

P06 THE EPIDEMIOLOGY OF TYPE 1 DIABETES IN CHILDREN FROM NORTHEAST ENGLAND

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Objective Environmental factors are involved in the aetiology of type 1 diabetes. A particular role for infectious exposures has been postulated. Temporal and spatial variation in incidence would be consistent with this hypothesis. We aimed to test predictions of increasing incidence and spatial variation occurring among cases of type 1 diabetes in children (aged 0–14 years) that might arise as a result of environmental mechanisms.

Design Population-based descriptive analysis of type 1 diabetes data. **Setting** Northeast England.

Participants The study analysed 545 cases of type 1 diabetes diagnosed in children who were resident in a geographically defined region of northeast England during the period 1990–2007.

Main Outcome Measures Age-specific and age-standardised incidence rates were calculated. Temporal trends were analysed using Poisson regression. Relationships between incidence rates and small area (census ward) population density and Townsend deprivation index (and its components) were analysed using negative binomial regression.

Results Age-standardised incidence rates increased from 15.7 per 100 000 population in 1990–1995 to 27.9 per 100 000 population in 2002–2007. Furthermore, there was a regular 6-year cyclical pattern of plus or minus 25% in incidence rates (RR 1.25; 95% CI 1.11 to 1.41) and an overall increase of 4.8% per annum (95% CI 3.1 to 6.6). Lower incidence was associated with residence in wards that had higher levels of unemployment (RR per one percent increase in unemployment 0.97; 96% CI 0.95 to 0.99).

Conclusions The results are consistent with the involvement of one or more environmental exposures in aetiology. A possible role for a specific infectious agent should be considered.

P07 IMPROVING THE QUALITY OF DIABETES CARE: EXPLORING THE PERSPECTIVES OF GENERAL PRACTITIONERS IN IRELAND

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Objective Health professionals are key players in the success or failure of quality management depending on their willingness to accept and adapt to changes in practice. The aim of this study was to explore GPs' experiences of providing diabetes care and their thoughts on the factors affecting its development.

Design Semi-structured qualitative interviews were conducted with GPs to explore their experience of care provision in Ireland, opinions on the factors influencing the development of care and their attitude to registration and audit. The topic guide was informed by the findings of a preceding national survey on the organisation of diabetes care. Analysis was conducted using a pragmatic approach drawing on the Framework method.

Participants A purposive sample of 30 GPs was selected based on 3 sets of inclusion criteria; (a) location (rural/urban), (b) computerised/non-computerised practice, (c) single-handed/group practice.

Results Preliminary analysis has identified both convergent and divergent themes. There were varying attitudes as to how diabetes care should be integrated between primary and secondary care settings. The locus of care varied across participant experiences from primary care-based management to supplementing hospital-led care. Lack of access to auxiliary services and resources were among the common barriers to an effective community-based diabetes service. Those GPs who have developed a structured approach to diabetes care tended to do so as a "labour of love"; most doing so without direct recompense. There were mixed attitudes towards the development of a national register with some questioning its use and benefit at a practice level. A number of GPs felt a national register should be tailored to meet the needs of health professionals and patients, and not solely used as a research tool. There was ambivalence towards efforts to improve care based on previous experience in the Irish health setting. When asked about the future of diabetes care, GPs proposed regional diabetes management clinics and hoped for greater recognition of the contribution of general practice to diabetes care.

Conclusion Preliminary findings suggest there is a typology of care models in existence in Ireland with varying levels of involvement by GPs and diverse access to services. There were tentative attitudes towards quality improvement initiatives including the establishment of a register suggesting a sense of inertia towards organisational change. Extending high quality care to all patients with diabetes can no longer rely solely on the interest of care providers and may require commitment systems-level change.

Cancer

P08 CANCER OF OESOPHAGUS OR GASTRICUS—NEW ASSESSMENT OF TECHNOLOGY OF ENDOSONOGRAPHY: FINDINGS

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Objectives Endoscopic ultrasound (EUS) is recommended for staging gastro-oesophageal cancers but has never been rigorously evaluated. This trial assessed whether EUS, when added to usual staging tests: changes treatment; improves survival and quality of life; and uses resources cost-effectively.

Methods We conducted a pragmatic randomised trial in eight centres. As 80% of participants came from two centres, we combined the other centres for analysis. Patients diagnosed with gastro-oesophageal cancer received a standard staging protocol, after which the multi-disciplinary team agreed a provisional management plan. In principle the choice lay between endoscopic mucosal resection, immediate surgery, neoadjuvant chemotherapy followed by surgery, or multi-modal treatment (ie chemotherapy and radiotherapy). We then randomised consenting patients without metastases by telephone to receive EUS or not. Thereafter we recorded changes in the management plan, in the use of healthcare resources and in participant-reported outcomes. In particular we focused on three facets of quality of life: generic (measured by the EQ5D), cancer-related (FACT general scale and subscales) and condition-specific (FACT additional concerns scale). We then followed participants at defined intervals till the end of the trial—that is for between one and 3.5 years.

Findings We randomised 223 patients, of whom 213 yielded enough data for primary analysis. At the end of the trial 45% of EUS

participants and 32% of the non-EUS participants were alive. EUS improved survival adjusted for generic quality of life with an HR of 0.69 (95% CI 0.49 to 0.98); and both its components—survival and EQ5D scores; the benefits of EUS were significantly greater for those with poor initial quality of life, but there was no difference between centres. Similarly, there was a significant interaction between initial quality of life and the effect of EUS on all the FACT scales; again sicker patients benefitted more from EUS. However, there was no significant difference between EUS and non-EUS groups in mean FACT scores adjusted for covariates. Both management plans and final treatment varied between centres. Although EUS changed the management plan for several participants, differences between groups in actual treatment and the proportion of tumours completely resected were not significant. In both groups, two thirds of initial treatment plans were for chemotherapy followed by surgery, but 40% of participants received multi-modal or palliative treatment.

Conclusion EUS has a beneficial effect on survival and generic quality of life, especially for participants initially in poorer health.

P09 THE ASSOCIATION OF WEIGHT GAIN DURING ADULTHOOD WITH PROSTATE CANCER INCIDENCE AND SURVIVAL: THE NORD-TRØNDELAG HEALTH STUDY-2 COHORT, NORWAY

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Obese men appear to have an increased risk of being diagnosed with advanced prostate cancer and of dying from the disease. Few studies have examined the impact of weight gain during adulthood on prostate cancer risk and mortality. We analysed data from 20 991 Norwegian men who participated in two phases of the Nord-Trøndelag Health Study in 1984/1986 (HUNT-1, when aged at least 20 years) and 1995/1997 (HUNT-2). Weight and height were measured at both HUNT-1 and HUNT-2, allowing each man's change in weight and BMI during approximately 11 years of adult life to be computed. During a median of 11.3 years of follow-up after the end of HUNT-2, 649 (3%) men developed prostate cancer. We observed an increase in prostate cancer incidence amongst men who put on weight between HUNT-1 and HUNT-2. In multivariable models, including adjustment for weight at HUNT-2, the HR for prostate cancer per one SD (6.2 kg) gain in weight was 1.16 (95% CI 1.03 to 1.31, p-trend=0.01) and per one SD gain in BMI (1.9 kg/m²) was 1.14 (95% CI 1.00 to 1.30, p-trend=0.04). Amongst men diagnosed with prostate cancer (any stage), there was no evidence that gain in weight prior to diagnosis was positively associated with subsequent all-cause mortality (HR per one SD increase in weight=1.05; 95% CI 0.87 to 1.26, p-trend=0.63). The findings suggest that control of weight gain during adulthood, as well as absolute weight, has implications for prostate carcinogenesis.

P10 FACTORS PREDICTING PATIENTS' INTENTION TO JOIN CANCER SUPPORT GROUPS AND THEIR PERCEPTIONS OF THE MOST USEFUL GROUP FORMATS

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Background Trials have demonstrated that patients benefit from participation in cancer support groups. However, only a minority of patients join groups. Better understanding of factors predicting patients' intention to join groups and their preferred group formats

is required to aid strategies to increase support group attendance and ensure that groups are suited to patients' preferences.

Objective To investigate variables predicting patients' intention to join cancer support groups and the support group formats they would find most useful.

Design Self-completed questionnaires. Factor analysis of patients' perceptions of support groups and the group formats perceived to be most useful. Comparison of patients intending and not intending to join groups and bi-variate correlation analyses of variables associated with preferred group format, using non-parametric and parametric analysis as appropriate.

Setting Recruitment through oncology outpatient clinics shortly after diagnosis.

Participant 192 patients with cancer of the colon (105), lung (57) or bladder (30). Of these, 67% were male and 33% female.

Main Measures Demographic and clinical variables, perceived social support (MSPSS), perceived control and distress over cancer (IPQ-R), strategies for coping with cancer (Brief COPE), functioning and symptoms (EORTC QLQ C30), views and preferences regarding support groups (questionnaires designed from qualitative patient interviews).

Results Variables predicting participants' intention to join a group included worse family support, higher distress, coping through instrumental support seeking and little perceived difficulty in joining. Factors predicting preference for patient-led, emotion-focused groups included being female, higher distress, worse functioning in several domains, and coping through planning, positive reframing, religion, instrumental support seeking, distraction and denial. Preference for professionally led, information-based groups related to active coping and acceptance, lower education and not having a partner. Preferences for both group formats and a general intention to participate were all related to having positive views of groups and being influenced by health professionals' recommendation of groups (all findings at p<0.05). More details of findings, results of multivariate analyses and data on whether patients actually joined a group will be presented at the conference.

Conclusion Patients with different characteristics prefer different support group formats. It is therefore important to tailor group formats to the needs of different groups of patients. In all instances positive perceptions of groups and recommendation from a health professionals increased perceived usefulness of groups and patients' intention to join. Both promotion of a positive image of groups and the recommendation of health professionals should therefore help increase support group attendance.

Pregnancy/Early life/Birth cohorts/Health trajectories

P11 INCREASED RISK OF FETAL LOSS AND INFANT DEATH IN OBESE WOMEN

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Objective To investigate the association between maternal obesity and the prevalence of fetal and infant death.

Design Cohort study using prospectively collected data matched to a high-quality population-based registry data of fetal and infant death.

Setting Five maternity units in the North of England.

Participants 40 932 singleton pregnancies delivered between 2003 and 2005, excluding 1092 pregnancies associated with a congenital anomaly and/or maternal pre-gestational diabetes, and 9998 pregnancies with missing maternal body mass index (BMI).