

13 Fibrosing alveolitis results (standard output graphs can be found in Appendix A13)

Summary

Type of variation	Consistent across data sources?	Consistent within data sources?	Comments
Age	Yes	N/A	Peaks in ages 80-85
Sex	Yes	N/A	Male rates 2x > Female rates
Year on year	Partially	N/A	↑1991-1993 in all data sources, then less consistent
Week of year	Partially	N/A	Higher in winter in mortality & HES No seasonal pattern in GPRD
Regional	No	N/A	Wide confidence intervals
Urban-rural	Partially	N/A	No trend in HES & GPRD, Non-significant rural↓ urban↑ trend in mortality
Geographical correlation	Partially (HES + mortality)	N/A	Reasonable correlation in 1994 ($r_s = 0.65$) but weaker in 1991. Numbers of events too small to allow meaningful geographical correlations with GP patient consultations

The following results are considered:

Variations by age and sex
 Seasonality
 Regional and urban rural distribution
 Comparisons across data sources

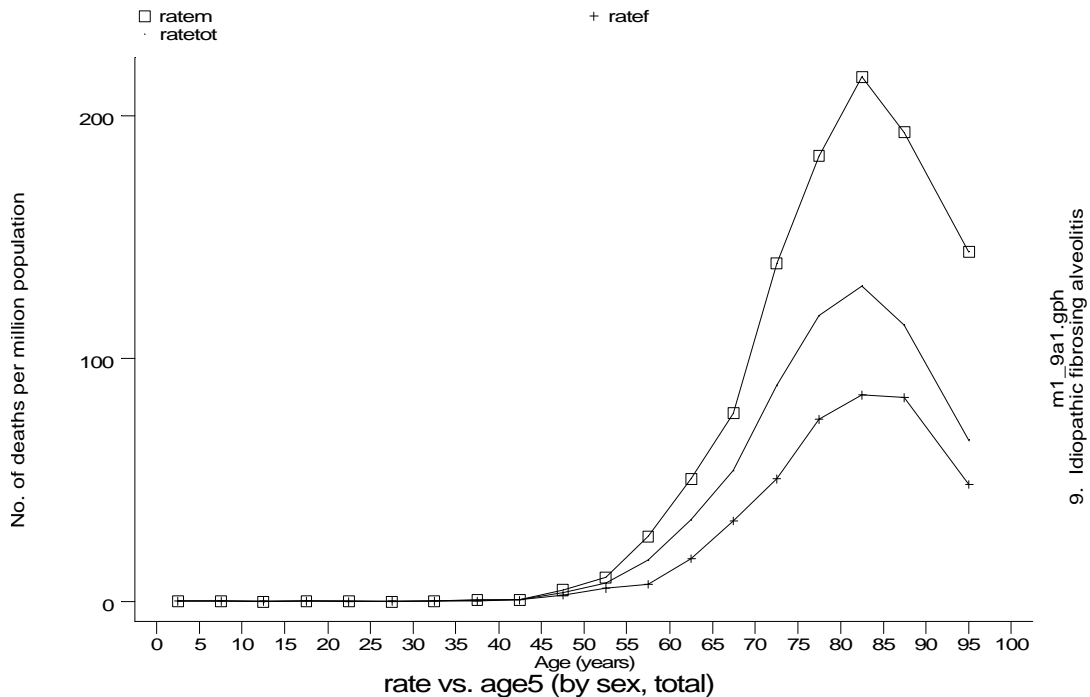
Variations by age and sex

The patterns of hospital admissions and patient consultations were consistent with those of mortality (Figure 13.1). Rates were effectively zero until age 45, rising thereafter to peak at ages 80-85. Peak rates in men were approximately double those in women at around 200 per million population for male mortality and emergency hospital admissions, and seven times higher than this for GP consultations.

Year on year: A slight rise was seen in 1991-1993 in all databases, but patterns diverged after this (static in mortality, slight drop in hospital admissions, a slight but non significant fall in GP consultations in 1994 and rise in 1995).

Cohort effect: The peak at ages 80-85 raised the possibility of a cohort effect for those born in 1910-1915, rather than an age effect. This was examined in more detail (see graphs in Appendix A13), but was difficult to confirm with the small numbers of deaths and limited calendar period included in the study.

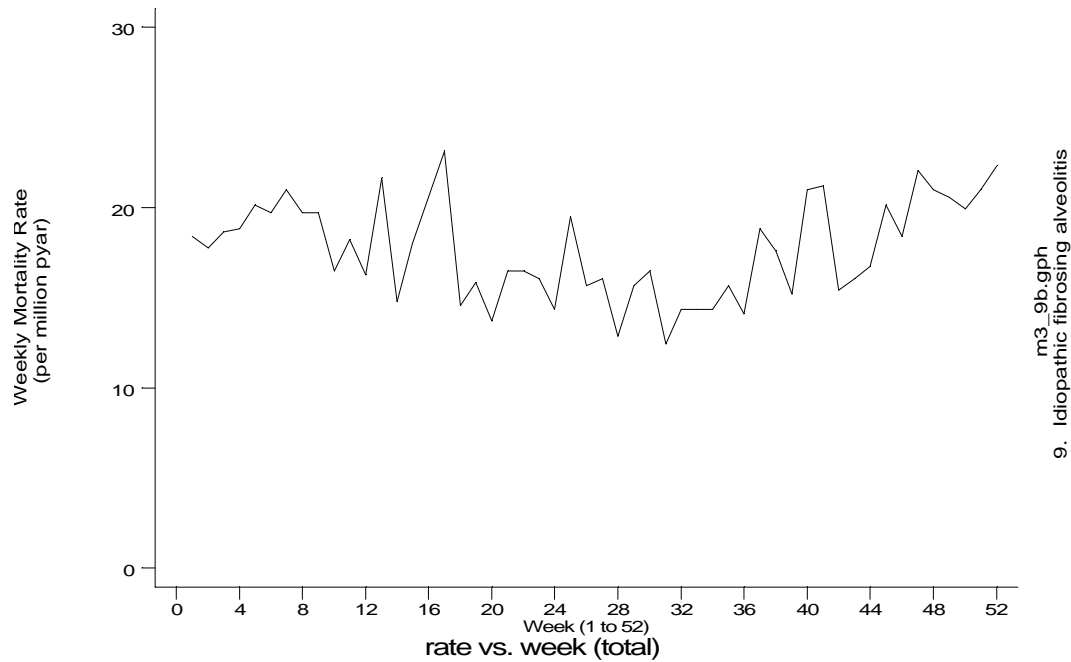
Figure 13.1 Crude mortality rates for idiopathic fibrosing alveolitis by age and sex for 1991-1995



Seasonality

Seasonal data suggested rates were higher in winter months than in the summer for mortality (Figure 13.2) and emergency hospital admissions, but no seasonal pattern was seen with GP consultations. The small numbers precluded meaningful examination of seasonal patterns by age.

Figure 13.2 Seasonal mortality pattern for idiopathic fibrosing alveolitis, 1991-1995



Regional and urban rural distribution

Even using data for all years combined, the numbers were small and most confidence intervals crossed 100. There was no consistent regional pattern across all three data sources analysed. However, mortality and hospital admissions showed some similarities with a suggestion of higher SERs in northern areas of England. Higher SERs in mortality and hospital admissions were also seen in urban (but not rural, mixed or conurbation) districts in combined analyses of London and the south-east of England (see Appendix A13). Small numbers meant that GP patient consultation SERs were more variable (Table 13.1) and it was difficult to distinguish regional patterns.

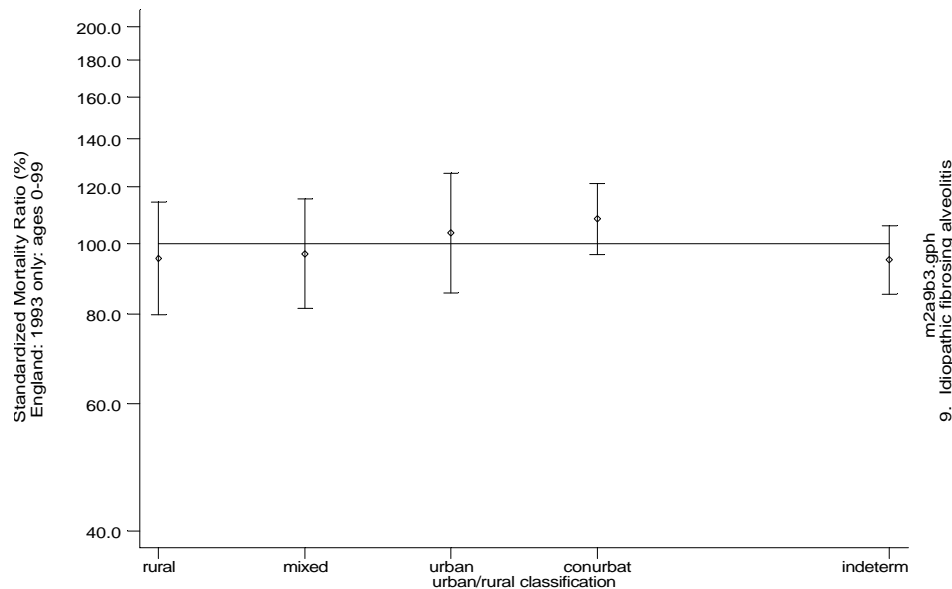
Table 13.1 Numbers of events and SERs in 1994 for idiopathic fibrosing alveolitis ranked (high-low) following order of hospital admission SERs

Region	Mortality		HES: Emergency hospital admissions		GPRD: Patient consultations	
	Events	SER	Events	SER	Events	SER
Yorkshire	76	122.8	127	155.3*	10	119.0
N Western	85	123.0	119	130.1*	17	111.4
Trent	86	105.0	120	111.0	14	70.6
W Midlands	102	116.1	124	106.4	33	95.6
Northern	55	111.8	67	102.2	15	86.2
NE Thames	40	67.4*	77	98.2	2	43.2
NW Thames	34	76.2	57	96.7	24	136.0
SE Thames	70	108.7	80	95.0	6	98.5
Mersey	38	95.4	49	92.7	23	162.9*
S Western	69	107.3	69	82.2	15	86.6
Wessex	41	71.4*	58	77.2*	16	124.3
E Anglia	46	99.8	45	74.3*	17	100.0
Oxford	37	98.3	37	73.8	6	95.7
SW Thames	36	70.0*	46	68.3*	13	66.3

* SER significantly different from 100 (p<0.05)

Urban rural: There was a suggestion of a slight but non-significant urban rural trend in mortality with higher SMRs in urban areas (Figure 13.3), but this was not seen with hospital admissions or GP consultations (not shown here).

Figure 13.3 Urban-rural pattern for age and sex standardised mortality ratios for idiopathic fibrosing alveolitis, 1991-1995



Time trends: Year on year trends in different regions varied from the national pattern as detailed above, but this may have been related to small numbers – analysis by larger groupings (London and the south-east, south-west England, Midlands and northern England) were generally consistent with the national pattern (see Appendix A13).

Comparisons across data sources

Geographical correlation between HES and mortality was relatively good in 1994, but weaker in 1991 (Table 13.2). Numbers of patient consultations in general practice were too small to allow meaningful geographical correlations.

Table 13.2 Spearman rank correlation coefficients for comparison of regional standardised event ratios for idiopathic fibrosing alveolitis from different data sources in 1991 and 1994

	Mortality: ages 0-84	
	1991	1994
HES: aged 0-84	0.47†	0.65

† based on comparison of 14 regions. Numbers of events too small to allow meaningful comparisons of region plus urban rural divisions in 1991.