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 //

I W Kemp, K Clarke, L J Kinlen

Department of Public Health Sciences,
(University of Edinburgh Medical School, Edinburgh) EH8 9AJ
I W Kemp, honorary senior lecturer

Cancer Research Campaign Epidemiology Group, Department of Public Health and Primary Care, University of Oxford, Radcliffe Infirmary, Oxford OX2 6HE
K Clarke, honorary research associate
L J Kinlen, director

Correspondence to:
Dr Kemp.

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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.

We thank Dr George Innes for information about oeso-

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 ($p=0.10$).

phageal cancer in Grampian regions and Dr Calum Muir for reading the manuscript. The work was carried out in the CRC Cancer Epidemiology Unit, University of Edinburgh. IWK holds an honorary research fellowship with the Scottish Office Home and Health Department.

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Unnecessary hospitalisation in a psychiatric rehabilitation unit

Peter H Dick, Iain K Crombie, Tessa Durham, Callum McFee, Mary Primrose, Susan Mitchell

Dundee Psychiatric Rehabilitation Service, Royal Liff Hospital, Dundee DD2 5NF
Peter H Dick, consultant psychiatrist
Tessa Durham, occupational therapist
Callum McFee, charge nurse
Mary Primrose, social worker
Susan Mitchell, senior registrar

Department of Epidemiology and Public Health, University of Dundee, Ninewells Hospital and Medical School, Dundee DD1 9SY
Iain K Crombie, senior lecturer

Correspondence to: Dr Dick.

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Recent Scottish studies have claimed that 38% of "new chronic" inpatients and 32% of "old long stay" patients did not require inpatient care.^{1,2} We looked at a third group—admissions to a rehabilitation unit—to identify ways to reduce inpatient stay and to estimate the potential savings in inpatient time that could be achieved. The unit cares predominantly for patients with acute psychosis transferred from admission wards and patients with chronic psychosis admitted directly from the community.³

Patients, methods, and results

All admissions to the psychiatric rehabilitation unit from July 1984 to July 1986 were included in the study. When the multidisciplinary rehabilitation team thought that a patient was ready for discharge or required transfer they decided on required accommodation. Accommodation was categorised by level of staffing into (in ascending order) low staffed housing, high staffed housing, hostel (rehabilitation, long stay or residential home for the elderly), or hospital ward (acute or long stay). When the required accommodation was not available the patient was offered the option of early discharge with the best support we could arrange. The Morningside rehabilitation status schedule⁴ was completed when the patient was ready for discharge. Follow up was until discharge or for one year, whichever was earlier.

Of the 102 admissions to the unit, 63 were men, 71 were under 55, and 73 were suffering from schizophrenia or paranoid psychosis; their illnesses were long standing and severe. Mean ratings on the Morningside rehabilitation status schedule at discharge or transfer were dependency 6.1, inactivity 4.8, isolation 4.7, and current symptoms 4.6.

Discharge was delayed in 48 of the 102 admissions, with 50% of the total time in the unit being unnecessary. Mean duration of delay and total delay for each

category of required accommodation at discharge are shown in the table. Delays were greatest for rehabilitation hostel, residential home for the elderly, and high staffed housing. The commonest causes of delay were non-existence of the required resource (18 patients), lack of places in an existing resource (13), and underuse of an existing resource (12), with only five patients refusing an available resource.

Fifty one of the 63 patients requiring supported accommodation at discharge were not discharged to the required option. Most of these (35) went to an inadequate level of support. The remaining patients went to relatives rather than staffed housing (seven), to the rehabilitation hostel rather than long stay hostel (eight), or to high staffed housing (one).

Comment

In an earlier study we concluded that admissions to the rehabilitation ward were appropriate.³ The conclusion of the present study into duration of admissions is quite different—the audit identified considerable potential savings in the hospital stays of this group of patients. The patients in our study were predominantly community based and, unlike long stay patients, often had personal knowledge of the available options. Those who remained inappropriately hospitalised were there of their own informed choice.

In the government's view, "the successful implementation of community care depends crucially on the availability of, and ease of access to, adequate and appropriate services in the community."⁵ Our study highlighted major problems in both access and availability. Even after unnecessarily prolonged hospitalisation most of our patients were discharged to inappropriate accommodation.

The Dundee mental health unit, providing a comprehensive psychiatric service to its compact city catchment, is similar to many around the country and has relatively well developed community supported accommodation by Scottish standards (a rehabilitation hostel and staffed group homes). The extent to which it is possible to draw general conclusions from a single study is limited, but this study does suggest that rehabilitation units elsewhere should review their current practice to determine the extent of unnecessary hospitalisation and inadequately supported discharge. Unless priority is given to ensuring appropriately staffed accommodation on discharge it is unlikely that the cycle of recurrent inappropriately prolonged hospitalisation will be broken.

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Delay in discharge from psychiatric rehabilitation unit by type of accommodation required

Required accommodation at ready for discharge	No of patients		Time spent in unit (weeks)	Mean delay (weeks)	Length of unnecessary inpatient stay (weeks)
	Total	Discharge delayed			
Mainstream:					
Alone	1	1	52	4	4
Accompanied	4	0	49	0	0
Low staffed housing	0	0	0	0	0
High staffed housing	26	11	390	6	156
Rehabilitation hostel	29	15	464	8	232
Long stay hostel	10	7	166	10	100
Residential home for the elderly	8	7	281	28	224
Acute ward	12	2	153	1	12
Long stay ward	6	5	186	23	138
Total	96*	48	1741	9	866

*Assessments when patient was ready for discharge were not completed on six patients who stayed less than one month.