This month ● ulcer ● cervical cancer ● Down's syndrome ● poverty ● holistic medicine ● screening ● bowel disease ● teleconferencing ● community care

Treating duodenal ulcer

Suppression of nocturnal acidity is now agreed to be crucial in healing duodenal ulcers and a single dose of H_2 receptor antagonist at night is now recommended in preference to the original divided doses. Two recent papers have fuelled the controversy about the optimum timing of this dose. Deakin and colleagues, from the Royal Naval Hospital at Haslar, have studied the effects of large doses of cimetidine and ranitidine given at either 18.00 hours or 23.00 hours to patients with duodenal ulcer in symptomatic remission. They found that not only did the 23.00 hours dose produce overnight anacidity but inhibition of peptic activity was much greater when the drug was given at this time. Furthermore, histamine receptor blockade was overcome relatively easily when evening meals were given to patients who had taken the 18.00 hours dose. They concluded that single dose therapy should be taken on retiring and also noted that doubling the dose of drug at this time produced a greater fall in intragastric pH, possibly of value in patients with resistant duodenal ulcer disease.

A report from West Germany compared ranitidine 300 mg given at 18.00 hours and 23.00 hours in an elegant double blind, double dummy study which used ambulatory intragastric pH-metry in which gastric pH is measured every five seconds. The subjects were normal volunteers. Merki and colleagues reported greater inhibition of acid secretion when the drug is taken at 18.00 hours; they also noted that, in contrast to the previous study, this regimen provided protection against food-stimulated acid secretion after dinner.

Since these two influential reports used different methods and different subjects their results may not be directly comparable but they do indicate a clear need for a clinical trial to evaluate optimum timing of single-dose therapy with histamine H_2 receptor antagonists.

Sources: Deakin M, Glenny HP, Ramage JK, *et al.* Large single daily dose of histamine H_2 receptor antagonist for duodenal ulcer. How much and when? A clinical pharmacological study. *Gut* 1987; **28:** 566-572. Merki H, Witzel L, Harre K, *et al.* Single dose treatment with H_2 receptor antagonists: is bedtime administration too late? *Gut* 1987; **28:** 451-454.

Prognosis in cervical cancer

The survival of 43 women aged 35 years and under was compared with 342 aged 36 years and over treated for invasive cancer of the cervix at the Royal Marsden Hospital between 1970 and 1984. The results showed that the younger women tended to present with the disease in the earlier stages, and that stage for stage their prognosis was no different from that of the older women. Candidly, the authors admit that, although the study was set up to test the suggestion that younger women have a more aggressive form of the disease, the study did not support this view. They feel that this impression might have been created by the emotional impact of the deaths of younger women.

Source: Smales E, Perry CM, Ashby MA, Baker JW. The influence of age on prognosis in carcinoma of the cervix. *Br J Obstet Gynaecol* 1987; **94:** 784-787.

Maternal alpha-fetoprotein screening for Down's syndrome

Although the risk of Down's syndrome increases with maternal age, about 80% of babies with the syndrome are born to mothers under 35 years old. In a prospective study of the use of serum alpha-fetoprotein levels to identify Down's syndrome 34 354 women under 35 years old were screened over a two year period. Mothers were offered amniocentesis when their risk of having a Down's syndrome baby, calculated as a function of maternal age and the serum alpha-fetoprotein level, was the same or higher than the risk of Down's syndrome for a 35-year-old mother.

Among the women in whom the risk exceeded this cut-off point, nine (1 in 161) were found to have a fetus affected with Down's syndrome. In three women the fetus had trisomy 18 and in one trisomy 13 (1 in 112 for all autosomal trisomies). However, 18 pregnancies involving Down's syndrome, three involving trisomy 18, and two involving trisomy 13, were not associated with a calculated risk above the cut-off point. Thus, in the population studied, using a cut-off for risk at which 5% of women under 35 years old are offered amniocentesis, between one quarter and one third of Down's syndrome fetuses will be detected.

An editorial in the same issue of the *New England Journal of Medicine* points out that the low sensitivity and specificity of screening using alpha-fetoprotein levels would create enormous problems if this test were to become routine practice. A negative test is not definitive because two-thirds of Down's syndrome fetuses occur in women with low alpha-fetoprotein levels. Worse still, if amniocentesis were to be performed in all women under 35 years of age with high alpha-fetoprotein levels it is likely that fetal loss caused by amniocentesis would be greater than the number of fetuses identified with Down's syndrome.

Underlying this search for screening tests for Down's syndrome, however, is the assumption that most parents would wish to have a Down's syndrome fetus aborted — an assumption which is not necessarily true.

Source: DiMaio MS, Baumgarten A, Greenstein RM, *et al.* Screening for fetal Down's syndrome in pregnancy by measuring maternal serum alpha-fetoprotein levels. *N Engl J Med* 1987; **317:** 342-346.

Poverty and health

Poverty, it is well recognized, is the major determinant of premature mortality, although we seem to have little idea as to just how it exercises its deleterious effects. Two recent papers add to this literature, one deliberately and one by accident. Mildred Blaxter in *The Lancet* reports the result of a survey of 9003 adults living in Great Britain which examined their morbidity and fitness. Not surprisingly she found an almost linear relationship between income, or its surrogate social class, and how people felt. One of the fascinating side issues was the measurement of lung function which showed that lung function in the poor was worse than in the rich and that the effect was nearly as great as that of smoking. The other paper, from Sweden, was entitled 'Alcohol intemperance and sudden death'. It demonstrated that sudden death from myocardial infarction was more likely if somebody was on the Register of the Swedish Temperance Board but also if they were registered with the Bureau of Social Services, an indication of poverty. Although poverty was almost as strong an independent risk factor as alcohol excess this did not rate a mention in the title.

Sources: Blaxter M. Evidence on inequality in health from a national survey. *Lancet* 1987; **2:** 30-33. Lithell H, Åberg H, Selinus I, Hedstrand H. Alcohol intemperance and sudden death. *Br Med J* 1987; **294:** 1456-1458.

Holistic medicine in the USA and UK

A survey in California compared 340 physicians belonging to the American Holistic Medical Association with 142 family practitioners. The groups were similar in age, sex, socioeconomic origin and marital status. 'Holistic' physicians were more likely to have been brought up and to currently reside in a rural area, to be in private practice and not to be board certified; they saw fewer patients, used hospitals less and had lower incomes than the 'ordinary' family practitioners.

It is interesting to note that although far more holistic doctors believed in the value of various alternative techniques than the non-holistic doctors the difference was not so great when it came to using them: in other words, ordinary family practitioners were using therapies that they did not claim to believe in.

A fascinating comparison can be made between the data for the non-holistic doctors and for 222 general practitioners in Oxfordshire reported in a recent issue of this *Journal.* Almost identical proportions of family doctors in California (50.7%) and Oxford (50.0%) used manipulation/chiropractic, whereas two to three times more USA doctors used acupuncture and hypnosis (51.4% and 50.0%) than UK doctors (19.8% and 14.9%). Some of the results may reflect basic cultural differences. For example, one fifth (20.4%) of USA doctors used spiritual or religious healing but none of the UK doctors did. Conversely, homoeopathy seems to have much more credibility here than in the USA; 18.0% of UK general practitioners referred patients for homoeopathy (and 41.0% discussed the subject) compared with only 8.4% of USA family doctors, and as few as 1.4% of USA doctors thought homoeopathy had much value in medical practice. Only polarity therapy and reflexology scored lower out of 16 techniques.

Sources: Goldstein MS, Sutherland C, Jaffe DT, Wilson J. Holistic physicians and family practitioners: an empirical comparison. *Fam Med* 1987; **19:** 281-286. Anderson E, Anderson P. General practitioners and alternative medicine *J R Coll Gen Pract* 1987; **37:** 52-55.

Testicular self-examination

New areas for screening and health education are constantly being explored and well-man clinics are increasing in popularity. A review in *Family Practice* looks at the feasibility of general practitioners teaching young men to practise regular testicular self-examination. Testicular carcinoma is a rare tumour with a lifetime probability of 0.2% for white American men, compared with 7.0% for breast cancer in women. The peak ages are 0–5 years, 25–34 years and over 60 years, with most of the cases occurring in young men. There is no evidence yet that testicular self-examination would enable tumours to be detected at a stage early enough to improve the prognosis significantly; furthermore cure rates have improved greatly. The authors conclude that rare opportunities for health education with young men would be better spent on topics such as smoking, alcohol, fitness and accident prevention — education about AIDS could be added to this list.

Source: Westlake SJ, Frank JW. Testicular self-examination: an argument against routine teaching. *Fam Pract* 1987; **4:** 143-148.

Smoking and bowel disease

The association between cigarette smoking and inflammatory bowel disease is a curious one; several studies have reported a strong negative association between cigarette smoking and ulcerative colitis and one has suggested that Crohn's disease patients are more likely to be smokers than matched controls. In a case control study of 280 patients with inflammatory bowel disease from Nottingham and Liverpool, Tobin and colleagues found that patients with Crohn's disease were more likely to smoke or to be ex-smokers than matched controls but that patients with ulcerative colitis assessed in the same way were much less likely to be smokers. In a rather convoluted discussion the authors suggest that in a population genetically predisposed to inflammatory bowel disease the smokers are likely to develop Crohn's disease while the non-smokers will go on to get ulcerative colitis.

Source: Tobin MV, Logan RF, Langman JS, *et al.* Cigarette smoking and inflammatory bowel disease. *Gastroenterology* 1987; **93:** 316-321.

Continuing education for rural GPs

Rural general practitioners do not have the same opportunities for continuing medical education as their urban colleagues — they may be restricted to reading, self-assessment programmes and occasional guest speakers who visit the district. In Canada, audio-teleconferencing has been used for continuing education sessions in rural hospitals for 10 years now. One scheme operates from Calgary with weekly one-hour conferences transmitted to 43 hospitals (around 20 at each session). Unlike a videotape, two-way interaction with the speaker is possible via telephone links. A 20 minute video presentation by a member of staff at the University of Calgary or an invited speaker is followed by 40 minutes of discussion between the participants and the speaker chaired by a family physician at the university. The success of the scheme is demonstrated by the rising attendance rate and doctors' reports of changes in practice as a result of the teleconferences.

Source: McDowell CA, Challis EB, Lockyer JM, *et al.* Teleconferencing CME programs to rural physicians: the University of Calgary teleconference program. *Can Fam Physician* 1987; **33:** 1705-1708.

Living with psychiatric patients

A study of 221 Canadian psychotic patients discharged from hospital to the community considers the association between the level of chronic strain on the families and the degree of psychological distress among the family members. Correlates of mental health in family or carers differed according to whether the patient was schizophrenic or suffering from some 'other psychosis' but the psychological cost to some families of having the patient at home was considerable.

The enormous complexity and multivariate nature of this work may be daunting to readers but the conclusions are important to general practitioners. The only variable which was significantly correlated with good mental health in family members of both psychotic groups was 'mastery' — that is, the degree of personal confidence an individual has in his or her ability to help themselves and to manage the outcome of expected or unexpected circumstances. 'Social support' seemed to be most relevant to the mental health of family members when the psychotic person was non-schizophrenic. A modest yet clear relationship existed between the degree of distress in family members and the length of time the schizophrenic patient had been living at home: this was particularly true for those with low mastery scores.

The cross-sectional nature of this work means that it can only provide causal inferences and intervention studies are now needed to assess whether family members can be helped to achieve greater 'mastery' and 'social support'.

Source: Noh S, Turner RJ. Living with psychiatric patients: implications for the mental health of family members. *Soc Sci Med* 1987; **25:** 263-271.