screen (from those with history of in-utero exposure) were significant predictors for onset of NAS requiring pharmacological intervention at >96 HOL (OR 0.21; p value 0.011).

Conclusions The majority of infants who required pharmacological treatment for NAS during their postnatal observation period were diagnosed within the first 120 HOL. Those at-risk infants, born to mothers with a known history of exposure, who have a negative urine toxicology screen for both baby and mother, should be monitored beyond 5 days as they tend to have a later presentation.

OC64

STETHAID: MOBILE TECHNOLOGY FOR SMART AUSCULTATION IN CHILDREN

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Innocent heart murmurs occur in approximately half of healthy children at some point in their childhood. Still's murmur is the most prevalent of these innocent pediatric heart murmurs with a prevalence of approximately 40%. Auscultation remain the primary clinical tool utilized to identify Still's murmur from the murmurs of true heart disease. However, general physicians (GPs) are not successful in distinguishing a Still's murmur from pathological murmurs and therefore refer a large number of children to pediatric cardiologists. Besides cost and inconvenience, these referrals are a source of extreme anxiety and stress in children and families while waiting to see a pediatric cardiologist. Our objective has been to develop a novel technology that can help a GP classify a Still's murmur with high accuracy at the point of care and support their decisions regarding referral to a specialist. We have created a stethoscope that connects to a smartphone and developed a custom mobile application that records heart sounds and, using machine learning, analyzes them for the presence of a Still's murmur. This solution is called StethAid. The algorithm to identify Still's murmur has been developed and tested utilizing a pediatric heart murmur library of over 1800 patients with clinically documented diagnoses compiled at Children's National Health System. Using StethAid, we recorded heart sounds of 312 pediatric patients at two UAE Ministry of Health and Prevention hospitals to be utilized as an independent test set. The algorithm identifies Still's murmur with a sensitivity of 89% and specificity of 97%. The proposed technology could potentially lower the current high rate of referrals to pediatric cardiologists associated with Still's murmur.

OC65

NORMATIVE NEONATAL FACIAL BIO-METRICS IN THE UNITED ARAB EMIRATES FOR NON-INVASIVE EARLY DETECTION OF GENETIC DISORDER

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Perinatal identification of genetic syndromes with facial dysmorphism is challenging due to subtle manifestations and population variability. Recent studies have shown that genetic syndromes manifest differently on populations of different ancestries. The purpose of this study is to quantify the distribution of facial biometrics of healthy newborns among the local population of the United Arab Emirates. In this first study of its kind, we collected frontal facial pictures from 504 healthy newborns without facial dysmorphism (252 males and 252 females, age range 0–4 days, gestational age at birth range 37–42 weeks) between October 2015 and March 2017 at hospitals in the network of the United Arab Emirates Ministry of Health and Prevention: Al Qassimi Hospital in Sharjah and Fujairah Hospital. We measured a set of distances and angles between facial landmarks on the eyes, nose and mouth in all pictures. Horizontal and vertical distances were normalized as a percentage with respect to the distance between lateral canthi and the eye-to-mouth distance, respectively. The average axes of the palpebral fissures were $27 \pm 3\%$ and $9 \pm 3\%$. The distance between the medial canthi was $47 \pm 4\%$. The average angle between each medial canthus with respect to the corresponding lateral canthus and the other medial canthus—a measure of slanting of the eyes—was 176 ± 4 degrees. The distance between the oral commissures was $48 \pm 6\%$. The nose length was $35 \pm 8\%$. This first normative reference of facial biometrics in newborns in the United Arab Emirates has great potential to support the perinatal identification of genetic conditions through quantitative facial analysis.

OC66

SUCCESSFUL PILOT INTRODUCTION OF A 'VIRTUAL CLINIC' FOR A REGIONAL COHORT OF PATIENTS WITH TYPE 1 DIABETES

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Background Among Irish paediatric centres, 30% are not meeting the recommendation of three-monthly review of patients with Type 1 Diabetes (T1D).¹ Long waiting times are encountered by our patient cohort at out-patient clinics, along with a sometimes passive approach to reflective dose adjustment. We wished to explore the feasibility of a targeted educational intervention using a 'virtual clinic' in a sample of our population, given the well-described challenges with rural broadband provision in the West of Ireland.

Aim Primary outcome was the proportion of successfully completed internet 'virtual clinic' appointments with participants, including successful pre-clinic download of insulin pump data. Secondary outcomes included setting adjustments, impact on glycaemic control, appointment duration and user satisfaction, the latter by qualitative survey.

Methods Participants using insulin pumps and continuous glucose monitoring systems were recruited from out-patients. Intervention consisted of 3 'virtual clinic' sessions at 10–14 day intervals using 'Skype for Business®' to connect the diabetes team with the family in their home. Data were collated in Excel, with postal HbA1c.