

National Obstetrics Registry Newsletter

VOL 4 ISSUE 1
NOVEMBER 2020

SITE DATA PROVIDER

- ❖ Hospital Sultanah Aminah, Johor
- ❖ Hospital Segamat, Johor
- ❖ Hospital Melaka, Melaka
- ❖ Hospital Tuanku Jaafar Negeri Sembilan
- ❖ Hospital Kuala Lumpur
- ❖ Hospital Tengku Ampuan Rahimah Klang Selangor
- ❖ Hospital Raja Permaisuri Bainun, Perak
- ❖ Hospital Pulau Pinang, Pulau Pinang
- ❖ Hospital Sultanah Bahiyah Kedah
- ❖ Hospital Tengku Fauziah Perlis
- ❖ Hospital Raja Perempuan Zainab 11 Kelantan
- ❖ Hospital Nur Zahirah Terengganu
- ❖ Hospital Tengku Afzan Pahang
- ❖ Hospital Umum Sarawak, Sarawak
- ❖ Hospital Wanita dan Kanak Kanak Likas Sabah



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FROM THE PRINCIPAL INVESTIGATOR

Dear Colleagues,

Greetings from NOR. During this trying times we hope that you and your loved ones are safe. We are pleased to share this 4th NOR e-newsletter. NOR has grown since its inception 11 and ½ years ago since June 2009. It has evolved into being one of the largest Obstetric database in the world. NOR entered a new phase in 2018 as we migrated to the Patient Registry Information System (PRIS-NOR). It was the first patient registry to be given this honour to pioneer this move into the National Data Warehouse. This would not have been possible if not for the tireless efforts, commitment and dedication of all the site coordinators, nursing coordinators and site assistants involved. These efforts has enabled NOR to be recognized locally and internationally as a reputed source of Obstetric information for Malaysia. A special word of thanks to Dr Shamala, our NOR manager for her single mindedness in ensuring the success of NOR. Please visit the NOR homepage where all activities are presented in detail.

Best wishes to All.

Dr J Ravichandran R Jeganathan

Contact Information:

NATIONAL OBSTETRICS REGISTRY
Institute Clinical Research
Block B4, National Institute of Health (NIH)
No 1, Jalan Setia Murni U13/52 Seksyen U13
40170, Setia Alam

Project Manager
Dr Shamala Devi Karalasingam
shamaladevi@crc.gov.my
Tel No: 03-33628801

NOR TEAM PAST AND PRESENT

Principal Investigator
Dr Ravichandran Jeganathan

Project Manager
Dr Shamala Devi Karalasingam

Statisticians
Mohammad Adam bin Bujang
Sharul Aiman Soelar
Nur Amirah binti Zolkepli
Nadia Sa'at
Nurakmal Baharum

NOR Secretariat
Naren
Nurul Shuhadah Mohd Ali
Aminah Salleh
Siti Sara binti Mat Lazim

NOR Advisors
Dato Dr Ravindran Jegasothy
Dato Dr Mukundan Krishnan
Dato Dr Goh Pik Pin

Hospital Sultanah Aminah
KJ Ruhaizan Haron
KJ Rozima Samion

Hospital Melaka
Dr Vijaendreh Subramaniam
Dato Dr Tham Seng Woh
Dr Maimunah binti Fadzil
KJ Roslina Md Zain
KJ Wan Ji Nion
KJ Zaiton binti Simiti
KJ Chong Guan Kim
KJ Rahilah Arshad
KJ Suhaila Aszemi
KJ Roslina Mohd
KJ Rosnizan Mohd

Hospital Tuanku Jaafar
Dr Krishna Kumar Hari Krishnan
Dr Wan Elly
Dr Azmy Mohd Yusoff
Dr. Nazura Bt. Karim
Dr Faridah hanim Binti Zamzam
KJ Maimunah
KJ Roszina Basir
Matron Arumulighanam S

Hospital Kuala Lumpur
Dr Noraihan binti Nordin
Dr S.Thallainathan
Dr Nasuha bt Yaacob
Dr Nurul Khairiyah Khairudin
Dr Muniswaran G
KJ Rohana Mat Noor
KJ Jemlah Binti Ahmad
Sr Nani Surayani Hasimin
Matron Noratiffah Akkil
KJ Yusni Hussin

Hospital Tengku Ampuan Rahimah
Dr Mohd Farouk Abdullah
Dr Thavamani Manoharan
Dr Malar Kandasamy
KJ Rosma Anida Ibrahim
KJ Parameswari Sinnathambi
KJ Zaiton Ibrahim
KJ Rusita Mohd



Preamble

The National Obstetrics Registry (NOR) is a project initiated by the O&G fraternity with the support of the Family Health Division of MOH Malaysia. The National Clinical Research Centre (NCRC) now known as Institute Clinical Research (ICR) was instrumental in the development, implementation and administration of this registry. NOR evolved, as a result of a dearth of statistics and information available on the Obstetric performance of hospitals within MOH. The information was only available upon request from each hospital, which was collected manually. Collective data and data mining were almost impossible. With the advent of NOR, it was possible to get real time updates as to the performance and work output of the respective participating hospitals. It also facilitated audits and research which can improve Obstetric care. It is a clinical "disease" database which compiles obstetric data, in a defined population. Ethical approval for NOR was provided by the Medical Research Ethics Committee of MOH. (NMRR 15-620-25530). Since it is web-based the data was readily accessible. This registry assisted us in evaluating

some key areas in obstetric practice, namely burden of disease in pregnancy, perineal trauma, rising rates of Caesarean Section, and outcome of LBW babies to mention a few. Analysis of these parameters will enhance our efforts to achieve the Millennium Development Goal.

Benefits of this registry

Having a comprehensive database of patient information enables continuous monitoring and evaluation of care by looking at trends in maternal and fetal outcome. From the nursing perspective, NOR allows us to re-look at the distribution of staff, capturing the workload in various hospitals, assess the effectiveness of midwifery and community nurse training, enable nursing research and audit. For the doctors, NOR provided an avenue for ample research and audit in terms of risk management and clinical governance, which is pivotal in providing quality patient care. The magnitude of the obstetric outcomes can be identified with the data collected which enables evaluating and strategic planning for

targeted preventive programmes. For all these to happen there must be continuous data capture in the various hospitals to ensure the effectiveness and impact of this registry.

Data entry

Each hospital has a dedicated site coordinator represented by a specialist and a nursing coordinator represented by a Matron or a Sister, who oversee data entry by Site assistants for NOR on a daily basis. The success of this registry is due to the manpower behind the project. There is a close liaison between the Principal Investigator, Project Manager and the Site data Providers who manage data entry. From June 2009 till 2017 approximately 1.3 million deliveries have been captured from the 15 participating hospitals.

NOR migrated to the Patient Registry Information System (PRIS-NOR) in 2018

NOR homepage was launched in Jan 2014 <http://www.acrm.org.my/nor/> which allowed sharing of obstetric information. NOR logo gave it an identity of its own

FAST FACTS. DID YOU KNOW?

1. Incidence of preterm deliveries are on the decline from 2013 to 2017 (22.1% to 8.9%)
2. Decline in Preterm deliveries is seen in all ethnicities however Indian women still had the highest rates among the 3 main ethnic groups.
3. CS rates are on the rise at 27.37% in 2016 and 29% in 2017.
4. By using the Robson's 10 group classifications, CS was high in low risk groups.
5. Highest rates of CS was in Robson's Group 5 (multiparous with Previous scar) followed by Group 1 (Nulliparous with spontaneous labour) and Group 3 (Multiparous with spontaneous labour).
6. Risk of stillbirth was higher in older women 40 years and above.
7. BMI is an essential risk stratification tool in Obstetrics. Increased BMI has significant effects on maternal and fetal outcomes.
8. Prevalence of spontaneous perineal trauma 2010-2017 was 23% in primiparous and 49% in multiparous women.
9. Highest incidence of spontaneous perineal trauma was when the accoucher was a medical officer with less than 6 months experience.
10. Higher the parity, higher the incidence of anaemia in pregnancy.
11. Incidence of anaemia is on the decline 2011 to 2015 (32.4% to 17%)
12. The older the women, higher the CS rates.
13. Maternal co-morbidities that contributed to the highest stillbirth rates were preexisting Diabetes, Gestational Hypertension, Renal Disease and Eclampsia
14. 1/5 of babies born to Diabetic mothers were macrosomic.
15. Risk of shoulder dystocia in Diabetic mothers was higher with birthweight 3000g and more.
16. Incidence of Diabetes is high in NS, WP KL and Terengganu.
17. The older the women the higher the incidence of Diabetes in Pregnancy
18. Highest incidence of Diabetes in pregnancy was among Indian women.
19. Preterm births had the highest stillbirth rates.

Hospital Segamat

Dr Fatimah Zarina bt Jamaludin
Dr Najah Sahiran
KJ Sharifah Norhayati
KJ Rosfidah binti Ishak

Hospital Raja Permaisuri Bainun

Dr Japaraj
Dr Liza Ling Ping
Dr Arukku Naidu
Dr Jumaidah Abu Bakar
KJ Zalilah Zainal
KJ Padilah Aziz
KJ Thanalethummi Sinnathamby
KJ Hamimi Mohd Suffian

Hospital Pulau Pinang

Dr Mohamed Rouse Abd Majid
Dr Shamini Diana
Dr Anil Krishnan Dass
Dr. Diong Seng Kwok
KJ Zulaily binti Husin
KJ Isliyana bt Azhar
KJ Norida Abu Bakar
KJ Noriah Kassim
KJ Norbaizura
KJ Hasmiza Yahya
KJ Azliza binti Mat Husin

Hospital Sultanah Bahiyah

Dato Dr Rushdan Mohd Nor
Dr Aw Lin Da
Dr Rohani Aziz
Dr Rosliza Shafie
KJ Ong Chai See
KJ Zarina Man
Matron Zulfadzillah Ahmad

Hospital Tengku Fauziah

Dato Dr Zaridah Shafie
Dr Mohd Nizar bin Bidin
Dr Maizuriati Abd Rahman
KJ Azlina Halip
KJ Morsidah Binti Kasa

COLLABORATIONS



International Consortium for Health Outcomes Measurement



PRESENTATIONS



PRESENTATIONS (Refer homepage for earlier presentations)

ICHOM Conference , London, UK 15-16 May 2016

-Compliance of 11 hospitals from the National Obstetrics Registry to the National KPI for Massive PPH

RCOG World congress, Birmingham, UK 20-22 June 2016

-Small for gestational age babies from Malaysian tertiary hospitals: A 5 year cohort study from the National Obstetrics Registry Malaysia

RCOG world congress 20-22 MARCH 2017 CAPE TOWN ,South Africa

-Birthweight and relationship with Maternal BMI,Diabetes and Hypertension: A Quantile regression analysis of term Births in the Malaysian National Obstetrics Registry 2010-2012.

25th Malaysian congress of O&G 27-30TH July 2017

-A 5 year review (2010-2014) of stillbirth from the National Obstetrics Registry

MISCOG 2018 7-10 TH Sept 2018 Kuala Lumpur

-A cross sectional study from the National Obstetrics Registry: Obstetric Performance among the 3 major ethnic groups in Malaysia (**Best Poster award**)

-A cross sectional study from the National Obstetrics Registry:Maternal Obesity and pregnancy outcomes

PUBLISHED MANUSCRIPTS (Refer homepage for full manuscript)

1. Effectiveness of selective risk based screening for Gestational Diabetes (GDM) in Malaysia: A retrospective cohort study based on the National Obstetric Registry (NOR) of Malaysia.
2. Factors associated with recovery from 1 min Apgar score less than 4 in live singleton term births. An analysis of Malaysian National Obstetrics Registry data 2010 – 2012.
3. Importance of Adopting BMI Classifications Using Public Health Action Points to Delineate Obstetric Risk Factors Resulting in Worsening Obstetric Outcomes Among Asian Population.
4. Caesarean section rates from Malaysian tertiary hospitals using Robson's 10-group classification.
5. Maternal Obesity and Neural Tube Defects - A Malaysian Perspective (Interim Analysis)
6. Prevalence of teenage pregnancy in 2015-2016 and its obstetric outcomes compared to non- teenage pregnancy at Hospital Tuanku Jaafar Seremban(HTJS) Negeri Sembilan, Malaysia: A retrospective case-control study Based on the National Obstetric Registry.

PUBLISHED ABSTRACTS (Refer homepage for earlier published abstracts)

1. Small for gestational age babies from Malaysian tertiary hospitals: A 5 year cohort study from the National Obstetrics Registry Malaysia
Volume 123, Issue S2, June 2016, Pages 85–96 | Special Issue: **Top Scoring Abstracts of the RCOG World Congress 2016**, 20–22 June 2016, ICC Birmingham, United Kingdom
2. Birthweight and relationship with Maternal BMI,Diabetes and Hypertension: A Quantile regression analysis of term Births in the Malaysian National Obstetrics Registry 2010-2012.
Volume 124, Issue S1, March 2017 Pages 68–75 | Special Issue: **Top Scoring Abstracts of the RCOG World Congress 2017**, 20–22 March 2017, CTICC Cape Town, South Africa

NOR REPORT

5th NOR Report 2016-2017 will be available on NOR website in mid November. All SDP's will receive hardcopies.

Hospital Raja Perempuan Zainab 11

Dr Haji Abd Rahman Abdullah
Dr Sukri Ahmad
KJ Sariah Tais
Dr Wan Faizah Wan Mohd
KJ Haslinda
KJ Norhayati binti Daud
KJ Norhaliza Ismail

Hospital Nur Zahirah

Dr Wan Abu Bakar
Dr Mohd Zulkifli Mohd Kasim
Dr Faridah Mohd Yusoff
KJ Hanim Bt Hasran
KJ Wan Simbok
Matron Zainab binti Kader

Hospital Tengku Afzan

Dr Rozihan bt ismail
Dr Ahmad Muzamir Ahmad Mustafa
Dato' Dr Sudesan
KJ Sariha Abd Razak
KJ Norlida Jusoh
KJ Norakmal Salihi
KJ Mastura Mohammad

Hospital Umum Sarawak

Dr. Harris N Suharjono
Dr. Prakash a/l Mayandi
Dr Azah Yusof
Dr Voon Hian Yian
Matron Katleen Ros
Matron Mariam Iotot
KJ Lenny Harrison

Hospital Wanita dan Kanak Kanak Likas

Dato Dr Soon Ruey
Dr Carol Lim
Matron Anita Malek
Matron Nancy Dominic
KJ Helena Binty

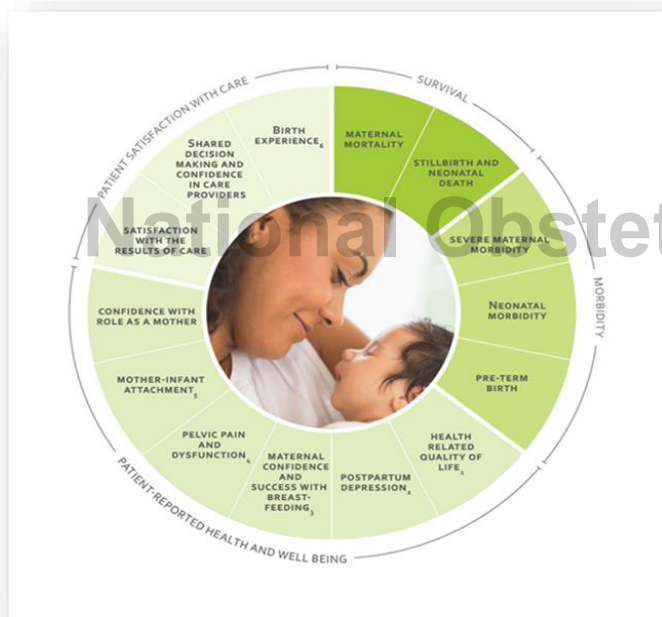
MANUSCRIPT -PEER REVIEW IN PROGRESS

1. Is Episiotomy protective against spontaneous perineal trauma and OASIS in Malaysian tertiary hospitals? A cross sectional study from the National Obstetrics Registry
2. Maternal Obesity And Its Associated Factors Among Malaysian women. Does Ethnicity Matter?

MANUSCRIPT IN PROGRESS

1. Obstetric Performance among the 3 major ethnic groups in Malaysia
2. Anaemia trends 2010-2017 from the National Obstetrics Registry.
3. Spontaneous preterm birth in Malaysia: Are there modifiable maternal risk factors?

ICHOM COLLABORATION



In 2016 **International Consortium for Health Outcome Measures (ICHOM)** based at Boston USA developed a Pregnancy and Childbirth Standard Set to measure the value of maternity care which included measures of health- related quality of life, incontinence, emotional wellbeing, pain during sex, birth experience, breastfeeding experience and mother infant bonding.

Working Group Members - Pregnancy and Childbirth Standard set

Australia
Italy
Malaysia (National Obstetrics Registry)
Netherlands
South Africa
Sweden
United Kingdom
United States of America

<https://www.ichom.org/portfolio/pregnancy-and-childbirth/>

Maternity measures used to report on the quality of maternity care generally focuses on outcomes such as mortality, mode of delivery, PPH, and Obstetric trauma. Patient reported outcome/experience measures can supplement traditional measures by assessing the efficacy of maternity care and interventions from the woman's perspective.

Principal Investigator

Dr Ravichandran Jeganathan
Hospital Sultanah Aminah Johor

Co-Investigators

Dr Shamala Devi Karalasingam
National Obstetrics Registry
Institute Clinical Research, NIH

Dr Najah binti Sahiran
Hospital Segamat

Prof Tin Tin Su
SEACO Monash

Advisor

Prof Daniel Reidpath
Adjunct SEACO Monash

NOR would like to thank all involved in the Pilot Project to implement the ICHOM Pregnancy and Childbirth Standard Set.

1. Nurses and Sisters in Wad 9 and 10 Hospital Segamat
2. SEACO Monash Team

A PILOT STUDY TO IMPLEMENT ICHOM PREGNANCY AND CHILDBIRTH STANDARD SET IN SEGAMAT DISTRICT, JOHOR, MALAYSIA.

OBJECTIVE:

1. Evaluating, comparing and improving clinical care during the postpartum period. The survey focuses on patient reported health and wellbeing which involves confidence with the role as a mother, mother infant attachment, pelvic pain and dysfunction, maternal confidence, success with breast feeding and postpartum depression.
2. The information collected will be used to compare with other countries to benchmark care. It will also allow us to assess the feasibility of adapting a set of patient-related outcomes in clinical practice.

(Study is currently ongoing. Stay tuned for the findings)

ACKNOWLEDGEMENT

Our heartfelt thanks to the Director General of Health, Malaysia.

NOR thanks all past and present office bearers for their contribution and support. Also would like to extend our gratitude to all Hospital Directors, O&G Heads of Department, Site coordinators, Nursing coordinators and Site assistants from all 15 hospitals that contribute data to NOR since June 2009.

Special thanks to Dato Dr Goh Pik Pin, former Director of National Clinical Research Centre (CRC) for her support. CRC was instrumental in the development and implementation of NOR.

A big thank you to Prof Daniel Reidpath former Director of SEACO Monash for facilitating Hospital Segamat to be the 15th Site Data Provider to NOR as well as initiating the Pilot Project to implement the ICHOM Pregnancy and Childbirth Standard set in Segamat District and for his continuous guidance.

