



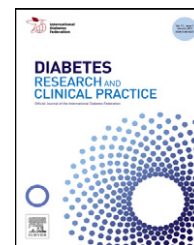
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Diabetes Research and Clinical Practice

journal homepage: www.elsevier.com/locate/diabres



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Editorial

Non-adherence to diabetes guidelines in primary care – The enemy of evidence-based practice

WHO estimates that more than 346 million people worldwide have diabetes, and the number is likely to more than double by 2030 without interventions [1]. Over 90% of all people with diabetes have type 2 diabetes (T2DM) which in most cases is managed in Primary Care [2,3]. T2DM is chronic disease that is associated with an increased risk of macro and micro-vascular complications and 70% will die of premature cardiovascular disease. The landmark UKPDS study of patients with newly diagnosed T2DM showed that in order for us to reduce the complications of type T2DM, it is necessary to control the HbA1c and blood pressure levels [4]. Early tight glycaemic control, certainly in the first 10 years after diagnosis, results in improvement in micro-vascular complications. In addition to this, there is a legacy effect of this early tight control in that, patients who came out of the trial 10 years later, that is 20 years after diagnosis, showed profound benefits from the point of view of mortality and cardiovascular events. Despite this, there are still wide variations of care, not just from region to region, but between primary care and secondary care even in the same region [3,5].

The use of guidelines in the management of diabetes has been promoted as one method of ensuring the translation of evidence based medicine into clinical practice, thus standardizing care across the spectrum. Yet various quantitative and qualitative studies show a wide variation of adherence to guidelines for various reasons [6]. Structured vignettes are one method of prompting responses to interview questions in the form of text or pictures presented to research participants and can be used for teaching and establishing gaps in participants to knowledge. In the linked structured vignette survey, Jiwa and colleagues [7] explored how the clinical and demographic variables of patients impact on the management of diabetes mellitus in primary care. Despite the limitations of the study with only two diabetologist who participated in the study of 9 vignettes, the study further highlights the fact that adherence to guidelines in primary care is still a major concern. As compared to the diabetologists in the study, even though general practitioners were likely to recommend changes in most cases (81.1%), they were less likely to prescribe blood pressure medications or treat raised cholesterol. Even in the case of lifestyle modification, which should constitute a key

area in primary care, general practitioners were less likely to offer this compared to their specialist colleagues (82.3% vs. 96.5%). In the prescribing of oral hypoglycemic agents, general practitioners were less likely to recommend a change in treatment for patients inadequately controlled on sulphonylureas, despite ample evidence of side effects and their inability to sustain long term glycaemic control.

Brown et al. [8] identified patient, physician and systemic barriers in the use of guidelines, and suggested that in all these cases, lack of education was a common factor. Reliance on clinical experience and clinical judgment is usually cited as a reason for non-adherence to guidelines, but as this vignette study points out, non-adherence to guidelines results in significant deviation from what would be described as standard evidence based practice. Another reason for the non-adherence to diabetes guidelines may be due to many guidelines now recommending individualization of management to take into account the complex interplay of patient related bio-psycho-social factors that prevent strict adherence to these diabetes guidelines [9]. In addition, clinical inertia for aggressive implementation of glycaemic targets in the light of the findings of ACCORD, VADT and the ADVANCE trials [10], may be a possible reason for the non-adherence. Some might argue that the vast amount of funding spent on development of guidelines is pointless if they are not adhered to. Since the reasons for the non-adherence were not explored in this survey, further studies will be needed to explore this all important area, and clinical pathways developed to meet local needs and individualize patient care.

The discrepancies in adherence to guidelines between primary care practitioners and specialists are not confined to the field of diabetes alone. Fang et al. in a study using similar methodology on management of hypertension found that overall cardiologist were more likely to use lipid lowering drugs, aspirin, calcium channel blockers, beta blockers and alpha blockers compared to general practitioners after adjusting for relevant risk factors [11]. Cardiologists have also been reported in other studies to be more likely to conform to evidence based guidelines for management of congestive heart failure compared to general practitioners [12].

A key question is which evidenced based strategies we need to use for improving adherence to guideline recommendations and reducing variations among practitioners. A number of strategies have been shown to improve adherence to guidelines. One method is the use of clinical pathways which can support the translation of clinical guidelines into local protocols for implementation in routine clinical practice. Clinical pathways are structured multidisciplinary care plans which detail essential steps in the care of patients with a specific clinical problem [13]. They detail local structures, systems and time-frames to address these recommendations of the guidelines. Important evidence based strategies for implementing clinical pathways for improving outcomes in people with diabetes have been reported in a Cochrane review by Renders et al. [14] These include the use of enhanced nurse practitioner roles and patient education as part of a multiple intervention strategy. Organizational intervention strategies like regular prompted recall and review of patients, using computerized tracking systems or direct contact of patients from nurses was also shown to improve diabetes management

In conclusion, the structured vignette study by Jiwa et al. [7] further buttresses our knowledge that adherence to clinical guidelines is poor among general practitioners compared to specialist, but what does this mean for the service users and policy makers? The challenge still remains on translation of research findings from studies on non-adherence to compliance with guidelines to implementation of strategies for improving of patient care.

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Published on line 30 January 2012

0168-8227/\$ – see front matter

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doi:10.1016/j.diabres.2012.01.015