from IPA pathway analysis relating to UHRF2, the lead SNP from PGPII. Lastly, a list SNPs (MAF >5%) within imputation grid generated using five continental populations.

Results: The PTB array consist 930K SNPs providing >90% genome coverage in five populations.

Conclusions: Generic genotyping arrays perform well in numerous phenotypes, but exclude densely genotyped genes/ fine-mapped regions for plausible PTB loci. The PTB array can lead to discovery of novel genetic risk factors for early PTB through study of multiple ethnic groups. Identifying those at highest genetic risk allows stratification of high risk care to those who need it most and step us toward personalised medicine in our discipline.

A STUDY OF AMBIENT NOISE LEVELS IN A LEVEL SIX INTENSIVE CARE NEONATAL UNIT

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Background: The establishment of oral feeding in preterm infants is often delayed due to poor coordination of sucking and swallowing, neurological immaturity and respiratory compromise. Consequently, enteral feeds in such infants are delivered through a nasogastric tube. Strategies to minimise the duration of nasogastric tube feeding and optimise the transition to oral feeding have been shown to enhance growth and development, and decrease length of stay.

Methods: The Neonatal Unit at The Northern Hospital has introduced a cue based oral feeding clinical pathway for preterm infants requiring nasogastric feeding. Oral feeds are upgraded according to infant cues, and nasogastric tubes are removed a minimum of four full sucking feeds within a 24-hour period have been achieved. This audit compared the outcomes of infants both before and after the introduction of the strategy. The study included 438 infants (n = 146 intervention and n = 292 control).

Results: Infants in the intervention group reached full oral feeds significantly earlier than controls (16.9 ± 14.5 days vs 20.0 ± 16.2 days, p<0.05). Infants in the intervention group were discharged home an average of 1.3 days sooner than controls (21.3 ± 14.8 days vs 22.6 ± 16.4 days, p<0.05). There was no statistically significant difference in weight gain between the two groups.

Conclusions: The cue based oral feeding clinical pathway was successful in achieving earlier full oral feeds in preterm infants requiring nasogastric feeding and has the potential to cost savings due to reduced length of stay.

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Background: This study aims to assess the ambient noise levels in a large tertiary nursery and compare the findings to established noise guidelines for neonatal intensive care units.

Methods: Four 24 hour continuous noise measurements were taken in four different locations or situations in the Grantley Stable neonatal intensive care unit at the Royal Brisbane and Women’s Hospital. These measurements were quantified and compared to current practice guidelines of acceptable neonatal noise levels.

Results: Noise levels exceeded the recommended guidelines recommended for neonatal intensive care units set by the American Academy of Paediatrics (AAP). Out of cot noise measurements exceeded the 45 dB readings 100% of the time, intermittent noise levels exceeding 50 dB.

Conclusions: Noise levels in the Grantley Stable Neonatal unit consistently exceed recommended levels both in terms of continuous noise and peak noise levels. Most notably the out of isolete readings are elevated at a consistent level where as the in-cot measurements have a more sustained lower noise level. Spikes in noise levels can be correlated with staff activities and cares applied. The peaks in noise levels exceeded the recommended published guidelines.