

Seremban Cohort Study (SECOST): a prospective study of determinants and pregnancy outcomes of maternal glycaemia in Malaysia

ABSTRACT

Introduction: Both gestational diabetes mellitus (GDM) and hyperglycaemia less severe than GDM are associated with risk of adverse pregnancy outcomes. We describe the study design of a prospective cohort of pregnant women recruited in early pregnancy with follow-ups of mothers and infants up to 2 years after birth. The primary aim of the study was to identify the determinants and outcomes of maternal glycaemia. **Methods and analysis:** Seremban Cohort Study (SECOST) is an ongoing prospective cohort study in which eligible pregnant women in first trimester (<10 weeks of gestation) are recruited from Maternal and Child Health clinics in Seremban District, Negeri Sembilan with seven follow-ups during pregnancy through 2 years postnatally. Infants are followed up every 6 months after birth until 2 years old. A standard 75 g oral glucose tolerance test is performed between 24 and 32 of weeks of gestation and as close to 28 weeks of gestation. Pregnancy and birth information are obtained from medical records. Sociodemographic, anthropometric, biochemical, dietary, physical activity, smoking, depression, child feeding and other data of mothers and infants are obtained at follow-ups. **Ethics and dissemination:** This study is approved by the Medical Research Ethics Committee (MREC), Universiti Putra Malaysia (UPM/FPSK/100-9/2-MJKEtika) and MREC, Ministry of Health Malaysia (KKM/NIHSEC/08/0804/P12- 613). Permission to conduct this study is also obtained from the Head of Seremban District Health Office. All participants are required to provide written informed consent prior to data collection. The research findings will be disseminated at journals and conference presentations.

Keyword: Obstetrics; Primary care; Public health