Coding, classification and diagnosis: Practical advice

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Nationally and internationally, diabetes has been recognised as one of the most significant threats to people's health. The recent Association of Public Health Observatories (APHO, 2011) prevalence model has estimated that there are 3.1 million people with diabetes in England. By 2020 an estimated 3.8 million adults, or 8.5%, will have diabetes and by 2030 this is estimated to rise to 4.6 million or 9.5% of the adult population (APHO, 2011).

Until a few years ago, diagnosis of diabetes in primary care was thought to be simple – the person had either type 1 or type 2 diabetes. Indeed the changes to the QOF also incentivised practices to code people as having type 1 or type 2 diabetes. However, it has become increasingly clear that diabetes is a complex condition and may not always be easy to diagnose at first presentation. The reasons for this are complex and include the changing demography of the populations with increasing levels of obesity and also improved methods for genetic classification of certain rarer types of diabetes. There will often be situations where the type of diabetes is unclear at first diagnosis, but treatment is still available and the diagnosis may become clearer over time and further tests and specialist advice may be required.

The NHS Diabetes Classification of Diabetes Working Group set out to identify published evidence of miscoding, misclassification and misdiagnosis of diabetes (Royal College of General Practitioners and NHS Diabetes, 2011). This report brings together evidence of the impact an incorrect diagnosis can have on a person with diabetes, describes the current research base for evidence of misdiagnosis and misclassification, and reveals that, despite the NHS having the best primary care record system in the world, miscoding, misclassification and misdiagnosis of diabetes is a real problem. This report has, for the first time, systematically looked at the evidence of miscoding, misclassification and misdiagnosis and produced recommendations for improving the classification of diabetes in the UK healthcare setting. The report makes a number of key recommendations and developed pragmatic tools to assist healthcare professionals to help identify the type of diabetes for newly diagnosed people and system tools to enable GPs to review all of their existing patients with diabetes.

Summaries of key information and recommendations from the report are:

- The systematic review reveals that miscoding, misclassification and misdiagnosis are prevalent throughout the world.
- The analysis of diagnostic databases reveals that people are miscoded, misclassified and misdiagnosed within primary care computer systems. Although the percentages involved are small when applied at the population level, they may potentially affect a significant number of people.
- MIQUEST data extraction queries based on the algorithm have been developed and tested in five GP practices. These searches were run in five practices in southeast England with a combined list size of approximately 45 000. The searches flagged 203 out of the approximately 1600 people with diabetes, of whom 83 had errors. This means around 5% had any errors with 2.2% being misdiagnosed, 2.1% being misclassified and 0.9% being miscoded.
- A simple, easy to use, algorithm has been produced to provide guidance to healthcare professionals on a new diagnosis of diabetes. The algorithm also includes an "uncertain" category.

In this context, the contents of this report should be of significant benefit to all healthcare professionals working with people with diabetes. The report also provides front-line staff with a simple classification algorithm to help make more accurate diagnoses. ■

Association of Public Health Observatories (2011) *APHO Diabetes Prevalence Model*. APHO, York. Available at: http://bit.ly/hPTUS9 (accessed 05.04.11)

Royal College of General Practitioners, NHS Diabetes (2011) *Coding, Classification and Diagnosis of Diabetes: A Review of the Coding, Classification and Diagnosis of Diabetes in Primary Care in England with Recommendations for Improvement.* Department of Health, London. Available at: http://bit.ly/hjNri1 (accessed 09.03.11)