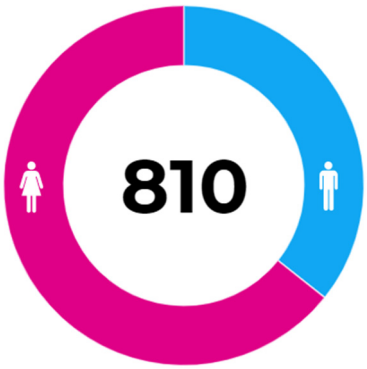
3. Key findings

Patient characteristics and care at diagnosis



810 children and young people with Type 2 diabetes received care from a PDU in England and Wales in 2019/20. The majority were girls (64.3%).

71.4% lived in the two most deprived quintile areas of the country. **65.1%** came from minority ethnic backgrounds.

Almost a third (30.1%) of children or young people with Type 2 diabetes are being cared for in a PDU with five or fewer cases of the condition. Only 22/172 PDUs cared for more than 10 children with Type 2 diabetes.

There is no one criterion, clinical or biochemical, that makes a diagnosis of Type 2 diabetes; a combination of careful clinical evaluation and biochemical evaluation is necessary to make a swift diagnosis.

Dietetic support was offered to 99.3% of children and young people at diagnosis of Type 2 diabetes, **with 69.9% being offered psychological support at diagnosis.**

Four-fifths (78.9%) had no delay in the diagnosis of Type 2 diabetes. Delay was associated with higher HbA1c at diagnosis.

Most (>85%) had a family history of Type 2 diabetes, mainly amongst female relatives.

Over four fifths (84.8%) had three or more clinical or biochemical markers of Type 2 diabetes; Clinically, the presence of obesity (85.9%) and acanthosis nigricans (50.9%), combined with raised HbA1c (77.6%) and absence of diabetes antibodies (40.1%) in the presence of a raised blood glucose (46.6%), appear to provide the highest markers for early diagnosis.

Recommended health checks around sleep assessment (21.7%), liver ultrasound (18.5%) and 24-hour ambulatory blood pressure monitoring (2.8%) were poorly performed in the first year following a diagnosis of Type 2 diabetes.

Over half (50.9%) were hypertensive (BP >98th centile) at diagnosis.

Care and outcomes in 2019/20

Completion of NICE recommended health checks (HbA1c, BMI and blood pressure) in children and young people with Type 2 diabetes was good (~95%) with rates similar to those recorded for Type 1 diabetes from the core audit of the same year. Lipid profiling (77.3%), urinary albuminuria (63.9%) and liver function tests (66.7%) were less well completed.

Dietetic (94.6%) and psychological support (56.4%) were offered in 2019/20 at rates similar to those at diagnosis.

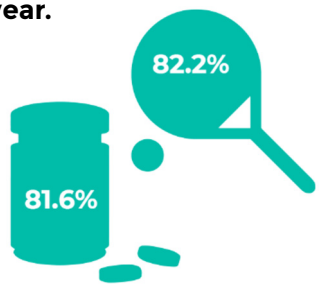
Albuminuria was only treated in 3.4% of children and young people with Type 2 diabetes with a further 6.9% deemed as requiring treatment. However, the core NPDA audit reported albuminuria in 25.7%.

Liver ultrasound was poorly performed with 88.2% not having the investigation. Where ultrasound was completed at diagnosis and repeated in 2019/20, a higher percentage were now found to have fatty liver.

Despite 42.3% having high blood pressure, only a minority (3.7%) were referred on for 24 hour ambulatory blood pressure monitoring, and only 5.9% were offered antihypertensive therapy.

Almost all children and young people with Type 2 diabetes were either overweight (6.5%) or obese (92.0%) in 2019/20. Of those with obesity at diagnosis in years prior to 2019/20, only 8% reduced their BMI to a lower category by this audit year.

In 2019/20, lifestyle modification (82.2%) and metformin (81.6%) were the most highly utilised therapies. Insulin was used by 26.5% of the cohort, and there was infrequent use of sulphonylureas, GLP1 agonists, DPP-4 and SGLT2 inhibitors.



The median HbA1c for children and young people with Type 2 diabetes was 52.5 mmol/mol in 2019/20 compared to 62.0 mmol/mol for Type 1 diabetes.

Therapies for severe obesity such as extreme low-calorie diets, Orlistat or bariatric surgery were rarely used in children and young people with Type 2 diabetes.