ABSTRACTS

DISEASES OF AFFLUENCE AND GLOBAL PATTERNS OF NUTRITIONAL RISK

An article in the open access Internet journal *PloS Medicine* suggests that cardiovascular diseases and their nutritional risk factors – including overweight and obesity, elevated blood pressure, and cholesterol – are among the leading causes of global mortality and morbidity, and have been predicted to rise with economic development.

The authors examined age-standardised mean population levels of body mass index (BMI), systolic blood pressure, and total cholesterol in relation to national income, food share of household expenditure, and urbanisation in a cross-country analysis. Data were taken from a total of over 100 countries and were obtained from systematic reviews of published literature, and from national and international health agencies.

They found that BMI and cholesterol increased rapidly in relation to national income, then flattened, and eventually declined. BMI increased most rapidly until an income of about $5 000 and peaked at about $12 500 for women and $17 000 for men. Cholesterol's point of inflection and peak were at higher income levels than those of BMI (about $8 000 and $18 000, respectively). There was an inverse relationship between BMI/cholesterol and the food share of household expenditure, and a positive relationship with proportion of population in urban areas. Mean population blood pressure was not correlated, or only weakly correlated, with the economic factors considered, or with cholesterol and BMI.

When considered together with evidence on shifts in income-risk relationships within developed countries, the authors felt that results indicate that cardiovascular disease risks are expected to systematically shift to low-income and middle-income countries and, together with the persistent burden of infectious diseases, further increase global health inequalities. Preventing obesity should be a priority from early stages of economic development, accompanied by population-level and personal interventions for blood pressure and cholesterol.

Ezzati M, *et al. PLoS Med* 2005; **2**(5): e133.

DAY CARE AND LEUKAEMIA

A group of statisticians, paediatricians and epidemiologists have published their study testing the hypothesis that reduced exposure to common infections in the first year of life increases the risk of developing acute lymphoblastic leukaemia.

Using the United Kingdom Childhood Cancer Study (UKCCS), the authors examined 6 305 children, aged 2 - 14 years, without cancer and 3 140 children with cancer (diagnosed 1991-1996), of whom 1 286 had acute lymphoblastic leukaemia (ALL). The UKCCS is a large population-based case-control study of childhood cancer across 10 regions of the UK. They used day care and social activity during the first year of life as proxies for potential exposure to infection in infancy.

The study found that increasing levels of social activity were associated with consistent reductions in risk of ALL in a dose-dependent manner. When children whose mothers reported no regular activity outside the family were used as the reference group, odds ratios for increasing levels of activity were 0.73 for any social activity, 0.62 for regular day care outside the home, and 0.48 for formal day care (attendance at facility with at least 4 children at least twice a week). Although not as striking, results for non-ALL malignancies showed a similar pattern. The significant protective effect for ALL was only seen with formal day care. Similar results were obtained for B cell precursor common ALL and other subgroups, as well as for cases diagnosed above and below the age of 5 years.

The authors concluded that these results support the hypothesis that reduced exposure to infection in the first few months of life increases the risk of developing ALL.

Gilham C, *et al. BMJ* 2005; **330:** 1294.

PERCEIVED BARRIERS FOR TREATMENT OF CHRONIC HEART FAILURE IN GENERAL PRACTICE

The authors of this study set out to determine to what extent barriers perceived by general practitioners (GPs) for prescribing angiotensin-converting enzyme inhibitors (ACE-I) in chronic heart failure (CHF) patients are related to underusing and underdosing of these drugs in daily practice.

The study was part of the baseline of a larger study conducted from September 2001 to May 2002 in the north Netherlands, evaluating 2 audit programmes for peer review groups focussing on the treatment of CHF and treatment of hypertension in diabetic patients. Barriers were assessed with a semi-structured questionnaire. Prescribing data were extracted from GPs' computerised medical records for a random sample of their CHF patients.

The authors found that GPs prescribed ACE-I to 45% of their patients and had previously initiated such treatment in an additional 3.5%, in an average standardised dose of 13.5 mg. They described a median of 4 barriers in prescribing ACE-I or optimising ACE-I dose. Many GPs found it difficult to change treatment started by a cardiologist. Furthermore, starting ACE-I in patients already using a diuretic or stable on their current medication was seen as a barrier. Titrating the ACE-I dose was seen as difficult by more than half of the GPs. No significant relationships could be found between the barriers perceived and actual ACE-I prescribing. Regarding ACE-I dosing, the few GPs who did not agree that the ACE-I should be as high as possible prescribed higher ACE-I doses.

Variation between GPs in prescribing ACE-I for CHF cannot be explained by differences in perceived barriers to care. Tailor-made interventions targeting only those doctors that perceive a specific barrier will therefore not be an efficient approach to improve quality of care.

Kasje WN, *et al. BMC Family Practice* 2005; **6:** 19. (doi:10.1186/1471-2296-6-19)

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SINGLE SUTURE

POLIO COMEBACK

In May this year, 4 confirmed and 10 suspected cases of polio were reported in Indonesia and confirmed cases in Yemen rose from 22 to 63 and were expected to rise further. These outbreaks are undermining the global attempt to erradicate polio by the end of 2005 and are as a result of a ban on vaccinations imposed by Muslim authorities in Nigeria in 2003. However, recently a judge in Mali imposed jail sentences of between 6 months and 3 years on 5 leaders of a Muslim sect, for preventing children from being vaccinated against polio. The WHO still hope to achieve their target by vaccinating millions of children in Africa before the rainy season starts.

Reported in *New Scientist*, 21 May 2005: 7.