Abstract 201 Table 1 Prevalence of co-morbidities in CYPD T1

<table>
<thead>
<tr>
<th>Comorbidities</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.53</td>
</tr>
<tr>
<td>Thyroid disease</td>
<td>8.40</td>
</tr>
<tr>
<td>Psychosocial co-morbidities</td>
<td>35</td>
</tr>
<tr>
<td>Coeliac disease</td>
<td>3.98</td>
</tr>
<tr>
<td>Nephropathy</td>
<td>0.04</td>
</tr>
<tr>
<td>Retinopathy</td>
<td>8.4</td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

Abstract 201 Table 2 Mean HbA1c in CYPD T1 with co-morbidities

<table>
<thead>
<tr>
<th>Co-morbidity</th>
<th>Mean HbA1c (mmol/mol)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>66.14</td>
</tr>
<tr>
<td>All</td>
<td>73.65</td>
</tr>
<tr>
<td>Thyroid Disease</td>
<td>72.93</td>
</tr>
<tr>
<td>Psychosocial Co-morbidities</td>
<td>72.82</td>
</tr>
<tr>
<td>Coeliac Disease</td>
<td>66.66</td>
</tr>
</tbody>
</table>

September 2020. Data was collected from our database Filemake Pro. It consisted of multiple validated point of care HbA1c tests and laboratory results. The psycho-social co-morbidities were anxiety, depression, eating disorders, behaviour disorders, adjustment difficulties, anger management issues and autistic spectrum disease. We also looked at prevalence of retinopathy and nephropathy. Some CYPD T1 had more than one co-morbidity.

Results
- 232 have T1 and 13 have non-T1 diabetes. 6 moved out of our service during the period of study. CYPD with T1 included were 226.
- 121 (53.53%) had associated co-morbidities versus 105 (46.4%) who had none.
- Thyroid disease was noted in 19 (8.40%), coeliac disease in 9 (3.98%) and psycho-social co-morbidities in 80 (35%). 1 (0.04%) had nephropathy, 19 (8.4%) retinopathy (grade 1) and 15 (6.4%) had others.
- Mean HbA1c for all CYPD T1 with co-morbidities was 73.65 mmol/mol versus 66.14 for CYPD without (Difference of means 6.81, 95%CI [4.44, 9.17], p <0.0001).
- Mean HbA1c for thyroid disease was 72.93 mmol/mol (Difference of means 14.4, 95% CI [5.23, 25.37], p 0.002).
- Mean HbA1c for psycho-social co-morbidities was 72.82 mmol/mol (Difference of means 8.49, 95% CI [3.666,13.24], p 0.0006).
- Mean HbA1c for coeliac disease was 66.66 mmol/ml (Difference of means 2.09, 95%CI [-12.03- 16.21], p 0.77).

Conclusions
- Having a chronic co-morbidity worsens glycaemic control as it adds to the burden of care.
- CYPD T1 have high prevalence of co-morbidities as previously reported.
- CYPD with associated psychosocial co-morbidities had poor glycaemic control as it negatively affects disease management also seen in other studies.
- CYPD with thyroid disease had poor glycaemic control.
- CYPD with coeliac disease had glycaemic control similar to CYPD with no co-morbidities, which is likely due to protective effect of gluten free diet.
- CYPD with thyroid disease had poor glycaemic control.

Abstracts

203 IMPROVING ACCESS TO PAEDIATRIC LIFE SUPPORT GUIDELINES AT A PAEDIATRIC EMERGENCY DEPARTMENT

Nadia Shad, Hannah Walker*, Kirsty Houston, Sylvester Gomes. UK; ** joint first author

Background Paediatric emergencies can be challenging, time critical and often stressful situations. Recall of protocols and treatments from memory, including correct drug dosages, is fraught by human error. Although paediatric guidelines are available in printed or web-based format, quite frequently these are not available immediately. Consequently, there can be treatment delays, sub-optimal protocol adherence and drug errors, leading to patient harm. Studies have shown that in a simulated environment, the accuracy of emergency drug dosing is <20% without using a dosing guide; this was improved to 47% by providing an aid. Mobile applications commonly used in emergency departments has been showed to reduce the drug preparation time and time to delivery. But this is dependent on internet signal and availability or restrictions placed by hospitals. The use of convenient portable cards has been useful in both paediatric and adult medicine settings.

Objectives
- Develop 6 lanyard flashcards featuring common paediatric life support protocols and emergency drug calculations.
- Describe clinicians’ views on the potential benefit of using flashcards for accessing paediatric life support guidelines quickly and accurately.

Methods A pre implementation survey was conducted in the paediatric emergency department. Using a Likert scale, staff ranked emergency topics in order of importance for inclusion on the flashcards.

Cards were designed based on these suggestions, and approved by senior paediatricians and the pharmacy team. These featured emergency algorithms, common emergency drug dosages in cardiac arrests, endotracheal intubation and maintaining cardiovascular support, age-based vital sign ranges and WETFLAG calculations. These flashcards could be worn conveniently on lanyards together with identity badges. These were distributed within the paediatric emergency department and wards to act as aide-memoire cards during emergencies.

A post implementation survey was conducted 1 month after distribution.

Both surveys were completed by a range of junior and senior doctors and paediatric nurses.

Results The pre-implementation study (responders=36) showed that staff accessed local guidelines from a variety of sources: memory (n=10), the internet (n=7), the trust intranet (n=21), printed booklet guidelines (n=12), other (n=6); with many using more than one of these.

Prior to introducing the flashcards, only 9% of participants (n=3) were able to locate guidelines in <1 minute, with a further 63% (n=22) locating this information in <3 minutes. The remaining 28% (n=10) took >3 minutes.
Background Haemodynamically significant PDA in preterm babies are traditionally associated with higher incidence of IVH (intraventricular haemorrhage), NEC (necrotising enterocolitis) and CLD (chronic lung disease), and longer duration of ventilation. In practice, there is wide variation in PDA management, particularly the need for surgical or medical intervention. The management strategies include pharmacological therapy with cyclooxygenase inhibitors and surgical ligation or device closure. In some infants with failed extubation, surgical management has often been considered to be the only option. There is growing opinion that aggressive management of PDA may not have much impact on reducing mortality and severe morbidity hence conservative management should be preferred treatment.

Objectives The primary aim was to compare the need for surgical or catheter closure of haemodynamically significant PDA since introduction of the conservative management guideline and secondary aim is to look at the differences in mortality and morbidity in preterm babies with haemodynamically significant PDA before and after implementation of the guidelines.

Methods This is a single centre review of all preterm infants admitted to a tertiary neonatal unit between 1992–2017, who had a haemodynamically significant PDA. Data on sex, gestation, birth weight, length of stay, treatment of PDA and incidence of NEC, IVH, CLD and death were analysed by using department digital records.

We compared the clinical outcomes of all preterm babies with haemodynamically significant PDAs managed medically or surgically before 2014 versus conservative management, following a change in local guideline in 2014. This comprised of significant fluid restriction, optimum diuretics, early steroid use and restricted use of ibuprofen and paracetamol.

Results Over the 22-year period general trend showed lower referral rates for surgical ligation in the last 5 years. Hence analysis was restricted to 2010–2013 and post 2014, to minimize the bias due to changes in neonatal management strategies. Fewer babies were referred for surgical management after 2013. There was no significant difference in the incidence of CLD, IVH, NEC or mortality between the two periods. The change in guidelines mitigated the need for unnecessary transfer of these vulnerable infants to the cardiac surgical centre, this was less disruptive for the families too. Also the study shows that conservative management of PDA has huge cost saving incentives for NHS, not only the cost of surgery but also on duration of NICU stay without compromising care and long term outcomes.

Conclusions Changes to the PDA management guideline, promoting conservative management, resulted in fewer patients being referred for surgery, without affecting mortality or morbidity. This study raises the question about the need for surgery in the management of preterm PDAs. Long term prospective multicentre studies are required to address this question fully.

Abstracts

206 PDA IN PRETERM BABIES SHOULD BE MANAGED CONSERVATIVELY: THE NEED FOR SURGICAL LIGATION IS QUESTIONABLE
Ankita Jain, Sian Jenkins, Orhan Uzun, UK
10.1136/bmjpo-2021-RCPCH.111

After implementation of the flashcards 69% of participants (n=39) were able to access guidelines in <1 minute, and 100% were able to access this information in < 3 minutes.

Conclusions The flashcards improved the time to access paediatric life support guidelines, with good acceptance across a range of doctors and nurses in the emergency department and wards. Following this project these flashcards have been distributed to non-emergency staff redeployed during the Covid-19 pandemic.

207 IMPROVING MULTI-DISCIPLINARY TEAM ATTENDANCE AT MORBIDITY AND MORTALITY MEETINGS
Gayle Appleby, Olivia Stredder, Amber Tebbutt, Lauren Wilson, Alise Cotton, Kelly Frogbrook, UK
10.1136/bmjpo-2021-RCPCH.112

Background Morbidity and Mortality (M&M) meetings allow outcomes and learning from cases to be shared. The format of how they run is department dependent; our meetings focus on patients transferred out, retrieved to tertiary services and who have sadly died. It was observed that nursing staff often asked about case outcomes but were not present at the M&M meetings when cases were discussed.

Objectives A project was run aiming to:
- increase attendance of Multi-Disciplinary Team (MDT) members at meetings
- improve dissemination of learning points

Methods Attendance figures were obtained from previous sign-in records and experiences of M&M meetings were captured in a baseline survey.

A Plan, Do, Study, Act approach was followed to achieve the aims, attendance figures and a further survey were used to monitor progression.

Results Baseline Baseline data showed most attendees were paediatricians (table 1). The initial survey had 17 respondents comprising: 6 Nursing staff, 4 Foundation year (FY) to Specialist trainees 1 – 3 (ST), 3 ST4 and above and 4 Consultants. In total 6 people, (35%) hadn’t been able to attend a meeting, 5 were nursing staff and 1 a ST1-3 working in the Paediatric Emergency Department. All 17 respondents wanted the data shared; the most popular suggestions to facilitate this were 9 respondents saying via email or newsletter.

Interventions Attendance Interventions to increase attendance included: putting up posters, using word of mouth and emails to advertise meeting dates and times. A small increase in nursing numbers and anaesthetists was observed at meetings following these interventions (table 2).

Learning Points The learning points generated from the meetings were shared in the posters advertising the next session and email invitations.

An interim survey, answered by 15 people (4 nurses, 3 FY1 – ST3, 3 ST4+, 4 Consultants and 1 other) was undertaken prior to the coronavirus pandemic. Respondents self-reported small – medium changes in practice after attendances at meetings and from hearing or seeing about the learning points.

Conclusions Fluctuations in M&M meeting attendances are multifactorial; however, a multi-modal approach to inform people of meetings can increase attendance, beyond just