Objectives To assess our baseline for sleeping environments within our unit and then perform interventions and repeat this process in PDSA cycles to improve the sleep environment of our vulnerable patients prior to discharge.

Methods We performed sequential PDSA cycles after an initial baseline evaluation of sleeping environments on our neonatal unit. For each cycle we assessed cots according to the defined features of a safe sleep cot. Inclusion criterion was any baby in an open cot admitted to the neonatal unit. Safe sleep cots were defined by current lullaby trust guidelines: Clear without other items, flat and firm mattress, baby sleeping on its back, baby sleeping with their feet to foot of cot and blankets below shoulder level and not loose. The quality improvement project is registered locally.

Results Baseline data in 2018 showed that no babies were in a cot consistent with all guidelines, only two thirds were on their back (n=28/42) and only one cot was bare. 83% (n=35/42) were on tilted mattresses and only 17% (n=7/42) of babies had feet at the foot of the cot. Blankets were loose in 60% (n=25/42) and only below the shoulders in half the babies.

Results were presented to our neurodevelopmental MDT. Initial interventions were around team education, widening the project team and introduction of cot cards to be placed in cots and updated with any individual planned variances. We also liaised with our local Child Death Overview Panel, for whom SIDS is a local priority.

Repeated PDSA cycles in 2020 showed some initial improvement from baseline with 80% (n=8/10) of babies on their backs, 60% of cots bare, 60% of babies at the foot of the cot, and blankets only loose in 20% and above the shoulders in 30%. Subsequent interventions included laminated signs being placed on all cots. Progress stalled at the most recent completed cycle with 79% (n=22/28) of babies on their back but only 11% (n=3/28) of cots bare.

Further planned work includes increasing parent engagement and education earlier in admission and incorporating sleeping environment into standard daily documentation.

Conclusions This ongoing quality improvement project shows that over time safe sleep environments can improve on a neonatal unit, which is known to have a positive influence on this vulnerable patient group being in a safe cot at home after discharge.

Abstract 443 Table 1 Mean Outcome measures - EASI, IGA and Quality of life index scores (CDLQI, T-QoL and DFI)

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Baseline (n=12)</th>
<th>12–16 weeks of dupilumab (n=12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean IGA score</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Mean EASI score</td>
<td>48.2</td>
<td>19.3</td>
</tr>
<tr>
<td>Mean T-QoL</td>
<td>18.7</td>
<td>7.5</td>
</tr>
<tr>
<td>Mean CDLQI (n=1)</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Mean DFI (n=12)</td>
<td>19.6</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Abstracts

DUPILUMAB FOR CHILDREN AND ADOLESCENTS WITH ATOPIC DERMATITIS: AN ASIAN PERSPECTIVE
Shi Yun Chia, Lynnette Wei Yi Wee, Mark Jean Aan Kch. Singapore

Background Atopic dermatitis (AD) is a common, chronic, recurrent inflammatory skin disease. Poorly controlled AD can lead to reduced quality of life (QoL) and psychosocial impairment. Dupilumab is the first approved monoclonal antibody targeting type 2 inflammation, for adolescent and adult patients with moderate-to-severe AD.

Objectives We review our cohort of Asian pediatric and adolescent patients with moderate-to-severe AD treated with dupilumab in KK Women’s and Children’s Hospital (KKH), the largest tertiary pediatric hospital in Singapore, with a total bed capacity of 830. We assessed both objective and subjective outcome measures, as well as the side effects encountered in our cohort of patients.

Methods We performed a retrospective analysis of the efficacy and safety of dupilumab in a cohort of Asian children and adolescents with moderate-to-severe AD. Clinical response was documented with Investigator Global Assessment (IGA) and Eczema Area and Severity Index (EASI) scores. Improvement in QoL was assessed using Child Dermatology Life Quality Index (CDLQI) or Teenager’s Quality of Life (T-QoL), and caregivers’ QoL was assessed using Dermatitis Family Impact (DFI) questionnaire.

Results Twelve patients were recruited, aged between 6–18 years of age (mean 13.3 years), with mean duration of AD of 9.8 years. At baseline, the mean IGA score was 4 and the mean EASI was 48.2. The mean T-QoL and DFI scores at baseline were 18.7 and 19.6, respectively, After 12–16 weeks of treatment, the mean IGA score decreased to 2.2. The mean EASI decreased to 19.3 with mean reduction of 28.9. The mean T-QoL decreased to 7.5 with mean reduction of 11.2, and the mean DFI decreased to 8.6 with mean reduction of 11 (table 1). Adverse events included mild conjunctivitis in 2 patients and paradoxical head and neck erythema in 1 patient.

Conclusions Our study supports dupilumab as an effective and safe treatment option for Asian children and adolescents with moderate-to-severe AD.
Methods A prospective mixed-methods design was used to evaluate the psychological status of hospitalised family units where at least one child ≤ 18 years had SARS-CoV-2 infection.

Patient medical records were reviewed for demographic and clinical information. Parents and children >7 years old underwent a telephone-based interview performed by a trained psychologist to explore their understanding of the infection, hospital isolation, and pandemic.

Two self-reported questionnaire instruments were used to assess anxiety and depression – the Short Mood and Feelings Questionnaire (SMFQ) and Screen for Adult Anxiety Related Disorders (SCAARED) in adults; SMFQ for children with the Screen for Child Anxiety Related Disorders (SCARED) Questionnaire in children ≥7 years old.

Parents were asked to score their opinion and emotions relating to their experience in isolation on a Likert scale of 1 to 5 on a series of qualitative questionnaires.

Results Fifteen family units were admitted in our institution between March-May 2020 and were invited to participate. 11 (73%) family units were recruited- 9 child-adult dyads, a triad of 2 children and 1 adult, and 1 child who was admitted alone. The mean length of hospitalization was 25.5 days (range 20–31 days). The mean age of children admitted was 5.1 years (8 months – 12.3 years). Five children were ≥7 years old and all completed interviews and questionnaires. All caregivers interviewed were positive for COVID-19. Nine parental questionnaires and 10 adult interviews were completed.

Parents were overall more anxious for their children than themselves. Most common sources of anxiety were the frequency of swab tests, and uncertainty regarding swab results and duration of isolation. 44.4% of adults vs 60% of children had symptoms indicative of generalized anxiety disorder, and 66.7% of adults vs 80% of children had symptoms indicative of separation anxiety disorder. 80% of parents reported being sad about separation from other family members who were not admitted. None of the participants met criteria suggestive of depression on the SMFQ.

Conclusions Families were anxious about their admission despite being admitted as a family unit. Main sources of anxiety were procedural discomfort and prolonged isolation of the child. Children appeared more susceptible to separation anxiety, possibly due to limited understanding of the situation.

Clear timely parental communications to provide information on clinical management and anticipated discharge should be encouraged. We recommend routine psychological assessment for all children and family units, with focus on reassurance and early recognition of evolving anxiety disorders. Time-based discharge criteria and alternative SARS-CoV-2 diagnostic sampling may ease anxiety during the pandemic.