2021) another patient had transient autoimmune thyroiditis at some point after diagnosis and is currently euthyroid. 100% compliance noted in terms of doing the screening tests for coeliac and thyroiditis done at the time of the diagnosis with type 1 diabetes mellitus.

31 out of 35 patients had endomysial antibodies checked.
16 out of 35 patients had genetics tests done and were positive for coeliac disease.
13 out of 35 required endoscopies to confirm the diagnosis of the coeliac disease, while others were diagnosed based on the blood and genetic testing.

The diagnosis of coeliac disease from the time of T1DM diagnosis ranges from within the same months of CO-diagnosis of T1DM and coeliac diagnosis till 132 months after apart from date of t1dm.

Conclusion 100% compliance noted regarding testing for Coeliac disease and thyroid status at the time of diagnosis of Type 1 Diabetes Mellitus.

Around 37% of the patients needed endoscopies for confirmation of Coeliac disease, while in the remaining 63% of the patients’ serological tests alone confirmed the diagnosis.

23% of children diagnosed to have coeliac disease at the same time (within first month after diagnosed T1DM) as diagnosed with Type 1 diabetes.
46% of the patients had genetic testing done as part of the investigations.

Spectrum of coeliac disease diagnosis after diagnosis with T1DM ranged from 1 month to 132 months.

### Abstract 199

#### CHALLENGES IN IDENTIFICATION OF HYPERTENSION IN CHILDREN AND YOUNG PEOPLE WITH TURNER SYNDROME

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**Aims** Hypertension (HTN) can develop at a young age in Turner Syndrome (TS), and International Guidelines recommend that blood pressure (BP) is measured at every clinic visit during childhood. 1Measurements of BP and clinical interpretation were audited to assess compliance with these guidelines.

**Methods** The most recent evaluable BP measurement was identified in the medical records of all girls diagnosed with TS in a tertiary centre in October 2021. BP percentiles were calculated using gender, age, and height matched BP percentile charts. 2True BP (tBP) percentile was compared to a hypothetical BP (bBP) percentile based on an age expected height at the 50th percentile. We defined a systolic and/or diastolic BP value ≥95th BP percentile as an indication for further investigation.

**Results** 33 girls were included. Median age was 12.9 years (range 2.3–17.6). 78.8% had at least one evaluable BP and 38.5% of these were from the last clinic visit. Evaluation of BP in clinic resulted in referral and subsequent diagnosis for HTN in two girls; however, tBP percentiles suggested an additional 9 patients in our cohort warranted further investigation.

### Table 1

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Blood pressure (mmHg)</th>
<th>tBP ≥95th percentile</th>
<th>bBP ≥95th percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>105/76</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3</td>
<td>132/72</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>100/73</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>10</td>
<td>116/81</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>14</td>
<td>126/78</td>
<td>Y</td>
<td>Y</td>
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<td>15</td>
<td>124/72</td>
<td>Y</td>
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<td>Y</td>
</tr>
<tr>
<td>17</td>
<td>128/75</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>18</td>
<td>137/83</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

**Conclusion** In paediatric patients with TS the use of BP percentile calculators where age, height, and gender are mandatory variables, should be encouraged. If height is not available, estimating it at 50th percentile will identify some (but not all) hypertensive TS girls.

### References


### Abstract 199 Table 1 Comparison of true and hypothetical blood pressure centiles in observed cases

**658** THE IMPACT OF PROVIDING FREE SCALES, MEASURING SPOONS, CARBS AND CALS AND WORLD FOOD BOOK AT DIAGNOSIS OF TYPE 1 DIABETES

Victoria Dublon, Steve Green, Justine Halperin, Melanie Burcham, Avril Beesley, Gabrielle Colman. Royal Free Hospital

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**Aims** Accurate carbohydrate counting impacts on postprandial sugars and that in turn effects the individuals HbA1c. Also we know that those young people who have a high percentage of blood sugars in range at two weeks post diagnosis, are more likely to have this picture at two years. It is difficult to practice this at diagnosis without the correct equipment available for families to use.


**Methods** Funding from the Hospital Charity was gained for 40 packs of Weighing Scales, Measuring cups, Carbs and Cals and World Food Books. These were given out at diagnosis by the paediatric specialist diabetes dietician and used during teaching sessions. The way the grant worked was that the receipts needed to be refunded by the Hospital Charity. The Hospital School bought these and was reimbursed by the Hospital Charity, therefore no member of the team was out of pocket. The Hospital School were also able to make these up as packs in lightweight school rucksacks as well as providing accessible storage. After 10 packs were given out a questionnaire was designed and given out to young people and families. Feedback on usefulness collected.

**Results** 1/3 of families found the measuring cups really useful 4-5 months later.
All the families were using the carb and cals book 4-5 months later.
Aims HbA1c levels were measured less frequently in our paediatric diabetes clinics as several restrictions were put in place due to the Covid-19 pandemic. We set out to determine whether these restrictions affected our patients’ HbA1c control.

Methods All HbA1c levels of patients with type 1 diabetes were collected from the following time period: (i) pre-lockdown HbA1c (Pre-LD), (ii) first lockdown HbA1c (F-LD), (iii) last lockdown HbA1c (L-LD), coinciding with a gradual phased return to quarterly HbA1c measurement in our clinics, and (iv) first post-lockdown HbA1c (Post-LD), after March 2021. Data were tested for significance using Wilcoxon signed-rank test and expressed as median (IQR).

Results 97 patients aged 14.5 ± 3.3 were included. HbA1c levels increased Post-LD (58 (52-67) mmol/mol) compared to Pre-LD (57 (50-66) mmol/mol; p=0.03). We found no significant differences in all other HbA1c levels. F-LD HbA1c were 58 (50-65) mmol/mol. L-LD HbA1c were 57 (51.5-65) mmol/mol. There was a gradual increase in mean HbA1c level over the time period from 59.0 mmol/mol to 61.5 mmol/mol.

Conclusion Our study showed slightly worse glycaemic control due to the Covid-19 pandemic although whether this disruption is sustained is unknown. The next part of this study aims to ascertain whether glycaemic control will improve as we return to quarterly HbA1c measurement.

723 GLYCAEMIC CONTROL ASSESSMENT OF PAEDIATRIC T1DM PATIENTS THROUGHOUT THE COVID-19 PANDEMIC BETWEEN 2019 AND 2021 IN A DISTRICT GENERAL HOSPITAL

Jade McEllderry, Moe Kyaw. Causeway Hospital

Aims Our aim is to assess whether Covid-19 had an overall impact on diabetic control within the paediatric type 1 diabetic population who attend Causeway Hospital. We retrospectively compared baseline HbA1cs of patients between the years 2019 - 2021 to assess for change in the mean HbA1c throughout all paediatric T1DM patients as well as to compare patients with and without an insulin pump.

We planned to retrospectively assess the percentage of newly diagnosed diabetic patients who were in DKA on initial presentation.

Finally, we wanted to assess HbA1c control of patients with a libre 2 sensor to assess whether patients who scanned more frequently have better overall HbA1c and/or time in target glucose range.

Methods NIECR, TWINKLE and LIBREVIEW systems were used to collect data from all Causeway diabetic patients from 2019-2021 to compare HbA1c, number of libre scans and data including whether patients presented in DKA.

For data collected on patients with a libre sensor – this was analysed using an unpaired t-test and a p-value subsequently calculated to assess statistical significance.

Results In total data was collected from 92 patients throughout the years 2019 – 2021. The median HbA1c of all T1DM patients increased from 65.2 in 2019 to 65.7 in 2020 then improved in 2021 to 64.07 mmol/mol.

In 2020, there were fewer overall patients with a new diagnosis of T1DM (n=8) compared with 2019 (n=11) and