The challenge of delivering evidence-based diabetes care

In this issue of the journal, Tim Holt concludes an important series exploring the impact of evidence-based medicine (EBM) on our practice of primary care diabetes (see page 348). Healthcare professionals working in primary care know that successful person-centred diabetes care should be a subtle blend of empowering people with diabetes using the art of communication, while using the science generated by evidence from important clinical trials to inform key prescribing decisions. This EBM series has explored the types and levels of evidence, from the gold standard randomised controlled trials, through cohort studies, observational studies and diagnostic tests as well as appraising qualitative studies. The series concludes by outlining the most important evidence that underpins much of our everyday practice in primary care.

The impact of evidence-based medicine

While those of us working in primary care had prided ourselves in practising evidence-based medicine for some time, many of the interventions we apply on a daily basis are incentivised through QOF (British Medical Association and NHS Employers, 2011). This payment for performance scheme began in the UK in 2004, with diabetes care remunerated through a series of achievement indicators. The evidence for the interventions is primarily based on controlled trials in large populations. It would be interesting to speculate if the trial participants reflect our patients, nevertheless this is the evidence on which contemporary decisions in primary care are based. In this issue of the journal we report the results of the QOF in the four participating nations in the UK.

The NICE committee now responsible for agreeing the QOF indicators continue to retire some indicators and initiate new ones (available at: http://bit.ly/tVk6kt). This is reflected in the HbA_{1c} level indicator, which was moved from 7.5% (58 mmol/mol) to 7% (53 mmol/mol) and then back again to 7.5% (58 mmol/mol), in response to trial evidence and meta-analyses. Many believe that a differential target threshold for people newly diagnosed with diabetes and those with long-term diabetes would have been a more appropriate extrapolation of the evidence than simply to raise the threshold. NICE are currently examining new interventions and will face a considerable challenge incentivising the proposed diabetes prevention programmes.

The need for primary care research

A frequent criticism of EBM is that many of the trials conducted are on a cohort that may not be representative of a UK primary care population and younger people are usually recruited. Or that results from secondary care trials, such as the UK Prospective Diabetes Study, are implemented in a primary care setting.

To a certain extent, this is refuted by the work from the The Health Improvement Network database, which draws information from a database of people in England and Wales (available at: http://bit.ly/ttWkZ8). The General Practice Research Database was used to inform an important retrospective cohort study, which suggested a J- or U-shaped curve for HbA_{1c} level and mortality risk, and which led to a reform of the HbA_{1c} QOF indicator (Currie et al, 2010). This study concords with the ACCORD (Action to Control Cardiovascular Risk in Diabetes) study, which took a large population of older people with diabetes and noted harm from rapid and aggressive reduction of HbA_{1c} levels (ACCORD Study Group et al, 2008).

The Primary Care Diabetes Society (PCDS) has always valued primary care research

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highly. An active research subcommittee is chaired by Kamlesh Khunti (Professor of Primary Care Diabetes and Vascular Medicine, Leicester) who has recently led the SOLVE (Self-titration of Once-Daily Levemir Evaluation), which had its investigators' meeting recently. While the full publication of this important primary care trial is awaited, a number of issues around primary care diabetes research are underlined.

While lone GP researchers such as John Fry and William Pickles might inspire us, it is apparent that for individual GPs to be successful investigators they must be part of a larger team. Professor Khunti's team at the University of Leicester is one of the most successful in the UK. Its success highlights the need for GPs to be part of a wider network such as the National Institute of Health Research (NIHR) in England, with its important ethical and governance standards.

Currently the PCDS research committee has identified the incidence and prevalence of hypoglycaemia in practice as an important priority for research. The recent changes to the DVLA driving requirements have highlighted this (Drivers Medical Group, 2011), but less is known about its true incidence and prevalence, with several confounding factors.

Person-centred care

For research to be truly successful it has to be grounded in the grassroots of patient care. Every day patients bring us questions unanswered by EBM, such as how might I tolerate my statin or metformin better? Do I really need a fifth antihypertensive at my age? I cannot exercise – how can I lose weight? How do I know these new drugs are safe long-term? These are only a sample of questions for which contemporary research has no clear answers and where best practice falls back onto consensus and anecdote rather than science.

The lessons from the unfolding impact of EBM must be that, where possible, we need to help people with diabetes by applying the evidence to our everyday practice. An important role for this journal and others is to critically appraise recently published evidence and examine its potential impact on care. In this issue we take a look back at evidence and guidance from 2011 (see page 340). Through this, contemporary evidence can be used to encourage a culture of high-quality person-centred diabetes care. ■

Action to Control Cardiovascular Risk in Diabetes Study Group, Gerstein HC, Miller ME et al (2008) Effects of intensive glucose lowering in type 2 diabetes. *N Engl J Med* **358**: 2545–59

British Medical Association and NHS Employers (2011) *Quality and Outcomes Framework Guidance for GMS Contract 2011/12. Delivering Investment in General Practice.* BMA, London. Available at: http://bit.ly/v6YZfA (accessed 25.11.11)

Currie CJ, Peters JR, Tynan A et al (2010) Survival as a function of HbA(1c) in people with type 2 diabetes: a retrospective cohort study. *Lancet* **375**: 481–9

Drivers Medical Group (2011) *For Medical Practitioners. At a Glance Guide to the Current Medical Standards of Fitness to Drive.* DVLA, Swansea. Available at: http://bit.ly/nso0Ti (accessed 29.11.11)