

Hospital admission for acute pancreatitis in the Irish population, 1997–2004: could the increase be due to an increase in alcohol-related pancreatitis?

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ABSTRACT

Objective To investigate trends in the incidence of acute pancreatitis by examining emergency admissions to acute public hospitals over an 8-year period; to compare trends for alcohol-related pancreatitis admissions with biliary tract-related admissions and to profile the patients admitted with an acute pancreatitis diagnosis.

Methods All in-patient emergency admissions for which an acute pancreatitis diagnosis (ICD-9-CM Code 577.0) was recorded as principal diagnosis were identified for years 1997–2004 inclusive. Alcohol-related acute pancreatitis admissions (i.e. had alcohol misuse recorded as co-morbidity) were identified using ICD-9-CM-codes 303 and 305. Biliary tract disease-related admissions (i.e. had biliary tract disease recorded as co-morbidity) were identified using ICD-9-CM codes 574.0–576.0 inclusive. Pearson's χ^2 -test was used to compare proportions in groups of categorical data and χ^2 -tests for trend were used to identify linear trends.

Results There were 6291 emergency admissions with a principal diagnosis of acute pancreatitis during the 8 year study period, with 622 admissions in 1997 compared to 959 admissions in 2004, an increase of 54.1%. Age standardized rates rose significantly from 17.5 per 100 000 population in 1997 to 23.6 per 100 000 in 2004, ($P < 0.01$ for linear trend). There were 1205 admissions with alcohol misuse recorded as a co-morbidity increasing from 13.9% (87/622) of acute pancreatitis admissions in 1997 to 23.2% (223/959) in 2004. This increase was significantly greater than the increase observed for biliary tract disease-related admissions, 19.6% (122/622) in 1997 to 23.5% (225/959) in 2004. Rates for total acute pancreatitis admissions were highest in those aged 70 years and over; the majority (3563, 56.6%) of the admissions were male with a mean age of 51.1 years (SD 19.9); the mean age for male admissions was significantly younger than for female admissions (49.1 versus 53.6 years, $P < 0.001$). However, for alcohol-related admissions, rates were highest in those aged 30–49 years and patients admitted with alcohol misuse recorded were significantly younger than those who did not have alcohol misuse recorded (42.0 versus 53.2 years, $P < 0.001$). Median length of stay was 7 days.

Conclusions Hospital admissions for acute pancreatitis rose from 17.5 per 100 000 population in 1997 to 23.6 per 100 000 in 2004. The proportion of admissions that had alcohol misuse recorded as a co-morbidity rose more markedly than those with biliary tract disease and the rise was more pronounced in younger age groups. The increasing trend in alcohol-related acute pancreatitis parallels the rise in per capita alcohol consumption. Given the continuing rise in binge drinking, particularly among young people, this is a cause for concern.

Keywords acute pancreatitis, alcohol misuse, emergency in-patient hospital admissions, Ireland

Introduction

Acute pancreatitis has become increasingly common in Western countries in recent years.^{1–4} Recent national figures for the UK showed that EU age-standardized admission rates for acute pancreatitis increased from 14.5 per 100 000 population in 1989/90 to 20.7 per 100 000 population in 1999/2000.⁴ Crude admission rates in Scotland increased from 25.8 per 100 000 population in 1985 to 41.9 per 100 000 population in 1995.⁵

Alcohol misuse is one of the main causes of acute pancreatitis; it is believed to cause 30–35% of all cases, with biliary tract disease (including gallstones) being associated

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with 40–45% of cases, 10–15% due to other causes (including drug abuse, hyperlipidemia) and 10% idiopathic.⁶

An EU-wide study reported a positive association between pancreatitis death rates and per capita alcohol consumption in 14 Western countries, with the magnitude of the association fairly consistent across countries.⁷ Furthermore, an Australian study showed that acute pancreatitis morbidity rates for Western Australian men aged 20–39 years were related to per adult alcohol consumption during the study period 1971–84.⁸ The most recent figures for Scotland indicate a (crude) incidence of 41.9 per 100 000 population in 1995.⁵ It has been hypothesized that the high incidence in Scotland reflects the higher prevalence of alcohol misuse in Scotland compared to the rest of the UK.

There has been a substantial increase in alcohol consumption in the Republic of Ireland during the past decade. A report by the Task Force on alcohol in Ireland showed that Ireland's alcohol consumption peaked in 2001 at 14.4 l of pure alcohol per adult per annum aged 15 years and over⁹ and although consumption decreased slightly to 13.6 l in 2005, alcohol consumption in Ireland remains the second highest in the EU, after Luxembourg.¹⁰ This high alcohol consumption has had a detrimental impact on health leading to increased accidents and injuries, particularly road traffic accidents¹¹ and A&E attendances.¹² Between 1997 and 2001, there was a significant increase in the number and rate of emergency in-patient admissions that had an alcohol intoxication diagnosis, with alcohol intoxication accounting for >2% (~800) of emergency in-patient admissions.¹³

The effect of the recent large increase in per capita alcohol consumption on acute pancreatitis incidence in Ireland has not been documented. Therefore, the aims of this study are to investigate trends in the incidence of acute pancreatitis by examining emergency admissions to acute public hospitals over an 8-year period; to compare trends for alcohol-related pancreatitis admissions with biliary tract-related admissions and to profile the patients admitted with an acute pancreatitis diagnosis.

Methods

All in-patient emergency admissions to acute public hospitals in the Republic of Ireland between 1997 and 2004 for which an acute pancreatitis diagnosis (ICD-9-CM Code 577.0) was recorded as principal diagnosis were extracted from the Hospital In-Patient Enquiry (HIPE) system. HIPE is a computer-based health information system that collects data on discharges from acute public hospitals in Ireland.¹⁴ Therefore, this study is based on in-patient emergency admissions with a hospital discharge record. Admissions with alcohol-related

acute pancreatitis (i.e. had alcohol misuse recorded as a co-morbidity) were identified using International Classification of Disease, version 9, ICD-9-CM-codes 303 and 305, and admissions with biliary tract disease-related acute pancreatitis (i.e. had biliary tract disease recorded as a co-morbidity) were identified using ICD-9-CM codes 574.0–576.0 inclusive. Acute pancreatitis admissions with no mention of either alcohol or biliary tract disease were grouped together as 'other secondary diagnosis'. In order to estimate incidence, only one admission per patient per year on a first occurrence basis was included. However, some repeat admissions may have been included if a patient was admitted to a different hospital in a given year and therefore given a different medical record number.

To calculate incidence rates, the number of admissions to hospital for acute pancreatitis was used as numerator and the total resident population in Ireland was used as denominator. Total resident population data were extracted from the Public Health Information System that includes censal and inter-censal population data from the Central Statistics Office of Ireland.¹⁵ Rates were standardized to the EU standard population (direct method). Data were analysed using JMP statistical package.¹⁶ Crude and age-adjusted rates and rate differences were calculated using StatsDirect.¹⁷ *t*-tests were used to compare means. Pearson's χ^2 -test was used to compare proportions in groups of categorical data, χ^2 -test for trend was used to identify linear trend and slopes were compared using Stata.¹⁸

Results

Number of acute pancreatitis emergency admissions by year

The number of hospital admissions for acute pancreatitis increased by 50% over the study period from 622 in 1997 to 959 in 2004, with the age standardized rate increasing from 17.5 to 23.6 per 100 000 (χ^2 -test for linear trend, $P < 0.01$) (Table 1). Although there was a rise in the standardized rates for each of the three groups of acute pancreatitis admissions (i.e. acute pancreatitis admissions with alcohol misuse recorded as co-morbidity, with biliary tract disease recorded as co-morbidity and with neither biliary tract disease nor alcohol misuse recorded), a significant linear trend was evident only in the alcohol-related admissions (χ^2 -test for trend, $P < 0.01$). The increase in the alcohol-related acute pancreatitis was significantly greater than the linear increase in biliary tract-related acute pancreatitis (test for trend, $P = 0.015$, Fig. 1).

In 1997, there were 87 admissions for alcohol-related acute pancreatitis, constituting 14% of the 622 acute

Table 1 Number and age standardised rate per 100,000 of emergency admissions to hospital for acute pancreatitis by year of admission, 1997–2004

Year of admission	No. of acute pancreatitis emergency admissions				Age standardised ^ rate per 100,000 of acute pancreatitis emergency admissions			
	All acute pancreatitis emergency admissions	With alcohol recorded	With biliary tract disease recorded	Other (i.e. no alcohol or no biliary tract disease) recorded	All acute pancreatitis emergency admissions	With alcohol recorded	With biliary tract disease recorded	Other (i.e. no alcohol or no biliary tract disease) recorded
1997	622	87	122	417	17.5	2.5	3.6	11.9
1998	738	115	171	458	20.6	3.3	4.9	12.9
1999	732	137	154	445	20.3	3.7	4.3	12.3
2000	728	131	182	422	19.6	3.5	5.1	11.5
2001	769	141	160	472	20.3	3.8	4.3	12.6
2002	857	178	181	505	21.8	4.6	4.7	13.1
2003	886	193	214	492	22.4	4.9	5.6	12.7
2004	959	223	225	518	23.6	5.4	5.7	13.0
TOTAL*	6,291	1,205	1,409	3,729				

*52 admissions had both alcohol AND biliary tract disease recorded as co-diagnoses.

^standardised to EU population.

pancreatitis admissions in that year. By 2004, this number had almost trebled to 223, comprising 23% of the 959 acute pancreatitis admissions. In 1997, the number and rate of alcohol-related acute pancreatitis admissions were considerably lower than for biliary tract-related admissions. However, by 2004 the number, proportion and rate of alcohol-related

acute pancreatitis admissions had caught up with the biliary tract-related admissions.

Admission trends by gender

In men, the age standardized rates for alcohol-related acute pancreatitis admissions were higher than the rates for biliary

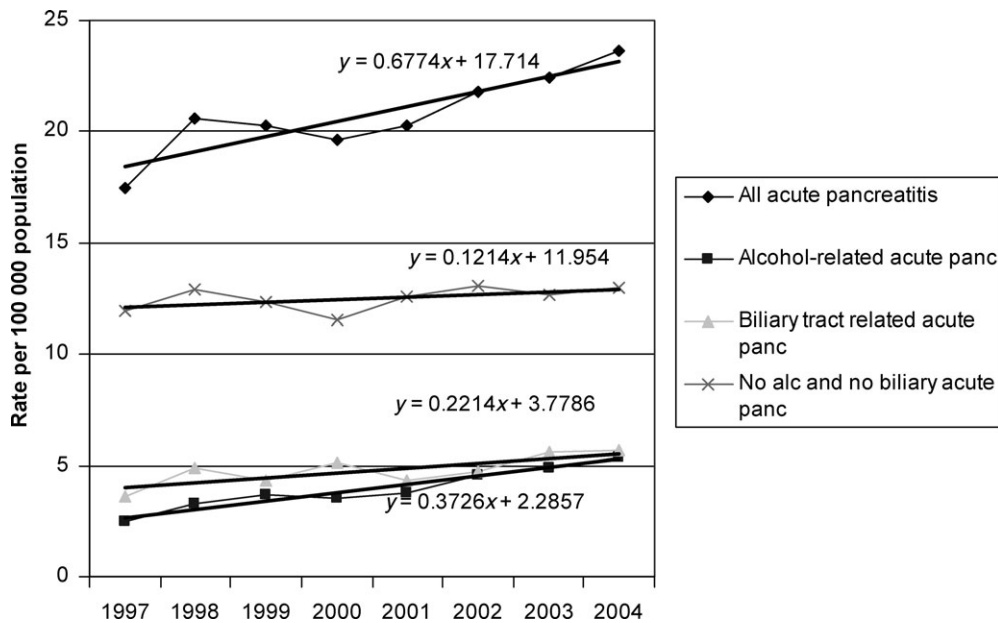


Fig. 1 Age standardized rate for emergency admissions with a primary diagnosis of acute pancreatitis by year.

tract-related admissions (Table 2). The alcohol-related admissions doubled over the study period (χ^2 -test for trend, $P = 0.01$) whereas the biliary tract-related admissions increased at a slower rate (χ^2 -test for trend, $P = 0.03$) and by 2004 the alcohol-related age adjusted rates were more than double those of the biliary tract-related admissions (Table 2). In women, age adjusted rates for biliary tract-related acute pancreatitis admissions were considerably higher than the alcohol-related rates (Table 3). The biliary tract-related rates increased slightly between 1997 and 2004 (χ^2 -test for trend, $P = 0.06$) but there was an almost 3-fold increase in alcohol-related rates since 2001, lessening the gap between the two rates.

Admission trends by gender and age

In men, alcohol-related acute pancreatitis admission rates were highest in those aged 30–49 years (Table 2). There has been a steady increase in admission rates for those aged 30–39 years since 1997 and 2000, an almost 3-fold increase in the rate for 20–29 year olds (χ^2 -test for trend, $P < 0.01$). This contrasts with biliary tract-related acute pancreatitis admission rates, which increased steadily with age and were highest in those aged 70 years and over (Table 2).

Numbers of female admissions by age and diagnostic group were small. Nevertheless, patterns similar to those in male admissions were observed. Alcohol-related acute pancreatitis admission rates in women were highest in the younger adults

Table 2 Age specific and age standardised hospital admission rates for acute pancreatitis per 100,000 population 1997–2004 for **males**

MALES	1997		1998		1999		2000		2001		2002		2003		2004	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
All ACUTE PANCREATITIS ADMS																
Age 0–19	9	1.47	13	2.14	12	1.99	8	1.34	12	2.03	18	3.07	11	1.88	9	1.53
Age 20–29	33	11.64	43	14.88	51	17.34	45	14.83	60	19.24	71	22.09	58	17.67	80	23.85
Age 30–39	60	23.20	78	29.59	85	31.58	80	29.01	82	28.73	89	29.97	78	25.7	106	34.1
Age 40–49	61	25.61	82	33.92	68	27.74	85	34.06	97	37.97	115	44.18	120	45.33	119	44.13
Age 50–59	48	26.66	56	29.78	60	30.67	64	31.63	78	37.23	81	37.42	100	44.82	87	38.1
Age 60–69	59	45.00	57	42.82	60	44.28	52	37.65	60	42.88	62	43.40	74	50.44	63	41.72
Age 70+	60	50.97	70	59.07	78	65.76	66	55.00	45	36.85	80	64.58	81	63.88	84	64.71
TOTAL	330	19.56	399	22.32	414	22.38	400	21.43	434	24.32	516	26.17	522	26.86	548	26.36
ALCOHOL-RELATED																
Age 0–19	0	0	1	0.16	5	0.83	0	0	2	0.34	2	0.34	0	0.00	0	0.00
Age 20–29	11	3.88	10	3.46	16	5.44	12	3.95	22	6.84	22	6.84	23	7.01	38	11.33
Age 30–39	30	11.60	34	12.89	46	17.09	43	15.59	29	9.76	39	13.13	40	13.17	46	14.80
Age 40–49	15	6.29	30	12.41	28	11.42	32	12.82	40	15.36	45	17.82	50	18.88	50	18.54
Age 50–59	8	4.44	8	4.25	10	5.11	13	6.42	19	8.77	24	11.08	29	12.99	21	9.19
Age 60–69	7	5.33	6	4.50	8	5.90	3	2.17	9	6.30	10	7.00	9	6.13	9	5.96
Age 70+	2	1.69	3	2.53	5	4.21	4	3.33	2	1.61	3	2.42	4	3.15	4	3.08
TOTAL	73	4.48	92	5.35	118	6.60	107	5.71	123	6.72	145	7.87	155	8.14	168	8.40
BILIARY TRACT -RELATED																
Age 0–19	1	0/16	0	0	0	0	0	1.00	0	0	0	0.00	0	0	0	0
Age 20–29	2	0.70	1	0.34	0	0	1	0.32	1	0.32	3	0.93	0	0	1	0.29
Age 30–39	1	0.38	3	1.13	3	1.11	6	2.17	3	1.05	8	2.69	7	2.30	5	1.60
Age 40–49	5	2.09	7	2.89	6	2.44	10	4.00	6	2.34	7	2.68	20	7.55	11	4.08
Age 50–59	8	4.44	12	6.38	10	5.11	11	5.43	14	6.68	9	4.15	18	8.06	18	7.88
Age 60–69	13	9.91	13	9.76	11	8.11	16	11.58	15	10.72	22	15.40	24	16.35	18	11.92
Age 70+	13	11.04	21	17.72	23	19.39	23	19.16	14	11.46	27	21.79	29	22.87	36	27.73
TOTAL	43	2.65	57	3.00	53	2.46	67	3.47	53	3.10	76	3.88	98	5.04	89	3.77

Table 3 Age specific and age standardised hospital admission rates for acute pancreatitis per 100,000 population 1997–2004 for **females**

FEMALES	1997		1998		1999		2000		2001		2002		2003		2004	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
All ACUTE PANCREATITIS																
ADMS																
Age 0–19	14	2.41	15	2.61	8	1.40	15	2.66	10	1.78	15	2.69	11	1.97	10	1.79
Age 20–29	41	14.72	24	8.49	27	9.32	39	13.09	40	13.04	41	12.82	43	13.15	47	14.12
Age 30–39	37	13.84	49	18.05	42	15.20	51	18.05	53	18.38	55	18.41	50	16.44	55	17.74
Age 40–49	39	16.42	44	18.15	49	19.97	42	16.79	56	21.86	43	16.45	56	21.00	76	27.90
Age 50–59	38	21.77	45	24.67	44	23.14	50	25.39	45	22.00	52	24.56	59	27.01	59	26.37
Age 60–69	38	27.81	64	46.54	45	32.39	56	39.74	49	34.36	48	33.13	47	31.54	71	46.40
Age 70+	85	49.47	98	56.38	103	59.02	75	42.75	82	46.32	87	48.69	98	54.20	93	50.76
TOTAL	292	15.79	339	18.35	318	16.69	330	17.35	335	17.17	341	17.04	364	17.80	411	20.04
ALCOHOL-RELATED																
Age 0–19	0	0	0	0	0	0	0	0	1	0.17	0	0	0	0	0	0
Age 20–29	1	0.35	1	0.35	1	0.34	1	0.33	1	0.32	2	0.62	7	2.14	12	3.60
Age 30–39	1	0.37	6	2.21	7	2.53	8	2.83	4	1.38	5	1.67	8	2.63	12	3.87
Age 40–49	4	1.68	8	3.30	4	1.63	7	2.79	7	2.73	14	5.35	16	6.00	19	6.97
Age 50–59	5	2.86	3	1.65	4	2.10	5	2.53	2	0.97	7	3.30	4	1.83	8	3.57
Age 60–69	2	1.46	3	2.18	0	0	2	1.41	2	1.40	4	2.76	1	0.67	4	2.61
Age 70+	1	0.58	2	1.15	3	1.71	1	0.57	1	0.56	1	0.55	2	1.10	0	0
TOTAL	14	0.88	23	1.31	19	1.02	24	1.33	18	0.96	33	1.78	38	1.88	55	2.72
BILIARY TRACT -RELATED																
Age 0–19	2	0.34	2	0.34	0	0	1	0.17	1	0.17	4	0.71	4	0.71	1	0.17
Age 20–29	10	3.59	5	1.76	8	2.76	17	5.70	19	6.19	11	3.44	14	4.28	12	3.60
Age 30–39	8	2.99	19	7.00	12	4.34	16	5.67	19	6.59	20	6.69	14	4.60	19	6.13
Age 40–49	11	4.63	11	4.53	17	6.93	12	4.79	12	4.68	8	3.06	10	3.75	20	7.34
Age 50–59	11	6.30	17	9.32	13	6.83	19	9.64	17	8.31	14	6.61	14	6.41	10	8.49
Age 60–69	15	10.98	26	18.90	16	11.51	31	22.00	12	8.41	14	9.66	18	12.08	23	15.03
Age 70+	22	12.80	34	19.56	35	20.05	19	10.83	27	15.25	34	19.03	42	23.23	42	22.92
TOTAL	79	4.37	114	6.24	101	5.29	115	6.30	107	5.40	105	5.11	116	5.52	136	6.50

aged 30–49 years (Table 3). Rates in 20–29 year old women were steady between 1997 and 2001 but rose 10-fold between 2001 and 2004, albeit from a low base. As in male admissions, female biliary tract-related admission rates increased with age and were highest in those aged 70+ years.

Age and gender of patients admitted with acute pancreatitis

The mean age of the acute pancreatitis admissions was 51.1 years (SD 19.9). Majority (3563, 56.6%) were male. The mean age of male patients was significantly lower than that of the female patients (49.1 versus 53.6 years, *T* test 9.39, *P* < 0.001). The average age of the patients with alcohol-related acute pancreatitis was significantly lower than

for those with the non alcohol-related acute pancreatitis (42.0 versus 53.2 years, *T* test 18.6, *P* < 0.0001).

Hospital profile of acute pancreatitis emergency admissions

The median length of stay was 7 days (range 1–383 days) with a total of 66 319 bed days occupied over the 8 year study period. Majority of the admissions (5542, 88.0%) resulted in the patients being discharged home, 232 (3.7%) of the patients died in hospital and the remainder (517, 8.3%) were discharged elsewhere (e.g., nursing home, transfer to other hospital etc). Data on use of intensive care unit (ICU) bed days were available for 2004 only: 948 ICU bed days were occupied, representing 10.2% (948/9318) of all acute

pancreatitis emergency admission bed days in that year. There is no reason to expect that this proportion would differ much in the other years.

Discussion

Main findings of this study

Rates of emergency admission for acute pancreatitis increased significantly in the Republic of Ireland over the 8 years from 1997 to 2004. The EU standardized admission rate in 2000 was 19.6 per 100 000, slightly lower than the UK rate of 20.7 per 100 000 population in the same year,⁴ but rose to 23.6 per 100 000 in 2004.

The age specific rates confirmed that this is primarily a disease of the elderly except in patients admitted with acute pancreatitis with an alcohol misuse diagnosis also recorded; for these patients admission rates were highest in the young to middle age groups (30–49 years) in both men and women. Although increased rates were observed over the study period for all three co-morbidity groups, the increase in alcohol-related acute pancreatitis admissions was significantly higher, with the increase over time being greatest in the middle and younger age groups (30–49 years) and rising rapidly in the latter part of the study period in the 20–29 years age group (10-fold increase in female rates since 2001).

The study has also shown that the burden of patient admissions for alcohol-related acute pancreatitis is considerable, with a median length of hospital stay of 7 days with an estimated 10% of these bed days in ICU.

What was already known about alcohol and acute pancreatitis

There has been a substantial rise in per capita alcohol consumption levels in the Republic of Ireland over the last decade that has been linked to various adverse health effects. During the period 1992–2002, mortality due to alcohol-specific chronic and acute conditions increased by 61 and 90%, respectively. A total of 14 223 people died in Ireland from the five main alcohol-related causes of death during the decade 1992–2002; these deaths included deaths due to cancers related to alcohol, chronic liver disease and cirrhosis, alcohol-related chronic conditions (e.g. alcohol dependency, alcohol abuse and alcohol psychosis), alcohol-related acute conditions (e.g. alcohol poisoning, toxic effect of alcohol) and suicide. The number of deaths in a single year was highest in 2001 (1542 deaths) which is the year that per capita alcohol consumption peaked in Ireland.¹⁹

Given that the alcohol abstention rate has not changed,²⁰ drinkers are drinking more alcohol on occasion and the

proportion of people drinking at harmful levels is likely to have increased quite significantly over the study period.²¹ This increase is under-represented by the overall per capita trends. A survey by Ramstedt and Hope²⁰ showed that the highest self-reported alcohol consumption was among 18–29 year olds in Ireland and the prevalence of binge drinking was very high among younger age groups. Binge drinking is particularly associated with acute pancreatitis.⁶

The effect of these recent trends in alcohol consumption on the incidence of acute pancreatitis in Ireland has not been previously documented.

What this study adds

This is the first study in the Republic of Ireland to examine emergency hospital admissions for acute pancreatitis as a proxy for acute pancreatitis incidence. Neither the rise in population nor change in age structure of the population explains this increase. The rise is also unlikely to be due to improved case ascertainment as diagnostic procedures for the diagnosis of acute pancreatitis changed little over the study period. As almost all people who receive a diagnosis of acute pancreatitis will have been admitted to hospital, our admission rates are likely to be a good approximation of the diagnosed incidence.

Rates rose rapidly in the latter part of the study period in the 20–29 year age group, especially in young women. The increase in alcohol-related acute pancreatitis, especially in young adults, thus parallels the recent increases in alcohol consumption and increased binge drinking in Ireland, particularly in young people. Given evidence of similar patterns from a number of other countries,^{7,8} this is unlikely to be a coincidence and a causal link should be considered.

This study also indicates a substantial economic burden from lengthy hospital stays attributable to alcohol-related acute pancreatitis admissions.

Limitations of the study

The main limitation is that our findings are based on routinely recorded data that limits data accuracy and completeness and restricts analysis to the data present in the database. Accuracy and completeness of the admissions database (HIPE) improved considerably from 1997 and coverage increased to 95%.¹⁴ We therefore dated our retrospective review from 1997; 2004 was the most recent year with complete data.

As there were no clinical or pathological data available and data were based on diagnostic coding from the medical records, it was not possible to fully ascertain the role of alcohol or biliary tract disease in the epidemiology of the disease. Recording of alcohol may be incomplete and vary

over time. A review of 200 medical records from one acute hospital in 1997 and 2000 showed that recording and coding of acute alcohol diagnoses by the HIPE coders did not increase over time, indicating that improved recording was unlikely to be the reason for the increase in alcohol-related admissions.¹³ Nevertheless, the proportion of admissions with alcohol (19%) or biliary tract disease (22%) recorded was considerably lower than expected based on the aetiology of the disease,⁶ so under-recording is likely, leading to under-estimating the proportions of both alcohol and biliary tract disease-related admissions. Further studies involving review of medical charts are needed to fully ascertain the extent of alcohol misuse on emergency admissions for acute pancreatitis. The fact that chart reviews are required to confirm our findings highlights the need for improved concurrent health information systems to support strategic planning of health and other public services and programmes.

Conclusions

Age standardized rates of acute pancreatitis emergency admissions increased in Ireland between 1997 and 2004. The rise in alcohol-related acute pancreatitis, in particular among the younger population, contributed substantially to this increase and parallels the rise in per capita alcohol consumption, in particular the rise in binge drinking in young people. The rapidly rising rate in the latter part of the study period in the 20–29 year age group, especially in young women, is of particular concern with regard to the future health of this group.

Effective policy measures to reduce consumption generally and to tackle the pattern of binge drinking amongst the younger age groups in particular are required. Policies regulating the availability of alcohol through access restrictions, pricing and promotion, as recommended by the Strategic Task Force on Alcohol,¹⁰ are urgently required to reduce the incidence of alcohol-related acute pancreatitis and other adverse health effects among the Irish population.

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