

Evaluation of the Otago diabetes guidelines

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ABSTRACT

Aim

To evaluate the acceptability and perceived value of the Otago diabetes mellitus management guidelines for general practices in Otago.

Method

A postal survey of all general practitioners and practice nurses in Otago.

Results

The response was 71%. The majority (83.2%) were aware of the guidelines, with 56.8% of rural doctors being aware compared to 88.7% of urban doctors. Rural practitioners were less likely (64.6%) to have attended an educational session compared to 91.0% of urban practitioners. Un-

der half of doctors (46.7%) and nurses (45.9%) who used the guidelines thought the health of their diabetic patients had improved after their introduction.

Conclusions

The Otago diabetes guidelines had reached the majority of general practitioners and practice nurses, although practitioners in rural areas were less likely to be aware of the guidelines or have attended education sessions. There was a demand for further guidelines in areas such as nutrition and pre-pregnancy counselling.

Key words

Diabetes, clinical guidelines, evaluation

(NZFP 2001; 28:406–409)

Introduction

Diabetes mellitus is a common condition in New Zealand with significant morbidity and mortality. The prevalence in the total population aged 15 years and over is 3.7% with the rate being over 8% in Maori and Pacific Islanders. Up to one half of all cases may be undiagnosed.¹ One way to reduce mortality and morbidity is the implementation of best practice guidelines for managing diabetic complications. The Otago Diabetes Team (ODT) project developed guidelines for the management of diabetes for general practitioners and practice nurses in 1998 in collabo-

ration with the Northern Region Guidelines Development Group.² Both groups were multi-disciplinary teams with health professional and consumer representatives. The implementation of the guidelines was associated with education sessions and visits by the ODT project nurse to practices. This study was undertaken to evaluate the acceptability and perceived value of the Otago diabetes guidelines for the management of core aspects of diabetes mellitus among general practitioners (GPs) and practice nurses (PNs) in Otago. The core aspects of diabetes include glycaemic control, retinal screening,

microalbuminuria screening, and diabetic foot screening.

Methods

This was a cross-sectional study of GPs and PNs in Otago. GPs and PNs were identified from the telephone book and records held by the Department of General Practice, Otago Medical School, and the ODT project. A list of 146 GPs and 94 PNs was compiled. Each health professional was posted a questionnaire (with reply paid envelope) which included questions on demographic information, knowledge, use and preferred format of the guidelines, and effects

on practice. Two reminders were used; the first a letter and questionnaire posted after two weeks and the second a telephone call after four weeks. Completed questionnaires were coded, entered into a computer and analysed using SPSS. The study received ethical approval from the Otago Ethics Committee.

Results

Of the original 240 health professionals, 14 were excluded because they no longer lived in Otago, and 160 replies were received from the remaining 226 individuals, a response rate of 71%. The response was 66% for GPs and 79% for PNs, however not all respondents answered all questions.

All the PNs were women and 68.1% of the GPs were men. The

majority of respondents were in full-time practice (62.7%) with 55.9% working in urban areas. Three-quarters of the patients of the GPs surveyed were reported to have Type II diabetes.

The majority of respondents (83.2%) were aware of the ODT guidelines, with 75.8% of doctors and 97.0% of practice nurses being aware of them. Only 56.8% of rural

doctors were aware of the guidelines compared to 88.7% of urban doctors. There was no association between duration of practice and guideline awareness. Remaining analyses were restricted to the 69 GPs and 65 PNs

Over 40% of practitioners believed the health of their diabetic patients had improved following the introduction of the guidelines

who were aware of the guidelines (Table 1). After the introduction of the guidelines, 69.4% of respondents believed they had no or little difficulty in managing their diabetic patients, although 26.5% considered they had had this level of difficulty before their introduction. The improvement was greater for PNs. As regards the format of the guidelines, the vast majority of respondents rated them as average or better for clarity, relevance, presentation and length.

Of the 130 practitioners responding to the question regarding attendance at an educational session, 78.8%

Table 1. Responses by GPs and PNs to questions about the ODT guidelines.

QUESTION	GPs		PNs		Total	
Respondents who were aware of the guidelines:	No of responses	% (n)	No of responses	% (n)	No of responses	% (n)
Difficulty in managing diabetic patients rated as little or no difficulty prior to introduction of guidelines.	69	29.0 (20)	63	23.8 (15)	132	26.5 (35)
Difficulty in managing diabetic patients rated as little or no difficulty after introduction of guidelines.	64	62.5 (40)	57	77.2 (44)	121	69.4 (84)
Attended one or more education sessions.	66	78.8 (52)	64	82.8 (53)	130	80.8 (105)
Copy of guidelines in practice.	65	95.4 (62)	63	100.0 (63)	128	97.7 (125)
Use guidelines monthly or more frequently.	57	57.9 (33)	56	73.2 (41)	113	65.5 (74)
Respondents who used the guidelines:						
Guidelines rated as similar or not at all different to previous clinical practice.	32	75.0 (24)	35	77.1 (27)	67	76.1 (51)
Health of diabetic patients improved after introduction of guidelines.	30	46.7 (14)	37	45.9 (17)	67	46.3 (31)
Guidelines resulted in referring diabetic patients to a specialist service.	32	28.1 (9)	38	47.4 (18)	70	38.6 (27)

of the doctors and 82.8% of the nurses had attended one or more such sessions organised by the ODT project, with fewer rural practitioners (64.6%) than urban (91%) likely to attend. The majority of those aware of the guidelines (97.7%) thought there was a copy of the guidelines in their practice. More than half (65.5%) reported that they used the guidelines on a regular basis, with 24.8% never using them. Of this latter group, 50.0% said the guidelines replicated existing practice, with 3.6% finding the guidelines either too time consuming, too complicated or too simple. There were 7.1% who said they did not like guidelines in general.

Of those who used the guidelines, the majority of respondents (over 80%) found all sections of the guidelines useful. The most common areas where additional guidelines were favoured were for nutrition, pre-pregnancy management, hyperlipidaemia, oral health and self-monitoring patients with diabetes.

Of those practitioners who used the guidelines, 75.0% of GPs reported that the guidelines were similar through to not at all different, to their previous clinical practice. Slightly under half of doctors (46.7%) and nurses (45.9%) thought that the health of their diabetic patients had improved moderately or very much so after the introduction of the guidelines.

Discussion

Few studies have been carried out in New Zealand which have attempted to evaluate clinical guidelines. Clinical practice guidelines are being developed for an increasingly wide range of medical conditions and aim to provide the best management approach for a condition.³ They may be developed for a variety of reasons including the reduction of inappropriate variations in clinical practice,

to reduce health care costs, to improve patient outcomes, and to act as a form of medical education.⁴ To be effective, clinical practice guidelines need to be evidence based and be useable by, and appropriate for, the clinicians who will be using them.⁵ Guidelines should be evaluated and revised regularly to meet the needs of clinicians and to keep them up to date, and methods for evaluating guidelines have been developed.^{6,7}

This study was carried out in Otago and may not be representative of doctors and nurses elsewhere in the country if similar guidelines were introduced, however all practitioners in the region were invited to take part. The overall response of 71% was acceptable for a postal study of this kind, although responses to some questions were lower which may have led to some bias. The study aimed to investigate the format and acceptability of the guidelines themselves, not to investigate the health outcomes for diabetic patients directly, although over 40% of practitioners believed the health of their diabetic patients had improved following their introduction. Some questions asked respondents to recall their diabetes management before the introduction of the guidelines, which may have introduced some recall bias.

Rural practitioners in Otago were less likely to be aware of the ODT guidelines or to have attended education sessions, although these had been organised in rural areas. Similar proportions of urban and rural practitioners never used the guidelines. However, in an Australian study, rural general practitioners were more likely to use guidelines than urban doctors.⁸ Nearly all Otago practitioners be-

Key points

- The introduction of diabetes guidelines appears to have reached the majority of general practitioners and practice nurses in Otago.
- There have been high levels of attendance at education sessions.
- Practitioners in rural areas were less likely to know about the guidelines or have attended education sessions
- Nearly all Otago practitioners believed that the management of their diabetic patients had become less difficult after the introduction of the guidelines.

lieved that the management of their diabetic patients had become less difficult after the introduction of the guidelines, and 75.0% of doctors said that the guidelines were similar through to not at all different to their current practice. This is higher than a group of Australian general practitioners where 49% reported a change in their practice in at least one of nine areas (including diabetes) being evaluated.⁹

Changes in referral rates is one method of measuring the uptake of guidelines. Between 1998 and 1999 in Otago, a 22% increase in the uptake of retinal screening has been observed for those on the Otago Diabetes Register.¹⁰ This may not be due to the introduction of the guidelines alone, although 28% of GPs thought guidelines resulted in an increase in overall specialist referrals.

The introduction of the ODT guidelines appears to have reached the majority of general practitioners and practice nurses in Otago with

There is a demand for further guidelines in certain areas such as nutrition and pre-pregnancy management

high levels of attendance at education sessions, although practitioners in rural areas were less likely to know about the guidelines or have attended sessions. This compares favourably with an Auckland study which found that only 41% of interviewed doctors had read the Core Services report on hypertension sent to GPs in

1992.¹¹ Ongoing follow-up with practitioners is an integral part of any clinical guideline implementation programme and this is carried out in Otago by a project nurse who visits practices on a regular basis. There is a demand for further guidelines in certain areas such as nutrition and pre-pregnancy management.

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