Body composition of New Zealand-born term babies differs by sex and ethnicity

Background/Aims
New Zealand has a diverse ethnic population; mean birth weights differ among the main ethnic groups. However, there are no data on body composition of New Zealand-born term babies.

Methods
Body composition by air displacement plethysmography (PEAPOD COSMED, US) and anthropometry were measured within five days of birth in healthy, term infants born between 37+0 and 41+6 weeks’ gestation in two hospitals in Auckland. Ethnicity was parent-identified and prioritised according to Ministry of Health criteria. Data were analysed using t-tests and two-way ANOVA (GLM) post-hoc Tukey tests.

Results
Four hundred and forty babies (54% male) were included. PI/M (Pacific Island/Māori) were heavier at birth than the Asian+ (Asian + Middle Eastern/Latin American/African) babies (3,403 (506) vs 3,181 (485) g, p<0.05). PI/M and E (European) babies were significantly longer had larger head and waist circumferences than Asian+ babies (all p<0.05). PI/M babies had significantly lower FM% compared with Asian+ (9.8 (4.3) vs 10.9 (4.5) %, p<0.05). FM was not different among ethnicities (E, 365 (156), PI/M, 347 (183), Asian+, 357 (188) g). FFM was greater in PI/M (3,056 (400) g compared with Asian+ (2,824 (363) g) and E (2,952 (345) g, p<0.05). E babies had significantly more FFM than Asian+ babies (p<0.05).

Conclusions
Asian+ babies were the smallest babies with the least FFM, yet had similar amounts of FM (g) and the highest FM%, indicative of a thin, fat phenotype from birth.

Swallowing rehabilitation following spinal cord injury: a case series
Shaolyn Dick, Jess Thomas, Jess McMillan, Kelly Davis, Anna Miles

Background/Aims
Swallowing difficulties (dysphagia) are well recognised after spinal cord injury and surgery. There are no published rehabilitation efficacy studies to date. This study explored viability and outcomes of swallowing rehabilitation programmes following spinal cord injury and surgery.

Methods
This quantitative experimental longitudinal case series followed four patients with persisting dysphagia after spinal surgery. Outcome measures included objective videofluoroscopic measures of timing and displacement and a validated self-reported questionnaire. Measures were taken pre-therapy, immediately post-therapy and at three months.

Patients engaged in a six-week individualised progressive rehabilitation programme based on their videofluoroscopic measures. Feeling and fatigue scale scores were taken before and after each therapy session.

Results
Patients (63yr, 67yr, 67yr, 76yr; three male) had varying spinal diagnoses (two traumatic, all involving the C-spine) and length of dysphagia (6wks, 6wks, 12wks, 10yrs). Common physiological impairments across all patients were: reduced maximum hyoid displacement, reduced pharyngeal constriction and reduced pharyngoesophageal segment maximum opening. Therapy programmes had 100% compliance and positive feeling scale scores. All participants made quantitative improvements in their videofluoroscopic measures. Three out of four participants were able to transition to a regular non-modified diet; with three percutaneous endoscopic gastrostomy (PEG) removals. Poor upper limb function and restricted neck flexion prohibited some exercises.

Conclusions
In patients following spinal surgery, dysphagia, past the acute phase of recovery, is relatively uncommon. However, for some, significant pharyngeal impairments persist. This case series demonstrates potential to regain functional swallowing following a six-week tailored rehabilitation programme. High-quality research exploring efficacy of rehabilitation programmes is warranted.
Variability of swallowing physiology in children with feeding difficulties: a videofluoroscopic analysis
Laura Fuller, Anna Miles, Jacqui Allen

**Background/Aims**
Children swallow rapidly, increasing the risk that inspiration may coincide with a swallow and result in airway violation. Swallow variability is also described in infants with feeding difficulties but it is not known whether this represents physiologic variability in the developing child. This retrospective study explored the relationship between objective fluoroscopic measures of swallowing rate variability, suck:swallow ratios and aspiration in infants.

**Methods**
VFSS of 50 infants referred with feeding concerns (aged 5 dys–9mths) were included. 20-second mid-feed bottle feeding recordings were analysed using objective digital measures of timing and displacement (Swallowtail, Beldev Medical, LLC). Measures of rate, airway violation and suck-to-swallow ratio were obtained.

**Results**
Variability in pharyngeal timing and displacement was identified across all infants but did not correlate with aspiration (p>0.05). Sixteen infants (32%) aspirated, however aspiration did not occur on every swallow (range 10–50% of swallows). Suck-to-swallow ratios varied from 1:1–6:1 within infants. More than three sucks per swallow correlated with higher incidence of aspiration (p<0.001).

This exploratory study describes for the first time that swallow timing and displacement variability is present in young children but does not correlate with aspiration. Greater number of sucks per swallow appears to confer increased risk of airway invasion.

Improving the quality of care for adolescents and young adults (AYA) in Counties Manukau Health (CMH)
Louise Albertella

**Background/Aims**
Adolescents and young adults (AYA) have health needs which are distinctly different from children and adults. A lack of education and training is reported to be a barrier to clinicians providing developmentally appropriate care. Counties Manukau Health (CMH) patient experience data shows that AYA are more likely to rate the care they received as poor, compared to other age groups.

Does the experience of care received by AYA in CMH improve after a QI initiative which is based on the implementation of the standards for quality care for AYA in secondary/tertiary care?

**Methods**
Staff (43) and patients aged 16–24 years (20 pre- and post-intervention) of ward 32 completed surveys. Initial survey results were compared to the standards for quality care. Interventions based on these findings were staff education and resource provision.

**Results**
Few staff (12%) had completed any youth-specific training. Confidentiality was not routinely discussed with AYA by 50% of clinicians, and only 23% of staff reported that they see AYA alone as part of their admission. Areas not well-covered during psychosocial assessments included sexual health, mental health and safety. This was also reflected in the results from the surveys of AYA.

**Conclusions**
Key components of developmentally appropriate healthcare include the provision of developmental healthcare and the routine use of psychosocial assessments. This did not occur with AYA on ward 32. These young people may be less likely to disclose sensitive health information, but it was also apparent that questions about sexual health, mental health and safety were not being asked by staff.

Teaching medical and nursing students paediatric life support through simulation: the role of the learning environment
Cameron Burton, Genevieve Barnard, Adrian Trenholme, Rachel Webb, Jennifer Weller, Yan Chen

**Background/Aims**
Simulation-based education refers to an artificial representation of a real-world process to achieve educational goals through experiential learning. Our objectives are to teach medical and nursing students core skills in paediatric life support through the use of simulation and to investigate the learning environment to understand if learners acquire skills best when in peer groups or when integrated into a clinical team. The research focuses on the skills of basic life support and the structured approach to the seriously ill child.

**Methods**
Following introductory teaching, students will be randomly allocated to either a simulation in peer groups or a mini-team environment consisting of one doctor and one nurse. Each group will participate in two clinical scenarios directly related to the learning outcomes. Each scenario will be followed directly by a semi-structured debrief, with opportunities to reflect on experiences and discuss learning objectives in more depth. Individual directly-observed assessment of the core competencies and a questionnaire will be undertaken before and after intervention.

**Results**
The study is in progress with the programme taking place over seven sessions between June and October 2019. Student feedback to date has been largely positive.
Conclusions
We hope that these simulation sessions will be a valuable experience for participants and inform on the optimal learning environment for student simulation.

The CREBRF type 2 diabetes protective allele is associated with reduced risk of gestational diabetes mellitus in Māori and Pacific women with obesity
Mohanraj Krishnan, Rinki Murphy, Christopher McKinlay, Karaponi Okesene-Gafa, Maria Ji, John Thompson, Rennae Taylor, Tony Merriman, Lesley McCowan

Background/Aims
The A (minor) allele of CREBRF-rs373863828 has been associated with increased BMI but with reduced risk of type 2 diabetes (T2D) in Māori and Pacific people. Given the shared aetiology of T2D and gestational diabetes mellitus (GDM), genetic variants predisposing T2D may also contribute to GDM risk. We tested for association of rs373863828 with GDM in 112 Māori and Pacific (Polynesian) women with obesity recruited to the Healthy Mums and Babies (HUMBA) Trial.

Methods
Ethnicity was self-reported based on grandparental ethnicity. GDM was defined by 75g oral glucose tolerance test (OGTT) at 24–28 weeks' gestation using IADPSG criteria. Regression analysis was conducted in Māori and Pacific separately and association effects were combined using meta-analysis.

Results
Women had a mean (SD) baseline BMI of 39.2kg/m² (6.1). GDM was present in 35 (31%). CREBRF-rs373863828 was carried by 39 (35%) women (four minor homozygotes). Each allele was associated with a nearly eight-fold reduction in odds of GDM (adjOR=0.13 (0.05–0.3), P=0.004).

CREBRF-rs373863828 tended to be associated with lower fasting (P=0.05) and two-hour (P=0.07) OGTT glucose concentration. Overall, CREBRF-rs373863828 was not associated with pre-pregnancy BMI.

Conclusions
CREBRF-rs373863828 is associated with a substantially reduced likelihood of GDM in Māori and Pacific women. CREBRF genotyping could improve clinical GDM risk stratification of obese Māori and Pacific women.

Prolonged transitional neonatal hypoglycaemia: characterisation of a clinical syndrome
Miranda Bailey, Allie Rout, Jane Harding, Jane Alsweiler, Wayne Cutfield, Christopher McKinlay

Background/Aims
Transitional neonatal hypoglycaemia is common and usually resolves within 48 hours. However, some babies experience persistent hypoglycaemia, which has not been well described.

Methods
Cases were defined as: >35 weeks; ≥1 hypoglycaemic episode <72h and ≥72h; treatment for ≥72h; excluded if congenital metabolic/endocrine disorders, malformations, HIE, confirmed sepsis. Hospital coding, laboratory and pharmacy databases were searched at two Auckland tertiary hospitals from January 2012 to December 2016. Records (including childhood) of all babies ≥72 hours old with ICD10-P70 codes (Transitory disorders of carbohydrate metabolism), insulin measurement or diazoxide prescription were reviewed. Data were extracted onto pre-specified forms.

Results
From 471 records screened, 39 met the case definition. Most were male (72%, 28), Pacific (49%; 19) or Māori (18%, 7), small for gestational age (62%, 24) and born by emergency caesarean (59%; 23); only 5% (2) were large for gestational age. Median (IQR) birthweight z-score was -1.46 (-1.81, -0.97). Maternal diabetes was present in 18% (7), but no mother had a previous affected baby. In 82% (32), severe hypoglycaemia (<2mM) occurred within 6h of birth. Cases required significant intervention, including: central lines (56%, 22), continuous feeding (26%, 10), medications for hypoglycaemia (18%, 7), formula feeds (85%, 33) and respiratory support (46%, 18). Median (IQR) duration (days) were: admission 12 (10, 15), central line 5 (5, 8), intravenous fluids 6 (5, 7), nasogastric feeding 9 (8, 14). Maximum glucose delivery rate was 10 (5, 8) mg/kg/min. Median (IQR) insulin concentration was 9 (4, 12) mU/L. Ketones were undetectable in 17/21 (81%). Three of four babies with brain MRI had ischaemic/white matter changes.

Conclusions
Growth restricted babies with early severe hypoglycaemia are at risk of delayed metabolic transition and may warrant adjunctive therapy.

Survive & Thrive 2025—a new strategic approach to the prevention of SUDI in Counties Manukau
Christine McIntosh

Background/Aims
On average 8 to 10 babies in Counties Manukau Health (CMH) area die of sudden unexpected death in infancy (SUDI) each year, and almost all babies are of Māori and/or Pacific ethnicity. The Safe Sleep Calculator (SSC) is a SUDI risk assessment tool developed and tested in primary care though local research. It calculates SUDI risk at individual level and generates personalised SUDI protection recommendations. The aim is to introduce systematic SUDI prevention in CMH using the SSC and provide SUDI prevention support specifically to the whānau whose babies are at highest risk.

Methods
A series of workshops and focus groups with providers and consumers has occurred to determine how the SSC should be used, and to develop a joined...
up virtual community-of-care team to partner with families to achieve SUDI protection.

Results
The SSC has been adapted to include care planning and basic referral management within the web-tool, to facilitate SUDI wrap around care. Testing of the new model of SUDI care and web-tool will start June 2019, prior to full roll-out over six months.

Conclusions
The Safe Sleep Calculator and associated care planning tool is an innovative new approach to achieve focused SUDI prevention care in CMH. Funding for the Safe Sleep Calculator from Cure Kids.

Very preterm infants (<31 weeks) undergoing delayed cord clamping (DCC) a three-year experience

E Nevill, MP Meyer

Background/Aims
Over a three-year period (n=192) potential ABC study participants have been assessed and (n=71) randomised. This presentation will describe infant characteristics, assessed to date, and report on reasons for non-recruitment. Neonatal outcome comparisons will be drawn between breathing and non-breathing infants who did and did not receive DCC.

Methods
ABC participant outcomes (blinded cohort) were compared to spontaneously breathing infants (n=67). A second comparison was made with non-breathing infants who did not breathe at birth and did not receive DCC.

DCC. ABC study participant outcomes were comparable to spontaneously breathing infants who received DCC.

Results
Overall, 40% of the infants observed breathed regularly at 15 seconds of age. Infants who did not breathe at birth and received no DCC were more likely to need intubation (p=0.001) and had significantly higher mortality rates (p=0.03) compared to spontaneously breathing infants who received DCC. ABC study participant outcomes were comparable to spontaneously breathing infants who received DCC.

Conclusions
The provision of breathing support during DCC is safe and feasible. Infants who did not breathe at birth and did not receive DCC had significantly worse outcomes.

Closing the GAP-improving detection of fetal growth restriction at Counties Manukau

Joyce Cowan

Background/Aims
The Growth Assessment Protocol (GAP), which includes education on risk selection for SGA, use of customised antenatal growth charts, and auditing of SGA detection, is being implemented nation-wide in New Zealand. GAP has already led to improvement in detection of SGA and in 2018, the programme received funding for a co-ordinated national roll-out. Counties Manukau Health was one of the first New Zealand DHBs to implement GAP in 2016.

Methods
SGA (defined as birth weight <10th customised centile) detection was compared pre- and post-implementation of GAP for a sample of singleton, non-anomalous babies (n=1,105 vs 1,080). Results were adjusted for maternal age, deprivation, smoking, ethnicity and gestation.

Results
Antenatal detection of SGA increased from 22.9% to 57.9% following the introduction of GAP (OR 4.84, 95% CI 2.85–8.21, p<0.0001). Induction of labour and caesarean section increased during the intervention period but was not more pronounced in SGA pregnancies. Among SGA babies who were identified there was a trend to reduced prolonged NNU admission.

Conclusions
Implementation of GAP in this multi-ethnic population with high obesity was associated with a four-fold increase in likelihood of SGA detection without increasing obstetric intervention for SGA. Among SGA babies who were identified antenatally there was a trend to reduced prolonged neonatal unit admission. It appears that GAP is a safe tool for increasing detection of SGA and suitable for an ethnically diverse population.

A comparison of glistenings in blue light-filtering chromophore and non-chromophore intraocular lenses

Anmar Abdul-Rahman

Background/Aims
To evaluate the incidence and severity of glistenings in intraocular lenses (IOLs) with and without light-filtering chromophore.

Methods
A cross-sectional analysis of 301 IOLs in 178 consecutive patients included MA30BA (n=17), SA60AT (n=74), SN60AT (n=57) and SN60WF (n=153) lenses with time in situ up to 20 years. Glistenings density was graded at the slit-lamp.

Results
Glistenings were detected in 56.5% of IOLs. Median implantation duration was 5.6 years. The difference in incidence of glistenings was 65.7% and 35.2% for the IOLs with and without chromophore respectively. Ordinal logistic regression showed that the probability of grade 1 glistenings was higher in the non-chromophore than chromophore IOLs (40% vs 20%) and for grade 3 and 4 glistenings 5% vs 2%. Three level hierarchical generalised linear mixed effects modelling with randomised intercepts had a total explanatory power of 95.7%, in which implantation duration explained 10.4% of the variance. Both models suggested increased glistenings formation over time for chromophore IOLs.
Conclusions
Light-filtering chromophore IOLs demonstrated a statistically significantly higher presence and density of glintenings than clear IOLs, which was positively correlated with implantation time.

Fourier waveform amplitude distribution in the retinal vascular system
Anmar Abdul-Rahman

Background/Aims
To describe the Fourier amplitude distribution in the retinal vessels.

Methods
Sixteen patients underwent modified retinal photo-plethysmography. Generated pulsation amplitude values calculated using Fourier analysis. A generalised linear mixed effects model was used to analyse the correlations of both the composite Fourier amplitude and individual cosine (an1,2) and sine (bn1,2) coefficients of the first two harmonics with both distance along the vessel and ophthalmodynamometric force (ODF).

Results
A total of 36,619 data points were sampled, median Fourier amplitude in the venous system was 5.11 (range = 0.16–56.6), compared to the arterial system 3.36 (range = 0.20–28.54).

Interaction of distance along the vessel and ODF showed that there was an increasing negative correlation of the logarithmically transformed Fourier amplitude with distance on increasing ODF in the venous system with steepening of the regression slope (-0.0018±0.004 p=0.0001). This correlation was sustained for the first and second harmonic coefficients with distance (p<0.001) except for bn2 coefficient. In contrast only the an1 coefficient demonstrated a statistically significant positive correlation with ODF (p<0.01) for both retinal vascular systems.

Conclusions
Quantification of the retinal vascular pulse amplitude and describing its attenuation characteristics may have implications in distinguishing vascular parameters particularly vessel compliance.

Normal serum C-reactive protein native joint septic arthritis in adults
Katherine Given, Stephen McBride, Jessica Mowbray, William Caughey, Edbert Wong, Christopher Luey, Ahsan Siddiqui, Zanazir Alexander, Veronica Playle, Tim Askeland, Christopher Hopkins, Norman Quek, Katie Ross, Robert Orec, Dinshaw Mistry, Christin Coomarasamy, David Holland

Background/Aims
Assessment of inflammatory monoarthritis routinely includes measurement of serum C-reactive protein (CRP) when a diagnosis of native joint septic arthritis (NJSA) is being considered.

Methods
We assessed initial CRP in patients from a large single centre retrospective cohort study of 543 episodes of NJSA from 2009–2014.  NJSA episodes with normal initial CRP (≤5mmol/L) were compared to cases with elevated CRP.

Results
10.3% (56/543) of episodes of NJSA had a normal initial CRP; 48/250 small joint NJSA (SNJSA) and 8/302 large joint NJSA (LNJSA) (p<0.0001). Newman’s Criteria positive cases and microbiologically-proven cases were also studied, with similar statistically significant differences. Normal CRP was statistically significantly associated with lower Charlson Comorbidity Index score (proportion >0 in normal CRP 3.6% vs elevated CRP 26.1%, p<0.0001).

Normal CRP was strongly associated with shorter mean hospital length of stay (normal CRP 7.03 days vs elevated CRP 15.11 days, p< 0.0001; however, no statistically significant differences were found for other outcomes studied.

Conclusions
In our study, NJSA was associated with normal initial CRP levels in 10.3% of cases. Normal CRP NJSA is more common in small joint NJSA, and is associated with a shorter length of hospital stay and lower Charlson Comorbidity Index score. A normal CRP cannot be used to exclude small or large native joint septic arthritis.

References

Reliability of Survival Prediction Scoring System in Kidney Transplant Recipients in NZ
Hari Talreja, Angela Jackson

Background/Aims
In New Zealand, an algorithm derived from USRDS data is used to estimate survival probability for potential kidney transplant recipients. This study assessed the accuracy of survival predictions derived from the algorithm applied retrospectively to a cohort of deceased donor kidney transplant recipients (DDKTR) between 1 January 2002 and 31 December 2012; from two New Zealand centres (Canterbury, CDHB and Counties Manukau Health, CMH).

Methods
All DDKTR during the study period were included. Risk assessments using the algorithm were performed retrospectively using prospectively collected predictor data at time of transplant. Patients were followed five years post-transplant. The outcome of all-cause mortality irrespective of transplant function was captured.

Results
One hundred and forty-one recipients were included, 80 CMH and 61 CDHB. More CMH patients had a predicted survival >80% (89% vs 72%, p=0.02). There were 14 deaths by five years (9.9%). A higher proportion of CMH patients were alive at five years (95% vs 84%, p= 0.04). Of the 26 patients with survival probability <80%, 13 had died at five years (50%). In comparison, only one of 115
patients with a survival probability >80% had died at five years (p<0.0001). For every 10% increase in predicted risk, the actual mortality increased by 2.6 (95% CI 1.01–6.57, p=0.04).

Conclusions
A probability of survival of less than 80% at five years after transplant was associated with poor survival post-transplant in a New Zealand cohort. Risk stratification using this algorithm is a valid way of estimating post-transplant survival.

Living kidney donor conversion rates – a single centre study
Angela Jackson, Hari Talreja

Background/Aims
Living kidney transplant (LKT) is the preferred treatment for patients with end-stage kidney disease (ESKD). However, the rates of LKT remain low in New Zealand, especially when observing this within poorer socioeconomic patient populations. In recent years, there have been efforts to improve LKT in these populations. However, there has been limited analysis of the donor conversion rates (percentage of eligible donors who successfully donated to number of offers), presence of any ethnic disparities and factors associated with successful donation, which was the aim of this study.

Methods
The sample consisted of all persons who expressed their interest for kidney donation to the Renal Transplant team at Counties Manukau Health from 1 January 2012 to 31 December 2017.

Along with baseline demographic data, date points were then captured across the patient journey through the assessment process from a timeline perspective. Outcomes for donation for each individual were determined.

Results
Total sample consisted of 350 subjects. Overall, donor conversion rate was 16.9%. Logistic regression did not show any ethnic difference in successful donor conversion. More than one donor offer and dialysis status of the recipient were statistically significant in the multivariate model. BMI was excluded in the final model given missing data.

Conclusions
Preliminary analysis suggests that there was no difference in live kidney donor conversion rate across different ethnicities at CMH, though overall, it was still low at one in six offers. DCR was higher for recipients who were established on dialysis. Interestingly, more than one donor offers led to reduction in DCR.

Characterisation of aluminium release by the enFlow® Fluid-Warming System in crystalloids and blood products
David Choi

Background / Aims
Uncoated aluminium-heating plates for intravenous fluid warming has been shown to produce high levels of aluminium with Sterofundin 1/1E balanced salt solution. However, the effect of using this device on other balanced salt solutions and blood products has not been studied. We performed a benchtop study to guide our local practice.

Methods
We obtained approval from the Counties Health Research Office. We tested normal saline, plasmalyte 148, Hartmann’s and Albumin 4%, expired packed RBC and FFP. We also ran baseline tests with distilled water and distilled water with an acetate buffer. Samples were collected in a BD Trace element (K2 EDTA) tube (BD Company, New Jersey, US) and sent urgently to LabPlus for processing. We determined the aluminium concentration by mass spectrometry utilising a PlasmaQuant Mass Spectrometer (Analytik Jena AG, Germany).

Results
We observed high aluminium concentration in the infusate when using the enFlow® warmer with balanced crystalloid solutions. Peak aluminium concentration with Plasmalyte running at 2mls.min-1 was 6,028μg.l-1; higher flow rates (16.6mls.min-1 or 1,000mls.hr-1) resulted in a lower peak concentration of 658μg.l-1. In comparison, normal saline at 2mls.min-1 had peak aluminium concentration of 97.2μg.l-1. We observed low levels of aluminium in distilled water, distilled water with acetate buffer (pH 5.84), Albumin 4%, packed red blood cells and fresh frozen plasma.

Conclusions
We observed high concentrations of aluminium when using balanced salt solutions with enFlow®. Normal saline and blood products had a lower aluminium concentration, the exact mechanism is yet to be elucidated.

References

The impact of changing patterns of regional anaesthesia use following rib fracture: a retrospective review
Elizabeth Dunn, Suhyun (Mikey) Kim, Kevin Henshall, Andrew Cameron, Nicholas Lightfoot

Background/Aims
Rib fractures (RF) are common sequelae of trauma, which can lead to serious morbidity. Although regional anaesthesia (RA) can decrease pain, its benefits in reducing adverse outcomes are less clear. The purpose of this study is to assess the impact of RA utilisation on patient outcomes.

Methods
Middlemore Hospital trauma database and radiology reports were queried to identify patients with RF between 2014–2015 and 2017. To assess the impact of RA use, propensity score matching was used to obtain two groups of patients referred to the Pain Service matched by age, number of rib fractures and Charlson score.
One group received RA, whereas the second group did not. The outcomes of interest were length of stay (LOS), critical care use and mortality at 90 days.

Results
Between the two periods, 2014–2015 and 2017, we identified 559 patients with RF. The median age was greater (52.0 vs 63.8 years, p<0.001) in the second period. Referral to the acute pain service (APS) increased (47.4% vs 66.2%, p<0.001) between the two periods.

Propensity score matching was used to identify 70 patients who received RA with the same number who did not. There was no difference in LOS (8.0 (8.5) vs 10.0 (8.7) days p=0.06), critical care admission (24.3% vs 35.7%, p=0.20) or 90-day mortality (6.0% vs 5.0%, p=1.00).

Conclusions
On propensity score matching, RA use leads to insignificant changes in hard outcomes but is likely associated with improved analgesia.

Exploring emergency department nurses’ perspectives on caring for women who miscarry in the emergency department
Rebekah Mitchell, Kim Ward

Background/Aims
International studies have shown that some women who miscarry in the emergency department (ED) have reported unsatisfactory experiences as a result of the ED environment and health providers’ attitudes. ED nurses are the health professionals who most frequently interact with miscarrying women. Therefore, their perspectives on caring for miscarrying women are important to understand how poor experiences can be improved. Few studies have examined the perspectives of ED nurses’ on caring for women that miscarry. Understanding ED nurses’ experiences and perspectives will support further education and training for ED nurses to ensure better outcomes for women who miscarry in the ED. The objective was to explore the perspectives of ED nurses’ who care for women that miscarry in the ED.

Methods
Semi-structured interviews with 10 registered nurses working at a large ED in Auckland, New Zealand. Using the general inductive approach data was thematically analysed to produce a narrative of ED nurses’ experiences of caring for women who miscarry.

Results
1) ED is not the right place for the miscarrying patient, 2) ED nurses are emotionally challenged when caring for miscarrying women, and 3) caring for a woman who is miscarrying raises conflicting emotions in the ED nurse.

Conclusions
This study explains why ED nurses are emotionally affected by miscarriage and identifies that ED nurses do not consider themselves experts in caring for miscarriages despite having the most experience dealing with them. The findings from this study corroborate previous international studies on this topic. Future research should test these findings and explore this complex topic further.

Lived experience of dementia in Indian families living in New Zealand
Rita Krishnamurthi, Sarah Cullum

Background/Aims
Dementia services in New Zealand tend to be designed for English-speaking people of European origin. However, the greatest increase in dementia incidence over the next 20 years will be seen in the Asian population. The aim of our project is to describe the lived experience of dementia in Indian families living in New Zealand.

Methods
Semi-structured interviews were conducted in the community in English, and Hindi by bilingual bicultural researchers. Participants were recruited through CMDHB memory service. To gain a broad perspective we interviewed: people with mild dementia who are able to share their experiences; family members of people with mild dementia; and caregivers of people with more severe dementia.

Results
Fifteen participants were interviewed. Results will be presented under the three main themes:

1. the Indian cultural understanding of dementia
2. the dementia journey, from first symptoms to diagnosis and post diagnostic support
3. what is needed in terms of culturally appropriate services for dementia.

Conclusions
Dementia is definitely an “issue” in this community. Challenges include lack of knowledge, understanding of the diagnosis, stigma, leading to low access to services. Unmet needs included advocacy, cost barriers for legal issues, carer support and training.

Predictors of mortality in people diagnosed with dementia in CMDHB memory service
Sarah Cullum, Chris Varghese, Christin Coomarasamy

Background/Aims
As the global population ages, the burden of dementia is expected to rise across all cultures around the world. The aim of this study is to investigate the sociodemographic and clinical characteristics that predict mortality in dementia in a New Zealand memory service population in South Auckland.

Methods
This cohort study used routinely collected clinical data gathered by CMDHB Memory Service at Middlemore Hospital between 2013 and 2017.
Survival analysis was carried out using Cox regression models to determine significant risk factors and their associations with mortality outcome.

**Results**

Comparison by ethnic group showed that New Zealand Europeans were on average older compared to Māori and Pacific Islanders, and were more likely to be living alone. As might be expected, age and more severe cognitive impairment were associated with increased risk of mortality. Cholinesterase inhibitors appear to be protective (HR 0.54, 95% CI: 0.34, 0.86, p=0.01). Pacific Islanders presented at a later stage of dementia, but surprisingly appeared to be at reduced risk of mortality (even after adjustment for age).

**Conclusions**

These data will help us to understand differences in mortality outcomes in people with dementia. We aim to explore the finding that Pacific Island ethnicity reduces risk of mortality in more depth.

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**Pacific youth follow-up after a suicide attempt presentation to the emergency department in Counties Manukau Health**

Moefilifilia Aoelua

**Background**

Internationally, suicide is one of the 20 leading causes of death. In New Zealand the highest rates of suicide are in the 15–24 years age group. In New Zealand, Pacific people have higher rates of suicidal ideation, suicidal plans and suicide attempts than all other ethnic groups.

**Aim**

To identify what follow-up is needed for Pacific youth who present to Middlemore (MMH) Emergency Department (ED) at Counties Manukau Health (CMH) after a suicide attempt.

**Methods**

It used a mixed methods approach. Phase one was an audit of all Pacific people 15–24 years who presented after a suicide attempt to MMH ED during a one-year period (1 January–31 December 2016). Phase two used semi-structured interviews to explore the perspectives of mental health professionals on follow-up for Pacific youth.

**Findings**

The audit found that 70 Pacific youth attempted suicide in this one-year period. The most used method was self-poisoning; the most reported reasons for attempting suicide were related to relationships stressors with families and others. All youth were referred to either primary healthcare (11%) or community mental health services (MHS) (89%). The three themes that were developed from qualitative data analysis were ‘intervening’, ‘engaging’ and ‘referrals and recommendations’.

**Conclusions**

These findings suggest that there are increasing numbers of Pacific youth presenting to Auckland EDs following a suicide attempt. Many are young people in school. Programmes and services are needed in schools and primary care to equip young people to manage their emotional distress and to provide early intervention.

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**URL:**