CHARACTERISTICS AND ASSOCIATED FACTORS OF PRETERM BIRTH AT HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM) IN 2016

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By

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LIST OF ABBREVIATIONS

ABO	ABO blood group system
ART	Assisted Reproductive Technology
BMI	Body Mass Index
HUSM	Hospital Universiti Sains Malaysia
HRPZ	Hospital Raja Perempuan Zainab II
iMOMz	Database system used at the Obstetrics & Gynaecology Department, HUSM
IUGR	Intrauterine Growth Retardation
LBW	Low Birth Weight
LMP	Last Menstrual Period
MCH	Maternal Child and Health
NOR	National Obstetric Registry
NCD	Non-Communicable Disease
pPROM	Preterm Premature Rupture of Membranes
SGA	Small for Gestational Age
USM	Universiti Sains Malaysia
WHO	World Health Organization

LIST OF SYMBOLS

Symbol	Description
>	More than
<	Less than
=	Equal to
≥	More than and equal to
≤	Less than and equal to
α	Alpha
β	Beta
%	Percentage
p	p-value

CIRI-CIRI DAN FAKTOR BERKAITAN KELAHIRAN BAYI PRAMATANG DI HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM) PADA TAHUN 2016

ABSTRAK

Latar Belakang: Di seluruh dunia, kelahiran pramatang tetap menjadi ancaman kesihatan awam yang signifikan memandangkan trendnya yang semakin meningkat dan impaknya yang serius pada kesihatan. Begitu juga di Malaysia di mana perkadaran kelahiran pramatang dan kematian neonatal yang berkaitan diperhatikan meningkat sejak tahun 2011. Akan tetapi, setakat ini penerbitan kajian mengenai kelahiran pramatang tempatan adalah terhad khususnya kajian mengenai ciri-ciri dan faktor risiko kelahiran pramatang.

Objektif: Kajian ini adalah bertujuan untuk mengkaji ciri-ciri dan faktor kelahiran pramatang di HUSM pada tahun 2016.

Kaedah: Pemerhatian rekod secara retrospektif pada data sekunder dijalankan dengan menggunakan bentuk kajian keratan-rentas dalam Bahagian I (n=4,246) dan bentuk kajian kes-kawalan dalam Bahagian II (n=472). Data mengenai ibu-ibu yang bersalin di HUSM pada tahun 2016 telah diekstrak daripada pangkalan data iMOMz. Analisis deskriptif digunakan dalam Bahagian I untuk menentukan perkadaran kelahiran pramatang dan perkadaran kelahiran pramatang berdasarkan ciri-cirinya (sub-kategori, jenis dan status hidup neonatal). Analisis univariat dan multivariat digunakan dalam Bahagian II untuk mengenalpasti faktor kelahiran pramatang.

Keputusan: Perkadaran kelahiran pramatang dalam kalangan kelahiran hidup di HUSM pada 2016 adalah 6.5%. Kesemua 278 kelahiran pramatang jatuh dalam sub-

kategori sederhana hingga lewat pramatang dan kebanyakannya adalah jenis spontan (74.5%). Hanya 1.8% daripada bayi-bayi yang dilahirkan pramatang ini meninggal dalam tempoh masa 28 hari yang pertama. Masalah hipertensi telah dikaitkan secara signifikannya dengan kelahiran pramatang. Ibu dengan masalah hipertensi mempunyai 2.46 kemungkinan yang lebih tinggi untuk mengalami kelahiran pramatang berbanding dengan ibu yang tidak mempunyai masalah hipertensi apabila disesuaikan dengan ibu dengan status kod merah (OR=2.46, 95% CI: (1.06, 5.72), p=0.037). Di samping itu, ibu dengan status kod merah juga dikaitkan secara signifikannya dengan kelahiran pramatang. Ibu dengan status kod merah mempunyai 2.06 kemungkinan lebih tinggi untuk mengalami kelahiran pramatang berbanding dengan ibu tanpa status kod merah apabila disesuaikan dengan ibu dengan masalah hipertensi (OR=2.06, 95% CI: (1.37, 3.10), p=0.001).

Kesimpulan:

Terdapat perkaitan yang signifikan di antara masalah hipertensi dan status kod merah dengan kelahiran pramatang. Oleh itu, mengoptimumkan kawalan tekanan darah sebelum dan semasa mengandung bagi mencegah terjadinya pra-eklampsia dan perkembangannya ke eklampsia merupakan salah satu strategi yang disyorkan, untuk menambahbaikkan status hasil kelahiran dan mengurangkan kadar kelahiran pramatang. Walaubagaimanapun ‘model of fitness’ dalam kajian ini menunjukkan bahawa ia mempunyai penggunaan terhad untuk meramal kelahiran pramatang. Kajian pada masa depan perlu menyertakan semua faktor risiko lain yang tidak dikaji kerana pembolehubah ini dapat meningkatkan kesahihan dalaman dan kesahihan hasil kajian dalam meramal kelahiran pramatang berdasarkan faktor risikonya.

KATA KUNCI: Kelahiran pramatang, ciri-ciri kelahiran pramatang, kematian neonatal, faktor kelahiran pramatang

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ABSTRACT

Background: Worldwide, preterm birth remains a significant public health threat in view of its increasing trend and devastating health effects. Similarly, in Malaysia the proportions of preterm birth and related neonatal death were observed to be rising since 2011. However to date, there are limited publications on local preterm birth specifically on its characteristics and associated factors.

Objectives: The study aimed to investigate on preterm birth in terms of its characteristics and associated factors at HUSM in 2016.

Methodology: Retrospective record review on secondary data was conducted by means of a cross-sectional study design in Part I (n=4,246) and a case-control study design in Part II (n=472). Data on mothers attending HUSM for deliveries in 2016 were extracted from the iMOMz database. Descriptive analysis was used in Part I to determine the proportions of preterm births and the proportions of preterm births based on its characteristics (sub-categories, types and neonatal outcomes). Univariate and multivariate analyses were used in Part II to identify the associated factors of preterm birth.

Results: The proportion of preterm birth among live births at HUSM in 2016 was 6.5%. All of the preterm births (n=278) fell under the sub-category of moderate to late preterm and predominantly were spontaneous type (74.5%). Only 1.8% of the neonates of these preterm births died within the first 28 days of their lives. The presence of hypertension was significantly associated with preterm birth. Mothers