DIABETES

What's the issue?

“Diabetes is a lifelong condition that causes a person's blood sugar level to become too high. There are two main types of diabetes – type 1 diabetes and type 2 diabetes. The charity Diabetes UK estimates that around 850,000 people in England have diabetes but haven't been diagnosed. Many more people have blood sugar levels above the normal range, but not high enough to be diagnosed as having diabetes. This is sometimes known as pre-diabetes. If blood sugar level is above the normal range, the risk of developing full-blown diabetes is increased. It’s very important for diabetes to be diagnosed as early as possible because it will get progressively worse if left untreated.

In type 1 diabetes, the body's immune system attacks and destroys the cells that produce insulin. As no insulin is produced, your glucose levels increase, which can seriously damage the body's organs. Type 1 diabetes is often known as insulin-dependent diabetes. It's also sometimes known as juvenile diabetes or early-onset diabetes because it usually develops before the age of 40, often during the teenage years. Type 2 diabetes is where the body doesn't produce enough insulin, or the body's cells don't react to insulin. This is known as insulin resistance. In the UK, around 90% of all adults with diabetes have type 2 diabetes. Control of symptoms may be managed through healthy eating, exercising regularly, and monitoring your blood glucose levels, although eventually medication may be required. During pregnancy, some women develop gestational diabetes (affecting up to 18% of women during pregnancy) [255]. People with pre-diabetes have an increased risk of developing type 2 diabetes [256, 257].

Obesity, family history, ethnicity, high blood pressure, poor diet and lack of physical activity are the main key risk factors for type 2 diabetes [258]. For women, having had gestational diabetes in pregnancy also increases the risk of type 2 diabetes (to about 30% versus 10% for the general population [255]). The effects of diabetes can be made worse by smoking [99].

With the aging population and the increasing trends in the prevalence of obesity, it is anticipated that the number of people with diabetes will increase.

What's our situation?

For 2015/16, there were 15,817 patients aged 17+ years registered with Hull GPs who were diagnosed with (type 1 or 2) diabetes representing 6.7% of the population aged 17+ years which was similar to England (6.6%) but lower than the average of seven comparator areas (7.5%) [93]. There was a statistically significant increasing trend in the prevalence with increasing deprivation. The 11 practices with the highest mean patient deprivation scores serving the most deprived fifth of Hull’s population had a prevalence of 7.5% compared to 5.9% among the 11 practices with the lowest mean patient deprived scores [259]. Using modelling [259, 260], it is estimated that 19,377 (8.2%) of registered patients aged 16+ years have diagnosed or undiagnosed diabetes (increasing to 21,000 by 2025). So it is estimated that there are currently around 3,500 patients with undiagnosed diabetes. The same modelling estimates that there are 16,610 residents aged 16+ with diabetes (increasing to 18,000 by 2025).

It is further modelled that 20,882 (10.0%) residents of Hull, and 23,933 (10.2%) patients registered with Hull GPs who are aged 16+ years have non-diabetic hyperglycaemia (pre-diabetes) using 2015 data [261].

There were a total of 1,021 hospital admissions over the three year period 2008/09 to 2010/11 with a primary diagnosis of diabetes, giving an annual average of 340 per year [259]. There were statistically significant differences in the diabetes admission rates across the wards for both men and women, and across deprivation quintiles. The rate of lower limb amputations in diabetic patients is almost twice that of England and statistically significantly higher for 2011/12 (with a standardised admission rate of 21.8 per 100,000 population compared to 11.6 for England) with 51
lower limb amputations compared to an expected number of 24 based on the age and gender structure of Hull's population [78, 259]. The rate of emergency hospital admissions for diabetic ketoacidosis and coma is also significantly higher than England (51.3 versus 29.7 per 100,000 population for 2012/13) with 135 admissions compared to an expected number of 70 admissions [78, 259].

For 2013-15, there were a total of 38 men and 35 women in Hull who died of diabetes (14 men and 9 women prior to 75 years) [77, 78, 83, 259]. The all age standardised mortality ratio for 2012-14 for Hull was 137 (95% CI 99 to 188) for men and 117 (95% CI 82 to 163) for women so 37% higher than England for men and 17% higher for women in Hull compared to England [78, 259]. However, due to the wide confidence intervals, there were no statistically significant differences in the rates between Hull and England.

Inequality was suggested within both the Diabetes Health Equity Audit and subsequent analysis [259, 262]. Among people living in the least deprived fifth of areas of Hull, the prevalence was 21% lower than the most deprived fifth, but the hospital admission rate was 56% lower and the premature mortality was 44% lower. This suggests that relative to diagnosed diabetes prevalence levels, hospital admissions and premature mortality are both higher in the most deprived group compared to the least deprived group.

For more detailed information, see the JSNA Toolkit: Diabetes report.

What are the strategic needs?

People aged 40-79 years who are eligible for the NHS Health Check should be encouraged to attend. People already diagnosed with diabetes should attend their annual reviews so that they get the best on-going treatment for their condition.

Pre-diabetes is poorly understood across the medical profession, therefore education amongst health professionals is an essential focus. The screening, treatment and appropriate management of pre-diabetes is essential for the prevention of diabetes in later life.

Diabetes management is challenging as it fits within a wide spectrum of long term conditions care. The overarching need is to ensure that diabetes care is managed in an integrated fashion, adequately resourced, with appropriate governance and staff who have the necessary competencies to deliver care.

People who have diabetes and who are at risk of familial hypercholesterolaemia should be identified so that they can commence treatment and/or be referred for specialist care for FH as their risk of coronary heart disease will be high [196].

References


