

DRUG-RELATED DEATHS

September 2003

INTRODUCTION

This report looks at all deaths of Doncaster residents where a drug has been recorded amongst the causes of death on the coroner's certificate of death. In some instances it is apparent that the drug or drugs involved were the actual cause of death, whereas in other cases this is unclear. In addition sometimes the death certificate is less specific, naming a class of drug rather than a specific preparation.

This report complements reports on accidents and suicides (both available from the Public Health Intelligence Unit), which each include some of the drug-related deaths discussed here.

All of the data presented in this report were taken from the ONS public health mortality file, a data set supplied monthly to PCTs giving details from the death certificates of all Doncaster residents who have died and any other deaths occurring in Doncaster. The results cover all deaths of Doncaster residents in the seven years, 1995 to 2001. All deaths with any drug related cause were identified, and then those where no drug other than tobacco or alcohol was mentioned were excluded. Hence the report covers deaths involving any other drugs, whether prescribed in health care or obtained illegally.

Michael Geraghty – Research and Information Officer

Paul Fryers – Public Health Specialist

Doncaster Public Health Intelligence Unit

TYPES OF DRUGS

The table below lists the number of deaths where a drug has been mentioned in the causes of death. The drug name given in the second column is precisely as named on the death certificate. The results are grouped into British National Formulary categories and other types of drug, the latter generally regarded as illegal drugs although it is possible for some of these to be legitimately prescribed.

There were 12 cases where more than one drug was mentioned on the death certificate. These have been listed separately in the fourth column of the table, each one appearing twice (under each of the appropriate drugs). For example, there were 28 deaths where co-proxamol was involved, one of which also involved dothiepin. Cases where alcohol and one drug have been mixed have not been counted as mixed for the purpose of this report but have been counted under the drug involved.

Drug Group	Drug	Single drug deaths	Mixed drugs deaths
Anti-arrhythmic drugs	Disopyramide	1	
	Verapamil	1	
Anti-cancer drugs	Chemotherapy	1	
Antidepressant drugs	Amitriptyline	4	
	Dothiepin	10	1 with co-proxamol
	Lofepamine	-	1 with dihydrocodeine
	Phenelzine	1	
	Trazodone	2	
Anti-diabetic drugs	Insulin	2	
Anti-epileptic drugs	Carbamazepine	1	
	Sodium valproate	1	
Hypnotics and anxiolytics	Amylobarbitone	-	1 with dihydrocodeine, 1 with methadone
	Benzodiazepines	1	
	Chloral hydrate	1	
	Seconal	-	1 with morphine
Skeletal muscle relaxants	Carisoprodol	1	
Non-opioid analgesics	Co-codamol	4	
	Co-dydramol	1	
	Co-proxamol	27	1 with dothiepin
	Paracetamol	1	
Opioid analgesics	Diconal	1	
	Dihydrocodeine	2	1 with amylobarbitone, 1 with lofepramine
	Meptazinol	2	
	Methadone	1	1 with amylobarbitone
	Morphine	4	1 with seconal
Other ('illegal') drugs	Amphetamine	1	1 with cocaine
	Butane	1	
	Cocaine	2	1 with amphetamine
	Opioids	5	1 with steroids
	Heroin	25	
	Steroids	-	1 with opioids
Mixed drugs		12	5 stating only 'mixed drugs' and 7 detailed above
Total		116	

The biggest cause of drug-related deaths in Doncaster between 1995 and 2001 was co-proxamol, involved in 24% of deaths. This is discussed further in the section on suicides, below.

The second biggest killer was heroin, involved in 22% of drug-related deaths in Doncaster. Heroin is available to be bought illegally on the street and it is therefore difficult to control the quantity and purity available to addicts. The 'illegal drugs' category accounts for 31% of the total drug-related deaths in Doncaster.

The next largest category is antidepressant drugs, involved in 19 deaths, 16% of the total.

Drug Categories

The following is a brief description of the categories:

Anti-arrhythmic drugs – used to try and restore normal heart rhythm.

Anti-cancer drugs – used to try and stop or slow the progression of cancer.

Antidepressant drugs – used to treat depression.

Anti-diabetic drugs – used to control blood sugar levels.

Anti-epileptic drugs – used to reduce the frequency of fits.

Hypnotics and anxiolytics – used to treat insomnia.

Skeletal muscle relaxants – used to control muscle spasms in patients with neurological disorders.

Non-opioid analgesics – used to treat short-term mild to moderate pain.

Opioid analgesics – used to relieve chronic or moderate to severe pain.

Other 'illegal' drugs – these drugs could possibly have been prescribed, however it is more likely that they have been obtained illegally.

ANALYSIS BY AGE AND SEX

The age and sex breakdown of the drug-related deaths between 1995 and 2001 is given in the table below.

The majority of the deaths are of males, in particular men between 20 and 34, with the peak in the 25-29 age group. For women, although the numbers are smaller, the deaths are more evenly spread over the age groups: after age 40 there have been more female drug-related deaths than in males.

All Drug Related Deaths			
Age	Male	Female	Total
<15	-	-	-
15-19	5	2	7
20-24	10	2	12
25-29	16	6	22
30-34	12	1	13
35-39	7	3	10
40-44	6	8	14
45-49	4	3	7
50-54	2	7	9
55-59	3	5	8
60-64	2	1	3
65-69	-	4	4
70-74	2	1	3
75-79	-	1	1
80-84	2	1	3
85+	-	-	-
Total	71	45	116

Of the 116 deaths, 36 were caused by drugs most likely to have been obtained illegally, 70 were from prescribed drugs (not necessarily prescribed to the person who took them) and 10 were mixed drug deaths.

The table below show the broad age sex breakdown for 'illegal' drug-related deaths. The vast majority of deaths involving 'illegal' drugs have been in young men.

'Illegal' Drug Related Deaths			
Age	Male	Female	Total
<15	-	-	-
15-24	11	2	13
25-34	14	2	16
35+	5	2	7
Total	30	6	36

CORONERS' VERDICTS

The table below shows the types of coroners' verdicts for drug-related deaths. The largest group is suicides, most of which involved 'prescribed' drugs.

Drug Type	Accident	Dependence on Drugs	Non-Dependent Drug Abuse	Open Verdict	Suicide	Other	Total
'Illegal'	5	17	8	-	3	3	36
'Prescribed'	4	1	2	18	53	2	80
Total	9	18	10	18	56	5	116

SUICIDES

In 1998 Doncaster Health Authority introduced a new policy on co-proxamol prescribing following an audit report highlighting the number of suicides involving co-proxamol (Sims, 1998). It is customary to include open verdicts with suicides, as it is believed that the majority probably were deliberately self-inflicted. The table below shows deaths by year for suicides and open verdicts, picking out those caused by co-proxamol, by far the most common single drug involved in suicides. The availability of co-proxamol has been enormously restricted as a result of the Health Authority's policy (Fryers *et al*, 2003). Preliminary data for 2002 have shown only one co-proxamol-related suicide in 2002.

Drug	1995	1996	1997	1998	1999	2000	2001	Total
Co-proxamol	3	5	3	7	5	2	3	28
Other 'prescribed'	9	3	7	8	4	8	4	43
'Illegal'	-	1	1	1	-	-	-	3
Total	12	9	11	16	9	10	7	74

REFERENCES

Fryers PT, Geraghty M, Hall C (2003). Co-proxamol and suicide: Availability of co-proxamol has been successfully reduced in Doncaster. *BMJ*; **327**:287.

<http://bmj.bmjournals.com/cgi/content/full/327/7409/287-b>

Sims A (1998). *Doncaster Suicide Audit*. Doncaster: Doncaster Health Authority.

www.doncasterhealth.co.uk/phiu

**Doncaster Public Health Intelligence Unit
White Rose House
Ten Pound Walk
DONCASTER
DN4 5DJ
UK**

**Tel: 01302 320111
Fax: 01302 768336**