despite adequate prophylaxis (32%). Internationally, there are two approved regimens: double-dose of 500 IU at 28 and 34 weeks’ GA; and single-dose of 1500 IU at 28-weeks.

**Aim:** To assess compliance and maintenance of circulating anti-D levels at delivery comparing single- and double-dose regimens of prophylaxis.

A RCT (n = 280) compared a single 1500 IU dose of anti-D at 28-week to the current Australian regimen (28-and-34-week 625 IU). Delivery antibody screening assessed circulating anti-D. Analyses were performed on intention to treat (ITT), and treatment received (TR). Statistical tests evaluated differences in compliance, detectability of residual anti-D, and maternal and neonatal outcomes. Multivariate logistic regression assessed factors contributing to undetectable anti-D at delivery.

Demographic, obstetric and neonatal outcomes were similar between groups. No women sensitised during the study. Based on analyses by ITT and TR, the single-dose group had a higher proportion of undetectable anti-D at delivery (ITT OR 5.0; 45.2% vs. 14.2%, p < 0.001). Compliance was improved in the single-dose due to better detectability of residual anti-D at delivery. Multivariate regression indicated dose, and third trimester weight were significant predictors for undetectable anti-D at delivery.

Based on individualized calculations of anti-D half-life, if Australia were to adopt a single dose regimen, there would be an estimated additional 15,641 women without adequate cover in the third-trimester.

**A SCRIPT FOR SUCCESS: TAKING SimWars FROM CONCEPT TO COMPLETION.**

Claire Whitelaw1*, Katrina Calvert1, Mathias Epee1

1King Edward Memorial Hospital

**Background:** Australia’s first obstetrics SimWars event took place in Perth in October 2016. The SimWars session was comprised of live, real-time, on-stage simulation scenarios with teams from around Australia and New Zealand competing against each other in front of a 600-member conference audience. SimWars had never previously been done in obstetrics. We present an account of our journey from the initial idea to the execution, with an analysis of pitfalls and problems, to allow the reader to plan and execute their own massive simulation exercise.

**Method:** The story of our journey will be outlined.

**Results:** SimWars was an overwhelming success with positive feedback from participants, and audience, including from an international panel of simulation experts. Challenges along the way included planning clinical scenarios that would be appropriate for the session, securing equipment from local hospitals and training centres with no budget, getting technical support from the conference venue to allow adequate audio-visual immersion for the audience at the session, and recruiting volunteer participants from obstetric units around Australia and New Zealand, from local anaesthetic and midwifery staff and from allied health areas including theatre staff and paramedics.

**Conclusions:** Although an apparently ambitious project, the enthusiasm and goodwill of the SimWars team allowed the project to achieve success. Novel applications of simulation training such as SimWars allow larger audiences to be exposed to this vital educational tool. This presentation will provide inspiration and guidance for interested PSANZ members. If you can dream it, you can do it.

**INTERMITTENT HYPOXÆMIA IN INFANTS BORN LATE PRETERM**

Logan Williams1*, David McNamara2, Jane Alsweiler3

1University of Auckland, the 2Auckland City Hospital, the 3University of Auckland

**Background:** Late preterm (LP) infants are at higher risk of neurodevelopmental impairment than term infants. Intermittent hypoxæmic (IH) events are associated with poor neurodevelopmental outcomes in children with sleep-disordered breathing and congenital heart disease. IH events are common in extremely and very preterm infants, but have not been described in LP infants.

**Methods:** Prospective cohort observational study at Auckland City Hospital. LP infants (34+0-36+6 weeks’ GA) and the next term infants (39+0-41+6 weeks’ GA) born by the same mode of delivery were recruited. Overnight oximetry recordings were performed 2–3 days after birth in all infants. LP infants had overnight recordings repeated weekly until 40 weeks’ GA, and at 45 weeks’ GA. Term infants had an overnight recording repeated at 45 weeks’ GA. Repeated measures data were analysed by general linear mixed models.

**Results:** Between March and September 2016, 43 LP and 42 term infants were enrolled. At birth, LP infants had more IH events (710% decrease in SpO2 below baseline) (events/hour, mean (SEM): 2.5(1.2) vs. 1.0(1.2), p < 0.0001) and mean heart rate was higher in LP infants (beats/minute, least squares means (95%CI): 142.8(140.2-145.5) vs. 128.0(125.4-130.6), p < 0.0001) compared with term infants. These differences persisted at 5 weeks’ postnatal age, and resolved by 45 weeks’ GA. The frequency of IH events in LP infants increased during 1–2 weeks after birth, then decreased until 45 weeks’ GA.

**Conclusion:** LP infants experience more IH events than term infants. Future research is needed to determine if IH events in LP infants could be prevented with caffeine.

**A REVIEW OF CLINICAL PRACTICE GUIDELINES FOR OXYGEN-USE AT DELIVERY FOR PRETERM INFANTS – FOLLOWING ONE ANOTHER.**

Alexander Wilson1*, Maximo Vento2, Prakesh Shah1, Ola Saugstad3, Neil Finer3, Wade Rich3, Rachael Morton4, Yaakov Rabi5, William Tarnow-Mordi6, Keiji Suzuki8, Ian Wright9, Ju Lee Oei10

1Royal Hospital for Women, the 2University and Polytechnic Hospital La Fe, the 3Mount Sinai Hospital, Toronto, Canada, the 4University of Oslo, the 5University of California, San Diego, the 6University of Sydney, the 7University of Calgary, the 8Tokai University, Japan, the 9University of Wollongong, University of Newcastle, the 10University of New South Wales

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**Abstracts**

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