubrovnik International University, Croatia
- Past Secretary & Vice Chairman ICOG



- Managing Director-ART Rainbow IVF
- One of the very few to receive:
 - Lifetime Achievement Award by ISSRF & ISAR
 - Legends of FOGSI Award 2025
 - ASPIRE Distinguished Service Award
 - Recipient of Nepal Samman (3 Times)
 - Recipient of Hon. FRCOG & FRCPI

- Credited with 1st 500 IVF babies of Nepal
- 1st IVF, ICSI, TESA Twins of Uttar Pradesh (India)

Advisor to-

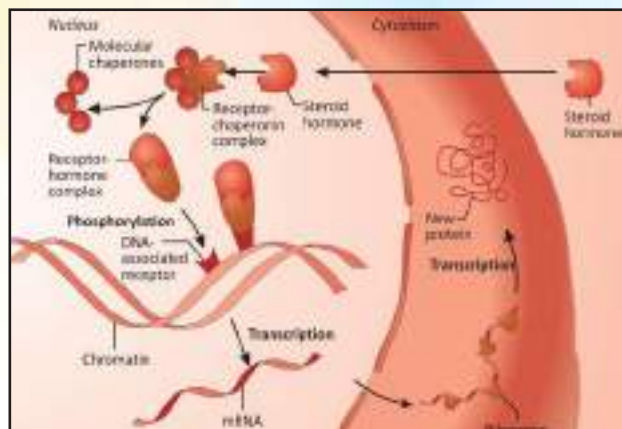
- Maulana Azad Medical College, New Delhi
- JNMC, Aligarh
- SMS Medical College, Jaipur

Initiator:

- Club 35 Plus
- Rotary Club of Agra Grace
- Adbhut Matrutva (Awarded at Film Festival, Lucknow)
- iMumz App (Winner of #Aatmanirbhar App Challenge)

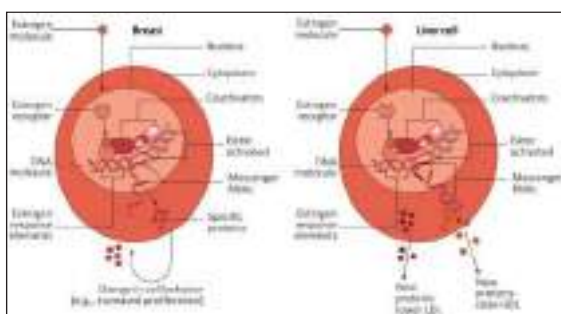
Estrogen Receptors

- **ER α** is expressed: Liver
- **ER β** is expressed most highly in: Lungs, kidney, bladder, intestines
- Many cells express **both ER α and ER β** , which can form either homo- or heterodimers: CNS, blood vessels, bone, heart, breast, ovary, uterus, testes, prostate

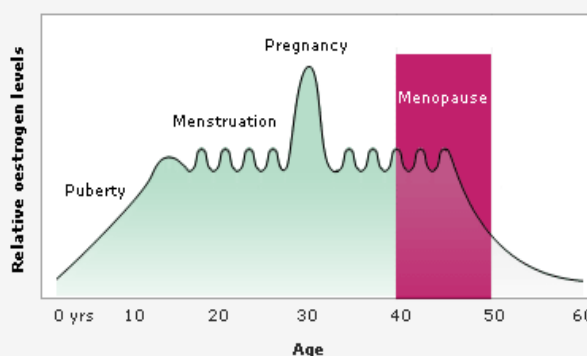


Molecular Action Of Estrogen

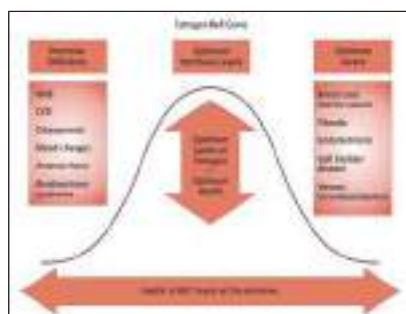
Different response in different tissues



ESTROGEN LEVELS FROM PUBERTY TO POST-MENOPAUSE



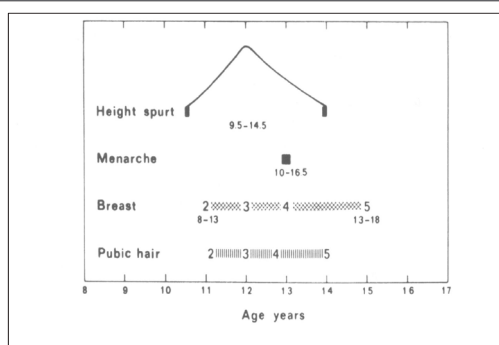
Optimum Health - Level Of Estrogen



"I think that what is happening to me is so wonderful and not only what can be seen on my body, but all that is taking place inside.."
Anne Frank

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AGES OF GIRLS AT VARIOUS STAGES OF PUBERTAL DEVELOPMENT



Estrogen is part of the puberty trigger



- Estrogen plays a critical role in skeletal physiology of males as well as females
- "Body fat generates the hormone estrogen, partially,"
- **"Estrogen is part of the hormones that triggers puberty.."**
- Early puberty could affect girls as they get older.
- Have an increased risk of **breast cancer and uterine cancer**, because of the longer exposure to the estrogen hormone.

Low estrogen at Puberty

- Girls with low estrogen levels as they cross over into their teen years are experiencing **delayed puberty**.
- This may mean that the brain is pruning cerebral synapses more slowly.
- What exactly happens between low estrogen, low enough to delay puberty (particularly with girls), and increased encephalization.

With girls, estrogen levels that are too low will delay the first estrous cycle or stop it if already underway. Introducing a high-fat diet to a girl nearing puberty can add on fat that sparks the transition to adulthood.

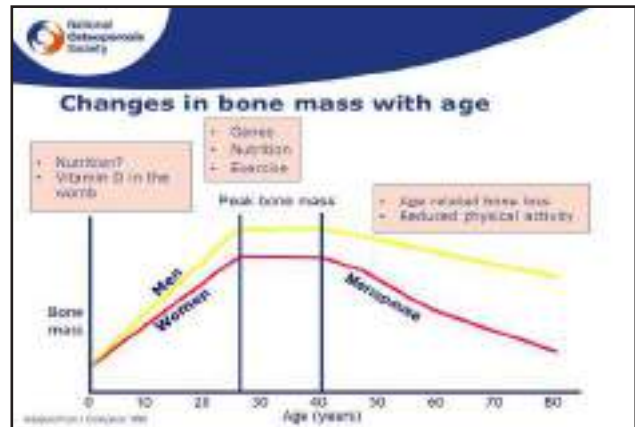
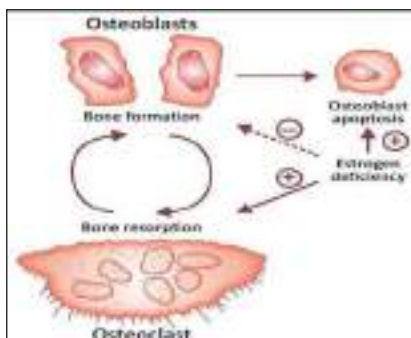


Estrogen is part of the puberty trigger

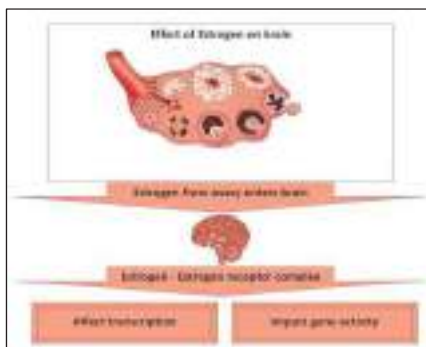


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- "Body fat generates the hormone estrogen, partially,"
- "Estrogen is part of the hormones that triggers puberty.."**
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- Have an increased risk of **breast cancer and uterine cancer**, because of the longer exposure to the estrogen hormone.

Effect On Bone



Effect Of Estrogen On Brain



Estrogenic Effect On Neurotransmitters



CNS

- Receptors in cortex, limbic system hippocampus, preoptic area & amygdala
- Modify the synthesis release and metabolism of neurotransmitter
- Increased cholinergic tone

Declining Estrogen – Genital Tract



- < Blood flow
- > PH
- < Collagen synthesis
- Sensory neurological impairment

Beneficial Effects Of Estrogens On CVS

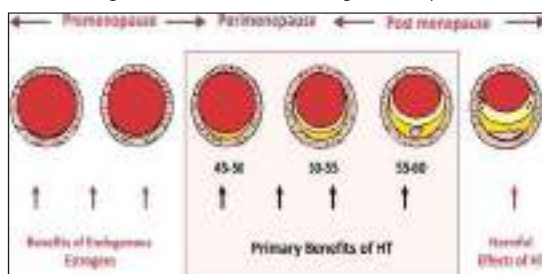
- Positive effect on endothelial cell function
- Relaxation of the vascular smooth muscle
- Improve cardiac contractility and coronary artery blood flow

Effects Of Estrogens Therapy On Lipid Metabolism

- Estrogens slightly elevate serum TGs and slightly reduce total serum cholesterol levels
- Increase HDL levels and decrease the levels of LDL and Lp(a)
- **Beneficial alteration of the ratio of HDL to LDL is an attractive effect of estrogen therapy in postmenopausal women**

Window Of Opportunity For Hormone Therapy

Effects of estrogen on vessel wall at different stages of menopause transition



Effects Of Estrogen On Body Fat, Glucose And Insulin Metabolism

- Promotes and maintains gynaecoid body fat distribution
- Improves glucose and insulin metabolism

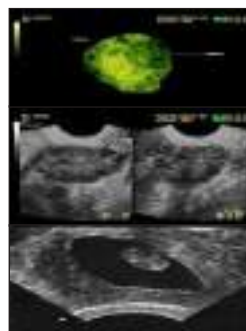


Effects Of Estrogens On Bile

- **Alter bile composition** by increasing cholesterol secretion & decreasing bile acid secretion.
- This leads to **increased saturation of bile with cholesterol** and appears to be the basis for **increased gallstone** formation in some women.
- **Decline in bile acid biosynthesis** may contribute to the decreased incidence of colon cancer in women receiving combined estrogen-progestin treatment.



Consequences Of Estrogen Excess



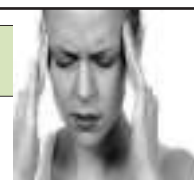
- Endometrial Hyperplasia
- Endometrial Polyp
- Gall bladder / stones
- Fibroid
- Venous thromboembolism
- Carcinoma Breast
- Carcinoma Uterus

Eating Disorders and Estrogen Depletion

- Eating disorders common to teenage girls such as anorexia or bulimia can severely disrupt the normal maturation process.
- **Malnourishment due to eating disorders can lead to amenorrhea and the accompanying drop in estrogen levels.**
- Low estrogen caused by disordered eating has been linked to **poor bone development and heart disease.**

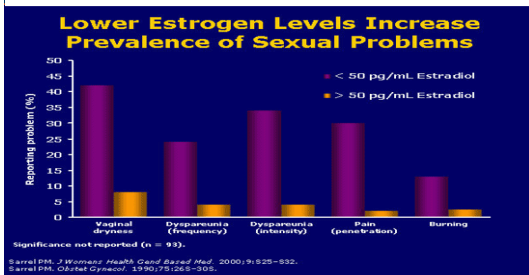


Estrogen and migraines



- **During low estrogen states such as menses (the sudden drop of estrogen triggers migraines)**
- Or the placebo week of oral contraceptives, serotonin levels decrease and the headaches occur
- First FDA-approved low-dose combination oral contraceptive taken 365 days per year)
- During high estrogen states, ie, pregnancy, serotonin rises and headaches decrease

Estrogen levels and sexual problems



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Estrogen replacement in Turner's syndrome

- These girls are typically of short stature and have a loss of ovarian function.
- Suggested that typically developing girls produce small amounts of estrogen before puberty, and that in girls with Turner syndrome, a combination of very low doses of estrogen as well as growth hormone would work synergistically to increase height and improve overall cognitive functioning.

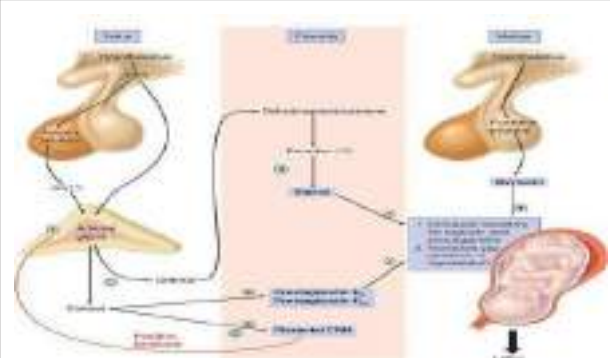
Dr Ross NIH



Estrogens and Pregnancy



Estrogens and pregnancy



In Pregnancy Estrogen

- Help maintain endometrium during pregnancy
- Help suppress gonadotropin secretion
- Help stimulate mammary gland development
- Inhibit prolactin secretion
- Promote uterine sensitivity to oxytocin
- Stimulate duct development in mammary glands



Hormonal contraceptives

Nothing else in the century – perhaps not even winning the right to vote – made such an immediate difference in women's lives



Social conventions change slowly, but technological changes can change the way we live very fast

Ladies Home Journal - 1990

OCPs

- First oral contraceptive? 1960--Enovid
- Old OCPs (80 to 100 mcg per pill) vs. today's OCPs (15-30 mcg per pill)...
- Old days? SE were MIs and Strokes...miss a pill? No big deal
- Today dosage is changing, dosage schedules are changing....

EE +Drospirinone: 2005

- 30 ug EE, 3g drospirinone
- Drospirinone: antimineralocorticoid activity (diuretic) + antiandrogen = 25 mg
- Spironolactone: increased VTE's (Studies 2009-2011 controversial)
- Caution hypotension, adrenal dysfx
- 'Good for acne + water retention/bloating'
- DVT risk: 9-10/10,000 (4/10,000 pop, 29/10,000 preg)

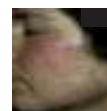
Oral contraceptives

- Perimenopausal women and oral contraceptives...can help smooth the ride of the ovarian roller coaster during perimenopause.



What are the benefits of OCs? Besides the obvious?

- Reduce the risk of ovarian cancer
- Treating dysmenorrhea
- Treating endometriosis
- Treating PCOS
- Treating acne
- Reducing estrogen deficiency symptoms in perimenopausal females
- Continuous and extended cycle OCs may improve mood, reduce headaches and increase quality of life...
- Long term effects of continuous regimens? Not known...fertility? Thromboembolism?



Infertility

Estrogen does play an important role in management of infertile patients



Potential roles

- Preparation of oocyte and embryo recipients.
- Estrogen supplementation in luteal support.



Receptient preparation

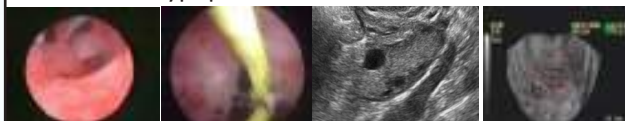


Luteal support

- Progesterone plus estrogen for luteal phase support is associated with a higher clinical pregnancy rate than progesterone alone in women undergoing IVF, but other outcomes such as ongoing pregnancy rate, fertilization rate, implantation rate, and miscarriage rate are the same for both treatments

Zhang, Xiao-Mei MD, PhD; Lv, Fang PhD; Wang, Pin MS; Huang, Xia-Man MS; Liu, Kai-Feng MD; Pan, Yu MD; Dong, Nai-Jun MD; Ji, Yu-Rong MD; She, Hong MS; Hu, Rong MD, PhD
Medicine: February 2015 - Volume 94 - Issue 8 - p e459

- Role in Asherman's syndrome
- Estrogen post lateral metroplasty.
- Estrogen supplementation in poor responders
- Estrogen priming in POF.
- Role in Hypoplastic uterus



Oocyte Maturity & Competence.

- Oocytes deficient in E2 tend to have a brittle zona that fractures easily during ICSI.
- In an elegant study to see the difference in the embryos produced in patients undergoing IVF OR ICSI in the absence/presence of LH, it was noticed that :
- The maximum no. of on going pregnancies were achieved in the IVF group **where HMG was given as opposed to the rFSH.**



Plattau L;Devoroy P et al in Update in Infertility treatment 2004

Changes At Menopause

Physical changes



Nothing is permanent but change

Heraclitus

Estrogen plays a Pivotal role!

- Woman is the axle around whom the family, society nay! The whole universe is revolving .So her health is of utmost importance at all stages of life more so in Menopause.



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Consequences Of Cessation Of Estrogen Production

Early Symptoms

Late

Later Diseases

Hot Flashes
Insomnia
Irritability
Mood disturbances

Sexual Dysfunction
Stress Urinary Incontinence
Connective Tissue Changes

Osteoporosis
CVD
Dementia (AD)
Cancer

Factors interfering with QOL

- Irregular bleeding
- Vasomotor symptoms like mood disorder,sleep disturbances, hot flushes
- Urogenital atrophic vaginitis, urge incontinence and stress incontinence
- Metabolic syndromes
- Osteoporosis
- Alzheimer.
- Signs of ageing...



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Fountain of youth *Estrogen elixir of life*



Pre 1998 Studies of HRT

Replacing hormones prevents or diminishes pathologic conditions of menopause

HRT was used for the following indications:

- **Short term** : Relief of menopausal symptoms
- **Intermediate** :Prevention of uro-genital atrophy
- **Long term** : Prevention of chronic disease e.g osteoporosis ,fractures, colon cancer & coronary heart disease
- **Adverse effects** : stroke, VTE, breast cancer & cholecystitis

What Happened From 1998 Onwards?

- **HERS** stopped after 5 years
 - Combined HRT not effective in secondary prevention of CVD¹
- **WHI (E/P arm)** stopped early
 - Increased risk of breast cancer and CV events outweighed benefits²
- **WISDOM** stopped early (end of 2002) due to WHI results
 - Increased risk of CV events and VTE³
- **WHIMS** (WHI memory study)
 - Increased risk of mild cognitive impairment and dementia⁴
- **Million Women Study**
 - Increased risk of breast cancer⁵
- **WHI (E alone arm)** stopped early
 - Increased risk of ischemic stroke⁶



1. Hulley S et al. JAMA 1998;280:605-13; 2. Rossouw J et al. JAMA 2002;288:321-33; 3. Vickers MR et al. BMJ 2007;335:239; 4. Shumaker SA et al. JAMA 2004;291:2947-56; 5. Beral V et al. Lancet 2002;360:439-47; 6. Hendrix S et al. Circulation 2006;113:2405-14.

What was this explosion? On May 31, 2002



WHI RESULTS WERE LEAKED !!!!

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Results of WHI Per 10 000 person years on HRT

- **8 extra breast cancers**
 - **7 extra MI**
 - **8 extra strokes**
 - **8 extra PE**
 - **5 fewer hip fractures**
 - **6 fewer bowel cancers**
- Absolute excess risk of events induced in global index 19 per 1000 (as per WHI study)**

Science is only as good as the questions asked; if common sense is not guiding the questions, then expect erroneous results!



BMJ 4 Aug. 2007- "HRT Early Benefits and Late Risks"

Estrogen the elixir of life ?

HT indications

- Vasomotor symptoms
- Urogenital symptoms
- Joint and muscle pains, mood swings, sleep disturbances and sexual dysfunction
- Prevention of osteoporosis and related fractures
- Prevention of atrophy
 - Epithelia
 - Skin
 - Connective tissue
 - Intervertebral disks



IMS Updated Recommendations, February 2007

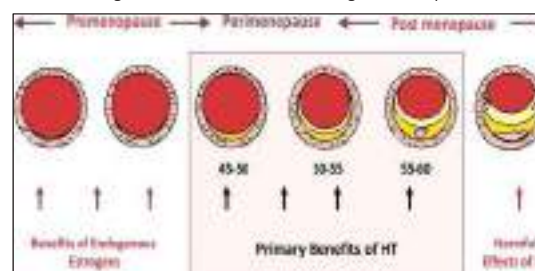
The emerging concepts in HT

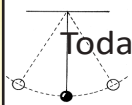
- Timing (window of opportunity)
 - Early start
 - Maintenance of estrogenic benefits
- Patient selection Personalization
 - Tailoring dose to patient
 - Continuation and tapering the dose with age



Window Of Opportunity For Hormone Therapy

Effects of estrogen on vessel wall at different stages of menopause transition





Today we do understand better...

- In the past few years, **the pendulum has swung away from fear of hormone therapy** to a better understanding of indications, risks and benefits—an understanding driven largely by the evidence-based position statements of the North American Menopause Society (NAMS).

Hormone Therapy Terminology

- HT/MHT—Hormone therapy
- HRT- Hormone replacement therapy as in premature menopause
- ET - Estrogen therapy
- EP - Estrogen Progesterone therapy
- AT-Androgen therapy

Menopausal Hormone Therapy

Wide range of hormonal products:

- Natural Estrogens
- Progestogens
- Androgens
- Tibolone

Types Of Estrogens

Natural Estrogens - Menopausal HT

- Native Estrogen - 17 beta Estradiol, Estrone, Estriol
- Conjugated Equine Estrogen
- Synthetic Estrogens - Oral contraceptives
- Ethinyl Estradiol

Dosage—Standard And Low-dose Oral And Transdermal Estrogens

Estrogens	Ultra low	Low	Standard	High
Conjugated equine estrogens (mg)-oral	0.15	0.3, 0.45	0.625	1.25
17B-estradiol (mg) oral	0.5	1	2	4
Estradiol valerate (mg)-oral		1	2	
Transdermal 17B-estradiol (µg)	14	25	50	100

The Four Groups of Estrogens

17B - estradiol (and other estrogens such as estrone and estriol): identical to the estrogens produced by the ovary

- 17B-estradiol metabolizes to estrone, estriol and estrone sulphate.
- Minimal load on the liver

Estradiol valerate: slight modification of the natural molecule (esterified form)

- Metabolizes in the liver→to 17B-estradiol and valerian acid → to estrone, estriol and estrone sulfate
- More load on the liver than when using 17B-estradiol

Conjugated equine estrogens: a mixture of estrogens (estrone sulfate and equilin sulfate) from the urine of pregnant horses.

- Much lower propensity to induce hepatic adverse effects than the synthetic estrogens

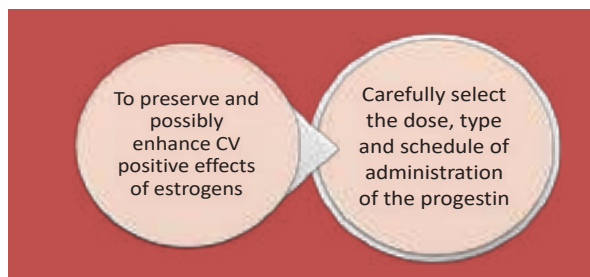
- Hepatic potency is 2 to 3 times higher than that of estradiol

Synthetic estrogens: estrogenic synthetic molecules (ethinyl estradiol usually used in oral contraceptives)

- high potency with regard to adverse hepatic effects and potential secondary risks (hypertension and thromboembolic disease) but low doses used in HRT
- Hepatic potency is 4 to 18 times higher than native estrogens

Dusterberg B, et al Pharmacokinetics and Biotransformation of Estradiol Valerate in Ovariectomized Women. Horm Res 1985;21:146-154
Mastchak CA et al. Am J Obstet Gynaecol 1982;144:511-518.
Zahradnicka L, Mawhin R 1971 2010

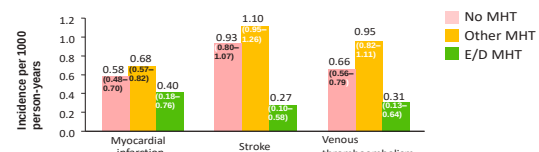
Progestins to Estrogen



M. Gambacciani et al. / Maturitas 43 (2002) 117/123

No Increased CV Risk Demonstrated with (17β estradiol/dydrogesterone)

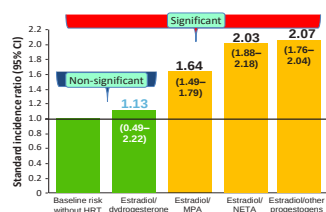
- Case-control analysis from UK-based General Practice Research Data (n=69,412)
- E/D use for several months to a few years **not** associated with higher risk of CV events vs. no MHT or use of other MHT



E/D - 17B-Estradiol + Dydrogesterone

Schneider C et al. Climacteric 2006;12:445-53.

Choice of Progestogen and Breast Cancer Risk: Finnish Cohort Study



N = 50,210 women >50 years of age
Duration = 5 yrs

Estradiol/dydrogesterone was not associated with a significant increase in risk of breast cancer

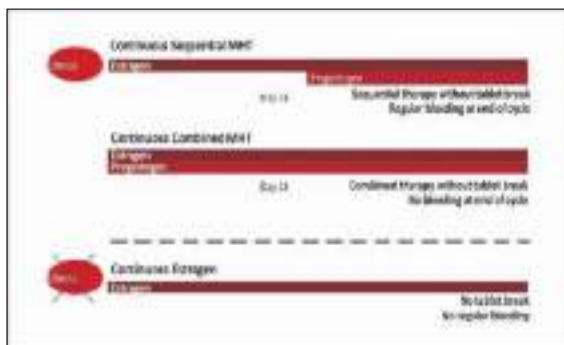
Lyttinen H et al. Obst Gyn 2006;113:65-73.

E/D - 17B-Estradiol + Dydrogesterone

Synthetic Estrogens Used For Menopausal HT

- Synthetic estrogens**: estrogenic synthetic molecules (ethinyl estradiol usually used in oral contraceptives).
- High potency with regard to adverse hepatic effects and potential secondary risks (hypertension and thromboembolic disease) but low doses used in HRT.
- Hepatic potency is 4 to 18 times higher than native estrogens.

How HT Is Given?



Challenges amore...



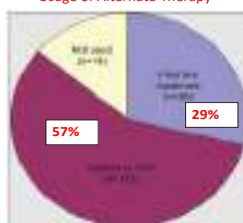
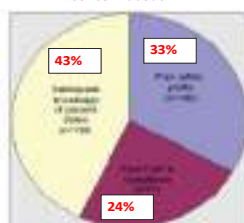
Many clinicians began avoiding hormone treatments because of the complexity of interpreting side effects in their patients.

Attitude of Gynecologists for HT prescription in India (N = 321)

- 69.04% gynecologists were currently prescribing MHT
- Hot flashes were the most common indication for MHT prescriptions
- 78.57% were familiar with controversies surrounding WHI study
- 61.9% would consider using MHT for themselves

Concern about MHT

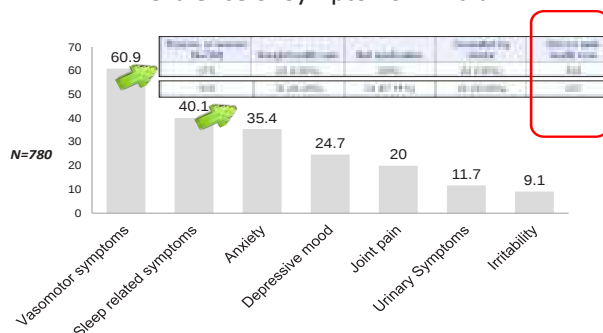
Usage of Alternate Therapy



Questionnaire concerning attitudes, management strategies, and use of HT – MGM, Jaipur

Meherishi S, Khandelwal S; Jr of Midlife Health 2012

Prevalence of Symptoms in India



Ruma Dutta et al., Journal of Clinical and Diagnostic Research. 2012 May (Suppl-2), Vol-6(4): 597-601

Are we applying what we are learning, to benefit our women ?

We really need to translate this into mass education for our lay public, whose 35 plus life is full of Myths, apprehensions and she has a great quest to find herself and she needs a friend, a mentor, a confidante, who can steer her through these very taxing years of her life.



Because one size cannot fit all...

Today the pendulum is swinging towards individualised tailored prescription for any individual.



Special situations where ERT is indicated

- Patients with premature ovarian failure
- Gonadal dygenesis
- Patients with H/o oophorectomy done in endometriosis, ovarian tumours in younger age group
- Patients having had radiotherapy & short life expectancy
- This is actually gonadal replacement therapy, yet patients are deprived of it due to fears of the patient based on knowledge acquired through incorrect sources!!!



Where is the pendulum swinging next..



Alzheimer's disease and dementia

Key points

- For women with Alzheimer's disease, MHT initiated after the onset of dementia symptoms does not benefit cognitive function or slow disease progression. [A]
- MHT initiated within 10 years of a woman's LMP is associated with reduced risk of Alzheimer's disease and dementia. [B]
- MHT using estrogen plus progestin initiated at age 65+ increases risk of dementia. [A]

Long-Term Hormone Therapy May Provide Dementia Protection

- "The protective effect of hormone therapy may depend on its timing: it may have cognitive benefits if initiated at the time of menopause when neurons are still healthy and responsive,"

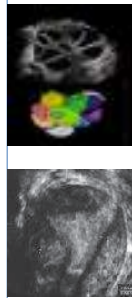
Bushra Imtiaz, M.D., MPH, Finnish study with 230,000 women with follow up upto 20yrs. 2017



The emerging role of estrogen receptor- β in human reproduction.

- Estrogen receptor (ER) regulation of reproduction is no exception.
- Estrogen and ER α play key roles in mediating several reproductive biological processes, such as myometrial and endometrial growth.
- ER β is a key mediator in folliculogenesis and may also play a role in stimulating ovulation and regulating aspects of luteinization.
- ER β is also expressed in higher quantities than ER α in the human myometrium and cervix during pregnancy, and thus it may play a part in the initiation of labor and parturition.
- Finally, ER β is the sole ER expressed within the endothelium of the endometrium and the fetoplacental vasculature, and studies suggest that its role may contribute to angiogenic and vasomotor changes that play a role in both implantation and regulation of fetoplacental blood flow.

Su EJ, Xin H et al Semin reprod med 2012



Role of estrogen receptor- β in endometriosis

- The biologically active estrogen, estradiol, aggravates the pathological processes (e.g., inflammation and growth) and the symptoms (e.g., pain) associated with endometriosis.
- Abundant quantities of estradiol are available for endometriotic tissue via several mechanisms including local aromatase expression.
- Because estrogen receptor (ER) β levels in endometriosis are >100 times higher than those in endometrial tissue



Estrogen in Men

It is really good ?

- i) It has to be in right amount.
- ii) Too high and start having a bit too much in common with female counterpart
- iii) Too low and greater risk for osteoporosis and other problem



Estrogen a new player in spermatogenesis

- Alterations of sperm number and motility have been described in men genetically deficient in aromatase, which suggest a likely role for aromatase/estrogens in the acquisition of sperm motility.
- Therefore besides gonadotrophins and testosterone, estrogens produced locally should be considered as a physiologically relevant hormone involved in the regulation of spermatogenesis and spermiogenesis.

How Beautiful ?



XI International Conference of NESOG,” April 5th-6th, 2013

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Kurian Joseph

ORATION : “Endoscopic Management on Uterine anomalies”

Dr. Kurian Joseph
M.B.B.S., M.D.
President of Asia & Oceania Federation of Obstetrics &
Gynaecology (AOFOG)
Joseph Nursing Home, Chennai



- Trained in endoscopic surgery and Nd YAG Laser surgery
- FIGO - Board member, Member program comm for Vancouver 2015
- ISGE - Board Member till 2011
- FOGSI - Vice President 2008, Organizing Chairman - AICOG 2015 at Chennai
- Delivered 12 Orations, several guest lectures
- Conducted Laparoscopic training workshops all over India, in 18 Asian countries and also some in Africa.
- Publications - Articles in several Journals and 10 Chapters in textbooks.

XIII National Conference of NESOG,” April 4th-5th, 2014

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Dr. Walfrido W. Sumpaico

ORATION : Therapeutics in PROM

Short Bio Sketch:

Professor Dr. Walfrido W. Sumpaico

Prof. Dr. Michael Stark is specialized in Obstetrics and Gynecology. His main interest is gynecological oncology. Prof. Stark is the scientific advisor of the European novel Tele-surgical system, scientific and medical advisor of the ELSAN, an 80-hospitals group in France and is a guest scientist at the Charite's University hospital in Berlin. Since 2004 he has been the President of the New European Surgical Academy (NESA), an international interdisciplinary surgical organization with members in 54 countries and a formal cooperation agreement with FIGO concerning transmission of knowledge to countries with limited resources.



In 2011, Prof. Stark was nominated as the Medico Del Anno (Doctor of the Year) in Italy, and is an Honorary Member of the French, Polish, Russian and Italian Gynecological Associations. In the years 1983-2000 he was the medical director and head of Ob/Gyn department of the Misgav Ladach General Hospital in Jerusalem, and between 2001 and 2009 the chairman of all Ob/Gyn departments of the HELIOS Hospital Group in Europe. He modified operations like the vaginal and abdominal hysterectomy and Cesarean Section and developed the concept of single-entry natural orifice surgery. He was involved in the development of the trans-oral thyroidectomy and TransDouglas abdominal surgery.

10th SAFOG and 12th NESOG

Joint International Conference April 3rd-5th, 2015

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- C.N. Purandare

ORATION : Caesarean Section Ways Ahead

Dr. Chittaranjan N. Purandare

Dr. C. N. Purandare is a dynamic leader who received training in Obstetrics and Gynecology in India and Ireland. A senior consultant Obstetrician & Gynecologist at three leading hospitals in Mumbai, he is also the honorary consultant for the Mumbai Police and the Indian Armed Force. Currently, he is the Dean of The Indian College of Obstetricians and Gynaecologists and Emeritus Editor for the Journal of Obstetrics and Gynecology of India. He has been conferred the Fellowship (Honoris Causa) by the RCOG (Royal College of Obstetricians & Gynecologists) of the U.K. in 2009, Fellowship (Honorary) by the RCPI (Royal College of Physicians of Ireland) in 2013 and Fellowship (Hon) by the American College of Obstetricians and Gynecologists 2014. Dr. Purandare is an educator par excellence with 40 years of teaching experience in Medical Colleges in India and Ireland. Passionate about Medical education, he rose through the ranks to become Unit Head in the Department of Obstetrics & Gynecology, a position that has given him a thorough knowledge of the policy issues and challenges in achieving academic excellence. Professor Purandare is a member of the Indian Council of Medical Research Core Committee and AOFOG Uro-gynecology Committee. He has regularly taken time off to meet fellow doctors and enhance his knowledge through participation as a delegate and as a faculty member in national and international conferences since 1985.

Qualification (Degree and Residency)

Degree: Obstetrics and Gynaecology from India and Ireland

Residency: RCOG (Royal College of Obstetricians & Gynaecologists) of the U.K

Specialties and Procedures

Obstetrics and Gynecology | Endoscopic Surgeries

Gynecological Surgery | Gynecology Checkup

High Risk Pregnancy Consultation | Hirsutism Treatment

Hysterectomy | Infertility

Obstetrics and Gynecology Consultation | Pelvic Floor Repair



XIV National Conference of NESOG,” April 1st-2nd, 2016

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Dr. Swaraj Rajbhandari

ORATION : IUCD: Past, Present and Future

Dr. Swaraj Rajbhandari is a highly accomplished senior obstetrician and gynaecologist with over 40 years of experience in maternal, neonatal, and reproductive health across clinical, research, and public health settings in Asia and Africa. She is an expert in developing health standards, protocols, manuals, and conducting facility assessments. A master trainer in reproductive health, Dr. Rajbhandari has educated service providers in emergency obstetric care, long-term family planning, and other reproductive health areas, with a focus on evidence-based practices.



Dr. Rajbhandari has held significant leadership roles, including Chief of Obstetrics and Gynaecology at Kathmandu Model Hospital. She served as the Reproductive Health Advisor to JHPIEGO and the Reproductive Health Team Leader for the Nepal Family Health Program (NFHP), where she led efforts to enhance maternal and neonatal care services in Nepal. She also worked as the Technical Director for the Reduction in Maternal Mortality Project in Cambodia and has contributed to Maternal health programs in Afghanistan, India, Pakistan, Bangladesh, Malawi, Indonesia, Myanmar, Laos, Fiji, Jamaica, Yemen, and more. Dr. Rajbhandari introduced Gentle Birth Method Counselling in Nepal to prepare couples for normal birth.

A founding member and past President of the Nepal Society of Obstetricians and Gynecologists (NESOG) and the Menopause Society of Nepal, Dr. Rajbhandari has published several papers and presented at numerous international conferences as an invited speaker and ORATOR. She currently works as a consultant at Helios Hospital and Sowa Health Care.

Shri Hirananda Vaidya Memorial Oration

IUCD: Past, Present and Future

Dr. Swaraj Rajbhandari

It was a great honour and privilege to be awarded the Hirananda Memorial Orator in 2016 during the Nepal Society of Obstetricians and Gynecologists Annual (NESOG) Conference. The Hirananda Memorial Oration was established nearly 25 years ago by Prof. Sanu Maiya Dali and Vaidya family. It was an innovative initiative to honor and remember our ancestors, who sowed the seeds of knowledge, skill, and intelligence—not just for their children, but for society as a whole. Their legacy has inspired many to become exemplars of these values.

Hirananda was ahead of his time, particularly during an era when educating girls was a significant challenge. Despite this, he demonstrated great courage by ensuring that all his children and grandchildren received an education, and many of them have gone on to make valuable contributions to society and the country. His service to underprivileged and deprived families was truly commendable.

Awards like these not only instil confidence but also encourage us to continue working for the betterment of women's health, especially for those in need.

IUCD: Past, Present and Future

Objectives

intrauterine contraceptive devices (IUCDs) are one of the most effective, safe, and economical methods of contraception today. this article shall review the most frequently used IUCDs as well as newly developed IUCDs appearing on the market, its cost effectiveness, indications and contraindications for IUCD use, and complications with the use of the IUCD.

Introduction

IUCD is one of the most widely used, long-acting reversible contraceptive methods in the world. Among all married women of reproductive age IUCD use is highest in China (where 33% of all married women use IUCDs, as well as the Scandinavian countries (18%), Asian nations (13%) and the Near East and North Africa (12%). Approximately seven percent of all married European and Russian women and about five percent of women from Australia and New Zealand rely on the IUCD as a method of contraception. Overall IUCD use is lowest in Northern America (1.5%) and sub-Saharan Africa (0.8%). These figures reveal that IUSCs remain under utilized, especially in Northern America, Oceania, south Asia and sub-Saharan Africa, in spite of the IUCD's many benefits.¹ In Nepal only 1.3 percent of currently married women of reproductive age were using IUCD.²

IUCD used currently worldwide

Currently, second generation copper bearing and third generation steroid medicated devices are commonly used IUCDs. First generation plastic is no longer in use. Series of copper bearing T and Multiload (ML) were introduced. But the gold standard is the TCu-390A.³ LNG-IUS^{4,5} is another common IUCD in steroid medicated.

Newly invented IUD

Several new intrauterine devices (IUCDs) are under development or in the early marketing phase⁶ to address easier insertion and removal, to decrease the rates of accidental expulsion and to reduce complaints of pain or bleeding (responsible for 30% to 50% of discontinuations. These devices include (a) Cusafe⁸ 300, (b) Fincoind⁹-350, GyneFixa,^{10,11} d) Intracervical fixing device (ICFD), e) Sof-T and f) Multiload Mark II.

Emergency contraception

IUCD is much more effective than either type of emergency contraceptive pill “morning after pill” because it reduces the risk of getting pregnant by more than 9¹² another advantage is that it can prevent pregnancy for up to twelve years.

Cost effectiveness

IUCD is 20 times more effective than the pill at preventing pregnancy, and making the cheapest reversible contraception available.

Indications and contradictions for IUD use

Like other contraceptive methods the IUCDs are not indicated for all women at times. the contraindications are absolute or relative.

Complications

Several complications have been described with the use of the IUCD. Uterine perforation,^{12, 13} pregnancy with IUCD,¹⁴ pelvic inflammatory disease,¹⁵ expulsion the IUCD,^{16,17} fertility problems^{18,19} and carcinogenicity.^{20,21}

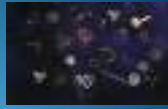
Conclusion

The positive effects may well overcome barriers to IUD provision, rid the device its tainted image and lead to expanded reproductive health choices. Investigation are working on improving existing models aimed to decrease removals for pain and bleeding, make insertion and removal easier, and limit the risk of expulsion, which may also reach the market in the near future.



IUCD: PAST, PRESENT and FUTURE

Shri Hirananda Memorial Oration
Orator
Dr. Swaraj Rajbhandari
NESOG Conference, April 2016



The History of IUCDs



- Unconfirmed stories of stones placed within the uteri of camels prior to long desert crossings
- Hippocrates credited with noting that intrauterine bodies were associated with lack of fertility
- First precursor of modern IUD is stem pessaries
- 1909 Richard Richter, used a silkworm-gut string in a loop for contraception
- 1929, Ernst Grafenberg wound silver wire around a silkworm gut ring
- 1934, Tenry Ota experimented with silver, gold, and plastic models
- 1959, increased acceptance after reports by Oppenheimer (Israel) and Ishihama (Japan) showed efficacy with low complication rates

Edelman, 1979

First generation IUCD: Plastic devices

- Margulies developed the Gynecoil in 1960 which introduced many standard features of modern IUDs:
 - extended through cervix for easy removal
 - made of polyethylene, the standard material for modern IUDs
 - Barium incorporated into plastic
 - Plastic tube for insertion
- Lippes loop introduced "strings" in 1962
 - The most widely used IUD around the globe for two decades



The Downfall of IUCDs: The Dalkon Shield



- Developed by Dr. Hugh Davis in 1971
- Bug shaped, multifilament tail
- Associated with septic abortion
 - 18 deaths attributed to Dalkon Shield
 - 5-fold increased risk of PID compared to other IUDs
- Class action lawsuit led to bankruptcy of the manufacturer, AH Robbins

Second generation IUCDs: Copper bearing devices



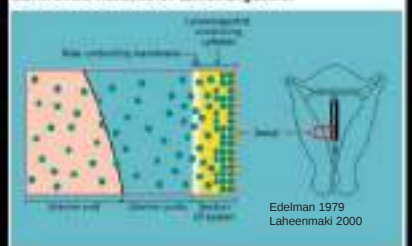
- 1969 – Dr. Jamie Zipper and Dr. Howard Tatum developed first copper bearing IUCD, TCu200
- 1974 – Dr. Willem van Os invented multiloop (ML) IUCD, MLCu-250 (3 years) and MLCu-375 (5 years). designed to reduce the incidence of expulsion. available in three sizes (standard, mini and short)
- Dr. Tatum developed series of copper bearing T devices - TCu220C, TCu-380A, TCu-200-Ag (1978), TCu-380Ag (1990), TCu380S (slimline)

Third generation IUCDs: Steroid-medicated devices

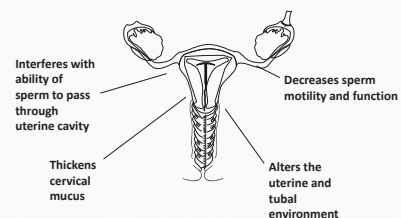
- 1960 – Dr. Antonio Scommegna, T shaped device consisting of a permeable polymer membrane, which releases progesterone at a predictable, controlled rate of 65mg/24hr over the period of a year.
- LNG-IUS - T-shaped polyethylene device with a steroid reservoir around the vertical stem (5 years).
- Mirena and Skyla (53 mg releases 20 mcg per day and 13.5 mg- releases 14 mcgper day)



Controlled Release of Levonorgestrel



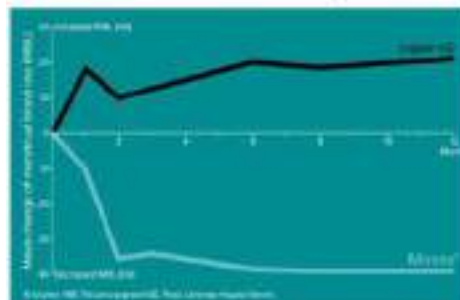
Mechanisms of Action



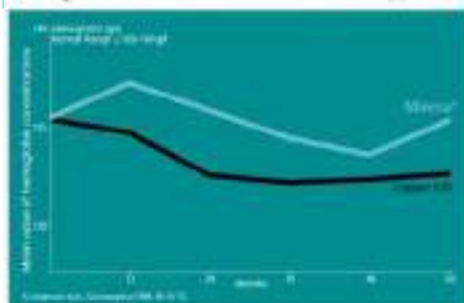
Noncontraceptive benefits of IUCDs

- Treatment of menorrhagia
- Improved anemia
- Improved dysmenorrhea
- Treatment of pelvic pain associated with endometriosis
- Endometrial protection during hormone replacement in peri and post menopausal women
- Endometrial protection against hyperplasia in patients at risk
- Use in women with medical comorbidities and contraindications to other systemic contraceptives

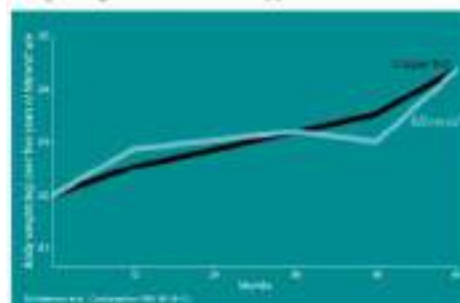
Menstrual Blood Loss: Mirena® vs. Copper IUD®



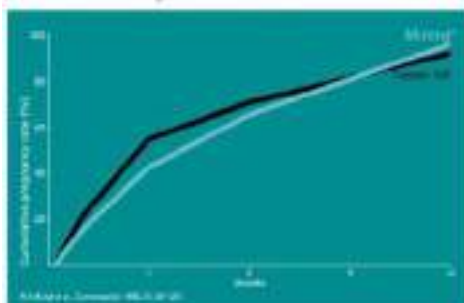
Hemoglobin Concentrations: Mirena® vs. Copper IUD®



Body Weight: Mirena® vs. Copper IUD®



Return of Fertility After Removal®



IUCD is better Emergency Contraceptive

- 99.9% effective for EC
- Cost effective if used for 4+ months
- copper IUCDs can be inserted up to 5 days after ovulation to prevent pregnancy
- WHO guidelines allow IUCDs to be inserted up to day 12 of the cycle
- More than 7,000 postcoital insertions of copper-bearing IUCDs have been reported in the literature. With only 10 known failures, this approach has a pregnancy rate of 0.1%.

Cheng L, Cochrane Database Syst Rev 2008. ACOG Practice Bulletin. Obstet Gynecol 2005;106:1443-52.

Side Effect Profile

Side effect	Three months % of women rep. side effects	Fifth year % of women rep. side effects
Lower abdominal pain	10.5	2.0
Acne or other skin problems	3.5	1.8
Back pain	3.1	1.0
Mastalgia	3.1	1.0
Headache	2.8	1.6
Mood changes	2.5	0.6
Nausea	2.4	0.3

Andersson et al., Contraception 1994, 49:56-72

Discontinuation Due to Genital Infection

Infection	Copper IUCD Gross Cumulative discontinuation rates at 5 years	Mirena	p value
PID	2.2	0.8	<0.01
Endometritis	4.0	1.5	<0.007
Cervicitis	1.1	0.6	<0.3
Colpitis	1.8	0.7	<0.1

Leiras study report 1208, 1991

Adverse Effects

- Expulsion, perforation, malposition
- Heavy Bleeding per vagina in initial months
- Functional ovarian cysts more common – usually asymptomatic
- High incidence of infection in first three weeks

Expulsion of IUCDs

- Most common during 1st or 2nd menses after insertion
- Unnoticed expulsion causes 1/3 of pregnancies in the first IUCD year
- GynFix appears to have solved this problem



Uterine perforation by IUCD

- Although rare, this is most serious complication of an IUCD
- Most perforation first present as “lost threads”
- If device is bioactive – leads to adhesion formation – may penetrate bowel or bladder
- Removal is indicated as soon as diagnosed, either by laparoscope or may require laparotomy
- Occurs with frequency of 1 in 1000
 - Insertion during the puerperium (wrong timing)
 - Push technique insertions
 - Operator experience; proper assessment of the uterus

Missing threads

- IUCD users with lost threads are either already pregnant or at increased risk of pregnancy
- IUCD
 - Will be in the uterus
 - Or will have perforated the uterus
- Establish whether pregnant and if so manage accordingly
- If not pregnant – remove and replace the IUCD

Pregnancy with the IUCD

- Exclude ectopic pregnancy
- Do USG, if thread is above the sac leave, below the sac remove
- If the IUCD cannot be removed, woman has to have special obstetric care because of the increased risk of
 - Spontaneous abortion
 - Septic abortion in second trimester
 - Risk of premature birth
 - Decreased likelihood of live birth
 - NO EVIDENCE OF FETAL ANOMALIES

WHO'S FOUR MEC CLASSIFICATION CATEGORIES

Classification Category	With Clinical Judgment	With Limited Clinical Judgment
1	No restriction: Use method in any circumstances	Yes Use the method
2	Generally use: benefits generally outweigh risks	Yes Use the method
3	Generally do not use: risks outweigh benefits	No Do not use the method
4	Unacceptable health risk: method not to be used	No Do not use the method

IUCDs: Who Should Not Use (WHO Category 4)

IUCD should not be inserted if a woman:

- Is pregnant
- Has puerperal sepsis or post-septic abortion
- Has a distorted uterine cavity
- Has current PID, gonorrhea, or chlamydia*
- Has current purulent cervical discharge*

* Category 2 for continuation while undergoing evaluation and treatment

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IUCDs: Who Should Not Use (WHO Category 4) (cont.)

IUCDs should not be inserted if a woman has:

- Malignant trophoblast disease
- Known pelvic tuberculosis
- Unexplained vaginal bleeding (until the cause is determined and any serious problems are treated)*
- Cervical or endometrial cancer*

* Category 2 for continuation while undergoing evaluation

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IUCDs: Who Should Generally Not Use (WHO Category 3)

IUCD insertion is not recommended—unless other methods are not available or acceptable—if a woman has:

- AIDS, but is not on antiretroviral (ARV) therapy*
- A “very high individual risk” of gonorrhea or chlamydia (e.g., recent STI, multiple partners, partner with symptoms of STI)*

* Category 2 for continuation

25

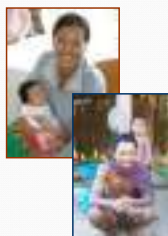
IUCDs: Who Can Generally Use (WHO Category 2)

Women with the following conditions can generally use the IUCD but may require additional care/follow-up:

- Anemia
- Heavy, prolonged, or painful menstrual periods
- Simple vaginal infection (candidiasis or bacterial vaginosis) without purulent discharge; certain STIs (other than gonorrhea or chlamydia)
- Risk of certain STIs (other than gonorrhea or chlamydia), including HIV (but should also use condoms for protection)

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Positive method characteristics of IUCDs



- Highly effective
- Effective for > 12 years
- When removed, immediate return to fertility
- Prevents fertilization (is not an abortifacient)
- Many levels of provider can provide IUCDs safely and well
- Almost all women can use an IUCD

IUCD in Postpartum Period



- OPPORTUNITIES ARE LIKE SUNRISES. IF YOU WAIT TOO LONG, YOU MISS THEM.

Timing of Postpartum IUCD Insertion

- IUCDs can be inserted postpartum
 - Right after birth = Postplacental (10 minutes after placenta)
 - Soon after birth = Immediate postpartum (< 48 hours after delivery)
 - During cesarean section = Intracesean
 - Four or more weeks postpartum
- IUCDs should NOT be inserted between 48 hrs and 4 weeks



Systematic Review of Postpartum IUCD

- Identified 15 articles of poor to fair quality
- Outcomes from copper IUCD insertions
 - Postpartum time period compared to other time intervals
 - Routes of postpartum insertion (vaginal or via hysterotomy)
 - No studies of levonorgestrel IUCDs were identified
- Immediate IUCD insertion is safe
- Lower Expulsion Rates
 - Immediate insertion compared to delayed postpartum insertion
 - Interval insertion compared to immediate postpartum
 - Postplacental placement during cesarean delivery compared to postplacental vaginal insertion

Kapp and Curtis. *Contraception* 2009;80:327-336

IUCD at Cesarean Delivery

	2 days	6 weeks	6 months	12 months
Reasons for				
Bleeding from	0.0	0.0	4.1	0.2
Other medical reasons	0.0	0.4	1.2	2.4
Planned pregnancy	0.0	0.4	1.3	0.9
Personal reasons	0.0	0.0	1.2	2.4
Unplanned pregnancy	0.0	0.0	0.0	0.4
Expulsion rate	1.2	3.3	10.6	17.8
Continuation rate	98.8	96.7	89.4	82.2

Values are gross cumulative event rates per 100 users up to 12 months.

Chen S et al. *Contraception* 2011;84:240-3.

No difference between hand and forceps insertions

- RCT of postplacental insertion of Cu T380A IUCD in 13 centers in Shanghai
 - 470 had hand insertion, 440 had ring forceps insertion
- Expulsion rates per 100 women: 13.3 for hand insertion, 12.7 for forceps at 6 months
- No perforations or infections
- Difference in expulsion rates by center
 - May reflect difference in experience

Xu et al. *Contraception* 1996

Postabortion IUCD

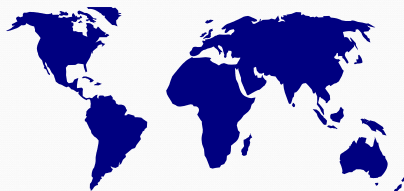
- Most women motivated to contracept
- Potential for effective long-term reversible contraception in a population with proven fertility
- Easy to place
 - Os open; essentially painless
- Short-term questions:
 - Risk of expulsion?
 - Leaving women without contraception
 - Is it a waste of resources?
 - Risk of infection? Is it dangerous?
- Long-term questions:
 - Is it as efficacious? Unforeseen sequelae?

Copper IUCD Use by Young, Nulliparous Women

- Sweden, 1979, N=243, followed 6 mos
 - Continuation: 56%
 - Bleeding/pain removal: 24%
 - Expulsion: 20%
- Canada, 1980, N=296, followed 5 years
 - Continuation: 55%
 - Bleeding/pain removal: 20%
 - Expulsion: 14%
- Spain, 1996, N=525, followed 4 years
 - Continuation: 60%
 - Bleeding/pain removal: 10%
 - Expulsion: 22%

IUCDs Around the World

163 million users worldwide



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IUCD users around the world

Of all married women use IUCDs

- China – 33%, highest
- Scandinavian countries – 18%,
- Asian nations and the Near East – 13%
- North Africa – 12%
- European and Russian – 7% (approximately)
- Australia and New Zealand – 5%
- Northern America (5.5%) and sub-Saharan Africa (0.8%), lowest



USAID, WHO, Marie Stopes International: Long term contraceptive protection, discontinuation and switching behaviours. IUD use dynamics in 14 countries. Mohamed M. Ali1, Rachael K. Sadler1, John Cleland2, Thoi D. Ngo3 and Iqbal H. Shah4

Many Medical Barriers to IUCD Use

Provider bias against IUCD

▪ Limitations on level of provider allowed to provide the IUCD

▪ Unjustified medical eligibility restrictions

- Age ("Not for the young")
- Parity ("Must have a child")
- "Must be menstruating"
- "Must be married"
- "Cannot be post-partum or post-abortion"
- "Cannot be HIV-positive, or have AIDS"



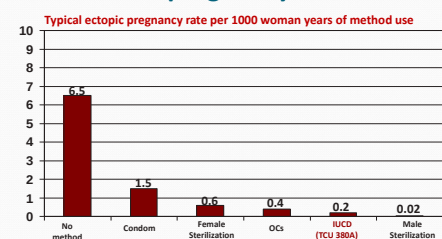
Types of Common Medical Barriers

- Process hurdles
 - Mandatory and unnecessary routine F/U
 - Marriage/spousal consent requirements
- Unsubstantiated "contraindications" (e.g., exaggerated/disproportionate fear of pregnancy or of STIs), operationalized, e.g., as
 - "Can't have vaginal discharge"
 - "IUCD not good for HIV+ women"
 - "IUCD not suitable for Africa"

Other common provider concerns about IUCDs

- How to rule out pregnancy in low-resource settings?
 - Checklists and algorithms (WHO *Global FP Handbook*)
- Should prophylactic antibiotics be given at insertion?
 - WHO, *Selected Practice Recommendations (SPR)*:
 - "Prophylactic antibiotics **generally not recommended** for IUCD insertion"
- Does the IUCD cause or worsen anemia?
 - Generally not: with Copper IUCDs blood loss is largely unaffected

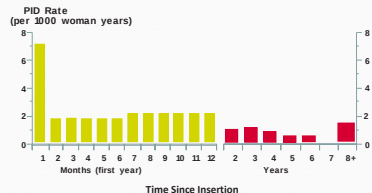
IUCD use greatly reduces ectopic pregnancy



Adapted from: Silver 1991, in FHI 2008

Risk of pelvic inflammatory disease (PID) with IUCD is low

PID Incidence Rate by Time Since Insertion



Source: Farley et al., 1992, in FHI 2008

THE IUCD IS NOT ASSOCIATED WITH INFERTILITY

- Study of nulligravid infertile and primigravid (fertile) women (in Mexico)
 - Had same patterns of previous IUCD use
 - Infertile women had twice the level of antibodies to Chlamydia that fertile women had
- Conclusions:
 - "culprit" (cause) of infertility is *Chlamydia trachomatis* (and *Gonococcus*), not the IUCD
 - Any link between IUCD and infertility is "immeasurable" and "not of public health significance"

* Hubacher et al., N Engl J Med 2001

IUCD use by HIV-infected women is safe for them and their partner

- Comparison of women who were HIV-infected with women who were not infected found that they had the same and very **low rates** of complications:
 - Infectious (0.2-2%)
 - Overall (7-10%)
- Cervical shedding of HIV not increased with IUCD use
- Conclusions:
 - "HIV does not appear to increase risk of IUCD-related adverse events, including PID"
 - "IUCD use by HIV+ women appears safe for their HIV-negative partner"

Sinei et al, Lancet, 1998
Richardson et al, AIDS 1999
Morrison et al., Br J Obstet Gynaecol 2001

Latest WHO Medical Eligibility Criteria: HIV/AIDS and Use of IUCDs

	2 nd Ed. (1996) Category	5 th Ed. (2015) Category	
		Initiation	Continuation
HIV/AIDS			
High Risk of HIV	3	2	2
HIV-infected	3	2	2
AIDS	3	3	2
AIDS, clinically well on ARV therapy		2	2

SEXUALLY TRANSMITTED INFECTIONS (STIs) AND USE OF IUCDS

STIs	2 nd Ed. (1996) Category	5 th Edition (2015) Category	
		Initiation	Continuation
Increased (general) risk of STIs	3	2	2
High individual risk of STIs		3	2
Other STIs (excluding HIV and hepatitis)		2	2
Current purulent cervicitis or chlamydial infection or gonorrhea	4	4	2

Comparative Effectiveness and Continuation

Method	Failure Rates (unintended pregnancy)		Continuation at 1 year
	Typical Use	Perfect Use	
No Method	85%	85%	
Withdrawal	27%	4%	43%
Standard Days Method		5%	51%
Male condom	15%	2%	53%
COCs / POPs	8%	0.3%	68%
DMPA	3%	0.3%	56%
CuT380A	0.8%	0.6%	80%
Mirena	0.2%	0.2%	87%
Implanon	0.05%	0.05%	84%
Female Sterilization	0.5%	0.5%	100%
Male Sterilization	0.15%	0.10%	100%

Source: Trussell J. Contraceptive efficacy. In Hatcher RA, et al. Contraceptive Technology: Nineteenth Revised Edition. New York NY: Ardent Media, 2015.

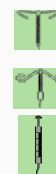
IUCD: Cost Effectiveness

- Copper IUCD costs around £10 and lasts for 10 years, in contrast to an IUS that costs around £80 and lasts 5 years
- Of these 48% had a clear indication for IUS e.g heavy menstrual bleeding, previous intolerance of IUCD, endometriosis, pelvic pain and metal allergy
- Significant cost savings to the National Health Service if clients selected properly and counseled well.
- In Nepal, Government is buying in public sector cost is around NRs 280

Future IUCDS in research phase

Some devices are under development, or have recently been introduced. These devices include

- CuSafe 300 - developed specifically to decrease the incidence of unwanted side effects such as bleeding, pain and expulsion
- Fincoi-350 - designed to resist accidental expulsion
- GyneFixa - To minimize failure and side effects of intrauterine devices (IUCDs), especially abnormal bleeding, pain, partial and complete expulsion, and other complications due to disharmony



What Does Future Hold? Contd...

- d) Intracervical fixing device (ICFD) - to prevent expulsions and less likely to be associated with spotting, bleeding and pain
- e) Sof-T - can reduce the incidence of tubal infection and ectopic pregnancy
- f) Multiload Mark II - low patient cessation rates due to pregnancy, expulsion or bleeding and pain



A leap forward



- **"Intrauterine Ball"** as a means to slow-release not only copper ions or hormones, but potentially other medications that help to treat chronic conditions.
- A **"Frameless IUCD"** made in Belgium, is seen by its designer as having **similar potential**.
- An **"IUCD in China"** gives off very small amounts of indomethacin, an anti-inflammatory.

In sum, WHO guidance: IUCDs are very safe for almost all women

- Categories of women for whom IUCDs are safe:
 - Postpartum
 - Postabortion
 - Women who wish to space or delay
 - Women who want no more children
 - Breastfeeding
 - HIV-infected
 - Younger / older
 - Married / unmarried
 - Nulliparous



Conclusion

- IUCDs have been extensively used as a cheap, effective, reversible and dependable method for controlling fertility in women
- LNG IUS is the appropriate choice for women with heavy periods
- The "frameless" intrauterine system may offer advantages over framed devices but only when problems with expulsion in routine use can be overcome.
- New IUCDs are being designed with modifications to help enhance patient and physician acceptance
- CuT380A remains the "gold standard" copper device, offering the best protection against pregnancy

THANK YOU



Plan for your future, Dreams come True

1/18/2026

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XIII International Conference of NESOG, April 7th-8th, 2017

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Sir Sabaratnam Arulkumaran

ORATION : “Clinical Standards in Obstetrics”

Professor Sir Sabaratnam Arulkumaran

- Professor Emeritus of Obstetrics and Gynaecology, St. George's University of London from 2013 -previously Head of department 2001 -2013.
- Foundation Professor of O&G, University of Nicosia; 2013- to date
- Visiting professor, Institute of Global Health Innovation, Imperial College; 2013- to date
- Past President of the world body FIGO (International Federation of Obstetrics & Gynaecology) 2012 -2015; British Medical Association= 2013- 2014; Royal College of Obstetricians and Gynaecologists -2007-2010.
- Author of over 300 indexed publications, Editor/ author of 32 books and over 200 book chapters



Honours.

- Recipient of Visiting Professorships – Australia, India, Malaysia, Singapore, Japan, USA & Canada
- Received Honorary fellowships from the American, Sri Lankan, South African, Pakistan, Indian, Australian & NZ Colleges of O&G and Hon Member of the Canadian, Malaysian, German, Italian, Spanish, Japanese and South African Societies
- Hon Doctor of Science – University of Athens - Greece, Colombo – Sri Lanka, Lund, Sweden, Odessa, Ukraine, St George's University of London
- Hon Fellow of the Institute of Medicine, National Academy of Sciences, USA

National Honours

- UK - Knight Bachelor in recognition of Services to Medicine by the Queen in her Birthday Honours List – June 2009
- Sri Lanka Ranjana National award -2019
- Cyprus - Active citizen award – 2019



ORATION

"Shree Hira Nanda Vaidya Oration"

Clinical standards in Obstetrics Sabaratnam Arulkumaran.UK

Email: sarulkun@sgul.ac.uk

Standards refers to the delivery of quality service.

This needs to be assessed by the audit of structure, process and outcome. The structure refers to the place and ambience where the care is delivered and the presence, efficiency and caring attitude of the staff. The process is assessed by the effective delivery of care based on evidence based guidelines to the satisfaction of the mother. The outcome measure refers to the maternal and fetal neonatal outcome at the end of pregnancy, labour and puerperium. In the UK the structural and functional needs to achieve quality standards are captured by 30 'maternity standards' produced jointly by the RCOG, RCM, RCA and RCPCH. Processes are guided by clinical Guide Lines such as the Green top guidelines produced by the RCOG and the National guidelines produced by the National institute of clinical excellence (NICE). The outcome measures for the whole country are based on Confidential inquiry into maternal and peri- natal morbidities by UKOSS and into maternal mortalities by CEMD which are published every three years as the 'Saving mothers report. Individual hospitals monitor selected features of structure, process and outcomes by maintaining a monthly review in the form of a color coded Maternity dashboard. Audit of Quality outcome indicators of morbidity is done at the National level by making use of the 'Hospital episode statistics'. The European board and college has recommended the following intrapartum quality indicators for individual institutions; 1. Number of babies born and women delivered - this provides the work load and is used as the denominator. 2. Women with induction of labor this is a process indicator which has impact on outcome such as operative deliveries. 3. Women delivered <37 weeks and <34 weeks - as it impacts on other clinical outcome indicators such as NNU admission and duration of the stay. 4. Total Caesarean section rates is captured as a process measure including the numbers under Robson's classification of category 1,2 and 5 as these are the largest contributors of total CS rate and resources may have to be spent to reduce rising CS rate. 5. Instrumental vaginal delivery rates provides a process measure. 6. Women admitted to intensive care unit as outcome measures. 7. NICU admission of babies >37 weeks as outcome measures. 8. 3rd and 4th degree tears and massive PPH (>1000 mls) as morbidity outcome measures. 9. Term still births as outcome measures. To this the service delivery aspect can be added as patient satisfaction survey, monitoring of complaints and risk incidents. In summary, the clinical standards are more than provision of care based on guidelines looking at clinical outcomes - it consists of safety and quality and can be best delivered by following a Clinical Governance' frame work.

Clinical Standards in Obstetrics

Shree Hira Nanda Vaidya Oration

S Arulkumaran – Professor Emeritus of Obstetrics & Gynaecology
St George's University of London



SHREE HIRANANDA VAIDYA MEMORIAL LECTURE

- Late Shree Hirananda Vaidya was a reputed Medical Practitioner and specially known for his surgical skills, particularly at a time when modern Medicine was still in infancy in Nepal.
- He was very popular amongst the patients, poor and rich alike, during his career spanning more than 4 decades since 1930's.
- He also had a distinct honour of attending to His Majesty, Late King Tribhuvan Bir Bikram Shah Dev many a times . He always believed that medical practice was a continuing learning process and kept himself updated through available medical literature.

SHREE HIRANANDA VAIDYA MEMORIAL LECTURE

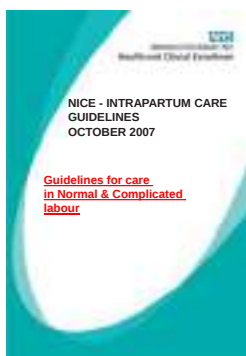
- A Strong Advocate of Education of Girl child, he encouraged his own children to pursue higher education and never lost an opportunity of his medical visits to convince parents & guardians that education of girls was a national need.
- The patients he served in poor communities, still remember him as a savior at all times of medical need.
- Late Shree Hirananda Vaidya was a true philanthropist. He had four daughters and one son.
- Nepal Society of Obstetricians and Gynaecologists (NESOG) is very happy to have established this Memorial lecture with a Medal sponsored by his family Members
- Acknowledgements – Professors Archana Amatya, Sanumaiya Dali and family

Quality Standard of Restaurant – Michelin Star Structure > Process > Outcome

- | | |
|---|---|
| • Ambience – external and internal appearance | S |
| • Cleanliness/ not noisy/appropriate temperature | S |
| • Receptive and Friendly staff | P |
| • Prompt attention | P |
| • Menu with reasonable choices explained | P |
| • Expeditious service | P |
| • Food of adequate quantity and excellent quality | O |
| • Reasonable price | O |
| • Good feed back | A |
| • Likely to come back + recommend highly to friends | A |

Quality Standards of Care should be assessed by audit of Structure, Process & Outcome

- Provision of care based on recommended **Standards (Structure)** – RCOG
- Adherence to Clinical **Guide Lines (Process)** – Green top by the RCOG + NICE
- Adaption of recommendations based on **Confidential inquiry into morbidities – UKOSS and into mortalities – CEMD (outcome)** – Saving mothers
- Confidential inquiries into still births and deaths in infancy (outcome)– CESDI
- Audit of Quality indicators (**outcomes**)– At National level
- Monthly review by Clinical dashboards – Maternity dashboard (**structure/ process & outcome**)
- Definitions and meaning of each of these activities



GUIDELINES PROVIDE EVIDENCE BASE FOR TREATMENT OF SPECIFIC CONDITIONS (PROCESS)

Unifies practise and promotes team work.

Deviations should be documented with reasoning.

Practice against the set guidelines should be audited at regular intervals

GREEN TOP GUIDELINES OF THE RCOG

Standards in Safer Child Birth, Maternity Care & Gynaecology STANDARDS ARE ADVICE ON PROVIDING QUALITY CARE



Delivering appropriate choice and support for vulnerable users in a consistent and effective way

6. Pre-existing medical conditions in pregnancy

Rationale

Mothers with pre-existing medical conditions are at a higher risk of serious complications and morbidity. Modifications of care will ensure a plan of care to be provided by an appropriate and specialist team in order to optimise and improve outcomes.

- 6.1 Staff working with women in the pre-conception and antenatal period should be competent in recognising, advising and referring women who would benefit from more specialist services.
- 6.2 Women with complex medical conditions must be offered assessment by a consultant obstetrician. These conditions include epilepsy, neurological disorders, diabetes, congenital or known acquired cardiac disease, autoimmune disorders, obesity (BMI 30 or more), severe pre-existing or post-natal health disorder and any condition for which they are under specialist specialist medical review.
- 6.3 A system of close informal partnership should be established so that pregnant women who require additional care are managed and treated by the appropriate specialist teams, including appropriate assessment when problems are identified.

POOR INTRAPARTUM OUTCOMES

BABY

- Asphyxia - Poor IP Fetal Surveillance (stability, delay in treatment, failure to recognise fetal distress)

- Tracheal obstruction, delay in treatment

- Neonatal shoulder dystocia

- Mortality

- Morbidity

- Difficulties

- POOR

- Mortality

- Child Birth

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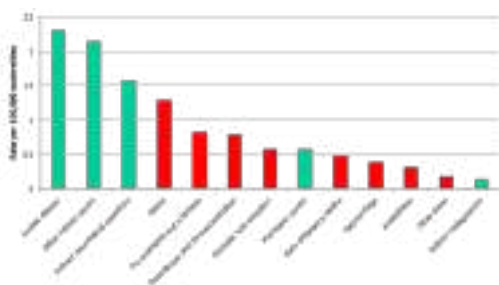
- Child Birth

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LEADING CAUSES OF MATERNAL DEATH



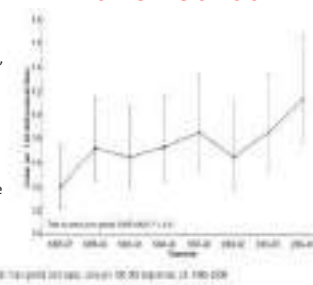
DEATHS DUE TO SEPSIS

Previous trienniums

Guidelines on hypertensive disease, Obesity, DVT & PE

To enhance quality of care - clinical Guidelines are needed to improve Process & Outcomes

In addition good practice advice are also needed



A sepsis-related infection (LAI) among 11 women: severe sepsis with acute organ dysfunction has a mortality rate of 20 to 40% while sepsis in 60% of sepsis shock develops. Studies in the non-pregnant population have found that the sepsis-related mortality rate is related to early recognition and initiation of treatment.

SEPSIS
SEVERE SEPSIS
SEPTIC SHOCK

Massive PPH - Surgical Techniques Near Miss Enquiries – Scotland Implementation of new techniques

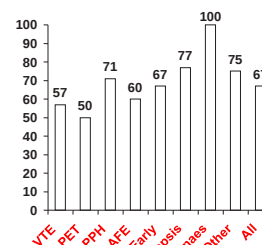
- Use of Balloon techniques – 6 in '03; 42 in '06
- Compression sutures – 10 in '03; 24 in '06
- Over 4 years; 106 balloon techniques – 95% success rate; 76 brace sutures – 83% success rate
- Peripartum hysterectomy – 15% in 2003; 8% in 2006
- Avoidable delay in diagnosis & management – 8%
- Failure to follow protocol/plan – 6%

Scottish Near Miss Survey - 2014

Table 1: Use of haemostatic surgical procedures among 339 women with major obstetric haemorrhage, 2012

Procedures	Women undergoing procedure	Successful (hysterectomy avoided)
	Number (%)	Number (%)
Intra-uterine balloon tamponade	82 (24.2)	75 (91)
Uterine artery embolisation (interventional radiology)	11 (3.2)	8 (80)
Bilateral ligation of uterine arteries	3 (0.8)	3 (100)
Bilateral ligation of internal iliac arteries	2 (0.6)	1 (50)
Haemostatic brace uterine suturing (e.g. B-Lynch)	21 (6.2)	16 (76)
Hysterectomy	20 (5.9)	

Why do mothers die? CLINICAL Guidelines alone is not adequate!!! 60-70 % substandard care (direct deaths)
Introduction of Good practice guidelines

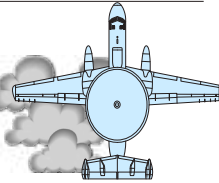


6 out of 10 cases – Lack of Consultant Obstetrician's input - expansion is needed to improve safety, quality, satisfaction & training

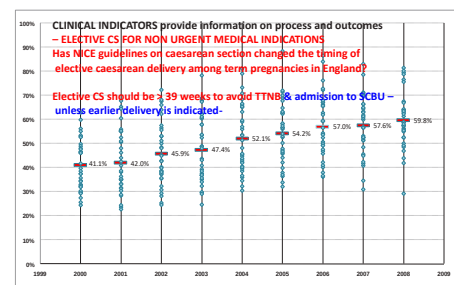


Morbidity & Mortality increases without direct care & supervision

- Remote surveillance may lead to more morbidity
- Consultant Presence would improve quality and safety - patient confidence and training
- Analogy – Pilot & Trainee – Maternity services most times staffed by trainee doctor

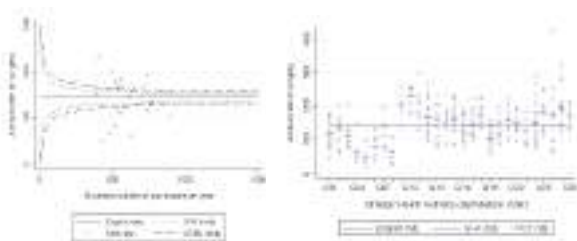


Good Practice Guidelines & audit of recommended standards

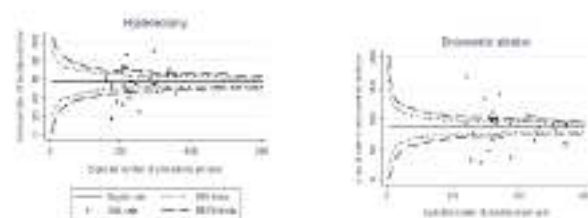


Proportion of rate of elective caesarean sections performed after 39 weeks in NHS trusts between April 2000 and February 2009, by financial year. Overall proportion for all women is shown as bars (and values) for comparison.

Quality Indicator: Surgery for heavy menstrual bleeding within English regions
Variation in rates of endometrial ablation and hysterectomy



Menstrual Disorders

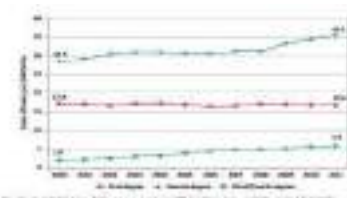


The OASIs Care Bundle

A joint project between the
Royal College of Obstetricians and Gynaecologists
and the Royal College of Midwives

Incidence of OASIs

Rates of reported OASI among primiparous women who had a singleton, term, cephalic, vaginal birth tripled in England from 1.8 to 5.9% from 2000 to 2012¹



¹Groer-Urgand I, Cromwell DA, Edrington LC, Mahmood TA, Adams EJ, Richmond DH, Templeton A, van der Meulen JH. Third- and fourth-degree perineal tears among primiparous women in England between 2000 and 2012: time trends and risk factors. BJOG. 2013; 120:1516-1525.

Incidence of OASIs

- OASI rates continue to rise for assisted vaginal births¹

		National rate of OASI (11/12)	National rate of OASI (13/14)
Unassisted vaginal birth	Primiparous	4%	4% (2 to 8%)
	Multiparous	1.4%	1.5% (0 to 3%)
Assisted vaginal birth	Primiparous	6.9%	7.3% (2 to 15%)
	Multiparous	2.5%	4.8% (0 to 22%)
Episiotomy w/ assisted birth	Primiparous	82.5%	84.1% (41 to 100%)
	Multiparous	70.9%	71.7% (37 to 92%)
Episiotomy w/ assisted birth	Forceps	87.1%	88.7% (41 to 99%)
	Vacuum	71.4%	71.7% (37 to 89%)

¹*13/14 data are preliminary and results will not be publically available until Autumn 2015

Obstet Gynecol. 2010 Oct;116(4):901-8. doi: 10.1097/AOG.0b013e3181eda77a.

A multicenter interventional program to reduce the incidence of anal sphincter tears.

Hals E¹, Qian P, Pirhonen T, Gissler M, Hjelte S, Nilsen EB, Severinsen AM, Solsletten C, Hartvig T, Pirhonen J.

Author information

Abstract

OBJECTIVE:

In Norway, we have experienced a gradual increase in the incidence of obstetric anal sphincter injuries from under 1% in the late 1960s to 4.3% in 2004. This study was aimed to assess whether an interventional program causes a decrease in the frequency of anal sphincter tears.

METHODS:

In all, 40,152 vaginal deliveries between 2003 and 2009 were enrolled in the interventional cohort study from four Norwegian obstetric departments. The focus of the intervention was on manual assistance during the final part of the second stage of labor. Data were analyzed in relation to occurrence of obstetric anal sphincter tears.

RESULTS:

The proportion of parturients with anal sphincter tears decreased from 4.5% to 1.2% during the study period in all four hospitals ($P < .001$). The tears associated with both noninstrumental and instrumental deliveries decreased dramatically. The number of patients with grades 3 and 4 anal sphincter ruptures decreased significantly, and the reduction was most pronounced in grade 4 tears (63.5%) and least in 3c tears (47.5%) (both $P < .001$). The number of episiotomies increased in two hospitals but remained unchanged in the other two. The lowest proportion of tears at the end of the intervention (1.2% and 1.3%, respectively) was found in the two hospitals with an unchanged episiotomy rate.

CONCLUSION:

The multicenter intervention caused a highly significant decrease in obstetric anal sphincter injuries.

focus was on 1) good communication between the accoucheur and the delivering woman; 2) adequate perineal support; 3) a delivery position that allows visualization of the perineum during the last minutes of delivery; and 4) episiotomy only on indication.

commonly used in Norway before the 1980s. The delivery assistant presses the neonate's head with the left hand to control the speed of crowning through the

vaginal introitus, and the right hand supports the perineum and tries to take a grip on the neonate's chin. When a good grip has been achieved, the woman is asked to stop pushing and to breathe rapidly while the midwife slowly helps the neonate's head through the vaginal introitus. When most of the head is out, the perineal ring is pushed under the neonate's chin.

Delivery room personnel were instructed to encourage the woman to move freely during delivery and push in the position they felt most comfortable. Furthermore, they should help the woman to choose a position during the last minutes of pushing such that the classic maneuver could be performed while allowing the perineum to be observed.

We also focused on the use of episiotomy. Routine episiotomy was not recommended, except when clinically indicated on an individual basis. If an episiotomy was performed, the cut should be far away from the anal opening (so-called lateral or mediolateral episiotomy) to avoid obstetric anal sphincter injury.

Outputs

- OASI care bundle
 - A set of 4 intrapartum interventions to be used for every vaginal delivery to prevent OASI
 - Influenced largely by the Norwegian interventions which reduced rates of OASIs by 50%^{2,3}
- OASI care bundle guide
 - Developed to facilitate the care bundle implementation
- Women's involvement
 - Information leaflet to be provided to women planning to deliver in pilot sites

²Laine K et al. Incidence of obstetric anal sphincter injuries after training to protect the perineum. BMJ Open. 2012.

³Hals E et al. A multicenter interventional program to reduce the incidence of anal sphincter tears. Obstet Gynecol. 2010; 116:901-8.

Outputs

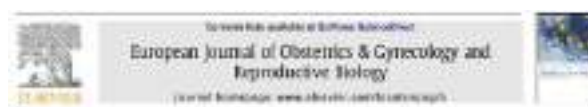
- Care bundle pilot
 - 11 units across the UK selected to pilot the care bundle
 - To begin Autumn 2015
- Training
 - Clinical training responsibility of individual units

focus was on 1) good communication between the accoucheur and the delivering woman; 2) adequate perineal support; 3) a delivery position that allows visualization of the perineum during the last minutes of delivery; and 4) episiotomy only on indication.

commonly used in Norway before the 1980s. The delivery assistant presses the neonate's head with the left hand to control the speed of crowning through the

Analysis

- Qualitative analysis
 - Focus groups to be held with 34DT leads from each pilot unit
 - Feedback from focus groups to be used to make any changes in the care bundle based on practical implications
- Quantitative analysis
 - HES data to be used to look at incidence of tears in pilot units following care bundle pilot
- Women's experience survey
 - To assess the acceptability of the interventions by women giving birth in the pilot sites.



Intrapartum care quality indicators: a systematic approach for achieving consensus

Thabane Sibanda¹, Robert Fox², Timothy J. Draycott^{1,2}, Taher Mahmood³, David Richmond⁴, Rebecca A. Scrimgeour^{1,2,4}

¹Department of Obstetrics and Gynaecology, Addis Ababa Bako General Hospital, Addis Ababa, Ethiopia

²Department of Obstetrics and Gynaecology, Victoria General Hospital, London, UK

³University of Bristol, Bristol, UK

⁴The Children's Research Centre of Obstetrics and Gynaecology, Addis Ababa Bako General Hospital, Addis Ababa, Ethiopia

Original research in this article, the reporting of differences and comparisons of results, and

the handling of data, the reporting of differences and comparisons of results, and

Table 1
Robson's quality indicators

Indicator	Definition	Uses in quality measures & improvement
1. Nulliparous women with singleton cephalic pregnancy > 37 weeks in spontaneous labour	Women who have never given birth before	Used to measure quality of care in nulliparous women
2. Nulliparous women with singleton cephalic pregnancy > 37 weeks who either had labour induced or delivered by caesarean section	Women who have never given birth before	Used to measure quality of care in nulliparous women
3. Multiparous women with singleton cephalic pregnancy > 37 weeks	Women who have given birth before	Used to measure quality of care in multiparous women
4. Multiparous women with singleton cephalic pregnancy > 37 weeks who either had labour induced or delivered by caesarean section	Women who have given birth before	Used to measure quality of care in multiparous women
5. All multiparous women with at least one previous uterine scar and a single cephalic pregnancy > 37 weeks	Women who have given birth before	Used to measure quality of care in multiparous women

Indicator	Definition	Uses in quality measures & improvement
1. Nulliparous women with singleton cephalic pregnancy > 37 weeks in spontaneous labour	Women who have never given birth before	Used to measure quality of care in nulliparous women
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3. Multiparous women with singleton cephalic pregnancy > 37 weeks	Women who have given birth before	Used to measure quality of care in multiparous women
4. Multiparous women with singleton cephalic pregnancy > 37 weeks who either had labour induced or delivered by caesarean section	Women who have given birth before	Used to measure quality of care in multiparous women
5. All multiparous women with at least one previous uterine scar and a single cephalic pregnancy > 37 weeks	Women who have given birth before	Used to measure quality of care in multiparous women

Robson groups:

1. Nulliparous women with singleton cephalic pregnancy > 37 weeks in spontaneous labour
2. Nulliparous women with singleton cephalic pregnancy > 37 weeks who either had labour induced or delivered by caesarean section
3. Multiparous women with singleton cephalic pregnancy > 37 weeks
4. Multiparous women with singleton cephalic pregnancy > 37 weeks who either had labour induced or delivered by caesarean section
5. All multiparous women, with at least one previous uterine scar and a single cephalic pregnancy > 37 weeks

Individual units should use Maternity Dashboard To benchmark their quality of care

The Maternity Dashboard has been developed by the RCOG as a tool to monitor the implementation of principles of clinical governance 'on the ground'.

It is a powerful, visible way of continually monitoring and assessing how a unit is doing, as well as enabling teams to respond in a timely and appropriate manner to ensure a safe and responsive high-quality service. This approach also helps to develop an ethos of total quality improvement.

For further information, and to download a copy of the Maternity Dashboard and an example scorecard, please visit:
www.rcog.org.uk/womens-health/clinical-guidance/maternity-dashboard-clinical-performance-and-governance-score-card

Please note that printed copies of the Maternity Dashboard are not available.



Performance & Governance Score Card 'Maternity Dashboard'



■ Des... Park
■ Rec...
■ Look... feedback (e.g. com...)

Ensure high quality safe care. Tool for Commissioners, Providers, Consumers and Regulators



Clinical activity, staffing level, obstetric interventions, adverse outcomes & complaints

Quality indicators Based on Clinical Governance

Accreditation of Services Professional Revalidation

EB Guidelines:
Education & Training
Audit of process/outcomes

Patients' Complaints Feed backs Clinical Risk Management

Delivering Safe High Quality Care

1. Guidelines – sentinel audit for adherence
2. Maternity & Gynaecology Standards – few selected items – Annual Audit (=MOT of the unit)
3. Confidential inquiry into morbidity & mortality – 1-3 years
4. Maternity dash board – Clinical performance & Governance – Monthly Audit
5. QUALITY INDICATORS: National Audit

THANK YOU
www.rcog.org.uk



XV National Conference of NESOG,” April 2018

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Rohit Bhatt

ORATION : “Life style and reproductive behaviour”

Professor Rohit Bhatt

- Former professor and Head.Dept.Ob.Gyn at Medical college, Baroda
- Currently chief.Dept.Ob.Gyn at BD Amin general Hospital since 1984
- Past president of FOGSI, ISOPARB and NARCHI
- Past Chairperson of ICOG and NARCHI
- Past vice president of Asia Oceania Federation of Ob.Gyn (AOFOG)
- Hon Fellow of AOFOG
- Life time achievement award of FOGSI and NARCHI
- BC Roy award as eminent teacher
- Delivered orations in many National and international conferences
- More than 200 publications and wrote chapters in three books
- Interest subjects Anemia,Environment and reproduction, Life style and reproductive behaviour
- Residence; 1,Shivani Society,Vasna Rd.Baroda. 390007 Gujarat
- Email; rohit.v.bhatt@gmail.com
- Mobile;+91 9376222745



Late Hira Nanda Vaidya was a legend in Nepal. He was not only an excellent Surgeon but also a social reformer. He was great educator .He was a crusader for education to GIRL CHILD. He believed that Medical Practice should be a learning process. One should keep an open mind to learn new things.

Impact of Life style on Reproductive Health

*Rohit Bhatt
** Sonia Golani
Dept. Ob.Gyn
Bhailal Amin General Hospital
Baroda. India

What is Life style?

- Life style means,
 - Habits,
 - Attitudes,
 - Tastes,
 - Moral standards,
 - Economic level
- that **constitute the mode of living** of an individual or a group

WHO Definition of Health

- “A state of complete physical, mental and social wellbeing and not merely absence of disease or infirmity”

It is likely that in few years,
“LIFE STYLE MEDICINE”
will be regarded as special branch of Medicine

From time immemorial, Life style is constantly changing to suit the needs of the time
Some life style is healthy
and
some life style is harmful to health (Romans,Greek,Yadavas perished)

LIFE STYLE RELATED HEALTH PROBLEMS ARE
Diabetes
Hypertension
Cancer
Reproductive health
and others

- INDIA IS GOING TO BE DIABETES **CAPITAL** of the world
- IN A FEW YEARS IF WE DO NOT
- TAKE CARE

Lord Krishna in
Bhagwat Gita enunciated qualities
of
Healthy Life style
Long before Modern Medicine

ન તો ઘણા અહારે,નથે કેવળ લાંઘણો
ઊંઘે જગ્યએ ના ઝાઝે , યોગ ની સાધના થતી
Arjun, those who eat too much or eat too little, sleep too
much or too little, cannot attain good health

યોગ્ય વિહાર આહાર ,યોગ્ય પ્રવૃત્તિ કર્મમાં

યોગ્ય જાગૃતિ ને નિદ્રા ,તે કરે યોગ દુઃખ હા
This yoga is not for one who overeats nor for one
who fasts, it is not for one who oversleeps nor for
one who never sleeps

ગીતા 6 ચેપ્ટર 16 -17 verses

Some changes in life style have
improved fetomaternal health
whereas

Some life style changes have
adverse effect on fetomaternal
health

We as obstetricians have not
appreciated the impact of life style
on health

In Ob.Gyn practice, we see cases of
preterm labor, low birth weight babies,
abortions, miss-carriage et.c

We do treat these cases

BUT

How often we inquire about life style
such as

food habits,occupation,alcohol
tobacco use, substance abuse or
stress?

Changing Life style

Earlier Life style	Modern Life style
Early marriage	Late marriage
Low education rate	High education rate
Early 1 st ,pregnancy	Delay in 1 st ,pregnancy
Poor water supply & sanitation	Improved water supply & sanitation
Low rate of obesity	HIGH RATE OF OBESITY
Less exposure to tobacco/alcohol	High exposure to tobacco /alcohol
Low substance abuse	Increased use of substance abuse
Low immunization rate	Improved immunization rate
Home made Food	Fast Food culture/Junk Food

Life Style & Reproductive performance

- **Diet –OBESITY v/s Zero figure**
- **Occupation**
- **Habits** (alcohol, tobacco, substance abuse)
- **Exercise (sedentary life style)**
- **Smart phone abuse**
- **Stress (increasing stress in modern life)**

**MODERN LIFE STYLE
IS MAINLY BASED ON
USE OF
TECHNOLOGY**

Technology is **ONLY** a means to improve Health
Misuse of technology does more harm to human health
 We should blame ourselves rather than technology

IMPACT OF TECHNOLOGY ON LIFE STYLE

- When **TELEVISION** came to my house, I forgot how to **read books**
- When **CAR** came to my house, I **forgot how to walk**
- When I got the **MOBILE** in my hand, I forgot how to **write a letter**
- When **COMPUTER** came to my house, I **forgot spelling**
- When **AC** came to my house, I stopped going under the tree for **gust of cool air**
- When I stayed in the **CITY**, I forgot the smell of Mud
- By dealing with **BANKS & CARDS**, I forgot the **value of money**
- With the smell of **PERFUME**, I forgot the **fragrance of fresh flowers**
- With the coming of **FAST FOOD**, I forgot to cook **traditional meals**
- When I got **WHATSAPP**, I forgot how to **TALK**

Reproductive risks of women exposed to adverse environment

There is an increase in the number of women in work force.

It is a good sign that more women are becoming economically independent.

BUT

They are also exposed to chemicals which are harmful to health in general but reproductive health in particular. (Lead, mercury, arsenic, organic solvents, carbon dioxide anesthetic gases etc.)

Obesity has emerged as **enemy number one** for health in general and reproductive health in particular
 Emerging nations are facing the impact of "Demographic transition"

Obesity worldwide

	OBESEITY/OVER WEIGHT	PERCENTAGE
1980	857 million	20%
2013	2.1 billion	30%

OBESEITY RATE IN SOME COUNTRIES

COUNTRY	OBESEITY RATE	COUNTRY	OBESEITY RATE
USA	36%	PAKISTAN	9%
NEW ZEALAND	31%	SRILANKA	5%
AUSTRALIA	29%	INDIA	4%
UK	28%	BANGLADESH	4%
CANADA	29%	NEPAL	4%
NORWAY	23%	JAPAN	4%

It is sad to note that our medical fraternity is also affected by

OBESEITY

Unfortunately many of our colleagues have BMI 30+
How can they advise their patients to reduce weight?

BMI Status in India NFHS-4

State	Men	All India ranking	Female	All India Ranking
Punjab	30.3	1	37.5	1
Kerala	24.3	2	34	2
Goa	20.8	3	27	3
Tamilnadu	19.8	4	24.4	4
Andhra	17.6	5	22.7	10
Sikkim	17.3	6	21	8
Mizoram	16.9	7	20.3	17
Himachal	16	8	19.5	12
Maharashtra	15.9	9	18.1	13
Gujarat	15.4	10	17.7	7
Haryana	14.4	11	17.6	6
Karnataka	14	12	17.3	9
Manipur	13.4	13	17.1	11
Uttarakhand	11.4	15	14.8	14

Diet habits and Feto-maternal health

- There are **three categories in diet habits** in emerging nations
- **High consumption of junk, high calorie food**
- **Low consumption of food** to maintain zero figure
- **Low consumption of food** because they do not have food
- Feto-maternal risk is increased in all three categories

**Low BMI
Out of Choice
OR
Out of Necessity**



Mcdonald food v/s Asian Roti

Anorexic or fashion victim?



Low diet to maintain zero figure



Thin woman. BMI <18

world-wide malnutrition...WHY?



Poor nutrition causing obstetric problems

Consumption of Junk food
and lack of exercise

- **Risk of obesity /Metabolic Syndrome**
- **Risk of diabetes & Hypertension**
- **Risk of polycystic ovary syndrome**
- **Difficulty in conceiving** (Fat & Fetus do not go together)
- **Higher pregnancy complications** in PCO cases

As compared to patients without PCO

Source; Lucina Kjerulff, Ramos

At 73rd Annual meeting of South Atlantic Association of Ob.Gyn.2011

Women with PCO have higher risk
of
Gest.Diabetes mellitus,
PIH,
Pre-eclampsia,
Preterm birth,
Multiple pregnancies and higher
incidence of C-section

Jun Qin ,Li Pang
Reproductive Biology & Endocrinology 2013;11;56

There is increase in
smoking habits among
adolescents and adults in
emerging nations
It also exists in developed
world

Smoking habits in some countries
(In percentage)

Country	Male %	Female %	Country	Male %	Female %
Bangladesh	38	4	Malaysia	38	1
Chile	32	26	Philippines	40	8
Japan	19.3	9.7	South Korea	42.3	6.8
India	23	3	Singapore	23	4
Israel	26	14	Sri Lanka	24	1
Indonesia	57	4	NEPAL	37.6	16.7

Source; world population data sheet.2016

Smoking and Reproductive health



**200million smoke
world wide**

*Source;Tobacco & health.WHO.1997

**•30% women smoke in
developing countries**

*Source;Patridge BMJ. 8;608;1992
*17% in France,50% in USA,27% in UK

*Tobacco risk due to

***Carbon monoxide,nicotine & hydrocynic acid**

Tobacco use and feto-maternal health

Smoking in Pregnancy

- Maternal smoking & child development
- There is delay in development
- Four months delay in reading
- Five months delay in mathematics at 10th grade
- Smoking in later weeks of pregnancy is definitely prejudicial to normal growth & survival of the fetus

• Source. Brit.perinatal mortality survey

Smoking & Reproductive health

- Early menopause by 1-2 years
- Reduced bone mineral density
- Decrease in Fertility
- Alters sperm characteristic
- Causes ovarian dysfunction
- Placental changes
- Raised Perinatal mortality
- Low birth weight
- Increase in fetal anomalies

Men who **smoke heavily,generate
sperms with DNA damage.**

This may result in their children having
high incidence of childhood cancer.
Tobacco can cause DNA damage in germ
line

**It causes lbw,iugr,preterm
births & abortions**

Alcohol use & Reproductive health

Alcohol intake is universal.

In USA, one third of alcohol users are women

In Japan, 6.45 million suffer from alcohol related problems

In South Korea, there are more alcoholics than in any other country

Country liquor is developing countries is more dangerous

50% of Automobile Accidents, Violence, Suicide and Sexual involvement are due to alcohol consumption

W.H.O Report 2016

Fetal alcohol syndrome(FAS)

- Facial dysmorphism
- Broad flat mid face
- Short upturned Nose
- Short Philtrum
- Irritability
- Epicanthic Folds
- Alcohol more than 80 G/day increases the risk of FAS

Fetal Alcohol Syndrome



Substance abuse

There is phenomenal increase in the incidence of substance abuse all over the world. The sufferers are mostly women

Substance abuse costs a nation heavily in lost productivity, healthcare expenses, criminal activities and Feto-maternal health

life style & environmental pollution

Use of cow dung cake and wood as fuel

Use of kerosene in Auto –rickshaws

Smoking tobacco in house in presence of pregnant women and children

Use of alcohol, tobacco and narcotic drugs

Dumping sewage, half burnt bodies, industrial toxic waste

Pregnant women working in high risk industries

We as obstetricians must work in partnership with paediatricians, community medicine and social workers, to recognize the impact of life style on feto-maternal health

THANKS

Mrs.X was admitted in labor room with 37 weeks pregnancy and APH Resident diagnosed it as Accidental hemorrhage. She delivered a SB child

Resident wrote in diagnosis
"Accidental Hemorrhage"
The file was closed

Next week, the team from community medicine came to the ward and interviewed the woman. They found she was severely addicted to Cocaine.

Cocaine is known to cause 'Placental abruption'

Thus team work helps in correct diagnosis



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XIV International Conference of NESOG,” April 13th-14th, 2019

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- “Dr. Pravin Nahar

ORATION : “Endometriosis- Challenges and Controversies”

Dr Pravin Nahar

DGO, MD, DNB, FRCOG, FRANZCOG

- Graduated from Calcutta Medical College.
- Work experience in Calcutta, UK, New Zealand and Australia
- Present appointments:
- Senior Staff Specialist, John Hunter Hospital, Newcastle, Australia
- Conjoint Senior Lecturer, University of Newcastle, Australia
- Training Director, AGES Fellowship Programme
- Expert Witness in RANZCOG Register
- Training supervisor for ITP, RANZCOG
- Member, SIMG Assessment Panel, RANZCOG
- Member of the Practice Visit Programme, RANZCOG



Endometriosis

its challenges – past & future

Pravin Nahar
Conjoint Senior Lecturer
John Hunter Hospital
University of Newcastle
Australia



Endometriosis

- Common clinical condition
- Complete cure not available for all patients
- High recurrence rate (20-40% over 3-5 years)
- High surgical intervention rate

Diagnosis of Endometriosis

- How common is the condition?
- Predictive value of symptoms and signs?
- Is laparoscopic confirmation always necessary?
- How accurate is laparoscopy?
- Is histological confirmation necessary?
- What's the role of expensive investigations – CT-scan, MRI, PET-scan...?
- What classification system to use?

Management of Endometriosis

- Lifestyle modifications – how easy it is?
- Medical Vs Surgical – what's best?
- Medical – What's the ideal drug?
- Surgery – Ablation vs Excision; Conservative vs Radical; open vs laparoscopic / robotic

Specific situations

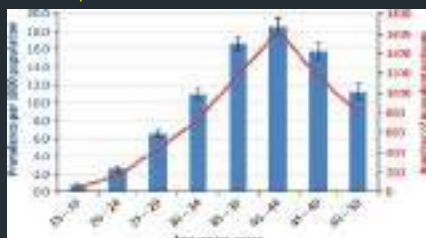
- Associated infertility
- Deep Infiltrating Endometriosis (DIE)
- Endometriosis on the bowel, bladder & ureter
- Recurrent Endometriosis
- Future – Is there a light at the end of the tunnel?

Prevalence of Endometriosis

- Women undergoing sterilisation - 5%
- Infertile women - 20%
- At laparoscopy (for infertility) - up to 50%
- Teenagers (undergoing laparoscopy for pain) - up to 50%
- Women – 1st degree relatives - 7x

Australian and NZ Endometriosis Societies claim that 1 in 10 women suffer from endometriosis !!

Epidemiology of endometriosis: a large population-based database study from a healthcare provider with 2 million members.



Overall Prevalence rate = 10.8 per 1000 females between 15-55 years of age
The figures are consistent with a number of European publications

BJOG: An International Journal of Obstetrics & Gynaecology, Volume: 125, Issue: 1, Pages: 55-62, First published: 26 April 2017, DOI: (10.1111/1471-0528.14711)

Symptoms

- Dysmenorrhoea ~ 70%
- Pelvic Pain ~ 50%
- Infertility ~ 40%
- Deep Dyspareunia ~ 30%
- Menstrual Irregularities ~ 20%
- Pain with bowel motion (cyclic) ~10%
- Rectal bleeding (cyclic) ~2%
- Cyclical Dysuria & Haematuria ~2%

Symptoms per se are poor predictor of endometriosis

Physical Findings

- Localised tenderness in the fornices
- Palpable tender nodule/s
- Pelvic induration
- Retroverted, fixed, tender uterus

These are generally signs of advanced disease

Is it necessary to have a correct diagnosis?

To Avoid:

- Long-term medicalisation
- Significant side-effects – medical and surgical
- Repeated surgical interventions
- Psychological impact
- Cost
- Wastage of health resources

Investigations

- Ultrasound - Endometrioma
- Laparoscopy - Visualisation of endometriotic deposits
+/- histological presence of both stroma & glands

Other investigations: limited application
(should not be offered as a routine)

- CT- scan
- MRI
- Ba-enema
- Colonoscopy
- Trans-rectal sonography
- Biomarkers – CA125, proteomes

Laparoscopic Appearance of Endometriotic Lesions

- Classical – powder burns
- Hypervascularisation /neovascularisation
- Yellow – brown pigmentation
- Petechial red lesions
- Clear lesions
- Pseudoperitoneal pockets
- Adhesions

Laparoscopic Appearance of Endometriotic Lesions



Classic Powder Burns

Laparoscopic Appearance of Endometriotic Lesions



Petechial Lesions

Laparoscopic Appearance of Endometriotic Lesions



Clear lesions and Blebs

Laparoscopic Appearance of Endometriotic Lesions



Peritoneal Pockets

Laparoscopic Appearance of Endometriotic Lesions



Bilateral Ovarian Endometrioma (Kissing Ovaries)

Laparoscopic Appearance of Endometriotic Lesions



Severe Endometriosis with POD obliteration

Accuracy of Laparoscopy

Pre-test probability of endometriosis	Post-test probability (% correct)	
	Test+ (abnormal result)	Test- (normal result)
10%	12.3 (21.4-18.6)	6.7 (0.1-8.6)
20%	11.8 (18.0-20.4)	1.8 (0.2-10.5)
30%	11.1 (17.0-25.2)	5.7 (1.3-12.8)

Wykes et al : Accuracy of laparoscopy in the diagnosis of endometriosis: [a systematic review](#). BJOG 111:1204-12, 2004

Negative Laparoscopy – highly accurate (low false-negative)
Positive laparoscopy – not very accurate (high false-positive) – case for performing biopsies

Accuracy of Laparoscopy



Histology – Inflammatory cells only

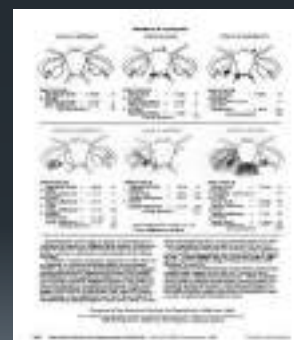
Classification & Staging of Endometriosis

The revised ASRM classification



Stage 1 (minimal) = 1-5 pts
 Stage 2 (mild) = 6-15 pts
 Stage 3 (moderate) = 16-40 pts
 Stage IV (severe) = >40 pts

Classification & Staging of Endometriosis



Classification & Staging of Endometriosis

Revised ASRM (1997)

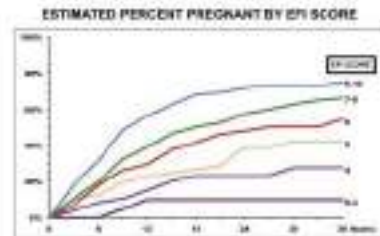
- Longest established method
- Does not include deep endometriosis adequately
- Poor correlation with fertility outcome
- Poor prognostic information
- Poor predictive accuracy with respect to treatment outcomes

Classification & Staging of Endometriosis

Enzian Classification

Classification	A	B	C	Ex	Im
Grade 1	≤ 1 cm	≤ 1 cm	≤ 1 cm	Ex	Im
Grade 2	≤ 2 cm	≤ 2 cm	≤ 2 cm	Ex	Im
Grade 3	> 2 cm	> 2 cm	> 2 cm	Ex	Im

Designed for Deep Infiltrating Disease (DIE)
 Has some prognostic value



EFI is simple and validated clinical tool that predicts fertility outcome following surgical staging

Classification & Staging of Endometriosis

An ideal (clinically useful) classification system:

- Simple and user friendly
- Easy to perform
- Correlates well with symptoms
- Predict response to treatment
- Give good prognostic information

Consensus statement by World Endometriosis Society:
Human Reproduction Vol 32, No 2, p 315-24, 2017

No single classification system adequately classifies endometriosis at the present time

Current Therapy

3 main objectives:

- **Reduction of pain**
- **Increase the pregnancy rate**
- **Delaying the recurrence**

Empirical treatment for pain

ESHRE Guideline 2014 - GPP:

Has a role to play in patients when other causes of pelvic pain has been excluded -

Adolescents presenting with dysmenorrhoea

Who do not want surgery

Who require effective contraception as well

NSAIDs
COCP
Progestagens

Medical Treatment

Analgesics – NSAIDs

Combined Oral Contraceptive

Oral Progestagens – MPA, NEA, Dienogest

Other progestogens – Danazol, Mirena

GnRH Agonists – with or without add-back therapy

Aromatase Inhibitors - Letrozole

Medical Treatment

Hormonal Contraceptives

- Widely used for treatment of dysmenorrhea
- Control of menstrual cycle
- Effective – at least for short term
- Continuous - 3 or 6 monthly cycles
- Used for the prevention of recurrent disease following surgery – at least for 6 months

Medical Treatment

Other hormones

Danazol, Dimetrioise, Progesterone and LH analogues:

- They are effective
- Need to be taken for at least 6 months
- But have side effects
- Significant drop out rates (side effects & cost)
- Suppressive rather than curative (high recurrence rate)

Surgical Treatment

- is endometriosis a surgical disease ?

- Increasingly a common choice
 - Availability of laparoscopic equipments
 - Availability of trained gynaecologists
- ESHRE Guideline (2014) – when endometriosis is identified at laparoscopy, it is recommended to proceed with ablation or excision (Jacobson et al 2009)
- Documentation for planning for further surgery and management
- Place of laparotomy – depends up on available resources

Jacobson TZ et al. Laparoscopic surgery for pelvic pain associated with endometriosis. Cochrane Database Syst Rev, 2009

Surgical Treatment

Superficial Peritoneal Disease

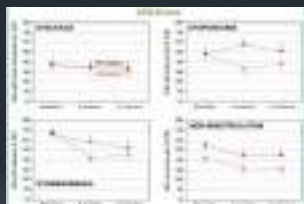
Ablation or Excision ??

- Riley et al : Journal of Minimally Invasive Gynecology 26, 71-77, 2019
- A well-designed randomised controlled trial
- 12-month follow-up of 73 patients



Ablation vs Excision

73 patients were randomly assigned to have either ablation or excision – 12 months follow-up



Riley et al 2019

No difference in symptom relief at 12 months. Excision may have an edge over ablation to obtain a histological sample

Surgical Treatment

Ovarian Endometrioma

Cystectomy rather than drainage and coagulation (Hart et al 2008)

Excision of endometrioma capsule increases the spontaneous pregnancy rate (ESHRE 2014)

Risk of reduced ovarian function

Role of Ovarian suspension – Safe, simple and effective strategy to reduce the incidence and severity of postoperative ovarian adhesion (Giampaolino et al: A systematic review; JMIG 26, 53-62, 2019)

Ovarian Suspension

Pravin Nahar



Ovarian Suspension

Pravin Nahar



Endometriosis and Infertility

- Upto 20-25% of infertile women may have endometriosis
- Hormone therapy has no role in improving fertility (ESHRE 2014)
- Stage 1 & 2 – operative excision or ablation improves the spontaneous pregnancy rate (Level A evidence)*
- Stage 3 & 4 – no clear evidence that surgery improves the pregnancy rate (spontaneous or IVF)
- Surgery in advanced disease may be offered to improve pain and/or making the ovaries more accessible for egg collection (IVF)

*Jacobson TZ et al. Laparoscopic surgery for subfertility associated with endometriosis. Cochrane Database Syst Rev, 2010

Deep Infiltrating Endometriosis (DIE)

- >5mm under the peritoneal surface
- Surgery remains the best option at the present time
- Improves pain and QoL
- Postoperative hormonal therapy may be prescribed to prevent recurrence
- Requires referral to a centre of expertise and a multidisciplinary approach

Bowel Endometriosis

- ▣ Incidence - 5 to 12% of women with pelvic endometriosis*
- ▣ Sites:
 - ▣ Rectum (13-53%)
 - ▣ Sigmoid Colon (18-47%)
 - ▣ Appendix (3-18%)
 - ▣ Ileum (2-5%)
 - ▣ Others (1-2%)



* Weed and Ray 1987

Symptoms of bowel endometriosis?

Wide range of GI symptoms (typically cyclical):

- Painful defaecation / Dyschezia
- Diarrhoea
- Constipation
- Abdominal pain / bloating
- Rectal bleeding – rare

Differential Diagnosis

- IBS (defecation typically relieves the symptoms of patients with IBS but not those of women with endometriosis)
- Inflammatory bowel disease
- Diverticulitis
- Cancer

Pre-operative investigations

- ▣ **Ultrasound**
 - ▣ Transvaginal Ultrasonography (TVS)
 - ▣ Rectal Endoscopic Ultrasonography (REU)
- ▣ **Radiology**
 - ▣ barium enema
 - ▣ CT scan
 - ▣ MRI
- ▣ **Colonoscopy**

Transvaginal Ultrasonography (TVS)

It's the first-line imaging study when rectosigmoid endometriosis is suspected

The radiologist should be informed to evaluate the rectosigmoid area – irregular hypoechoic lesion

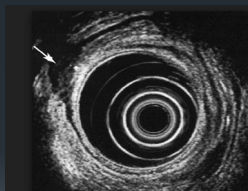


Transvaginal Ultrasonography (TVS)

- A systemic review of 10 prospective study:
 - Sensitivity – 91%
 - Specificity – 98%

(Hudelist et al. Ultrasound Obstet Gynecol 2011; 37:257)
- Limitations of TVS
 - Operator dependent
 - Cannot assess the depth of infiltration
 - Cannot assess the distance from anal margin
 - Lesions above rectosigmoid junction are beyond TVS view

Rectal Endoscopic Ultrasonography (REU)



- Advantages:
 - Locate the distance of the lesion from anal margin
 - Assess the depth of infiltration
 - Estimate the lesion size
 - Assess involvement of adjacent organs
- Disadvantages:
 - Operator dependent
 - Uncomfortable procedure

Magnetic Resonance Imaging (MRI)

- Advantages:
 - Not operator dependent
 - Evaluation of Rectovaginal septum disease
- Disadvantages:
 - Expensive
 - Not as sensitive as REU

Accuracy of rectal endoscopic ultrasonography (REU) and MRI in the diagnosis of rectal involvement for patients presenting with deep infiltrating endometriosis. Chapron C et al. *Ultrasound Obstet Gynecol* 2004

- Study: retrospective observational
- Subjects: 91 patients with DIE
- Results: 42% had rectal involvement

Imaging Tool	Sensitivity	Specificity	Positive predictive value	Negative predictive value
REU	97.1%	89.4%	86.8%	97.7%
MRI	76.5%	97.9%	96.3%	85.2%

- Conclusion: the sensitivity and negative predictive value of REU were higher than those of MRI suggesting that REU performs better than MRI in the diagnosis of rectal involvement for patients presenting with DIE.

Colonoscopy / Sigmoidoscopy

- Limited value
- Mucosal penetration is rare
- Assessment of stenosis, if present
- To exclude malignancy and other bowel pathology

Bowel Endometriosis

- Endometriosis involving the bowel represents severe manifestations of the disease spectrum
- Diagnosis is often delayed and evaluation may be suboptimal
- Rational use of available investigations to define the extent and depth of bowel involvement
- Close collaboration with colorectal surgeons to plan the counselling and management in a multidisciplinary team setting

Biomarkers for Endometriosis

Blood

CA125
CA19.9
Anti-endometrial autoantibody
Interleukin 6
Micro RNA
Proteomes

Biomarkers for Endometriosis

Endometrium

Transcriptome
MicroRNAs
Endometrial Proteomes
Neuronal Marker

Biomarkers for Endometriosis

Challenges

Heterogeneous nature of the disease
Peritoneal
Ovarian
Rectovaginal Pouch (DIE)

Circulating and tissue miRNAs hold promise – may be in combination with other proteomic markers

The Future

- **Newer Drugs**
Aromatase Inhibitor - Letrozole
Oral GnRH Antagonist - Elagolix (can be used for 24 months)
- **Advances in laparoscopic surgery**
Use of Robotics – more precise surgery
- **Development of Biomarkers**
Lot of research on genetics and molecular biology
Possibly 3 different genomic sequence

Diagnosis of Endometriosis

- How common is the condition – **approx 1% of women**
- Predictive value of symptoms and signs – **not great**
- Is laparoscopic confirmation always necessary – **almost always**
- How accurate is laparoscopy – **negative predictive value is excellent**
- Is histological confirmation necessary – **preferable**
- What's the role of expensive investigations – CT-scan, MRI, etc – **only in specific situation**
- What classification system to use – **combination**

Management of Endometriosis

- Lifestyle modifications – **encourage but not always easy**
- Medical Vs Surgical – **its a surgical disease at the present time**
- Medical – What's the ideal drug – **no curative drug is available**
- Surgery – Ablation vs **Excision**; **Conservative** vs **Radical**; open vs **laparoscopic** / robotic



XV Interational Conference of NESOG, April 2nd-3rd, 2021

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Dr. Jayant Sharma

**ORATION : UROLOGIC TRAUMA DURING GYNAE AND OBS
SURGERY (CAUSES AND PREVENTION)**

UROLOGIC TRAUMA DURING GYNAE AND OBS SURGERY (CAUSES AND PREVENTION)

Dr. JAYANT SHARMA
MBBS,MS,Phd

INTRODUCTION

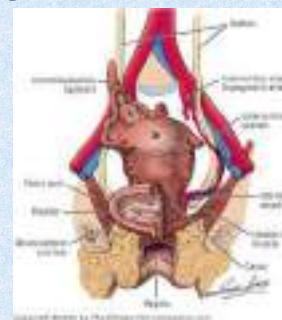
- Iatrogenic injuries to urinary bladder & ureter- uncommon but imp. surgical complications during various obstetric & gynecological procedures.
- Anatomic proximity of ureters & bladder to genital tract.
- **Bladder injuries- most frequent urologic injury.**
- Bladder injuries usually recognized and repaired immediately, and potential complications are typically **minor**.
- But ureteral injuries(70%) typically are not recognized immediately & can lead to **long term** complications.

URETERAL INJURIES

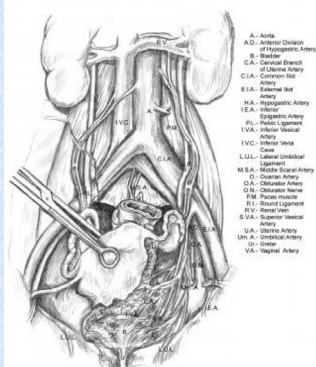
- Iatrogenic trauma is the commonest cause of ureteral injury.
- Two-thirds of injuries- during gynecologic surgeries.
- Most occur through abdominal than vaginal route.

ANATOMIC COURSE OF PELVIC URETER

- Ureter- 25-30 cm length.
- Abdominal part lies anteriorly on psoas muscle.
- At the level of common iliac artery bifurcation, it crosses internal iliac vessels to enter the pelvis.
- Ovarian vessels travel in infundibulo-pelvic ligament of the ovary and cross ureters anteriorly and laterally to the iliac vessels.



- Runs posterior to ovary and then deep into broad ligament and through the cardina lligament.
- Uterine artery crosses the ureters anteriorly ("water under the uterine-artery bridge").
- Distance between ureter & cervix- 1.5cm.
- Ureter then courses out to ischial spines and continues medially onto the anterior vaginal fornix.
- It then penetrates the base of the bladder just above the trigone.



• Blood supply:

1. Upper third-renal and ovarian arteries,
2. Middle third-aortic branches and common iliac arteries,
3. Lower third- uterine, vaginal, middle haemorrhoidal, vesical and hypogastric vessels.

INCIDENCE

Table 4.2.1: Incidence of ureteral injury in various procedures

Procedure	Percentage %
Gynaecological [188, 172-174]	
Vaginal hysterectomy	0.02 - 0.5
Abdominal hysterectomy	0.03 - 2.0
Laparoscopic hysterectomy	0.2 - 5.0
Urogynaecological (anti-incontinence/prolapse)	1.7 - 3.0
Colorectal [167, 172, 175]	0.15 - 10
Uroterectomy [176]	
Mucosal ablation	0.3 - 4.1
Urethral perforation	0.2 - 2.0
Infundibulopexy/vulvoplasty	0 - 0.3
Radical prostatectomy [176]	
Open retropubic	0.08 - 0.8
Robot assisted	0.06 - 0.4

Table 1: Risk of uterine injury in obstetric and gynaecological procedures

Subspecialty	Procedures	Incidence (%)
Obstetric	Emergency caesarean section	0.037-0.09
	Caesarean hysterectomy	0.5-8.0
	Keloid rotational forceps	Not available
Gynaecological	Abdominal hysterectomy	0.04-3.0
	Vaginal hysterectomy	0.02-0.47
	Subtotal hysterectomy	0.05
	Wertheim's hysterectomy	1-30
Urogynaecology	Birth colposuspension	0.09-3.3
	Transvaginal tape	Not available
Laparoscopy	Adnexectomy	2.5
	Laparoscopically assisted vaginal hysterectomy	1.39-6.0
	Adhesiolysis	Not available
	Diathermy ablation of endometriotic deposits	Not available

- Most ureteral injuries occur during technically straightforward hysterectomies for benign disease.
- Ureteral injuries from gynecologic surgery: 50% during radical hysterectomy, 40% from abdominal hysterectomy and <5% result from vaginal hysterectomy.

ETIOLOGY

RISK FACTORS:

- Enlarged uterus
- Previous pelvic surgery or radiation
- Advanced malignancy
- Endometriosis, PID
- Pelvic adhesions
- Distorted pelvic anatomy
- Coexistent bladder injury
- Massive intraoperative haemorrhage

SITES OF INJURY

- Injury: most frequently lower third of ureter(51%), f/b upper third(30%) and middle third(19%).
- Most common sites of injury are:
 - Lateral to uterine vessels
 - Area of ureterovesical junction close to cardinal ligaments
 - Base of the infundibulopelvic ligament as ureters cross pelvic brim at ovarian fossa at the level of uterosacral ligament.
- Most common site of injury during laparoscopy-adjacent to Uterosacral ligaments(USL).

Ureteral injuries during Laparoscopic gynec surgeries: during

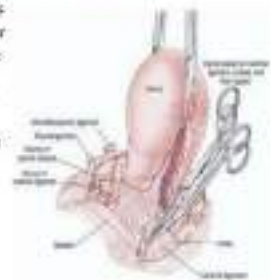
- Laser ablative endometriosis surgery
- Laparoscopic-assisted vaginal hysterectomy (LAVH)
- Laparoscopic tubal ligation,
- Laparoscopic adnexectomy (removal of one of the uterine tubes and an ovary) and
- Laparoscopic uterosacral ligament ablation.

- Most LAVH ureteral injuries occur near cardinal and uterosacral ligaments.
- Caused by either thermal-electrocautery or sharp dissection, CO2 laser, endoscopic linear stapler and loop ligature.

MECHANISMS OF INJURY

Mechanism of injury

1. Crushing with clamp- necrosis
2. Ligature- suture/ linear stapler
3. Transection- Partial/ Complete
4. Angulation with secondary abstraction (kinking)- partial/ complete
5. Ischaemia- Diathermy, Stripping of adventitia
6. Segmental Resection- Intentional/ Accidental
7. Thermal burns- Diathermy (Mono > Bi-Polar), Laser energy



CLASSIFICATION

- Americal Association for the Surgery of Trauma(AAST) Ureteral injury grading scale:

GRADE*	TYPE	DESCRIPTION
I	Hematoma	Contusion or hematoma without devascularization
II	Laceration	<50% transection
III	Laceration	≥50% transection
IV	Laceration	Complete transection with <2 cm devascularization
V	Laceration	Avulsion with >2 cm devascularization

*Advance one grade for bilateral up to grade III.

PREVENTION

Box 1. Preventive strategies to reduce the risk of ureteric injuries

- Appropriate operative approach
- Adequate exposure
- Avoid blind clamping of blood vessels
- Ureteric dissection and direct visualisation
- Mobilise bladder away from operative site
- Short diathermy applications

ROLE OF PREOPERATIVE PROPHYLACTIC URETERAL STENTING:

- ✓ Assists in visualisation and palpation in complicated cases.
- ✓ Also advantageous in making it easier to detect ureteral injury.
- ✓ But it **does not decrease the rate of injury**.
- Lighted fiberoptic ureteral catheters(5Fr)- new introduction.

- **Haematuria** is an unreliable & poor indicator of ureteral injury, present in only 50-75%.
- Cystoscopy without indigo carmine/methylene blue administration, used to document the absence of hematuria and the presence of bilateral ureteral jets, is a poor predictor of injury.

Note: The IV methylene blue and indigo carmine are generally considered by most anesthesiologists to be benign drugs, but their use has resulted in patient deaths and fetal deaths when used in pregnant women. It always must be avoided in pregnant women and in patients who are taking selective (e.g., paroxetine, sertraline, fluoxetine, fluvoxamine, citalopram) or nonselective (e.g., imipramine) serotonin reuptake inhibitors. Methylene blue is a potent monoamine oxidase inhibitor and has caused deaths from serotonin toxicity in patients taking medications that increase serotonin levels. IV methylene blue also should be avoided in patients with glucose-6-phosphate dehydrogenase deficiency because it can cause methemoglobinemia and hemolysis. IV indigo carmine is implicated in rare but serious cases of bronchospasm, bradycardia, hypertension, hypotension (most common), and anaphylactoid reactions.

MANAGEMENT

- No specific medical therapy for ureteric injury.
- Immediate repair of ureteral injury advisable.
- Optimal time for repair of a ureteral injury is during the operation; the tissues are in their best condition, options and likelihood for success are greatest.
- Immediate repair provides better results and fewer complications than in a delayed fashion.
- Management depends on nature, severity, length & location of injury.

Reconstructive Procedures

- Ureteral resection & Uretero-ureterostomy
- Trans-uretero-ureterostomy
- Uretero-neo-cystostomy/Reimplantation
- Ureterocalycostomy
- Psoas hitch
- Boari flap
- Ileal interposition graft/Ileal ureter
- Renal autotransplantation

Principles of surgical repair of ureteral injury:

- Debridement of necrotic tissue.
- Ureteric dissection preserving adventitial sheath and its blood supply.
- Spatulation of ureteral ends.
- Tension-free, watertight mucosa-to-mucosa anastomosis with absorbable sutures.
- Internal stenting.
- External drain.
- Isolation of injury with peritoneum or omentum.

- Immediate diagnosis of a **ligation injury** intraoperatively can be managed by de-ligation & stent placement.
- **Partial injuries** can be repaired immediately with a stent.
- Stenting is helpful because it provides canalisation and may decrease the risk of stricture.

M/m Based on Site of injury

Site of injury	Reconstruction options
Upper ureter	Uretero-ureterostomy
	Transuretero-ureterostomy
	Uretero-calycostomy
Mid ureter	Uretero-ureterostomy
	Transuretero-ureterostomy
	Ureteral reimplantation and a Boari flap
Lower ureter	Ureteral reimplantation
	Ureteral reimplantation with a psoas hitch
Complete	Ileal interposition graft
	Autotransplantation

PROXIMAL & MID-URETERAL INJURY:

- Injuries shorter than 2-3 cm-Primary uretero-ureterostomy.
 - When not feasible- Uretero-calycostomy.
 - Extensive ureteral loss-Transuretero-ureterostomy(proximal stump of ureter is transposed across the midline and anastomosed to the contralateral ureter).
- #### DISTAL URETERAL INJURY:
- Ureteroneocystostomy/Ureteric reimplantation-best.
 - Refluxing vs.non-refluxing--controversial.
 - Psoas hitch-relieves tension off the anastomosis, bridges gap.
 - Boari flap- for extensive mid-lower ureteral injury.

XVI National Conference of NESOG,” April 1st-2nd, 2022

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- “Jeanne Ann Conry” FIGO President

**ORATION : FIGO Global Strategic Planning in Women’s Health:
Beyond the Pandemic**

JEANNE ANN CONRY MD, PHD

President, The Environmental Health Leadership Foundation (EHLF)

Past President, The International Federation of
Gynecology and Obstetrics

Past President, The American College of
Obstetricians and Gynecologists

Past Chair California District IX ACOG

Executive Board Member: P2i Preconception to
Infancy and The Forum Institute

Retired OBGYN from Kaiser Permanente,
Northern California

MD University of California, Davis, PhD
University of Colorado, Boulder, BA California
State University, Chico

Fellow of the American College of Obstetricians
and Gynecologists

Honorary Fellowship: AOFOG, Canada,
France, EBCOG, Germany, India, Ireland,
Japan, Philippines, RCOG, Taiwan



*HONORED by: The United States House of Representatives for accomplishments in women’s health with
a commendation into the Congressional Record, The Visionary Leadership Award from the University of
California, Environmental Protection Agency: The Pacific Southwest Region Children’s Environmental
Health Champion Award. Placer County California*



Dr. Ganesh Dangal, Distinguished Colleagues and Members of NESOG. I am honoured to present the Shree Hira Nanda Vaidya Memorial Oration today. We are just regaining our societies and our camaraderies after over two years of COVID and the havoc it has wreaked on Society, lives and of course our patients. It is fitting that my first visit to a member society as President is to a Country like Nepal. You might be small but you are mighty. I am honoured to have this opportunity to meet Professor Sanu Dali. What I can say is my talk is really is Empowering Women- FIGO must be the voice to empower, in reproductive health, in choice to conceive or not conceive or to terminate a pregnancy. We are empowering women that they should be educated, they should be able to be independent and leaders. From what I understand – Shree Hira Nanda Vaidya believed in education and education is the foundation of empowerment and independence.

To day, I am going to present the FIGO Strategic plan, but provide some basis for looking back and hopes for looking forward- our strategic plan believes women must be empowered.



FIGO Global Strategic Planning in Women's Health: Beyond the Pandemic

JEANNE ANN CONRY, MD, PHD
PRESIDENT
THE INTERNATIONAL FEDERATION OF GYNECOLOGY AND OBSTETRICS
APRIL 1, 2022

the Global Voice for Women's Health



I HAVE NO CONFLICTS OF INTEREST TO DECLARE

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THE PARTICIPANT WILL

- Continue to be a leader in all aspects of obstetrics and gynecology: hospital, community, nation, region, THE WORLD
- Understand the purpose of setting a strategic plan in place
- Help us all achieve the goals of FIGO by making the COMMITMENTS
- Help grow our FOUNDATION through: Education, Advocacy, Knowledge interpretation and implementation, and Capacity building

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FIGO GOVERNANCE

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THE FIGO PENTAD

- ✓TRUSTEES AND COUNCIL
- ✓MEMBER SOCIETIES AND REGIONAL FEDERATIONS
- ✓DIVISIONS AND COMMITTEES
- ✓ECAC
- ✓HEADQUARTERS STAFF

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FIGO GOVERNANCE



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GOVERNANCE-COUNCIL

Continuing members for 2021-2023

- Australia and New Zealand
- Brazil
- Chile
- Colombia
- Ecuador
- Guatemala
- Iceland
- Italy
- South Africa
- Spain
- Sweden
- Turkey

Newly elected members for 2021-2023

- Finland
- Germany
- Greece
- India
- Japan
- Korea
- Mexico
- New Zealand
- Norway
- Sweden
- United Arab Emirates
- United Kingdom
- United States of America

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FIVE FIGO REGIONS

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The Women's Health Agenda: Core Areas for Uptake

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EDUCATION, COMMUNICATION AND ADVOCACY CONSORTIUM--- ECAC

FIGO VP-CHAIR
FIGO PRESIDENT-ELECT
CEO
COMMUNICATIONS DIRECTOR
MEMBER SOCIETY
ENGAGEMENT LEAD
REGIONAL TRUSTEES

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FIGO HEADQUARTERS

STAFF

Chief Executive

- FIGO GLOBAL WORK
- FINANCIAL
- COMMUNICATIONS
- PROJECTS

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THE FIGO STRATEGIC PLAN

PLAN FOR A DECADE, BUT CELEBRATE BIENNIALY

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Overview

FIGO has a vision that women of the world achieve the highest possible standards of physical, mental, reproductive and sexual health and wellbeing throughout their lives.

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"Women are not dying because of untreatable diseases. They are dying because societies have yet to value the doctors that their lives are worth saving. The lives are worth saving, the lives are worth saving, the lives are worth saving."

FIGO International
100th Anniversary 1919-2019

the Global Voice for Women's Health



THE FOUR
PILLARS OF
FIGO

FIGO International
100th Anniversary 1919-2019



FIGO International
100th Anniversary 1919-2019

Our mission

FIGO will advocate for all women's health, safety, and reproductive health for women and girls, and advance the science, education, and governance through evidence-based research, advocacy, and capacity building.



FIGO International
100th Anniversary 1919-2019

Our goals

- Advance the health and well-being of women and girls worldwide by creating evidence-based research.
- Advance the health and well-being of women and girls worldwide by creating evidence-based research.
- Advance the health and well-being of women and girls worldwide by creating evidence-based research.



FIGO International
100th Anniversary 1919-2019

Our commitments

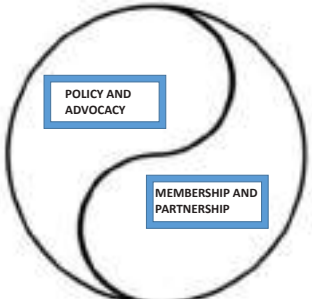
- Advocate for the health and well-being of women and girls worldwide by creating evidence-based research.
- Advocate for the health and well-being of women and girls worldwide by creating evidence-based research.
- Advocate for the health and well-being of women and girls worldwide by creating evidence-based research.



FIGO International
100th Anniversary 1919-2019

Advancing our goals
the path forward

the Global Voice for Women's Health



TO ACHIEVE
FIGO GOALS

POLICY AND
ADVOCACY

MEMBERSHIP AND
PARTNERSHIP



AN EXAMPLE-GOAL ONE

POLICY AND ADVOCACY
MEMBERSHIP AND PARTNERSHIP

the Global Voice for Women's Health

Improve the health and wellbeing of women and girls across their life course worldwide



GOAL ONE

Through policy and advocacy, we will

- advocate for universal health coverage, including primary prevention, medical and surgical care
- reduce maternal morbidity and mortality
- coordinate efforts to reach international development targets, especially in the areas of maternal and newborn health, sexual prevention and treatment, non-communicable diseases and environmental safety
- work with governments to promote the health and wellbeing of women and girls
- strengthen partnerships with professional organisations and public and private sectors to undertake collaborative efforts for the advancement of women and girls' health and rights

Through our membership and partnerships, we will

- strengthen communication with member and partner states of FIGO
- of highest reputation of member states and increase value of membership
- work in close collaboration with regional federations
- work with international partners along a global scale in the development and implementation of sustainable programmes aimed at the achievement of core objectives to women and girls
- promote in collaborative data sharing, benchmarking, research and training publications, including a timely dissemination of local, regional and global levels

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The Women's Health Agenda: Core Across the Lifespan

the Global Voice for Women's Health



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Through our membership and partnerships, we will



- use **modern technology and communications** to better inform and engage all committees, working group members and our stakeholders
- **encourage collaboration** between divisions, committees and FIGO projects
- create **efficient organisational capacity** and structure to achieve the overall goals with the support of FIGO HQ and FIGO Council, and the involvement of national and regional organisations
- develop a FIGO **virtual university** to be accessed by partner organisations around the globe and develop and maintain virtual platforms
- generate sufficient **income** to support FIGO activities
- **support women in leadership roles at all levels of FIGO**
- ensure **financial stability of FIGO** as we move into the post-COVID era

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FIGO Divisions and Committees

FIGO Divisions and Committees bring together experts from our member societies with other health care professionals focusing on specialized areas of research and governance to manage global collaboration in longer term global health outcomes. With a focus on research, education, training, clinical and research, and patient care, FIGO Divisions and Committees provide a platform for global collaboration and governance. FIGO Divisions and Committees are committed to promoting global and activities, identifying opportunities for collaboration and ensuring that their efforts are in line with FIGO's mission.

the Global Voice for Women's Health

Dr Ganesh Dangal



the Global Voice for Women's Health



the Global Voice for Women's Health

EDUCATION, COMMUNICATION
AND ADVOCACY
CONSORTIUM---
ECAC

FIGO VP-CHAIR
FIGO PRESIDENT-ELECT
CEO
COMMUNICATIONS DIRECTOR
MEMBER SOCIETY
ENGAGEMENT LEAD
REGIONAL TRUSTEES



the Global Voice for Women's Health



Recorded on Thursday 17 March 2022

FIGO

PARTNERSHIPS

FIGO MUST FOSTER RELATIONSHIPS WITH OTHER ORGANIZATIONS

FIGO

Partnership for Maternal Newborn Child Health (PMNCH)

PMNCH is the world's largest alliance for women's, children's and adolescents' health and well-being, with over 1,000 partner organizations across its 10 constituencies

World Health Organization

Geneva headquarters and 6 regional offices, 150 country offices and offices around the world, WHO plays an essential role improving local health systems and coordinating the global response to health threats

UNFPA

UNFPA is the United Nations sexual and reproductive health agency. Our mission is to deliver a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled.

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FIGO

International Pediatric Association

The International Pediatric Association (IPA) exists to create a world where all children, regardless of age, location or family situation can live healthy lives.

International Federation of Fertility Societies

Promote and develop educational initiatives in the field of reproductive health in support of World Health Organization (WHO) aims and objectives and the renewed focus and prioritization the WHO has given to infertility as a disease

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FIGO

Health and Environment Alliance

To build a world in which today's and future generations can benefit from a clean environment to enjoy long and healthy lives – without health-harming chemicals, with clean air and healthy food and with a toxic free, renewable and sustainable economy and society.

International Confederation of Midwives

The International Confederation of Midwives envisions a world where every childbearing woman has access to a midwife's care for herself and her newborn.

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FIGO the global voice for women's health



"It is the long history of humankind (and animal kind, too) that those who learned to collaborate and improvise most effectively have prevailed."
– Charles Darwin

FIGO

THE PATH FORWARD

LEADERSHIP

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FIGO LOGIC Initiative 2008-2013

- Improve maternal and newborn health in low-resource countries through strengthening the role of obstetric and gynecological national associations
- Increase the implementation, monitoring and evaluation of national maternal and newborn health plans.
- India and [NEPAL](#)
- Burkina Faso, Cameroon, Ethiopia, Uganda, Nigeria, Mozambique

Taylor, D. 2015. The role of health professional organizations in improving maternal and newborn health: The FIGO LOGIC experience. UOG 131: S71-74

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GOALS

- Support eight FIGO member associations to strengthen their capacity to work effectively
- Influence national policies on maternal and newborn health
- Work toward improving clinical practice

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SUSTAINABILITY OF THE LOGIC INITIATIVE

- the associations proved successful in enhancing considerably their [association's vision, mission, and values](#)
- strengthened capacity was particularly in the areas of [advancing professional practice](#)
- improved operational capacity of the associations led directly and indirectly to an [increased network](#) and increased recognition as stakeholders
- All the eight participating associations signed a memorandum of understanding (MOU) with their [ministries of health](#)
- All the associations now have a [functioning relationship](#) with the relevant departments and groups within the ministry of health in their country

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FIGO LEADERSHIP DEVELOPMENT INITIATIVE

ANTENATAL STEROIDS FOR PRETERM BIRTH
MAGNESIUM SULFATE FOR PREECLAMPSIA
ANEMIA AND PREGNANCY
CONTRACEPTION AND POST PARTUM CARE

the Global Voice for Women's Health



FIGO PROPOSAL

- TAKE **TWO REGIONS** WITH HIGH MATERNAL MORTALITY
[Asia and Sub-Saharan Africa](#)
- **Identify Leaders:** developing-all stages of practice and life
- Provide a **Leadership Development Initiative** that focuses on the challenges that need to be addressed
- **Implement change EFFORTS** specifically around Magnesium Sulphate, Antenatal corticosteroids, Anemia and Post Partum Contraception

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LEADERSHIP

- **Knowledge**—does the research apply TO ME??
- **Comfort**-- in what we know and why we do it
- **Culture**- how it has always been done?
- **Access**--- are there systematic barriers to change
- **How** do I develop a "Change Leader" or Champion?
- **HOW** do I approach Ministers—Health, Finance, Gender?

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LOGIC MEETS DEVELOPMENT



- How do we learn from societies that participated in LOGIC?
- How do we mentor/partner?
- How do we extend to more than 4-8 societies—what does it take to develop and arrange success?
- Can LOGIC Societies mentor other societies? And how do we formalize these relationships?

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It is the action, not the fruit of the action, that is important. You have to do the right thing. It may not be in your power, may not be in your time, that there'll be any fruit. But that doesn't mean you stop doing the right thing. You may never know what results come from your action. But if you do nothing, there will be no result.

Mahatma Gandhi



XVI International Conference of NESOG, March 31st -April 1st, 2023

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Professor Michael Robson

ORATION : “Intention to Treat” “ –“A Concept Worth Understanding”



Shri Hirananda Vaidya Oration

Ten Group Classification System and "the intention to treat" – a concept worth understanding

NESOG 2023



Michael Robson
The National Maternity
Hospital
Dublin, Ireland
Mrobson@nmh.ie



Ten Group Classification System - concept

1988 – 2023

Originally started because of the debate around the management and CS rate in the

Spontaneously labouring nulliparous women with a single cephalic pregnancy at greater or equal to 37 weeks gestation

Evidence based medicine

Competing philosophies

Process driven

Randomised controlled trials

Outcome driven

Perinatal audit (epidemiology)

Other organisations interested in quality

Business

Professional Sport

Assessing safety, quality and consistency - Perinatal Audit

The first measure of safety, quality and consistency in any organisation is knowing what your results are
(Routine data collection)

The second measure of safety, quality and consistency is the ability to understand the results, compare them with other delivery units and use them to improve quality of care
(Classification)

Perinatal Audit - why is it so difficult?

Not recognised as an entity, specialist area or even at all useful
(poor relation of randomised controlled trials which essentially compares processes only)

Collection of routine quality data is resource dependent, requiring total organisational commitment

No accepted classifications, principles or training programmes

Perinatal Audit - why is it so difficult?

Few delivery units, regions, countries have committed to routine quality data collection and classification of information

Principles of classification

Understanding the purpose, importance, benefits and challenges of classification

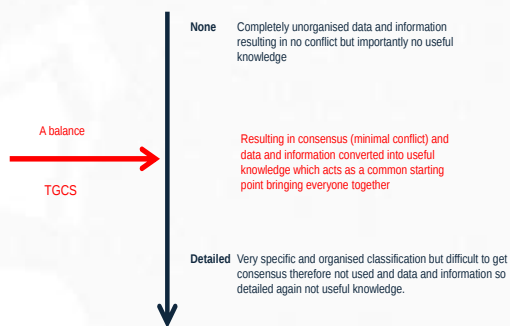
To convert raw data and information into useful knowledge which will help us to learn from each other and improve care

Achieving complexity (*useful knowledge*) through simplicity (*intelligent organisation of raw data*)

Understanding the purpose, importance, benefits and challenges of classification

Definitions
Denominators
Incidence

Hierarchy of classification systems



Principles of an ideal classification system

Simple, easy to implement, informative (an overview, starting point) useful, not the endpoint

Robust (stable), self validating and universal

Prospectively determined, clinically relevant, identifiable, totally accountable and replicable

The groups must be objectively not subjectively defined, mutually exclusive and totally inclusive

Remove variables, must not depend on a type of management but interpret accordingly

Classifying Perinatal Events and Outcome – Obstetrical Concepts and their Parameters

Previous Obstetric Record	Nulliparous Multiparous without a CS scar, Multiparous with a CS scar
Category of pregnancy	Single cephalic Single breech Multiple pregnancy Single transverse or oblique lie
Course	Spontaneous labour Induced labour Prelabour caesarean section
Gestation	The number of completed weeks at delivery

Philosophy of the 10 Group Classification

Simplicity
(Clarity of thought, structure and discipline)

A common language

Stimulates interest, discussion, education and understanding
Encourages long term commitment and responsibility particularly those at the frontline of care and is very inclusive

Philosophy of the 10 Group Classification

Based on the premise that all information
(epidemiological, maternal and fetal events, outcomes, cost and organisational)

will be more clinically relevant by stratifying them using the 10 groups and their subgroups

Philosophy of the 10 Group Classification

No perinatal event or outcome (*including and especially CS*) should be considered in isolation from other events, outcomes and organisational issues

Philosophy of the 10 Group Classification - and the advantage of classification

Any differences in sizes of groups or events and outcomes in the groups are either due to

Data quality
Differences in significant epidemiological factors
Differences in practice

Philosophy of the 10 Group Classification - and the advantage of classification

Validation of the data quality and clinical interpretation is then possible because of the relative homogenous nature of the groups and also because of the consistency of the sizes of the groups and the incidence of the events, outcomes and complications within the groups

However there are often unique data sets and analysis of the TGCS will prompt the questions encouraging us to seek the answers

Philosophy of the 10 Group Classification

Embrace different ways of care

and

rather than concentrating on standardising processes
standardise the way we carry out perinatal audit so greater learning and comparison can take place between delivery units

Philosophy of the 10 Group Classification

The actual detailed processes of care are not what I believe will define us as midwives and obstetricians but the standardisation of information collection on events and outcomes surrounding labour and delivery will

Presentation and interpretation of the data

Principles of presentation

Standard presentation table and slide

1 Nullip single ceph >=37 wks spon lab
2 Nullip single ceph >=37wks ind. or CS before lab
3 Multip (excl prev caesarean sections) single ceph >=37 wks spon lab
4 Multip (excl prev caesarean sections) single ceph >=37wks ind. or CS before lab
5 Previous caesarean section single ceph >= 37 wks
6 All nulliparous breeches
7 All multiparous breeches (incl previous caesarean sections)
8 All multiple pregnancies (incl previous caesarean sections)
9 All abnormal lies (incl previous caesarean sections)
10 All single ceph <= 36 wks (incl previous caesarean sections)
Unclassified

Check and confirm the clinical groups

Formed from the obstetrical concepts and parameters already presented, clinically relevant and contribute to clinical understanding and validating the data of the population being examined

Why no more subgroups? (Less is sometimes more in communicating information)

The different groups and their specific row on the slide have been chosen to give maximum immediate information

The TGCS is totally inclusive and mutually exclusive

Unclassified group

National Maternity Hospital, Dublin Caesarean Sections - the 10 Groups 2022

Total number of caesarean sections over the overall total number of women

	2022
	2341/6815
	34.4%
1 Nullip single ceph >=37 wks spon lab	118/993
2 Nullip single ceph >=37wks ind. or CS before lab	694/1524
3 Multip (excl prev caesarean sections) single ceph >=37 wks spon lab	15/1359
4 Multip (excl prev caesarean sections) single ceph >=37wks ind. or CS before lab	181/1229
5 Previous caesarean section single ceph >= 37 wks	811/954
6 All nulliparous breeches	167/178
7 All multiparous breeches (incl previous caesarean sections)	76/87
8 All multiple pregnancies (incl previous caesarean sections)	101/130
9 All abnormal lies (incl previous caesarean sections)	27/27
10 All single ceph <= 36 wks (incl previous caesarean sections)	151/334
Unclassified	

Check that the numbers add up to the total

Number of caesarean sections over the total number of women in each group

National Maternity Hospital, Dublin

Caesarean Sections - the 10 Groups

Size of each group is the total number of women in each group divided by the overall total number of women

	2022 2341/6815 34.4%	Size of group %	
1 Nullip single ceph >=37 wks spon lab	118/993	14.6	Check the following sizes and ratios
2 Nullip single ceph >=37wks ind. or CS before lab	694/1524	22.4	
3 Multip (excl prev caesarean sections) single ceph >=37 wks spon lab	15/1359	19.9	Groups 1+2 35-42% Ratio Groups 1/2 2:1
4 Multip (excl prev caesarean sections) single ceph >=37wks ind. or CS before lab	181/1229	16.0	
5 Previous caesarean section single ceph >= 37 wks	811/954	14.0	Groups 3+4 Depends on CS rate in 1+2. Ratio 3:1. Always greater than ratio Groups 1/2 in same population
6 All nulliparous breeches	167/178	2.6	Group 5 Approximately half total CS rate
7 All multiparous breeches (incl previous caesarean sections)	76/87	1.3	Groups 6/7 3-4% total size Ratio Groups 6/7 1.5:1
8 All multiple pregnancies (incl previous caesarean sections)	101/130	1.9	Groups 8 1.5-2.0%
9 All abnormal lies (incl previous caesarean sections)	27/27	0.4	Groups 9 Less than 1%
10 All single ceph <= 36 wks (incl previous caesarean sections)	151/334	4.9	Groups 10 Less than 5%
Unclassified			Unclassified Always 0%

National Maternity Hospital, Dublin

Caesarean Sections - the 10 Groups

CS rate in each group is worked out for each group by dividing the number of caesarean sections in each group by the number of women in each group

	2022 2341/6815 34.4%	Size of group %	C/S rate in gp %	
1 Nullip single ceph >=37 wks spon lab	118/993	14.6	11.9	Check the following sizes and ratios
2 Nullip single ceph >=37wks ind. or CS before lab	694/1524	22.4	45.5	
3 Multip (excl prev caesarean sections) single ceph >=37 wks spon lab	15/1359	19.9	1.1	Groups 1 Less than 1%
4 Multip (excl prev caesarean sections) single ceph >=37wks ind. or CS before lab	181/1229	16.0	14.7	Groups 2 20-35%
5 Previous caesarean section single ceph >= 37 wks	811/954	14.0	85.0	Groups 3 Less than 1%
6 All nulliparous breeches	167/178	2.6	93.8	Groups 4 Less than 1%
7 All multiparous breeches (incl previous caesarean sections)	76/87	1.3	87.4	Groups 5 60%
8 All multiple pregnancies (incl previous caesarean sections)	101/130	1.9	77.7	Groups 6 7+ 80%
9 All abnormal lies (incl previous caesarean sections)	27/27	0.4	100	Groups 8 60%
10 All single ceph <= 36 wks (incl previous caesarean sections)	151/334	4.9	45.2	Groups 9 Always 100%
Unclassified				Groups 10 30% relative incidence spontaneous lab

National Maternity Hospital, Dublin

Caesarean Sections - the 10 Groups

Absolute contribution of each group to the overall CS rate is worked out by dividing the number of CS in each group by the overall population of women. This will depend on the size of the group as well as the CS rate in each group

	2022 2341/6815 34.4%	Size of group %	C/S rate in gp %	Contr of each gp 34.4 %	
1 Nullip single ceph >=37 wks spon lab	118/993	14.6	11.9	1.7	The absolute (not relative) contribution to the overall CS rate is most useful and ensure that it adds up to the total CS rate
2 Nullip single ceph >=37wks ind. or CS before lab	694/1524	22.4	45.5	10.2	
3 Multip (excl prev caesarean sections) single ceph >=37 wks spon lab	15/1359	19.9	1.1	0.2	
4 Multip (excl prev caesarean sections) single ceph >=37wks ind. or CS before lab	181/1229	16.0	14.7	2.7	
5 Previous caesarean section single ceph >= 37 wks	811/954	14.0	85.0	11.9	
6 All nulliparous breeches	167/178	2.6	93.8	2.5	
7 All multiparous breeches (incl previous caesarean sections)	76/87	1.3	87.4	1.1	
8 All multiple pregnancies (incl previous caesarean sections)	101/130	1.9	77.7	1.5	
9 All abnormal lies (incl previous caesarean sections)	27/27	0.4	100	0.4	
10 All single ceph <= 36 wks (incl previous caesarean sections)	151/334	4.9	45.2	2.2	
Unclassified					

National Maternity Hospital, Dublin

Caesarean Sections - the 10 Groups

Groups 1, 2 and 5 contribute to two thirds of all caesarean section rates and are the source of biggest variation between units 21.4%

	2022 2341/6815 34.4%	Size of group %	C/S rate in gp %	Contr of each gp 34.4 %	
1 Nullip single ceph >=37 wks spon lab	118/993	14.6	11.9	1.7	The absolute (not relative) contribution to the overall CS rate is most useful and ensure that it adds up to the total CS rate
2 Nullip single ceph >=37wks ind. or CS before lab	694/1524	22.4	45.5	10.2	
3 Multip (excl prev caesarean sections) single ceph >=37 wks spon lab	15/1359	19.9	1.1	0.2	
4 Multip (excl prev caesarean sections) single ceph >=37wks ind. or CS before lab	181/1229	16.0	14.7	2.7	
5 Previous caesarean section single ceph >= 37 wks	811/954	14.0	85.0	11.9	
6 All nulliparous breeches	167/178	2.6	93.8	2.5	
7 All multiparous breeches (incl previous caesarean sections)	76/87	1.3	87.4	1.1	
8 All multiple pregnancies (incl previous caesarean sections)	101/130	1.9	77.7	1.5	
9 All abnormal lies (incl previous caesarean sections)	27/27	0.4	100	0.4	
10 All single ceph <= 36 wks (incl previous caesarean sections)	151/334	4.9	45.2	2.2	
Unclassified					

National Maternity Hospital, Dublin

Caesarean Sections - the 10 Groups

Groups 6, 7, 8, 9, 10. Small groups, high CS rates but small overall absolute contributions to the total CS rate and very similar between different units

	2022 2341/6815 34.4%	Size of group %	C/S rate in gp %	Contr of each gp 34.4 %
6 All nulliparous breeches		2.6	93.8	2.5
7 All multiparous breeches (incl previous caesarean sections)		1.3	87.4	1.1
8 All multiple pregnancies (incl previous caesarean sections)		1.9	77.7	1.5
9 All abnormal lies (incl previous caesarean sections)		0.4	100	0.4
10 All single ceph <= 36 wks (incl previous caesarean sections)		4.9	45.2	2.2
Unclassified				

The Caesarean Section debate

The biggest criticism we will face in the future is not that the Caesarean Section rate was allowed to increase

but

that we made no effort to study it or its implications scientifically (Perinatal Audit)

Indications for Caesarean Sections

The TGCS tells you in which women the CS is carried out in but not why the CS is done

There is no accepted international classification of indications for caesarean section

It is a mess

Classification of Indications for Caesarean Sections

Pre labour (Elective and emergency)
Spontaneous and induced labour

Caesarean Section Audit

Total Caesarean Section rate	NMH (2020)	34.4%
Pre labour		21.9 %
After spontaneous or induced labour		12.5%
		(3.2% and 9.3%)

Classification of Indications for Caesarean Sections

Pre-Labour

Fetal

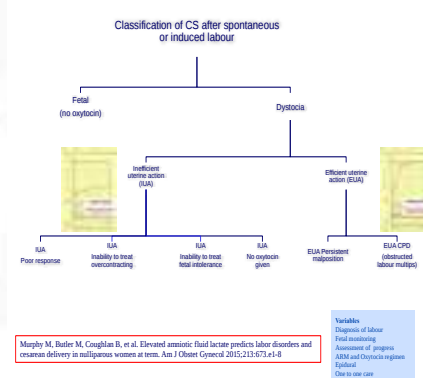
Maternal

Maternal request

Maternal request Caesarean Section

Definition

At the time of the request by the woman in the opinion of the obstetrician there is a greater relative risk of a significant adverse outcome to mother or baby by carrying out a caesarean section than awaiting spontaneous labour and delivery or inducing labour



Validating a Caesarean section rate

- 1 **Ten Group Classification System**
- 2 Indications for Caesarean Sections
- 3 Casemix (including significant epidemiological factors)
- 4 Perinatal outcomes (Maternal and Neonatal) Clinical and organisational
- 5 **Processes**

Antenatal preparation, Pre labour CS, Maternal request CS, Induction of labour, Diagnosis of Labour, Artificial Rupture of Membranes, Maternal and Fetal Wellbeing, Diagnosis and Treatment of Dystocia, Oxytocin regimen, Analgesia

Ten Group Classification System

Will not reach its full potential until individual countries, professional organisations and individual delivery units fully understand it, what its potential might be and commit to it

At the moment it is not been used anyway near its full potential

Ten Group Classification System

Will be useful in interpreting large observational studies and randomised controlled trial results

Concept of “Intention to treat” for observational data

Concept well established for RCTs

Concept of "Intention to treat" for observational data

For this to succeed you need prospectively identifiable groups of women which you look at longitudinally throughout the pregnancy according to different philosophies of care

Concept of "Intention to treat" for observational data

The intention to treat according to your processes, policies and guidelines

Original cohort of patient may be a hospital population, a group practice, an individual's practice or a specifically pre defined group of women

Concept of "Intention to treat" for observational data

The TGCS will inform on the makeup of your original population by the standard table

and

also on the individual groups of women within the TGCS



*"Not just a classification of Caesarean Sections
- but a Perinatal Classification System"*



Simple, objective, **prospective (intention to treat)**, mutually exclusive, totally inclusive and informative

Because it is prospective lessons learnt can be quickly applied

*"It is merely a beginning..... not an end in itself"
"An initial overview"*

Structured Perinatal Audit and using the Ten Group Classification System - why is it so difficult?

It is an irony that in low and middle income countries there is no electronic tool at all to carry out structured perinatal audit while in high income countries the electronic health records have become so complex that again it is very difficult to carry out structured perinatal audit

Intrapartum audit software program (IASP)

Low and middle income countries

(Freely available online)

<https://www.intrapartumaudit.org/index.php>

High income countries

Summary

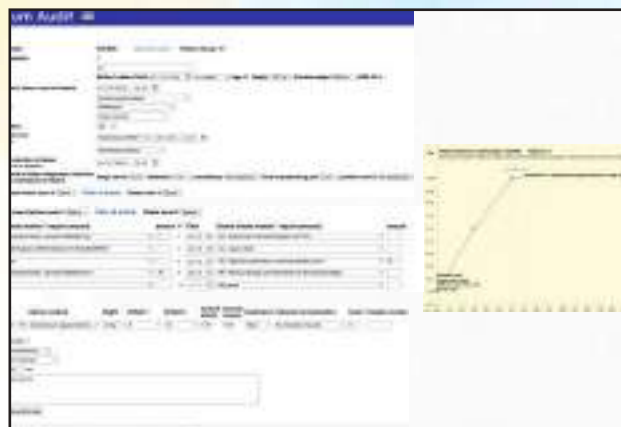
The biggest advance in 21st Century perinatal care to the mother and baby is going to be as a result of better, routine, structured data collection, more sophisticated analysis and improved implementation of appropriate changes which may be different depending on circumstances

MRobson@nmh.ie

Perinatal Audit - what is it in everyday practice?

Continuously looking at your outcomes in a standardised way at the most senior level and publishing a formal written annual report documenting the quantity and quality of care

Essentially a continuous epidemiological study



Intrapartum Audit

Water report

Administration of water during labour (10/10/2019) - 10/10/2019 - 10/10/2019

10/10/2019

Intrapartum Audit

Water report

Administration of water during labour (10/10/2019) - 10/10/2019 - 10/10/2019

10/10/2019

Intrapartum Audit

Water report

Administration of water during labour (10/10/2019) - 10/10/2019 - 10/10/2019

10/10/2019



Water report	10/10/2019	10/10/2019	10/10/2019	10/10/2019
1. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
2. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
3. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
4. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
5. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
6. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
7. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
8. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
9. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019
10. 10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019

List of deliveries: Robson Group 1

(Patient reference code/number) Mother's name as in title: Admission to ante-natal ward, labour ward or theatre: Robson 1

10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019
10/10/2019	10/10/2019	10/10/2019	10/10/2019

10/10 records displayed





Paragraph 168 and Recommendation 31 of the report

168. It is deeply concerning that maternity units appear to have been penalised for high Caesarean Section rates. We recommend an immediate end to the use of total Caesarean Section percentages as a metric for maternity services, and that this is replaced by using the Robson criteria to measure Caesarean Section rates more intelligently. NHS England and Improvement must write to all maternity units to ensure that they are aware of this change.

Evidence based medicine

Safety, quality and consistency are ultimately related to outcome
and
outcome guides processes

Classification of indications of Caesarean Sections - after spontaneous or induced labour

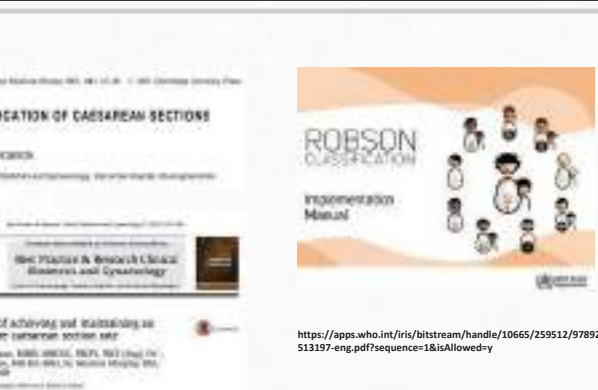
Requirements

- Objective classification of CS in labour (spontaneous/induced)
- Oxytocin needs to be part of it
- Classification can be used irrespective of type of management (diagnosis of labour, fetal monitoring, criteria for assessing and treatment of poor progress, ARM and oxytocin regimen and epidurals)

Classification of indications of Caesarean Sections - after spontaneous or induced labour

Three questions that may help us?

- Is the indication for caesarean section fetal (no oxytocin) or 'dystocia'?
- Has cervical dilatation been more or less than 1 cm/hr?
- Was oxytocin used?



<https://apps.who.int/iris/bitstream/handle/10665/259512/9789241513197-eng.pdf?sequence=1&isAllowed=y>

Validating an optimal Caesarean Section Rate

Level 2 information – key levels of information requirements
Indications for Caesarean Sections

Indications

More importantly indications are of limited value without the Ten Group Classification System

Ten Group Classification System

The development of a common language of analysing childbirth bringing everyone together
Based on simplicity

XVII National Conference of NESOG, April 5th-6th, 2024

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Prof. Dr. Shanthakumari Sekaran

ORATION : Social Determinants of Maternal Health

Prof. S. Shantha Kumari

M.D, D.N.B FICOG, FRCPI (Ireland) FRCOG (UK)

Treasurer FIGO 2023-25

President FOGSI 2021-22

President OGS

President TCOGS

Senior Consultant OBGyn & Laparoscopic Surgeon
Yashoda Hospital, Hyderabad.



Served As



- ♦ Served as President FOGSI 2021-22
- ♦ FIGO Member for Committee for Human Rights, Refugees and Violence Against Woman 2018-2021
- ♦ Chairperson FOGSI- ICOG 2018 | Secretary ICOG 2015-2017
- ♦ Vice President FOGSI 2013
- ♦ IAGE Managing Committee Member 2012-2018
- ♦ Secretary TCOGS
- ♦ FOGSI Chairperson MNNRRC Committee 2008-2010
- ♦ National Corresponding Editor for JOGI 2011-2013

Major Awards and Achievements



- ♦ FRCOG (Honoris causa) UK, 2018
- ♦ FRCPI of the Royal College of Physicians of Ireland, 2017
- ♦ Fellow International Academy of Human Reproduction (IAHR), 2021
- ♦ Initiated DHEERA 2016 - A sociomedical campaign to eliminate Violence Against Women (VAW)
- ♦ 2020 OGS Lifetime Achievement Award
- ♦ 2021 MOGS - Dr. Ganatra Charitable Medical Center Award
- ♦ 2020 MOGS Mr. N.A. Pandit & Mrs. Shailaja N. Pandit Award
- ♦ The Pride of FOGSI Award 2019
- ♦ FOGSI Star Award 2017
- ♦ Young Scientist Award at National IAHR 1997
- ♦ C.L. Jhaveri Award at 42nd AICOG 1998

Conferences Organised



- ♦ Organising Chairperson AICOG 2024
- ♦ AICOG 2011, Organising Secretary
- ♦ ICI 2012, FOGSI FIGO 2013, ICPHRP 2015
- ♦ FOGSI-ICOG FRC 2016, FOGSI-FIGO 2017, FOGSI ICOG PPP2018, FOGSI TAIOS 2019
- ♦ ISAR 2020





SHREE HIRANANDANI
VAIDYA

MEMORIAL ORATION

Social Determinants of Maternal Health



THE MOST CELEBRATED
FEMALE ATHLETES IN
AMERICAN OLYMPIC HISTORY -

WHAT DOES IT LOOK LIKE AN
ULTRA SUCCESS ICON IN THE
FACE OF COMPLICATED
PREGNANCY




IS IT POSSIBLE FOR A
WOMEN TO DELIVER HER
BEST IN TRACKS
IMMEDIATELY AFTER HER
DELIVERY ?

“
WHAT I'M NOT WILLING TO
ACCEPT IS THE ENDURING
STATUS QUO AROUND
MATERNITY. I ASKED NIKE TO
CONTRACTUALLY GUARANTEE
THAT I WOULDN'T BE PUNISHED
IF I DIDN'T PERFORM AT MY BEST
IN THE MONTHS SURROUNDING
CHILDBIRTH. I WANTED TO SET A
NEW STANDARD. IF I, ONE OF
NIKE'S MOST WIDELY MARKED
ATHLETES, COULDN'T SECURE
THESE PROTECTIONS, WHO
COULD? NIKE DECLINED. WE'VE
BEEN AT A STANDSTILL EVER
SINCE.”

“She perfectly demonstrated Nike's
commitment to its pregnant athletes.”
— [Allison Felix](#), elite track and field athlete and Olympian, shares her pregnancy story. She was diagnosed at 32-weeks pregnant with severe preeclampsia – a potentially life-threatening, pregnancy-related complication. Given her exceptional level of fitness and extensive training, she was surprised to learn during a prenatal visit that she had developed high blood pressure. Her doctor admitted her into the hospital for further monitoring and testing. She was then sent for an emergency C-section. Her doctor's fast actions may have saved her life.



TIME

Motherhood Could Have Cost Olympian Allison Felix. She Wouldn't Let It



HEAR HER



Allison Felix, an elite track and field athlete and Olympian, shares her pregnancy story. She was diagnosed at 32-weeks pregnant with severe preeclampsia – a potentially life-threatening, pregnancy-related complication. Given her exceptional level of fitness and extensive training, she was surprised to learn during a prenatal visit that she had developed high blood pressure. Her doctor admitted her into the hospital for further monitoring and testing. She was then sent for an emergency C-section. Her doctor's fast actions may have saved her life.



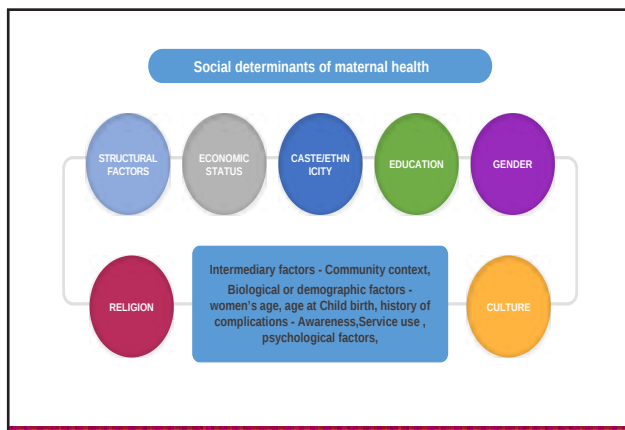
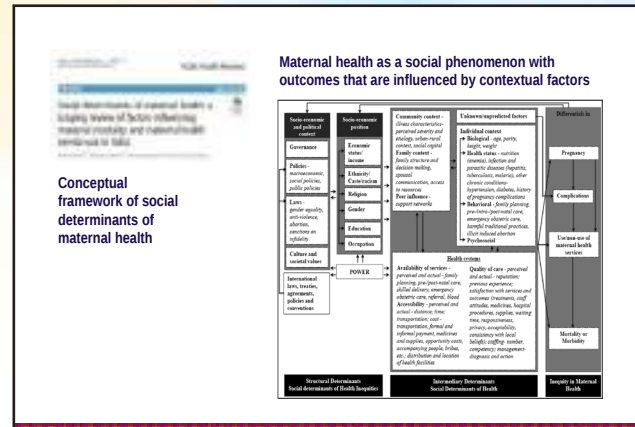
What are Social Determinants

- Social determinants are the factors in the social environment that can shape a person's health, their propensity to illness and access to care.
- They are the social conditions into which people are born, grow, live, work and age that contribute or detract from them being able to live a healthy life.



- Understanding the social determinants of health is a global and national priority as health outcomes are closely linked to living conditions, the quality of the social environment and the inequitable distribution of wealth, power and resources.



Maternal Health today .. Still Mothers die giving Birth

- Each day, almost 800 women—99 percent in developing countries—die from preventable causes related to pregnancy and childbirth. Of the women who die every day, about 440 live in Sub-Saharan Africa, 228 in South Asia and 6 in wealthy countries.
- MATERNAL HEALTH IS INTRICATELY TIED TO WOMEN'S SOCIAL AND ECONOMIC STATUS
- MMR IN NEPAL 151 per 100,000 live births
- Lumbini and Karnaoli HIGH MMR
- Bagmati lower

Women are not dying because of a disease we cannot treat

They are dying because societies have yet to make the decision that their lives are worth saving

MAMOU FATHALLA, PRESIDENT FIGO 1997

The most important social determinants identified in this research included

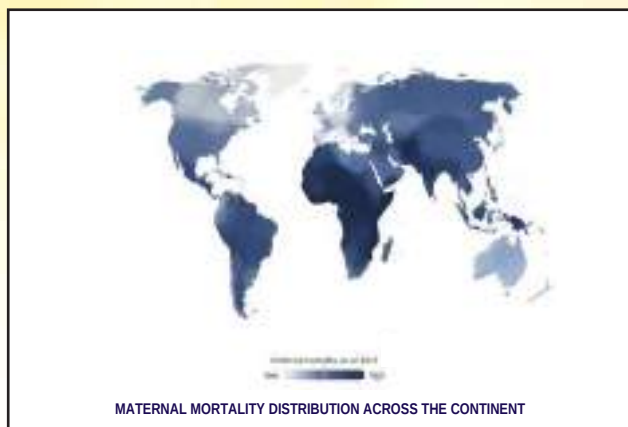
- Health care,
- Education,
- Employment
- Income,
- Sociocultural practices,
- Food and
- Sanitation.

Social Determinants of Maternal Health in Afghanistan: A Review

Said Ahmad Maisam Najafizada¹, Lynn Bourgeault², Ronald Labonte

¹Division of Community Health and Humanities, Faculty of Medicine, Memorial University of Newfoundland, Canada;
²Telfer School of Management, University of Ottawa, Canada;
³School of Epidemiology, Public Health a Preventive Medicine, University of Ottawa, Canada

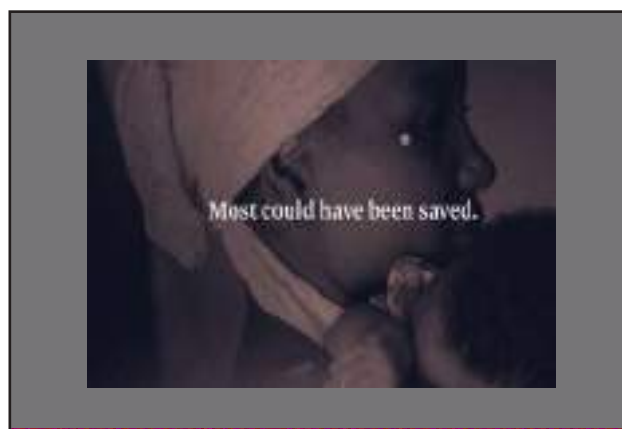




MATERNAL MORTALITY RANKING

Country	Maternal mortality ratio (per 100,000 live births)	Rank
Algeria	100	1
Algeria	100	2
Algeria	100	3
Algeria	100	4
Algeria	100	5
Algeria	100	6
Algeria	100	7
Algeria	100	8
Algeria	100	9
Algeria	100	10
Algeria	100	11
Algeria	100	12
Algeria	100	13
Algeria	100	14
Algeria	100	15
Algeria	100	16
Algeria	100	17
Algeria	100	18
Algeria	100	19
Algeria	100	20

Maternal deaths are not evenly distributed around the world.



SOMETHING BEYOND MEDICAL ISSUES

Over half of maternal deaths occur in countries affected by humanitarian crises or fragility.

- MIGRATION & ASYLUM.
- LARGE INTER & INTRA STATE
- INEQUITIES IN MATERNAL HEALTH SERVICE USE REMAINS A MAJOR HEALTH PROBLEM.

National Family Health Survey (NFHS-5) 2017-21

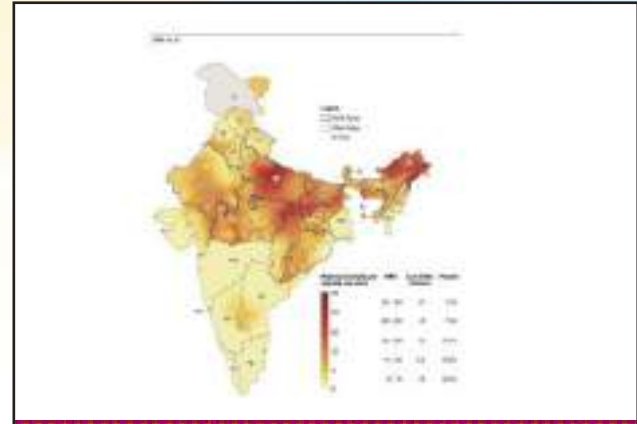
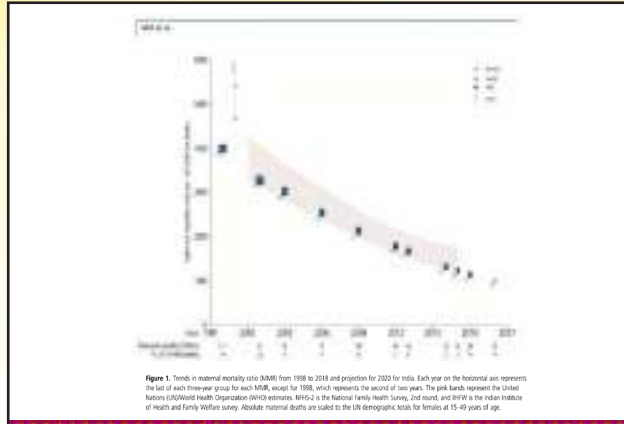
The woman's schedule
Marriage,
Fertility,
Contraception,
Children's immunizations
and healthcare,
Nutrition,
Reproductive health,
Sexual behaviour,
HIV/AIDS
Women's empowerment,
Domestic Violence.

The Man's Schedule covered the man's characteristics, marriage, his number of children, contraception, fertility preferences, nutrition, sexual behaviour, health issues, attitudes towards gender roles, and HIV/AIDS

Trends in maternal mortality in India over two decades in nationally representative surveys

C. Moh, A. Sharma, U. Ban, S. Fadil, A. Gomes, J. W. Gallegos, P. Shah, R. Begum, M. Shah, T. Hana, S. H. Li, L. Rosendorn, B. Mahesh, P. R. R.

Research Article
Epidemiology



Causes of maternal death

Table 3. Causes of maternal death in the India Health Study (IHS) in 2016 and projected estimates for 2020

State of death (ICD-10 codes)	Deaths	Proportion (%)	Estimated deaths in 2020 (95% CI)
Direct causes			
Haemorrhage (ICD-10: O86, O87, O88, O89, O90)	36	30.3 (24.8-36.9)	17,220 (14,860-19,580)
Pregnancy-related infection (ICD-10: O98, O99, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O22, O23, O24, O25, O26, O27, O28, O29, O30, O31, O32, O33, O34, O35, O36, O37, O38, O39, O40, O41, O42, O43, O44, O45, O46, O47, O48, O49, O50, O51, O52, O53, O54, O55, O56, O57, O58, O59, O60, O61, O62, O63, O64, O65, O66, O67, O68, O69, O70, O71, O72, O73, O74, O75, O76, O77, O78, O79, O80, O81, O82, O83, O84, O85, O86, O87, O88, O89, O90, O91, O92, O93, O94, O95, O96, O97, O98, O99)	63	52.5 (47.2-57.8)	29,880 (26,000-33,760)
Unspecified abortion (ICD-10: O00, O01, O02, O03, O04, O05, O06, O07, O08, O09, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O22, O23, O24, O25, O26, O27, O28, O29, O30, O31, O32, O33, O34, O35, O36, O37, O38, O39, O40, O41, O42, O43, O44, O45, O46, O47, O48, O49, O50, O51, O52, O53, O54, O55, O56, O57, O58, O59, O60, O61, O62, O63, O64, O65, O66, O67, O68, O69, O70, O71, O72, O73, O74, O75, O76, O77, O78, O79, O80, O81, O82, O83, O84, O85, O86, O87, O88, O89, O90, O91, O92, O93, O94, O95, O96, O97, O98, O99)	24	19.7 (16.4-23.0)	11,880 (9,960-13,800)
Obstetric complications (ICD-10: O00, O01, O02, O03, O04, O05, O06, O07, O08, O09, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O22, O23, O24, O25, O26, O27, O28, O29, O30, O31, O32, O33, O34, O35, O36, O37, O38, O39, O40, O41, O42, O43, O44, O45, O46, O47, O48, O49, O50, O51, O52, O53, O54, O55, O56, O57, O58, O59, O60, O61, O62, O63, O64, O65, O66, O67, O68, O69, O70, O71, O72, O73, O74, O75, O76, O77, O78, O79, O80, O81, O82, O83, O84, O85, O86, O87, O88, O89, O90, O91, O92, O93, O94, O95, O96, O97, O98, O99)	15	12.5 (10.4-14.6)	5,940 (5,040-6,840)
Other direct causes (ICD-10: O00, O01, O02, O03, O04, O05, O06, O07, O08, O09, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O22, O23, O24, O25, O26, O27, O28, O29, O30, O31, O32, O33, O34, O35, O36, O37, O38, O39, O40, O41, O42, O43, O44, O45, O46, O47, O48, O49, O50, O51, O52, O53, O54, O55, O56, O57, O58, O59, O60, O61, O62, O63, O64, O65, O66, O67, O68, O69, O70, O71, O72, O73, O74, O75, O76, O77, O78, O79, O80, O81, O82, O83, O84, O85, O86, O87, O88, O89, O90, O91, O92, O93, O94, O95, O96, O97, O98, O99)	11	9.2 (7.4-11.0)	4,380 (3,660-5,100)
Indirect causes			
Pre-existing conditions (ICD-10: O00, O01, O02, O03, O04, O05, O06, O07, O08, O09, O10, O11, O12, O13, O14, O15, O16, O17, O18, O19, O20, O21, O22, O23, O24, O25, O26, O27, O28, O29, O30, O31, O32, O33, O34, O35, O36, O37, O38, O39, O40, O41, O42, O43, O44, O45, O46, O47, O48, O49, O50, O51, O52, O53, O54, O55, O56, O57, O58, O59, O60, O61, O62, O63, O64, O65, O66, O67, O68, O69, O70, O71, O72, O73, O74, O75, O76, O77, O78, O79, O80, O81, O82, O83, O84, O85, O86, O87, O88, O89, O90, O91, O92, O93, O94, O95, O96, O97, O98, O99)	27	22.5 (19.2-25.8)	13,020 (11,160-14,880)
Total	141	100	66,000 (57,000-75,000)

Source: Confidential Enquiry into Maternal Deaths (CEMD) and National Health Survey (NHS) data.

PLACE OF DEATH

Table 4. Place of death and proportion of deaths by place of death

Place of death	Place of death			
	Home	Health facility	Other	Total
Home	100 (78.1)	28 (21.9)	0 (0.0)	128 (100.0)
Health facility	28 (21.9)	100 (78.1)	0 (0.0)	128 (100.0)
Other	0 (0.0)	0 (0.0)	128 (100.0)	128 (100.0)
Total	128 (100.0)	128 (100.0)	128 (100.0)	384 (100.0)

- First, we need policies that recognise and monitor the subnational disparities, particularly in the rural and tribal areas, where the majority of maternal deaths occur.
- Additional targeted efforts to improve access and address quality gaps in these hotspots.
- Educational programmes should inform women about the benefits of care and planned births at health facilities.
- For these areas and nationally a continuing reliable estimation of maternal deaths is needed, including ensuring that SRS results on causes of death are published in a timely manner.
- FIGO FOGSI NESOG and all sister organisations work closely with govt to implement the innovative steps to prevent maternal mortality.
- Rural and tribals areas.

- ### Pre-existing health conditions
- The oddPreconception health is important for subsequent maternal and child health.
 - s of maternal mortality from direct or indirect causes was nearly nine- fold higher among women who had a pre- existing physical and mental health condition compared with women who did not (adjusted odds ratio [aOR] 8.65; 95% CI 6.29– 11.90).
- Data was obtained from two sources: the Confidential Enquiry into Maternal Deaths and control data selected from the UK Obstetric Surveillance System (UKOSS).

- ### Anemia Diabetes HTN
101. Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level (%) **13.5**
107. Elevated blood pressure (Systolic ≥140 mm of Hg and/or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%) **21.3**

- ### Ncd-chronic Disease- Mental Health Issues
- Pre- existing medical problems (excluding obesity) in 66% of women who died during pregnancy or in the 6 weeks after birth and 35% had a pre- existing mental health problem or psychiatric disorder
- The MBRACE- UK 2016– 18 report

National Family Health Survey (NFHS-5) 2019-21

NCR Nutrition Kiosk
view in all districts

Key Messages

- 1. Nutrition is key to a healthy life.
- 2. Malnutrition is a global problem.
- 3. Malnutrition is a leading cause of death and disability.
- 4. Malnutrition is a preventable problem.
- 5. Malnutrition is a problem for all.

Survey Dates of each age group (all years)

Age Group	Survey Dates
0-4 years	2019-2021
5-9 years	2019-2021
10-14 years	2019-2021
15-19 years	2019-2021
20-24 years	2019-2021
25-29 years	2019-2021
30-34 years	2019-2021
35-39 years	2019-2021
40-44 years	2019-2021
45-49 years	2019-2021
50-54 years	2019-2021
55-59 years	2019-2021
60-64 years	2019-2021
65-69 years	2019-2021
70-74 years	2019-2021
75-79 years	2019-2021
80-84 years	2019-2021
85-89 years	2019-2021
90-94 years	2019-2021
95-99 years	2019-2021
100 years and above	2019-2021

The landmark steps taken so far by Government of India to address Maternal and Child Health.

1. Child Survival and Safe Motherhood Program (CSSM)	1992 - directed to achieve 9 out of 17 goals of National Health Policy (1983) which were related to maternal and child health
2. Reproductive and Child Health Program (RCH I)	1997
3. Reproductive and Child Health Program (RCH II)	2005
4. National Rural Health Mission (NRHM)	2005
5. Reproductive, Maternal, Newborn, Child, Adolescent Health (RMNCH+A) Strategy	2013
6. National Health Mission (NHM)	2013

The National Rural Health Mission (NRHM) was launched on 12th April 2005, to provide accessible, affordable and quality health care to the rural population, especially the vulnerable groups

The Reproductive, Maternal, New-born, Child and Adolescent Health (RMNCH+A) framework was adopted by Government of India in 2013.

Janani Suraksha Yojana

Janani Shishu Suraksha Karyakram (JSSK):

Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA):

Surakshit Matritva Aashwasan (SUMAN): It was started in 2019 and aims to provide assured, dignified, respectful and quality healthcare at no cost and zero tolerance for denial of services for every woman

Midwifery Initiative	LaQshya (2017)	State of the art Maternal and Child Health Wings (MCH wings)	Skill labs
Obstetric High Dependency Unit (HOU) & ICU	Maternal Death Surveillance and Response (MDSR)	BEEmQNC training	Dakshata
Village Health, Sanitation and Nutrition Day (VHSND)	Comprehensive Abortion Care (CAC)	Ayushman Bharat 2019	National Ambulance Services

Central Government Schemes for Girl Child

- Beti Bachao Beti Padhao
- Sukanya Samridhi Yojana
- Balika Samridhi Yojana
- CBSE Udaan Scheme
- National Scheme of Incentive to Girls for Secondary Education

State Government Initiatives for Girl Child

- Mukhyamantri Kanya Suraksha Yojana
- Laxmi Lakshmi Yojana
- Disha Laxmi Scheme
- Mukhyamantri Rajshree Yojana
- Mazi Kanya Bhagashree Scheme
- Tamil Nadu Chief Minister's Girl Child Protection Scheme
- Nandini Devi Kanya Yojana
- Kalyanlakshmi/Shadi Mubarak scheme in Telangana

Mahalakshmi and Shakti Free Bus Sportscheme in Delhi Karnataka and Telangana for women

Women's Well being and Maternal Health. Have we ever made true progress?

Silent Generation (born 1928 to 1945)

Baby Boom (born 1946 to 1964)

Generation X (born 1965 to 1980)

Millennials (born 1981 to 1999)

Gen Z (born 2000 and later)

LOSING MORE GROUND
REVERSING YOUNG WOMEN'S DECLINING PHYSICAL HEALTH AND SAFETY

Each generation of women in the United States does not do better than the generation before—not anymore. This promise of progress began waning with Generation X and has lost even more ground with the Millennial Generation. In fact, important measures of Millennial young women's physical health and safety have worsened over the past several years



- ### Important Measures of Young Women's Physical Health and Safety Have Worsened
- Suicide rates have climbed from 4.4 deaths per 100,000 among Gen X women ages 25 to 34 to 7 deaths per 100,000 women of the same age for Millennials.
 - While suicide rates have declined among young white women, they have increased for young women of colour, particularly American Indian and Alaska Native women (26.9 deaths by suicide per 100,000).
 - Millennial young women ages 25 to 34 are now more likely to be victims of homicide than their Gen X peers, reversing a trend of generational improvement previously seen in 2017.

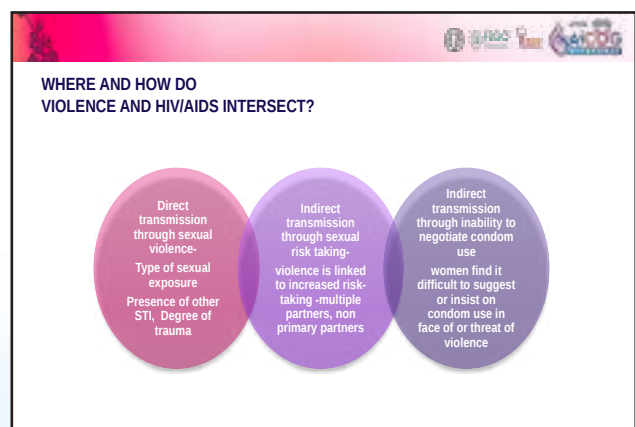
PREGNANCY IN ADOLESCENTS

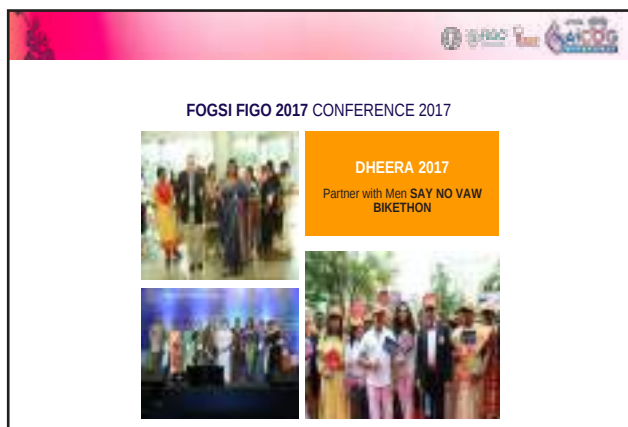
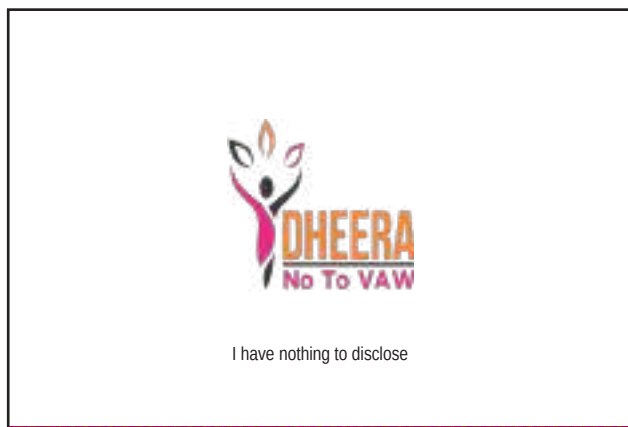
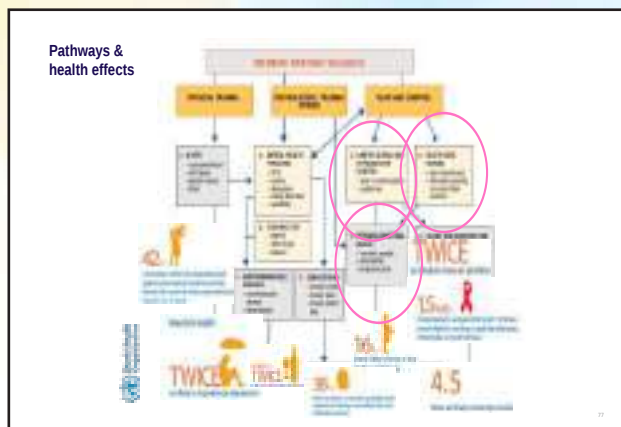
//Our finding of a small excess mortality associated with pregnancy in adolescence should not detract from the message that adolescent reproductive health should remain a priority for both national governments and the global health community. In many countries the risks that adolescents face in giving birth are still severe, and countries with high adolescent fertility are often also those with unacceptably high overall maternal mortality//

Lancet Glob Health 2014; 2: e155-164
Published Online January 21, 2014
[http://dx.doi.org/10.1016/S2214-109X\(13\)70179-7](http://dx.doi.org/10.1016/S2214-109X(13)70179-7)

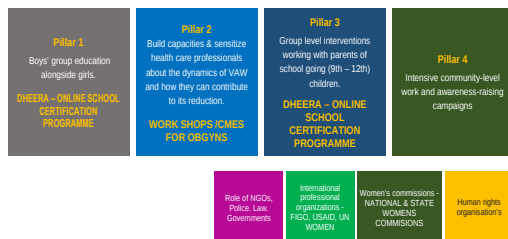


- ### LEGAL SYSTEMS
- In many developing countries, legal systems offer women and girls little support in protecting their reproductive rights. In some cases, legislation deliberately denies such rights, such as laws that prohibit adolescent girls from accessing contraception or that require permission from parents or husbands.
 - Moreover, even where non-discriminatory laws exist, they are not universally enforced. This lack of legal support only perpetuates gender inequalities that put women's lives at risk.





A FOGSI led initiative to combat Violence against Women in India



FOGSI 2021-2022 Present

ONLINE SCHOOL CERTIFICATION COURSE



Dheera Sessions Completed	3700
Students Trained	287000
Teachers Trained	6900
OBGYN Trained	5000
Master Trainers Trained	1865



DHEERA
WITH EBCOG FIGO PARIS
OCTOBER 2023



Professor S.SHANTHA KUMARI, OBGYN
TREASURER FIGO 2021-2023 & PRESIDENT FOGSI 2021-2022



- The UN CERD Committee wrote to Biden Government On Our concern and stated
- Women's Sexual & Reproductive Rights to be always Prioritised.
- It was quoted in New York Times.

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THE CONTACT INFORMATION OF THE
 CORRESPONDING AUTHOR IS:
 ADDRESS:
 E-MAIL ADDRESS:
 TELEPHONE:
 FAX TELEPHONE:
 PHONE:
 ZIP CODE:
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CONCLUSIONS

MENTAL HEALTH
DEPRESSION- POST
PARTUM

LEARNING FROM OUR MISTAKES





XVII International Conference Of NESOG, March 28th-29th, 2025

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Rohana Haththotuwa

ORATION : No Woman Should Die Due to Post-Partum Haemorrhage (PPH)

Rohana Haththotuwa

- Founder Chairman, Ninewells CARE Mother & Baby Hospital
- Secretary General AOFOG
- Immediate Past President South Asian Federation of Obstetrics & Gynaecology (SAFOG)
- Immediate Past President, South Asian Federation of Menopause Societies (SAFOMS)
- Immediate Past President, World Gestoses Organisation
- Past Chair , Menstrual Disorders Committee FIGO
- Past President Sri Lanka College of O &G
- Past President Sri Lanka Menopause Society
- Member, WHO MPDSR Technical Working Group



Biography of Rohana Haththotuwa

1. Education and Training Dr. Rohana Haththotuwa obtained his Bachelor of Medicine and Bachelor of Surgery from the University of Colombo, Sri Lanka, in 1978. During his undergraduate training, he developed a strong interest in Obstetrics and Gynaecology (Obs & Gyn), as well as in medical education and research.

Following graduation, he completed his internship in Obstetrics and Gynaecology at Castle Street Hospital for Women, deepening his passion for the field. He successfully passed the primary examination for the M.S. in Obs & Gyn at the Postgraduate Institute of Medicine, Colombo. Dr. Haththotuwa then secured a highly competitive Specialist Registrar post in Obs & Gyn at the Professorial Unit of the University of Colombo. He also served as a Lecturer at the University of Ruhuna.

Furthering his training, he moved to Ninewells Hospital in Dundee, UK, working under esteemed professionals such as Prof. Petr Howei, Dr. Naren Patel, and Dr. Ian Duncan. He gained extensive experience in Gynaecologic Oncology and Maternal-Fetal Medicine. During his time in the UK, he successfully obtained the Membership of the Royal College of Obstetricians and Gynaecologists (MRCOG).

In 1996 he had postgraduate training at the National University of Singapore in the O & G Dept under Prof S. S. Ratnam and Prof .Sabaratnam Arulkumaran

2. Clinical and Academic Career in Obstetrics & Gynaecology

2.1 Academic Contributions

2.1.1 Undergraduate and Postgraduate Training (1973-1987)

Dr. Haththotuwa held a Senior Lecturer position at the Department of Obs & Gyn, University of Colombo, for 14 years. He was actively involved in training medical students, nurses, and midwives, organizing clinical training, examinations, and assessments. His contributions to postgraduate training included serving as Secretary to the Board of Study in Obs & Gyn at the Postgraduate Institute of Medicine, where he played a key role in curriculum development and examination structuring.

2.1.2 Contributions to National and International Societies

Sri Lanka College of Obstetrics & Gynaecology (SLCOG) (1990 – Present)

- Served as Deputy Secretary (1990) and Secretary for 12 years, later becoming President in 2008.
- Introduced the partogram to Sri Lanka, improving labor management and outcomes.
- Conducted national workshops on Cardiotocography (CTG) and electronic fetal monitoring.
- Pioneered the concept of workshops in Sri Lanka, launching ‘Train-the-Trainer’ programs for Safe Motherhood.
- Led initiatives for cervical cancer screening and Large Loop Excision of the Transformation Zone (LLETZ) training.
- Raised awareness about unsafe abortions, leading to international interventions.
- Played a key role in constructing the SLCOG building, providing training and lecture facilities.
- Organized the first SLCOG congress with FIGO and SAFOG.

Asia Oceania Federation of Obstetrics & Gynaecology (AOFOG) (1991 – Present)

- One of the first recipients of the AOFOG Young Gynaecologists Award (1991).
- Conducted research on anemia prevention during pregnancy in collaboration with India, Indonesia, and Thailand.
- Co-edited books on reproductive health, including “Preventing Unsafe Abortions” and “Low-Cost Management of Infertility.”
- Served as Chairman of the Reproductive Endocrinology & Infertility Committee (2005-2011), organizing training workshops across Asia.
- Elected Secretary General of AOFOG in 2017, relocating its secretariat and financial operations to Sri Lanka.

South Asian Federation of Obstetrics & Gynaecology (SAFOG) (1996 – Present)

- Founder Secretary of SAFOG, serving for 10 years.
- Played a key role in drafting the SAFOG constitution and establishing its governance structure.

- Organized the first SAFOG-FIGO joint conference in Sri Lanka (2014).
- Served as Vice President (2015-2019) and was elected President-Elect in 2019.
- President 2021 -23

Federation of South Asian Menopause Societies (SAFOMS) (2010 – Present)

- Established SAFOMS in 2010, serving as its founding Secretary General.
- Organized the first SAFOMS conference in Sri Lanka.
- Elected President-Elect in 2019.
- President 2021-23

International Federation of Obstetrics & Gynaecology (FIGO) (2012 – Present)

- Member of the FIGO Menstrual Disorders Working Group (2012) and later served as Chairman (2015-2018).
- Contributed to defining the FIGO-AUB classification systems.
- Organized the General Gynaecology sessions at the FIGO Congress in Rio (2017).

Asia Pacific Initiative on Reproduction (Aspire) (2014 – Present)

- Sri Lanka representative for Aspire.
- Organized the Aspire Masterclass on Endometriosis in 2019.

2.2 Clinical Contributions

2.2.1 National Health Service (Sri Lanka)

After completing postgraduate training in 1987, Dr. Haththotuwa served as Consultant Obstetrician and Gynaecologist at De Soya Hospital for Women and General Hospital Colombo for 14 years.

2.2.2 Pioneering In-Vitro Fertilisation (IVF) in Sri Lanka

In 2000, Dr. Haththotuwa resigned from his academic position to focus on introducing IVF to Sri Lanka. Overcoming cultural resistance, he established 'Vindhana,' a reproductive health center, and played a key role in public education through media appearances.

2.2.3 Establishing Sri Lanka's First Private Hospital for Women & Children

Recognizing the need for specialized women and children's healthcare, Dr. Haththotuwa and his wife, Chandrika, founded 'Ninewells CARE Mother & Baby Hospital.' This facility has significantly improved patient care and introduced advanced reproductive endocrinology services, performing approximately 400 deliveries and over 100 IVF cycles per month.

3. Charitable Contributions

3.1 Healthcare

- Developed the operating theatre and labor room at Chettikulam Hospital during the Sri Lankan civil war.

- Provided relief materials to hospitals affected by the 2004 tsunami and subsequent natural disasters.

3.2 Education

- Supported underprivileged children by providing educational materials and financial assistance.

3.3 Social Welfare

- Assisted employees and their families at Ninewells Hospital through financial, medical, and educational aid.

3.4 Religious Contributions

- Led reconstruction efforts at Jethawanaramaya Stupa in Anuradhapura and other Buddhist temples across Sri Lanka.

Dr. Rohana Haththotuwa's extensive contributions to Obstetrics & Gynaecology, both in Sri Lanka and internationally, reflect his unwavering commitment to advancing maternal and reproductive health. His pioneering efforts in IVF, medical education, and professional organizations have left an enduring impact on the field

XVII International Conference Of NESOG, March 28th, 2025 (Chaitra 16)

SHREE HIRA NANDA VAIDYA MEMORIAL ORATION

Orator:- Rohana Haththotuwa

ORATION : No Woman Should Die Due to Post-Partum Haemorrhage (PPH)

The Hirananda Vaidya Memorial Oration was established in 1998 by Professor Sanumaiya Dali in honor of her father, the late Dr. Hirananda Vaidya, a dedicated surgeon who served for over four decades, treating patients from all walks of life, including members of the Royal Family. Dr. Vaidya was a firm advocate for education, particularly for women, and his legacy continues through his children, who hold responsible positions in the country.

The focus of this oration is on the critical issue of Post-Partum Haemorrhage (PPH) under the title: "**No Woman Should Die Due to Post-Partum Haemorrhage (PPH).**" I acknowledge the invaluable assistance of Professor Sir Sabaratnam Arulkumaran in preparing this talk.

The Burden of PPH

PPH remains the leading cause of maternal deaths worldwide. In 2015, approximately 14 million mothers experienced PPH, with around 100,000 succumbing to it. Alarming, 99% of these deaths occurred in low- and middle-income (LMI) countries.

Three key challenges hinder the reduction of maternal deaths due to PPH:

1. Late detection or failure to detect PPH early.
2. Delayed or inconsistent use of interventions, often applied sequentially rather than concurrently.
3. Non-implementation of clear recommendations for PPH management.

Additional risk factors prevalent in our region include a lack of public awareness, financial barriers, transportation challenges, increasing maternal age, obesity, gestational diabetes, hypertension, placenta praevia, anaemia, malnutrition, home births without skilled assistance, and shortages of essential medications and blood transfusion services.

Successive confidential maternal death inquiries in the UK revealed that inadequate and delayed interventions exacerbate PPH-related fatalities. Anaemia significantly increases the risk and severity of PPH. Blood volume in ml is proportional to the body weight in Kgs X 100, So a lower body weight results in quicker onset of shock with smaller blood loss.

Shock Index (SI) and Delta SI have been identified as superior early warning tools compared to existing maternal early warning criteria for PPH detection and intervention.

Addressing Non-Adherence to WHO Guidelines

The **2012 WHO recommendations for the Prevention and Treatment of Postpartum Haemorrhage** have not been fully implemented in many regions. To address this, the **Bundle Approach** was proposed by a WHO

technical group in 2019. This approach emphasizes the simultaneous application of key interventions instead of a stepwise method.

The **First Response to PPH Bundle** consists of:

- **Massage** of the uterus
- **Oxytocin** (uterotonics)
- **Tranexamic Acid (TXA)**
- **IntraVenous (IV)** isotonic crystalloids
- **Examine Escalate**

For refractory cases, additional interventions such as aortic compression, intrauterine balloon tamponade, and non-pneumatic anti-shock garments should be used.

The E-MOTIVE Trial: Revolutionizing PPH Detection and Management

Despite the availability of treatments, early detection remains a challenge, with only **26% of PPH cases receiving uterotonics**. The **E-MOTIVE trial**, conducted by Professors Arri Coomaraswamy and Ioannis Galos at the University of Birmingham, aimed to tackle this issue. The study was conducted across 80 hospitals in multiple countries, covering **337,920 women**.

The trial introduced a calibrated drape with yellow and red warning lines at **300ml and 500ml of blood loss**, respectively. It established three primary criteria for triggering the PPH bundle:

1. Clinical judgment.
2. Blood loss of **>500ml**.
3. Blood loss of **300ml with abnormal vital signs** (e.g., tachycardia, hypotension).

Escalation criteria included uncontrollable bleeding, blood loss **≥1000ml**, hypotension, or extensive genital tract trauma. The **primary outcome showed a 60% reduction in severe PPH cases (≥1000ml blood loss)**, laparotomies for bleeding, and maternal mortality due to bleeding.

AOFOG has also released a statement supporting the WHO bundle approach.

Advanced Interventions and Innovations

For patients unresponsive to first-line treatments, WHO (2021) recommends **uterine balloon tamponade** performed by trained personnel. Various tamponade devices, such as the **Sengstaken-Blakemore, Rusch, and Bakri balloons**, as well as **low-cost alternatives like glove and condom catheters**, have demonstrated **80-90% success rates**.

Other innovative methods include:

- **Paracervical, iliac, and aortic clamps** (developed by Prof. V.P. Piley)
- **Suction metallic cannula** (Dr. Samata Raman)
- **JADA device**, a vacuum-induced intrauterine tamponade
- **B-Lynch sutures** and **vertical sutures** (developed by R. Hayman, S. Arulkumaran, and P. Steer)

Placenta Accreta Syndrome (PAS): A Rising Concern

PAS incidence has risen from **0.12% to 0.31%** over the past 30 years, with a **mortality rate of approximately 7%**. Strategies to mitigate PAS-related mortality include: **Preoperative planning, supportive care (ICU availability 24/7), multidisciplinary team approach, swift action to prevent maternal collapse, & adequate blood transfusion and fluid management**

New Developments in Uterotonic Drugs

Concerns regarding the **potency of Oxytocin** in LMI countries prompted research into **Heat-Stable Carbetocin (HSC)**, which retains potency for **48 months at 30°C and 75% humidity**. The **CHAMPION study**, conducted across **23 centers in 10 countries** with **29,645 women**, confirmed that HSC was **non-inferior to Oxytocin** for preventing blood loss **≥500ml**.

A **Cochrane review** found that **ergometrine + oxytocin, carbetocin, and misoprostol + oxytocin** were all superior to oxytocin alone in preventing PPH.

HSC is now amongst the uterotonics recommended by the WHO for the prevention of PPH.

In 2023 FIGO released the “Guidance on the use of heat-stable carbetocin as an alternative to oxytocin in the prevention of postpartum haemorrhage”. In 2024 AOFOG statement supported the FIGO guidelines and recommended the use of heat stable carbetocin for the prevention of postpartum haemorrhage in its member countries in the region.

The **WOMAN trial** done to study the effect of early Tranexamic acid administration on mortality, hysterectomy and other morbidities concluded that it reduced maternal deaths by one third when administered within 3hrs, reduced laparotomy for bleeding by 35% and there was no effect on other adverse effects.

The **WOMAN trial** studying the clinical and contextual factors surrounding the deaths of 483 women following post-partum haemorrhage in developing countries, although TXA use reduces bleeding deaths by almost one third, mortality rates similar to those in high income countries will not be achieved without tackling late presentation, maternal anaemia, availability of blood for transfusion and poor infrastructure

The Global PPH Roadmap (2023-2030)

To accelerate progress towards **SDG 3.1 (reducing maternal mortality)**, WHO collaborated with stakeholders to develop a roadmap setting out key priority actions to combat PPH burden and associated adverse outcomes as agreed by stakeholders at the 2023 Global PPH Summit. Outlining: **Research priorities, Implementation strategies, Policy and leadership initiatives, Improvement of supply chain systems, Training and supervision of healthcare providers & Addressing inequities in access to quality care.**

Success Stories and the Path Forward- Countries like **India, Bangladesh, Thailand, Malaysia, and Vietnam** have made significant strides in combating PPH, demonstrating that change is possible.

In conclusion, **no woman should die, suffer morbidity, or lose fertility due to PPH**. With collective effort and commitment, we can achieve this goal and safeguard maternal health worldwide.

THANK YOU

Dr. Saroja Pandey –President NESOG

Dr Padam Raj Pant - Incoming
President NESOG

Dr. Sapana Amatya Vaidya – General
Secretary NESOG

Office Bearers Of NESOG & Members of
the Organising Committee

Prof. Sanumaiyan & Dr. Vishvaraj Dali

• & Family Members Of Late Dr. Hiranada
Vaidya



NESOG
Nepal Society Of Obstetricians
and Gynecologists

17th International Conference of the Nepal Society of
Obstetricians and Gynecologists (NESOG) on March 29, 2025

**NO WOMAN SHOULD
DIE OF PPH**



Dr. Rohana Haththotuwa

Secretary General AOFOG

Past President SAFOG



The Hirananda Vaidya Memorial Lecture

- Established on December 29, 1998
- Founded by Professor Sanu Maiyan Dali
- In honor of Late Shree Hirananda Vaidya

Shree Hirananda Vaidya



A renowned medical practitioner and
skilled surgeon



Served for over four decades since the
1930s



Provided medical care to patients from
all backgrounds



Had the honor of attending to His
Majesty, Late King Tribhuvan Bir
Bikram Shah Dev

Lifelong Commitment to Medicine

Practiced at a time when
modern medicine was in
infancy in Nepal

Believed in **continuous**
learning and stayed up to date
despite limited resources

A **compassionate healer**
especially for underprivileged
communities

Advocate for Girls' Education

Strongly believed in education
as a national need

Encouraged his own daughters
to pursue higher education

Used medical visits to persuade
families to educate their
daughters

His Legacy & NESOG's Tribute

- Patients remember him as a true philanthropist
- Had four daughters and one son



Shree Hirananda Vaidya's Family

- 🧑🏻 Spouse: Purna Keshari Vaidya

- 👨🏻👩🏻👧🏻👦🏻 Children:

1. 🧑🏻 **Hiranya Vaidya** (Bachelor in English)
Husband: Late Eng, Gauri Bhakta Shrestha

2. 🧑🏻 **Dr. Roshana Amatya** (First Lady
Anesthesiologist)
Husband: Late Dr. Narayan Govinda Amatya (Chest
Physician)

3. 🧑🏻 **Professor Dr. Sanu Maiyan Dali** (Former
Professor, Director of Post Graduate Program)
Husband: **Dr. Vishwaraj Dali** (Father of Urology &
First Vice Chancellor of NAMS)

4. 🧑🏻 **Vijaya**, (Master In Economics) Husband-
Pradeep Vaidya

4. 🧑🏻 **Dr. Rameshanada Vaidya** (Engineer – IIT New
Delhi, MBA, PhD (USA)) Wife Rekha Vaidya



Honoring Shree Hirananda Vaidya



- In His Honor, NESOG Established:
The Hirananda Vaidya Memorial Lecture
- Recognizing excellence in medicine and education
- Presented annually at the NESOG Conference
- ★ With the Support of:
Dr. Sanu Maiyan Dali
Prof. Vishwa Dali
& All Family Members
- ♦ A Tribute to His Legacy in Medical Advancement & Philanthropy

**NO WOMAN
SHOULD DIE
OF PPH**

Declaration of Interest

I have no conflicts of interest to declare

The opinion and facts presented are from published papers

Acknowledgements;
Prof . Sir Sabaratnam Arulkumaran

Burden of PPH Globally & in the Asia & Oceania region

Risk Factors and Challenges

Outline of the lecture

Novel interventions in Combatting PPH - Monitoring, Bundle approach, E Motive Study,

Developments in surgical procedures

Developments in Drugs

Key learnings from the WHO PPH Summit

Outline of the lecture

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Developments

Surgical procedures

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**Global PPH
burden**

POSTPARTUM HAEMORRHAGE (PPH)

Severe bleeding after giving birth, known as PPH is the biggest single cause of mothers dying after childbirth

woman
30,000 WOMEN
21 COUNTRIES
100 HOSPITALS

14m
mothers develop PPH each year globally

An estimated
100,000
women die from PPH in 2015

99% of these deaths were in the developing countries



PPH can also lead to hysterectomy and severe anaemia

Watch the full video
bit.ly/womanvideo

THE GLOBAL BURDEN OF POSTPARTUM HEMORRHAGE (PPH)

An estimated 75,000 women die every year from PPH*
99% of PPH deaths occur in resource-limited settings*

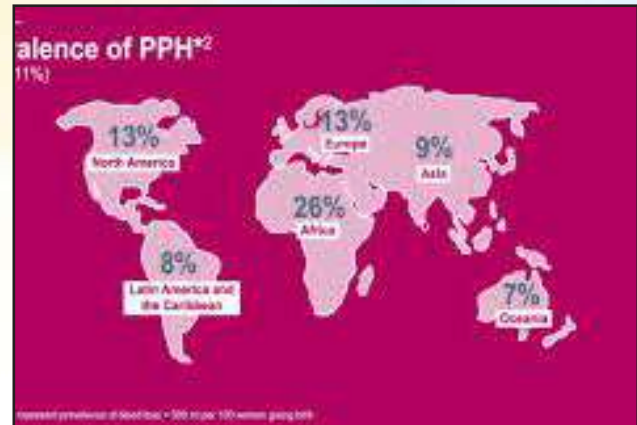
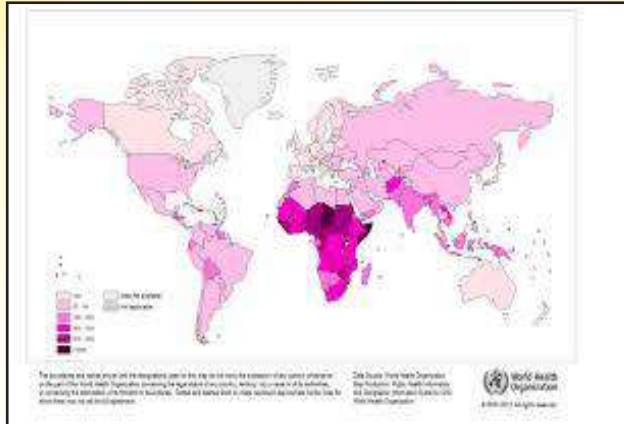


Join the global movement to
Save Mothers. Stop PPH.

Learn more
the PPH B

@SaveMothers

Save Mothers



South Asian Countries – Maternal Mortality has gradually reduced

But PPH remains the leading

COUNTRY	MMR per 100,000 live births	PPH as a cause of Maternal deaths
Afghanistan	620	27%
Bangladesh	123	31%
Bhutan	60	43%
India	97	20-25%
Maldives	57	32%
Nepal	174	25%
Pakistan	120	21%
Sri Lanka	27	12.7%

Outline of the lecture

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The New England Journal of medicine Original Article
Randomized Trial of Early Detection and Treatment of Postpartum Hemorrhage
Gallos, A. Devall, J. Martin, L. Middleton, L. Beeson, H. Galadanci, F. Alwy Al-beity, Hofmeyr, N. Moran, S. Fawcus, L. Sheikh, G. Gwako, et al

Three key challenges contribute to this lack of progress in reducing PPH.

1. Postpartum hemorrhage is often **undetected or detected late**;
2. **Delayed or inconsistent use of interventions** for the management of postpartum hemorrhage. Treatments for postpartum hemorrhage are **often administered in a sequential manner**;
3. Despite the availability of **clear recommendations** regarding postpartum hemorrhage dissemination, **uptake is poor at the point of care**.

RISK FACTORS & CHALLENGES

Lack of public awareness and Education (Mong)

Financial constraints: Many women, particularly in poor communities, struggle to afford maternal healthcare services (Camb)

Transport barriers - Cultural and logistical barriers to seeking hospital-based deliveries (Laos) Geographic barriers & lack of accessibility (Mong, Nepal).

Increasing rates of older mothers, obesity, and gestational diabetes, hypertension, placenta previa may raise the risk of PPH.

RISK FACTORS & CHALLENGES (Cont.)

Anaemia & Malnutrition - High anemia prevalence in pregnant women (Nepal 40%, Indonesia 48%, India 57% of pregnant women are anemic)

Home deliveries without monitoring - Pacific Islands Papua New Guinea, Solomon Islands, and Vanuatu over 60% of women deliver at home without skilled birth attendants.

Common in Indonesia, Myanmar, Laos, and remote areas of the Philippines.

Limited Access to Skilled Birth Attendants (Mong)
High home birth rates limited emergency obstetric care (Pak)

Laos only 64% of births are attended by trained professionals (WHO, 2022).

Nepal only 59% of births in rural areas are attended by trained health workers

Shortages of Uterotonics oxytocin and misoprostol (Laos)

RISK FACTORS & CHALLENGES (Cont.)

Blood transfusion services - limited & lack access to blood banks (Nepal)

Inadequate Blood Banking Facilities - Shortage of safe blood transfusions, especially in lower-income countries

Rising Cesarean sections rates (Singapore, China, South Korea, Thailand)

Limited Staff training and availability during high-risk deliveries

Successive confidential enquiries into maternal deaths from the UK – PPH

TOO LITTLE / TOO LATE

Too little

(IV fluids, oxytocics, blood, clotting factors)

Too late

(Prostaglandin, resuscitation – blood replacement, decision for surgery + to get senior surgeon and anaesthetist involved)



Obstetric haemorrhage learning points

- Important to have normal Hb (<7 gms >? Lactic acid)
- Incidence of PPH greater with anaemia
- Anaemia magnifies the effect of obstetric haemorrhage
- Antenatal anaemia should be diagnosed and treated effectively
- Parenteral iron therapy should be considered for women who do not respond to oral iron

Maternal, Neonatal and Infant Clinical Outcomes Review Programme

MBRACE-UK

BLOOD VOLUME IS PROPORTIONAL TO BODY WEIGHT – Kg X 100 mls

Saving Lives, Improving Mothers' Care
Lessons learned to inform future maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2006-2012

Table 6.2 Estimated blood volumes and approximate losses according to body weight

Weight	Total blood volume*	1% blood volume loss	2% blood volume loss	4% blood volume loss
40kg	4000ml	40ml	80ml	160ml
50kg	5000ml	50ml	100ml	200ml
60kg	6000ml	60ml	120ml	240ml
70kg	7000ml	70ml	140ml	280ml
80kg	8000ml	80ml	160ml	320ml

*Based on 60ml/kg blood volume in pregnancy (Royal College of Obstetricians and Gynaecologists 2010) but may overestimate blood volume in obese women (Lemmen, Sandhu et al 2010)

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CLE

Postpartum haemorrhage care bundles to enhance adherence to guidelines: a systematic review

Abel L, Michelle N.S., Peronice Pingray L, Jorge met M, Gülmezoglu A, Truter S, Neelima Singh, Lorraine F. Garg, Jeffrey M. Smith

In 2012, WHO published its "Recommendations for the Prevention and Treatment of Postpartum Haemorrhage"

However, adherence to these recommendations remained a challenge.

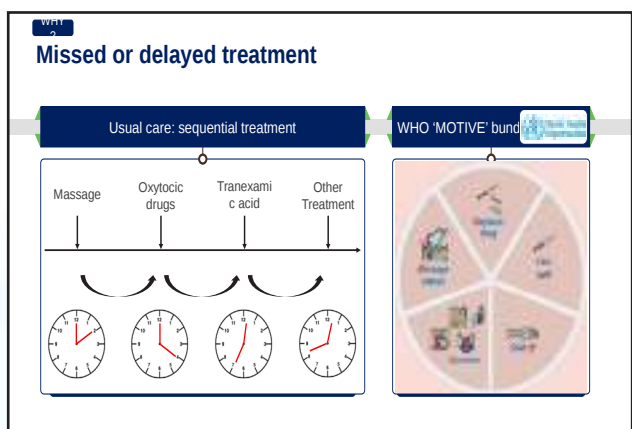
The bundle approach has been proposed as a potential solution to suboptimal adherence to PPH guidelines.

Care bundles differ from other care packages in that compliance is achieved only when all the bundled interventions are completed and recorded.

Teamwork, communication, and cooperation are emphasized, because these health systems' processes are required for quality and sustainability.

Technical consultation recommended a 'Care Bundle Approach' of few evidence informed first response together rather than sequential Application of management modalities

ANSWER TO THE CHALLENGES



PPH Emergency Care Using a Bundle Approach (PPH EmC)



First response to PPH bundle

- Uterotonics, intravenous (IV) isotonic crystalloids, TXA, and Uterine Massage
- Acronyms: MOTIVate or "MOTIVE,"

Response to refractory PPH bundle

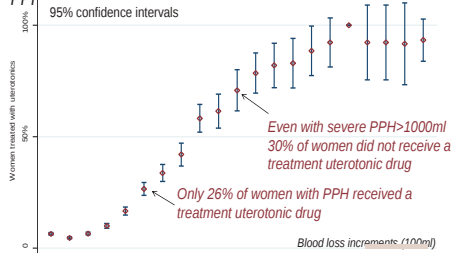
- Continue administration of uterotonics and isotonic crystalloids, second dose of TXA,
- Compressive measure (aortic compression or bimanual uterine compression)
- Intrauterine balloon tamponade
- Non-pneumatic anti shock garment

Supporting Elements

- Advocacy, Training, Teamwork, Communication, and use of Best clinical practices

Challenges and solutions

PPH is often not detected early; thus life-saving treatment is not promptly initiated → Solution: Early detection and treatment of PPH



Assessment of postpartum blood loss

2012, WHO's guideline on prevention and treatment of PPH



"There is insufficient evidence of measurement of blood loss."



Great need for this clinical evidence base to be reviewed

WHO recommendations on the assessment of postpartum blood loss and use of a treatment bundle for postpartum haemorrhage

- For all women giving birth, routine objective measurement of postpartum blood loss is recommended to improve the detection and prompt treatment of postpartum haemorrhage.
- Methods to objectively quantify blood loss, such as calibrated drapes for women having vaginal birth, can achieve this.
- All bundle treatment interventions should ideally be initiated within the first 15 minutes after a diagnosis of PPH.
- In cases of refractory postpartum bleeding – where a woman has received all interventions within the PPH treatment bundle yet continues to bleed – prompt escalation to a higher-level health-care facility or a senior clinical provider capable of providing further

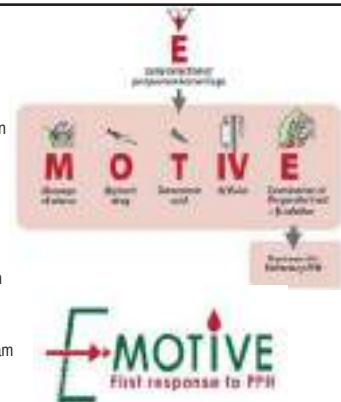
Delayed or inconsistent use of interventions for PPH management → Solution: the bundle

The E-MOTIVE trial is the Early detection of PPH & treatment using the WHO MOTIVE 'first response' bundle.

A cluster randomized trial with health economic analysis and mixed methods evaluation.

40 Vs 40 Health facilities – 11 months baseline data collection & then 40 switch over to E MOTIVE; n=337,920

Professors Arri Coomaraswamy & Ioannis Galos -University of Birmingham



Trial design

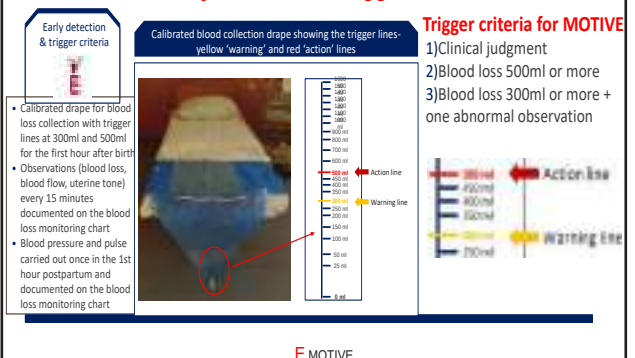


- 337,920 women
- 80 health facilities (clusters)

E-MOTIVE map: <http://bit.ly/emotivemap>

HOW?

Intervention: Early detection & Trigger MOTIVE



Missed or delayed escalation



Escalation criteria

- Brisk, uncontrollable bleeding
- Blood loss ≥ 1000 mL in the calibrated drape
- Hypotension or collapse
- Extensive genital tract trauma, including third degree tear

WHAT?

Results: Primary outcome

Outcomes	E-MOTIVE (N = 49,101, Clusters = 39)	Usual Care (N = 50,558, Clusters = 39)	Risk Ratio (95% CI)	P value	Difference (95% CI)	P value
Primary outcome						
Composite of severe PPH (blood loss ≥ 1000 ml); laparotomy for bleeding; & maternal mortality from bleeding	794/48,678 (1.6)	2,139/50,044 (4.3)	0.40 (0.32 to 0.50)	<0.001	-2.53 (-3.04 to -2.02)	<0.001



60% reduction



Asia Oceania Federation of Obstetrics and Gynaecology
Highly recommends the use of Bundle Approach
 Proposed by the WHO for detection and treatment of PPH,
 Which should result in
**60% reduction in the composite primary outcome of
 severe PPH, or laparotomy or maternal death from PPH**

Outline of the lecture

- Burden of PPH Globally & in the Asia & Oceania region
- Risk Factors and Challenges
- Novel interventions in Combatting PPH – Monitoring, Bundle approach, E Motive Study,
- Developments Surgical procedures
- Developments in Drugs
- Key learnings from the WHO PPH Summit

WHO recommendation on Uterine balloon tamponade for the treatment of postpartum haemorrhage - 2021

- Uterine balloon tamponade is recommended for the treatment of PPH due to uterine atony after vaginal birth in women who do not respond to standard first-line treatment, provided the following conditions are met:
- Immediate recourse to surgical intervention & access to blood products if needed. (?)
- A primary PPH first-line treatment protocol (including the use of uterotonics, tranexamic acid, IV fluids) is available & routinely implemented.
- Other causes of PPH (retained placental tissue, trauma) can be reasonably excluded.
- The procedure is performed by health personnel who are trained & skilled in the management of PPH, including the use of uterine balloon tamponade.
- Maternal condition can be regularly & adequately monitored for prompt identification of any signs of deterioration.

Internal Uterine Tamponade

Best results before coagulopathy sets in

Takes 5 to 10 minutes

Junior staff or midwife can perform the procedure

Results known immediately

Tamponade Test – prognostic & Therapeutic

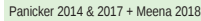
Condous G, Arulkumaran S et al. Obstetrics & Gynecology. 2003
 "Tamponade test" – 'Therapeutic & prognostic'

Which Balloon to Use? No RCT!!
All balloons – 80-90% success rates

Sengstaken-Blakemore **Rusch** **Bakri Balloon**

Glove catheter – No need for condom or suture material – South Africa
Condom catheter – Bangladesh, Sri Lanka, India: 85% success rate
Ebb double balloon catheter

Para-cervical clamps
Innovative approach
Professor VP Paily



Suction Canister
 Suction canister is plastic; variable with
 scale-wide 1 unit for the same collection

Faloutsos Percepsys, inc., Microsoft Boston, MS, Information Architecture, MS, MS,
and Jon Sigurd, MS



AA08 Device
AA08, created by Original, is a machine
using sexuality, false and otherwise
critical and convenient to individuals.
[Pharmaceuticals, 2010, 2010]

CONCLUSION: Intravenous vitaminized hemodilution could be possible a new rapid and effective treatment option for dissection propagation, stroke bleeding or posttraumatic hemorrhage, with the potential to prevent neurovascular morbidity and mortality.



Hayman R, Arulkumaran S, Steer P - Obstetrics & Gynecology. 2002

1

To achieve minimal morbidity & zero mortality with PAS

- Pre-op planning and implementation with maximum safety at surgery with proper mapping of the placenta
- Supportive care, ICU 24/7, OT availability
- Experienced & skilled team work
- Multidisciplinary approach
- Surgical techniques to minimize loss, swift action to prevent collapse with aortic compression
- Transfusion - Rotem, Rapid infusion, Thermoregulation, Prevention and correction of acidosis and electrolytes imbalance

Outline of the lecture

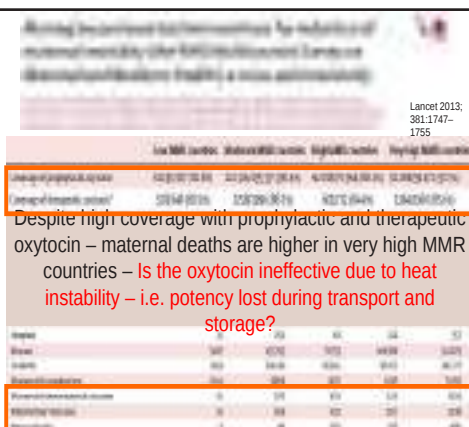
Burden of PPH Globally & in the Oceania region

Risk Factors and Challenges

Novel interventions in Combatting PPH
Monitoring, Bundle approach, E Moti
Development of Surgical Procedure

Developments in Drugs

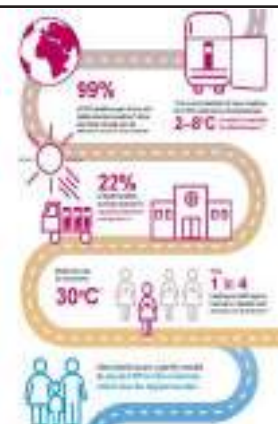
Key learnings from the WHO PPH Summit



Overcoming the heat barrier to prevent PPH

The majority of deaths from PPH due to uterine atony could be prevented¹

- But oxytocin, the current standard of care uterotonic, requires sustained cold-chain transport and storage at 2–8°C, typically in a refrigerator, to maintain its effectiveness^{1,2}
- This poses a challenge in many low- and middle income countries, where access to sustained cold-chain storage is not readily available¹



1. Widmer M, et al. Trials 2016;17:143.
2. Torloni MR, et al. BJOG 2016;123:2076–2086.
List of references for infographic in the slide notes

Quality issues in oxytocin products have been identified in low- and middle-income countries¹

Systematic review of eight studies assessing quality of oxytocin in LMICs

559 samples
15 countries

- Latin America: Guatemala, Peru
- Africa: Burkina Faso, Ghana, Kenya, Madagascar, Nigeria, Tanzania, Uganda, Zimbabwe
- Asia: India, Indonesia, Nepal, Tajikistan, Vietnam



Includes Burkina Faso, Kenya, Madagascar, Nepal, Nigeria, Tajikistan, Tanzania, and Vietnam; however, individual countries not identified

BJOG 2016;123:2076–2086.

Carbetocin is available as a heat-stable formulation¹

- Oxytocin and ergot alkaloids should be kept in a refrigerator to avoid degradation^{2,3}
- Heat-stable formulation of oxytocin is currently not available^{4,5}
- Previous formulation of carbetocin should be stored between 2°C and 8°C⁶
- Resource-poor countries do not always have cold-chain transport and storage capabilities⁷

- New formulation of carbetocin:
 - Is stable at room temperature
 - Maintains potency for 48 months at 30°C and 75% humidity⁸
 - Avoids need for cold-chain storage and logistics

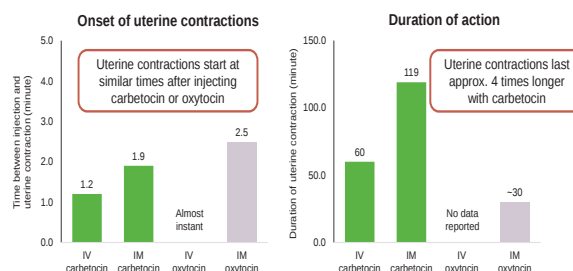
List of references in the slide notes.

Heat-stable carbetocin versus oxytocin to prevent hemorrhage after vaginal birth
Widmer M, et al. N Engl J Med 2018; DOI: 10.1056/NEJMoa1805489

CHAMPION
Carbetocin Haemorrhage Prevention

- Between 2003 and 2009, haemorrhage was the leading cause of direct obstetric deaths worldwide: 661,000 women
 - Oxytocin is currently the standard of care that is recommended for the prevention of PPH²
 - However, the drug needs to be stored at 2–8°C to maintain potency³ – Quality issues have been identified^{4,5}
 - Carbetocin is a long-acting oxytocin agonist that is available in a heat-stable formulation⁶
 - Heat-stable carbetocin maintains purity for a minimum of 36 months at 30°C, 6 months at 40°C, 3 months at 50°C and 1 month at 60°C
- Objective**
- To evaluate the non-inferiority of 100 mcg dose of intramuscular heat-stable carbetocin versus 10 IU dose of intramuscular oxytocin for PPH prevention in women giving birth vaginally
- Double-blind, randomised, non-inferiority active-controlled trial**
- 10 countries – 23 centres
- Sample Size** n=29,645
- Conclusions**
- Heat-stable carbetocin was non-inferior to 10 IU oxytocin for blood loss ≥500 mL or additional uterotonic use
 - Non-inferiority was not demonstrated for blood loss ≥1000 mL
 - Other secondary and safety outcomes were comparable between the two drugs

Carbetocin has a longer duration of action, compared with oxytocin



1. Hunter DJ, et al. Clin Pharmacol Ther 1992;52:60–67.
2. Unterscheider J, et al. in A Comprehensive Textbook of Postpartum Hemorrhage. An Essential Clinical Reference for Effective Management;2012:350–360. 3. Embrey MP, et al. Br Med J 1961;1:1737–1738.

IM Oxytocin Vs Carbetocin Vs Syntometrine

Imox study

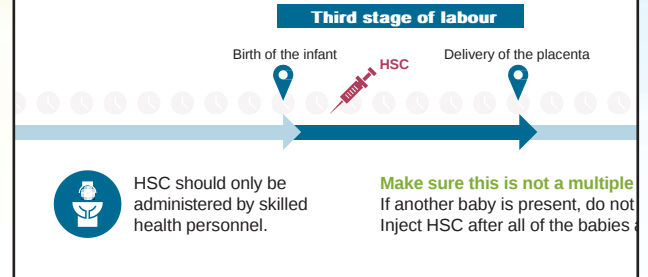
- 5852 women vaginal birth
- Women randomised 1:1:1
 - im Syntocinon (10IU)
 - im Syntometrine (500µg/5IU)
 - im carbetocin (100µg)
- Additional uterotonics
 - Carbetocin vs Syntocinon – no difference
 - Syntometrine – reduced additional uterotonics
 - Syntocinon associated with increased surgical Mx PPH
 - Increased side effects with Syntometrine



Carbetocin effective
Less side effects

HSC – Administration¹

Heat-stable carbetocin must be injected as soon as possible after birth of the infant and preferably before delivery of the placenta



Carbetocin is now amongst the uterotonics recommended by the WHO for the prevention of PPH¹



Recommendation 1 The use of an effective uterotonic for the prevention of PPH during the third stage of labour is recommended for all births. To effectively prevent PPH, only one of the following uterotonics should be used:¹

1. Oxytocin
2. Carbetocin
3. Misoprostol
4. Ergometrine/methylergometrine
5. Oxytocin and ergometrine fixed-dose combination

Recommendation 1.1 The use of oxytocin (10 IU, IM/IV) is recommended for the prevention of PPH for all births¹

Recommendation 1.2 The use of carbetocin (100 mcg, IM/IV) is recommended for the prevention of PPH for all births in contexts where its cost is comparable to other effective uterotonics¹

- For PPH prevention only

1. World Health Organization. WHO Recommendations, Uterotonics for the Prevention of Postpartum Haemorrhage, 2018.

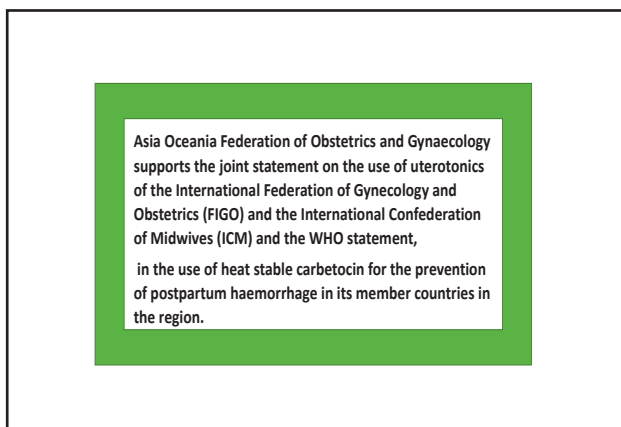
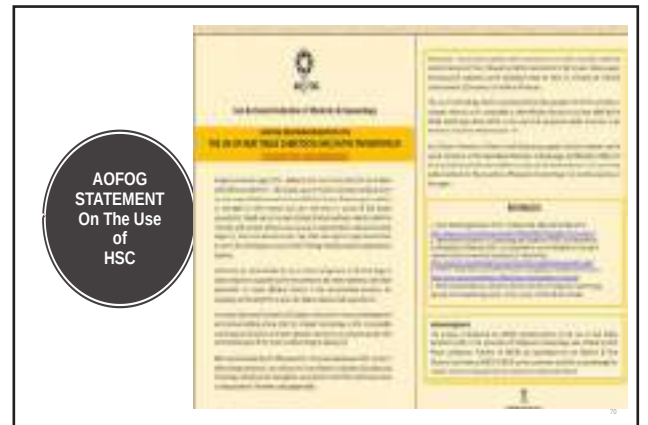
Heat-stable carbetocin is included in the WHO Essential Medicines List of uterotonics for the prevention of PPH¹

Published July 2019



1. World Health Organization model list of essential medicines: 21st list 2019.

International Consensus by Anaesthetists 019



The World Maternal Antifibrinolytic (WOMAN) study comparing tranexamic acid with placebo¹



- Population: Women with PPH following vaginal birth or caesarean section. PPH defined as:¹
 - ≥500 mL after vaginal birth or
 - ≥1000 mL after caesarean section or
 - Any blood loss sufficient to compromise haemodynamic stability
- Randomised double blind placebo-controlled trial Conducted in 183 hospitals in 21 countries
- Intervention: Tranexamic acid 1 g (100 mg/mL slow IV) + standard care¹
- Comparator: Saline + standard care¹
- Outcome: Composite of death from all causes or hysterectomy within 42 days of randomisation¹

1. WOMAN Trial Collaborators. Lancet 2017;389:2105–2116.

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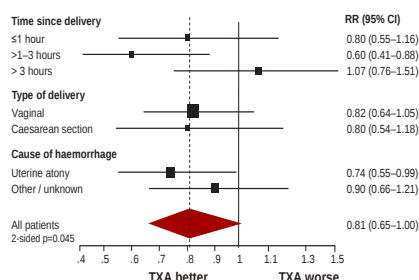
Death

Cause of death	TXA N=10036 n (%)	Placebo N=9985 n (%)	Risk ratio (95% CI)	P value
Bleeding	155 (1.5)	191 (1.9)	0.81 (0.65–1.00)	0.045
Pulmonary embolism	10 (0.1)	11 (0.1)	0.90 (0.38–2.13)	0.82
Organ failure	25 (0.3)	18 (0.2)	1.38 (0.75–2.53)	0.29
Sepsis	15 (0.2)	8 (0.2)	1.87 (0.79–4.40)	0.15
Eclampsia	2 (0.02)	8 (0.1)	0.25 (0.05–1.17)	0.06
Other	20 (0.2)	20 (0.2)	0.99 (0.54–1.85)	0.99
All causes	227 (2.3)	256 (2.6)	0.88 (0.74–1.05)	0.16

Maternal deaths following PPH were due to a number of reasons; equal in placebo and TXA arms. Death due to bleeding was significantly reduced in TXA arm

Effect of TXA on death due to bleeding:

Subgroups



Deaths were reduced but TXA should be given <3 hours of bleeding for maximal benefit, VB or CS; trauma or atony

Thromboembolic events

	TXA (N=10033) n (%)	Placebo (N=9985) n (%)	Risk ratio (95% CI)	P-value
Any event	30 (0.3)	34 (0.3)	0.88 (0.54–1.43)	0.60
Venous events (DVT, PE)	20 (0.2)	25 (0.3)	0.80 (0.44–1.43)	0.45
Deep vein thrombosis	3 (0.03)	7 (0.1)	0.43 (0.11–1.65)	0.20
Pulmonary embolism	17 (0.2)	20 (0.2)	0.85 (0.44–1.61)	0.61
Arterial events (MI, stroke)	10 (0.1)	9 (0.1)	1.11 (0.45–2.72)	0.83
Myocardial infarction	2 (0.02)	3 (0.03)	0.66 (0.11–3.97)	0.65
Stroke	8 (0.1)	6 (0.1)	1.33 (0.46–3.82)	0.60

Similar (0.3) in each of the two groups

if there was no benefit



WOMAN TRIAL RESULTS



- Most deaths occur within the first two to three hours after birth, it is critical that TXA is given as soon as possible to save lives
- Reduces death due to bleeding within 3 hours by about one third
- Reduces laparotomy for bleeding by over 35%
- No effect on other causes of death
- Did not reduce hysterectomy!!
- No evidence of adverse effects

Delay in reaching institution
Anaemia
Lack of blood
Poor Health systems

Although TXA use reduces bleeding deaths by almost one third, mortality rates similar to those in high income countries will not be achieved without tackling late presentation, maternal anaemia, availability of blood for transfusion and poor infrastructure.

The WOMAN trial: clinical and contextual factors surrounding the deaths of 483 women following post-partum haemorrhage in developing countries

Original Research

Plasma Concentrations of Tranexamic Acid in Postpartum Women After Oral Administration

Different routes of administration of Txa

Trials in progress to look at Pharmacokinetics Followed by clinical trials for oral & IM Routes for prophylaxis and treatment

RESULTS: The mean maximum observed plasma concentration was 18.06 micrograms/mL (range 8.56–11.22 micrograms/mL). The mean time to maximum plasma concentration was 2.92 hours (range: 2.5–3.1 hours). Mean time taken to reach the effective plasma concentration of 5 micrograms/mL and the mean time this concentration lasted were 0.87 hours and 0.73 hours, respectively. Duration for which plasma tranexamic acid concentration remained greater than 5 micrograms/mL was 3.86 hours. Half-life was 1.65 hours. Area under the curve for drug concentration was 48.16 micrograms/h/mL (range 41.75–52.69 micrograms/h/mL).

CONCLUSION: Clinically effective plasma concentrations of tranexamic acid in postpartum women may be achieved within 1 hour of oral administration. Given the promising pharmacokinetic properties, we recommend additional studies with larger sample sizes to investigate the potential of oral tranexamic acid for the treatment and prophylaxis of postpartum haemorrhage.

Outline of the lecture

Burden of PPH Globally & in the Asia & Oceania region

Risk Factors and Challenges

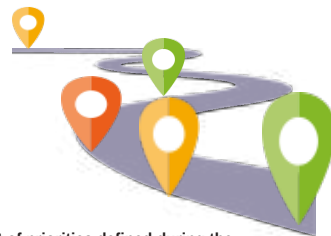
Novel interventions in Combatting PPH -
Monitoring, Bundle approach, E Motive Study,
Development of Surgical Procedures

Developments in Drugs

Key learnings from the WHO PPH Summit



A Roadmap to Combat Postpartum Haemorrhage between 2023 and 2030



Roadmap focuses on a common set of priorities defined during the Global Summit on Postpartum Haemorrhage (PPH Summit) in March 2023.

This Roadmap is intended for leading actors in public health and all stakeholders working in the PPH ecosystem:

The international community, funders, researchers, innovators and industry, professional associations and guideline developers, implementors (including civil society and non-governmental organisations), Ministries of Health, but also the general population, particularly women

Key learnings emerged from the PPH Summit:

Women and community voices need to be included in all steps -

PPH causes are well known and can be prevented through interventions across the continuum of care starting from preconception care to antenatal, childbirth and postpartum care

PPH challenges cannot be solved in isolation, but rather as part of a broader maternal and newborn health agenda.

A strong advocacy push is required at all levels to elevate the profile of PPH.

The international community should come together to improve the availability and affordability of quality PPH commodities

A fully funded joint research agenda should be developed

Global PPH guideline developers should align on a core set of recommendations, consistent across guidelines, that can be contextualized into national guidelines and further translated into clinical practice too

Guideline updates should address current gaps

Efficient and sustainable monitoring system at scale

Key priorities and strategies to combat PPH burden by Road map as agreed by the stakeholders at the 2023 Global PPH Summit

The specific actions and deliverables for the period 2023 to 2030.

Addressing:

- **Priority research gaps**
- **Priority gaps in norms and standards**
- **implementation bottlenecks** - Prioritised implementation barriers for global action
- **Lack of clear national policy and leaders**
- **Weak procurement and supply chain systems**
- **Poor staffing, training, and supervision of providers**
- **inequities and poor access to good quality care**
- **Women's limited rights and social status**

Closing advocacy gaps

Success Stories & Best Practices

Sri Lanka: Strong maternal healthcare system, Well-trained midwives and obstetricians, High institutional delivery rates: Over 99% of births occur in hospitals, Effective PPH Prevention & Management Strategies, Strong referral system.

India: Improving hospital deliveries, free Maternal Healthcare, free Antenatal Care (ANC), free checkups and anemia screening, community-based distribution of misoprostol for home births.

Bangladesh: Increasing skilled birth attendants.

Success Stories & Best Practices (Cont.)

Malaysia, Thailand, and Vietnam have reduced PPH-related deaths due to **high hospital birth rates, trained midwives, and effective oxytocin use.**

Thailand: Universal healthcare and trained midwives have drastically reduced maternal deaths.

Malaysia: Strong emergency obstetric care and blood banking have improved PPH survival rates.

Vietnam: Community midwifery programs are increasing safe deliveries.

In Conclusion
Armed with all the new developments
We will all work together,
TO ACHIEVE OUR COMMON GOAL

No woman should die,

become morbid or

lose fertility

Due to PPH

ZERO DEATHS DUE TO PPH

"Women are not dying because of diseases we cannot treat. They are dying because societies have yet to make the decision that their lives are worth saving."
Mahmoud Fathalla – Past President FIGO

SDG goals would be Reached - 70/100,000
But why can't it be 0/100,000
Woman's Human Rights To be alive & well after Pregnancy & Childbirth

"Professionals & Professional Associations need to Embrace their public health and social responsibilities. Every one of us must take a personal resolution to help those in need" –
Prof Sir Sabaratnam Arulkumaran - Past President FIGO




ACKNOWLEDGEMENT

We would like to thank and express our gratitude to Sir Sabaratnam Arulkumaran for graciously providing the foreword to the "Silver Jubilee Oration Booklet of Late Shree Hira Nanda Vaidya Memorial Oration". His esteemed words add great value and distinction to this commemorative publication. we extend our heartfelt appreciation to all the National and International orators whose invaluable contributions have enriched the conferences of the Nepal Society of Obstetricians and Gynecologists (NESOG) and strengthened the wider community of Obstetricians and Gynecologists. We also acknowledge with deep gratitude the dedicated Presidents, Executives, Organizing and Scientific Committees of NESOG over the years whose steadfast commitment and leadership have ensured the continuity and success of this prestigious memorial oration.

Our sincere thanks are due to Dr.Lata Bajracharya, Past President of NESOG and Prof.Dr. Jitendra Pariyar for their invaluable support in bringing this publication to fruition.

We would also like to acknowledge Mr. Bhusan Kapali for his dedicated secretarial support throughout the preparation of this booklet. Finally we remember with deep respect the legacy of Late shree Hira Nanda Vaidya, whose vision and contributions continue to inspire the obstetrics and gynecology community. We are extremely grateful to his family members for establishing this oration and providing financial support for the publication of this booklet.

Prof.Dr.Padam Raj Pant
President,NESOG

Prof. Dr. Sanu Maiyan Dali
Past President,NESOG and HNV family Members



Second Row Vijaya, Father Hira Nanda Vidya, Grand Mother Nati Maiya, Mother Purna Kesari, Brother Dr. Ramesh Ananda
First Row : L/R Er. Gauri Bhakta Shrestha, Hiranya, Dr. Narayana Govinda Amatya, Dr. Roshana Amatya, Dr. Vishwa Raj Dali, Dr. Sanu Maiyan
Third Row: Grand Daugher Soni Shrestha, Archana Amatya, Rajendra Bhakta Shrestha