Women's and Children's Research Seminar

Thursday 8 October 2020 2.30-4.30pm Zoom Webinar Passcode 3076

Presenter: Kristina Edvardsson

Topic: Severe mental illness and pregnancy outcomes in Victoria. A population-based study of 1 229 777 singleton births 1999-2016

Synopsis: This talk will focus on a study that explores the associations between Severe Mental Illness (SMI) (schizophrenia, bipolar disorder and severe depression), health and lifestyle factors, and pregnancy outcomes in Victoria. The study is based on a population-based sample of all reported singleton births in the state 1999-2016 (N=1 229 777). We identified 3 496 mothers with a SMI diagnosis, and findings show that SMI increases the odds for a range of adverse maternal and neonatal outcomes, also after adjustment for key confounders such as sociodemographic factors, lifestyle factors and comorbidities, including any other documented mental illness. Next step of the research will be to explore ways to address the health and wellbeing for women with SMI prior to and during pregnancy.

Bio: Kristina is a **Senior** Lecturer at the School of Nursing and Midwifery at La Trobe University and her primary research interest is in the area of mother and child health.



Presenter: A/Prof Lisa Hui

Topic: Throwing the baby out with the bath water? Monitoring the impact of lockdown restrictions on maternal and newborn outcomes in Melbourne

Synopsis: Pregnancy and childbirth have their own timelines and do not pause for pandemics. International reports suggest that pandemic lockdown restrictions are having more adverse health effects on pregnant women and their babies than direct harm from the virus itself. Lisa Hui is leading a collaboration of Melbourne maternity services, including Northern Health, to monitor the maternal and newborn outcomes during the pandemic period so that hospitals can make data-informed decisions during a public health emergency.

Bio: Lisa is a maternal fetal medicine specialist and associate professor in the Department of Obstetrics and Gynaecology at the University of Melbourne.



Presenter: Dr David Tran

Topic: A prospective observational study of COVID-19 transmission and disease course (multi-centres)

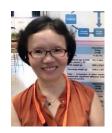
Synopsis: A multicentred prospective study looking at both acute and short-medium term outcomes for children who have tested positive for COVID-19.

Bio: David is a consultant paediatrician, Clinical Director of Paediatrics and clinical lecturer at Northern Health and the University of Melbourne



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Presenter: A/Prof Wei Qi Fan

Topic: Postnatal breastfeeding telephone support significantly improves rates of breastfeeding

Synopsis: Breastfeeding has multiple benefits both to mother and infant. However, there are many factors which lead to breastfeeding cessation well before the WHO minimum recommended 6 months duration of exclusive breast feeding. A large randomised controlled trial was conducted at TNH with 765 mothers were enrolled soon after birth. The results showed that a lactation consultant led telephone program to provide early and regular support for new mothers not only significantly improves exclusive breastfeeding rates but promotes breastfeeding in general.

Bio: Wei Qi is a consultant neonatologist, head of neonatal unit and A/Professor in paediatrics at Northern Health and the University of Melbourne.



Presenter: Natasha DeAlwis

Topic: New generation antiplatelet agents to treat an ancient disease of pregnancy: evidence from human and animal models of preeclampsia

Synopsis: Preeclampsia remains one of the most common causes of maternal mortality globally, and despite decades of research, no proven therapy has yet been discovered. The Therapeutics Discovery and Vascular Function in Pregnancy Group is an internationally-renowned team that is dedicated to finding a treatment for preeclampsia. Recent work with new generation antiplatelet agents shows that prasugrel reduces hypertension and vascular constriction in human and animal models of preeclampsia, and could be the next promising candidate for clinical trials.

Bio: Natasha is a doctoral candidate in the Therapeutics Discovery and Vascular Function in Pregnancy Group at the University of Melbourne, and honorary researcher at Northern Health.



Topic: Diagnosing paediatric anaphylaxis in the emergency department - why is it so challenging?



Synopsis: Diagnosing Anaphylaxis in the Emergency Department: Why is it so Challenging? Synopsis: Anaphylaxis is a potentially life-threatening type of allergy which is diagnosed on the basis of clinical symptoms and signs. Studies have shown historically low sensitivity rates in diagnosing anaphylaxis in children in paediatric Emergency Departments. This clinical audit examined sensitivity and specificity of anaphylaxis diagnosis in an outer metropolitan mixed adult and paediatric Emergency Department, with a particular focus on patient and clinician features that influenced the variability of diagnostic accuracy.

Bio: Liz is an Advanced Trainee in General Paediatrics with an interest in allergy and anaphylaxis.



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Presenter: Dr David O'Keefe

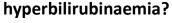
Topic: Harnessing novel coagulation assays to understand the relationship between clotting function, body mass index and venous thromboembolism risk in pregnant women at term gestation.

Synopsis: Venous thromboembolism is a leading cause of maternal morbidity and mortality in high income countries, responsible for one in five direct maternal deaths in Australia. Our current practice of prescribing thromboprophylaxis during pregnancy and the puerperium is based on poor quality evidence. With the increasing prevalence of common risk factors for thrombosis in our pregnant population, such as obesity, better selection of women who would benefit most from pharmacological anticoagulation is urgently needed. In this Northern Health project, we utilised three novel global coagulation assays to understand of the hypercoagulability of pregnancy and the influence of maternal obesity and clinical risk factors on clotting function.

Bio: David is an intern at Northern Health whose MD research project won the best poster award at the 2019 annual scientific meeting of the Society for Obstetric Medicine of Australia and New Zealand.

Presenter: Daniel Ng

Topic: Does early antibiotic therapy in neonatal sepsis (proven or presumed) negatively impact enteral feeding and neonatal



Synopsis: Early onset sepsis (EOS) impacts the morbidity and mortality of preterm infants. However, management with broad-spectrum antibiotics disrupts the neonatal microbiome and predisposes infants to feeding intolerance (FI) and hyperbilirubinemia. In a retrospective study on infants < 37 weeks admitted to the SCN at TNH between 2016 and 2019, we compared rates of FI and hyperbilirubinemia between those with EOS (n=357) and those without (n-289). Multivariate analysis revealed that antibiotic use for 5 days or more significantly increased the odds of FI, hyperbilirubinemia and SCN length of stay. EOS management requires judicious use of antibiotics in order to minimise challenges to neonatal morbidity.

Bio: Daniel is a final year University of Melbourne medical student based at The Northern Hospital with clinical interests in paediatric infectious disease and the role of the gut microbiome in shaping human health and wellbeing.

Presenter: Chiara Marshal

Topic: Does a hypoglycaemic episode for small for gestational age preterm infants further disadvantage their neonatal outcomes?

Synopsis: Preterm small for gestational age babies, with a birthweight below the 10th percentile, have a high risk of poor perinatal outcomes. Hypoglycaemia is more commonly experienced by small for gestational age infants than appropriate for gestational age infants. This talk will address whether a hypoglycaemic episode further worsens the neonatal outcomes of small for gestational age infants with a particular emphasis on preterm small for gestational age infants.

Bio: Chiara is a final year medical student from the University of Melbourne who has been based at The Northern Clinical School for her training since 2018.



