

signs. We are thus carrying out radioimmune western blot analysis of serum from the same infected children collected at different times after birth to determine a possible diagnostic or prognostic value to the presence or change in titre of IgA or IgM antibodies to different HIV-1 antigens in the course of the syndrome.

Bearing in mind that the number of infected children tested must be increased to provide greater statistical significance, we believe that this simple, sensitive, and specific method can be fruitfully applied on a large scale basis for serological diagnosis of congenital HIV-1 infections in neonates born to seropositive mothers.

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Endoscopy facilities in general practice

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The range of investigative aids used by general practitioners has expanded considerably in recent years, though little is known of their availability in practices or the extent to which they are used.^{1,2} I surveyed the availability and use of two such aids, the proctoscope and the sigmoidoscope, in general practices in the Northern region of England. The survey also asked about the potential effects of the new general practitioner contract and fundholding proposals on the use of these instruments.

Subjects, method, and results

A questionnaire was mailed to all 403 practices in the Northern region of England in the summer of 1989 with a reminder six weeks later. A total of 326 practices (81%) replied, representing 1144 family doctors.

In all, 234 (72%) practices had a proctoscope,

though the proportion was lowest for three person practices and highest for those with six or more partners. The proctoscope was used by all the partners in 182 (78%) practices and by no partners in 11 (5%) practices.

Only 13 (4%) of the responding practices offered rigid sigmoidoscopy as a surgery procedure. The proportion for practices with >9000 patients was higher (11%). In three practices more than one partner performed this procedure. No practice offered flexible sigmoidoscopy as a surgery procedure.

Open access to hospital gastrointestinal endoscopy services did not influence the availability of either proctoscopy or rigid sigmoidoscopy in the practices surveyed. At least one partner in 31 (10%) practices had relevant training in these procedures. Most common was surgical experience to registrar level or the FRCS, followed by practical experience of endoscopy as a clinical assistant.

Opinions in favour of the use of these diagnostic aids in family practice were expressed by 134 (41%) responding practices, the most common being general approval or that their use should be encouraged (66). Others were in favour provided appropriate training was available (32) or if the skills already existed in the practice (36). Opinions against their use in primary care were expressed by 144 (44%) practices, the most common being that they were not appropriate procedures for primary care (35), or were a specialist procedure (28). Others expressed concern that standards would be difficult to maintain (35) or that time was not available for these procedures (20). No opinion was expressed by 48 (15%) practices.

Forty three practices expressed views on the likely effect of the new general practitioner contract and proposals for fundholding. Positive responses came mainly from larger practices whose interest lay in the potential for saving money as fundholders or for increased income through payments for minor surgical

Availability of proctoscopes and sigmoidoscopes in 326 general practices in Northern region

No of partners in practice	No of practices	No (%) owning proctoscope	No (%) owning sigmoidoscope	No (%) of practices in which one partner had further training
1	52	37 (71)	1 (<1)	3 (<1)
2	61	44 (72)	4 (1)	4 (1)
3	72	44 (61)	1 (<1)	6 (2)
4	52	37 (71)	2 (<1)	5 (2)
5	37	28 (76)	1 (<1)	4 (1)
≥6	52	44 (85)	8 (15)	9 (3)
Total	326	234 (72)	13 (4)	31 (10)

procedures. Negative comments principally cited time constraints with the new contract or expressed concern that practices might embark on these procedures with insufficient training in an attempt to save money.

Comment

Three out of 10 general practices did not possess a proctoscope, and of those that did, in only three quarters did all the partners use it. The reasons for this are unknown but may include a dislike of the procedure or lack of confidence in the interpretation of findings. The factors that deter doctors from doing a rectal examination—patient's reluctance, lack of time, or an expectation that the examination will be repeated³—may also apply to proctoscopy.

Only 4% of all practices possessed a sigmoidoscope, although this proportion rose to 11% in practices with

>9000 patients. Larger practices were looking favourably at the use of this instrument in primary care in response to NHS reforms.

Finally, there was an expressed need for training in these procedures, though most existing users of sigmoidoscopy in this study had received appropriate training.

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Oesophageal cancer and distilleries in Scotland

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The incidence of oesophageal cancer in men is higher in Scotland than elsewhere in Europe, excepting only parts of France and Switzerland.¹ Within Scotland some of the highest rates are in the main whisky distilling areas,² and the hospital discharge rate for the disease in the period 1975-83 has been reported as being particularly high among residents of Speyside, where there are many distilleries.³ Hospital discharge diagnoses are often provisional and may include readmissions. We investigated mortality from oesophagus cancer in the main whisky distillery areas of Scotland.

Methods and results

An area of northern Scotland was defined that included 86 of the country's 103 malt distilleries, comprising: Highland and Grampian regions (except Aberdeen, which has a large population but no distillery), the Argyll and Bute district of Strathclyde region, and the island areas of Orkney, Shetland, and Western Isles. The 203 relevant postcode sectors were then ranked by density of distilleries per 1000 total population. By accumulating the populations of the sectors ordered in this way, sectors could be grouped to represent different proportions of the study area's population.

Details of deaths from oesophageal cancer by postcode sector in the period 1976-85 were provided by the

registrar general's office. Observed numbers were compared with those expected, calculated by applying Scottish age and sex specific mortality to the corresponding populations obtained from the small area statistics of the 1981 census.

From a ranking of postcode sectors in descending order of distilleries per 1000 population, heavy exposure groups were arbitrarily defined as those containing the highest 1%, the remainder of the highest 5%, and the remainder of the highest 10% of the study population. In men (but not women) there was a significant trend⁴ ($p < 0.05$) of deaths from oesophageal cancer with increasing prevalence of distilleries (table). The increase was greatest (threefold) in the 1% of the study population in the area with the greatest prevalence of distilleries—eight postcode sectors in Speyside (in the districts of Moray and of Badenoch and Strathspey) and Islay (in Argyll and Bute district). Five of the 12 affected men in the highest 1% ("exposure") groups were connected with the distillery trade (four distillery workers and one customs and excise officer). When such workers were excluded, neither the excess in the "highest" 1% (7 observed, 3.97 expected; $p = 0.20$), nor the trend across the categories was significant.

Comment

We confirm a high incidence of oesophageal cancer in Speyside, as implied by the observation that prompted this study.³ This area, together with the island of Islay, represents the area of Scotland with most distilleries, and here a significant threefold increase of deaths from oesophageal cancer was found. This was mainly due to cases in men whose work was connected with whisky distilling. There was no corresponding excess in women; also, few women work in distilleries. A non-significant excess among other men in the same areas might have been due to chance, to previous employment in distilleries, or simply to the popularity of a local product. The industry allows for the "disappearance" of a small proportion of its production, but we have no relevant data on theft of whisky from distilleries, though there is extensive lore about this in Scotland. A relation between oesophageal cancer and alcohol consumption, often compounded by smoking, is well known; indeed, an excess associated with alcohol related occupations was among the first observations in cancer aetiology. This will, however, affect incidence in the general population only exceptionally, as in the present study, and then only in restricted areas.

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Ratios of observed to expected (O/E) deaths from oesophageal cancer (ages 0-84) in northern Scotland in relation to prevalence of distilleries, 1976-85

Section of population	No of distilleries/ 1000 population (range)	Men		Women		Men (excluding distillery workers)†	
		O/E ratio	No observed	O/E ratio	No observed	O/E ratio	No observed
Top 1%	4.40 (3.30 to 9.52)	3.02	(12)	1.32	(3)	1.76	(7)
Remainder of top 5%	0.96 (0.69 to 3.29)	1.21	(20)	0.87	(9)	0.96	(16)
Remainder of top 10%	0.61 (0.31 to 0.68)	0.87	(12)	1.35	(13)	0.75	(10)
Remaining 90%	0.03 (0 to 0.30)	1.05	(308)	0.96	(195)	1.05	
Total	0.15 (0 to 9.52)	1.07	(352)	0.98	(220)		
p Value for heterogeneity		0.016*		0.65		0.38	
p Value for trend		0.014*		0.33		0.37	

* $p < 0.05$.

†Including inland customs and excise officers; causes of death were ascertained by examining death certificates. O/E ratios here are conservative as the numbers of distillery workers in the general population have been ignored. If populations are adjusted, even in the highest 1% the O/E ratio becomes 1.96 ($p = 0.10$).