British Society of Paediatric Endocrinology and Diabetes

1042 DOES THE USE OF TECHNOLOGY IMPROVE GLYCOSYLATED HAEMOGLOBIN LEVELS IN CHILDREN WITH TYPE 1 DIABETES MELLITUS (T1DM)?

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Background The 2017/18 National Paediatric Diabetes Audit (NPDA) in the U.K. reported that on average, insulin pump users with continuous glucose monitors achieved lower HbA1c levels compared to manual glucose checks.

Objectives This study involves children and young people (CYP) aged below 19 years with Type 1 Diabetes Mellitus (T1DM) attending a tertiary UK hospital. The aim was to compare median HbA1c outcomes by grouping patients according to their insulin regimens and glucose monitoring devices.

Methods This was a retrospective observational study using our hospital diabetes database to identify patients. Inclusion criteria were T1DM patients on multiple dose insulin (MDI) or insulin pump regimens. 405 patients were categorised by their insulin regimen and the type of glucose monitoring device in use, which included: manual checks, Dexcom G6, Libre Flash, insulin pumps with Low Glucose Suspend (LGS) and Closed Loop Systems (CLS). The median HbA1c was calculated for each group and analysed.

Results Of the 405 patients included, 187 (46%) used continuous subcutaneous insulin infusions (CSII) and 218 (54%) used multiple daily injections (MDI) regimens. Table 1 demonstrates the median HbA1c for each group of patients.

The lowest median HbA1c was in the pump group using a closed loop system, while those on MDI, even with Libre Flash, struggled with higher HbA1cs.

Dexcom G6 and Libre Flash users in the pump patient group had similar median hba1c levels.

Abstract 1042 Table 1

	Manual Checks	Dexcom G6	Libre Flash	LGS	CLS
Pump Patients	66 mmol/mol	58 mmol/mol	59 mmol/mol	59 mmol/mol	50 mmol/mol
MDI patients	68 mmol/mol	61 mmol/mol	68.5 mmol/mol		

Conclusions As per the published studies, this work supports the use of advanced technology in diabetes care and of closed loop systems to provide the best possible glycaemic control. Interestingly, despite Dexcom G6 being more expensive than Libre Flash, this small study has not shown any advantage for the use of Dexcom G6 in terms of diabetes control for CYP on insulin pumps.

British Paediatric Allergy Immunity and Infection Group

1043 SUBOPTIMAL ALLERGY KNOWLEDGE REINFORCES PENICILLIN ALLERGY LABELS IN CHILDREN

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Background Penicillin allergy (PenA) is the most common reported drug allergy in acute settings.¹ Delayed non-severe maculopapular rash is the most reported symptom. However, this is also a common feature of viral illness. The problem faced by clinicians is to determine whether the rash is allergic in nature, thereby affecting therapeutic decisions.

Objectives This study investigates how this conundrum is approached by front-line clinicians.

Methods A cross-sectional anonymised survey of prescribers working in a tertiary paediatric emergency department was performed. A clinical vignette described the choice of antibiotic for a child who previously developed a delayed non-severe maculopapular rash after administration of penicillin. Likert scale of agreement was used to evaluate the use of allergy pertinent questions.

Results Sixty-two prescribers with varied clinical grades responded. All respondents have encountered children with reported PenA in clinical practice. Twenty-six (42%) respondents would prescribe a penicillin-based antibiotic in the clinical vignette. The most sought allergy information was related to symptom(s) of the reaction (55/62; 89%). Thirty-eight (61%) respondents would inquire when the reported reaction occurred. Whilst 38 (61%) prescribers would clarify the time interval between ingestion and symptoms, a lower proportion (24/62; 39%) would verify if allergy referral or testing had been done.

Conclusions This single centred survey confirmed regularity of contact with reported PenA in acute settings. A suboptimal rate of allergy focused history was highlighted. Allergy education will be an invaluable first step in safe antibiotic allergy de-labelling and antimicrobial stewardship promotion.

REFERENCE

1. Norton AE, Konvinse K, Phillips EJ, et al. Antibiotic allergy in pediatrics. *Pediatrics* 2018;141(5):e20172497.

Quality Improvement and Patient Safety

1045 BUILDING ALLIANCES AND CONVERSATIONS FOR INTEGRATED CHILD HEALTH

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Background This was a Darzi project performed as a collaboration between healthcare sectors, initiated by Great