

ABSTRACTS

DIET-CONTROLLED DIABETICS – SUBOPTIMAL CONTROL AND CARE?

A recent paper in *The Lancet* looks at whether or not pure diet control is effective in type 2 diabetics. It is now well-known that tight glycaemic control reduces microvascular complications in patients with type 1 and type 2 diabetes. The authors intended to establish the proportion with type 2 diabetes treated through diet only. They also looked at these patients' level of complications and the quality of care they received compared with patients on hypoglycaemic medication. They point out that traditionally a substantial number of people with type 2 diabetes have been managed without medication. They are usually offered dietary advice, and irrespective of whether they follow this advice or not, continue to be managed on diet only. This approach evolved before the realisation of the way that tight glycaemic control influences microvascular complications, along with the need for good control of blood pressure. There are also many studies that show that diet alone does not generally result in adequate glycaemic control, and the authors feel that it is likely that many of these patients need hypoglycaemic medication.

They undertook a cross-sectional study of 7 870 patients with type 2 diabetes from a population of 253 618 from 42 general practices in Britain. Their primary outcome was process of care measures and diabetes-related complications. They found that 31.3% of all patients with type 2 diabetes were managed with diet alone. They also found that these patients were far less likely to have HbA_{1c} measurements, blood pressure, cholesterol, smoking and microalbuminuria testing, or screening for foot pulses. Of those patients treated with medication 38.4% had an HbA_{1c} above 7.5% compared with 17.3% of those treated with diet only. Patients treated with diet only are also more likely to have raised blood pressure and less likely to be on antihypertensive medication. They are also 45% more likely to have raised cholesterol and less likely to be prescribed lipid-lowering medication. However, 68% of those treated by diet alone have diabetes-related complications compared with 80% of those on medication.

The authors conclude that diabetics treated with diet alone do have significant rates of complications and are less likely than those on medication to be adequately monitored. They feel that there is definite scope for improved management within general practice.

Hippisley-Cox J, Pringle M. *Lancet* 2004; **363**: 423-428.

MRI VERSUS MAMMOGRAPHY AS SCREENING IN WOMEN WITH A FAMILY HISTORY OF BREAST CANCER

The value of regular surveillance for breast cancer in women with a genetic or familial disposition to the disease is currently unproven. The authors of this paper compared the efficacy of magnetic resonance imaging (MRI) with that of mammography for screening in this group of high-risk women.

They took 1 909 women who had a cumulative lifetime risk of breast cancer of 15% or more and screened them every 6 months with a clinical breast examination and once a year by mammography and MRI, with independent readings. These women included 358 carriers of germ-line mutations. The characteristics of the cancers that were detected were compared with the characteristics of those in 2 different age-matched control groups.

Within a median follow-up period of 2.9 years, 51 tumours (44 invasive cancers, 6 ductal carcinomas *in situ* and 1 lymphoma) and 1 lobular carcinoma *in situ* were detected. The sensitivity of clinical breast examination, mammography and MRI for detecting invasive breast cancer was 17.9%, 33.3% and 79.5% respectively. The overall discriminating capacity of MRI was significantly better than that of mammography. The proportion of invasive tumours of 10 mm or less in diameter was significantly greater in our surveillance group than in either control group. They also found that the combined incidence of positive axillary nodes and micrometastases in invasive cancer in the study was 21.4% compared with 52.4% and 56.4% in the 2 control groups.

The authors conclude that MRI appears to be more sensitive than mammography in detecting tumours in women with an inherited risk of breast cancer.

Kriege M, et al. *N Eng J Med* 2004; **351**: 427-437.

BARRIERS TO DIAGNOSING AND MANAGING HEART FAILURE IN PRIMARY CARE

An Australian study highlights the difficulties associated with the management of heart failure in primary care. Heart failure affects more than 300 000, mainly elderly Australians, and the prevalence is expected to rise. The literature on diagnosing, treating and managing heart failure indicates that there are definite gaps between best practice and current practice, both in hospital and in the community. The authors aimed to explore the potential barriers to optimal diagnosis and management of heart failure in primary care.

Between April and July 2002 they used semi-structured focus groups or telephone interviews with GPs in 3 urban and 1 rural division of family practice with above-average elderly resident populations. The GPs surveyed reported that most of their difficulties lay in accurately diagnosing heart failure because the condition is masked by other diseases and has very nonspecific symptoms, particularly in the early stages. They identified four specific areas that needed improving before their own management of heart failure would improve. First, echocardiography — identifying a need for improved access and understanding of its role and having knowledge of the significance of specific findings. The next important topic was the role of ACE inhibitors and beta-blockers, particularly when and how to use them and how to titrate doses, and side-effects and the influence of co-morbidities. They also felt it was difficult to explain the value of echocardiography and other treatment to their patients. The problem of treatment side-effects was singled out, particularly if a patient was feeling well. They also cited poor communication, particularly when patients were in hospital, and the need for an improved link with specialists.

The authors felt that the study identified specific barriers to GPs putting into practice evidence-based recommendations in managing heart failure and that these could be addressed.

Philips S, *et al.* *MJA* 2004; **181**: 78-81.

ANTIBIOTICS, SOCIAL STATUS AND DOCTOR CHARACTERISTICS

Evidence-based guidelines to the use of antibiotics are well established, but most of us know that sticking to them is difficult. A recent paper published in the *Canadian Medical Association Journal* examines some of the reasons for this. The authors looked at child, household and prescribing doctor characteristics to try to unravel these. They assessed the prescription and health care records of 20 000 Manitoba children for 2 criteria of non-adherence to evidence-based antibiotic prescribing between 1996 and 2000. These 2 criteria were receipt of an antibiotic for a viral respiratory tract infection (VRTI) and initial use of a second-line agent for acute otitis media, pharyngitis, pneumonia, urinary tract infection or cellulitis. They used linear modelling to predict the likelihood of non-adherence to evidence-based prescribing according to child demographics, the doctor's speciality and place of training and household income.

During the study period, 45% of doctor visits for VRTI resulted in an antibiotic prescription, 20% of which were for second-line antibiotics. Interestingly, paediatricians and other specialists were more likely to prescribe an antibiotic than a GP, particularly a second-line product. There was also an increasing likelihood of antibiotic prescription the higher the household income. Both criteria for non-adherence to evidence-based prescribing were 40% less likely among doctors trained in Canada and the USA than among those trained elsewhere.

The authors concluded that the links identified between non-adherence and speciality and location of training suggested opportunities for intervention. They also point out that the independent effect of household income suggests that parents play an important role in whether or not an antibiotic is prescribed inappropriately.

Kozyrkyi AL, *et al.* *CMAJ* 2004 (accessed online).

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