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Estimated number of individuals infected by blood transfusion in Scotland.

Estimates of the contribution of transfusion to HCV infection in England have been made, and are in press (with *Epidemiology and Infection*). These estimates extrapolate from

- a) observed outcomes of recipient tracing during the English HCV lookback programme, and
- b) observed prevalence of anti-HCV in English blood donors at the start of testing (assumed to indicate prevalence during pre-testing years)

to estimate the total number of individuals exposed to blood from HCV infected donors, the numbers of recipients infected, and the numbers that may be alive. See draft attached.

These calculations have been re-run to provide a comparable, approximate estimate for Scotland. The calculations were customised to the situation in Scotland by

- a) using the numbers of components entering the Scottish lookback programme, resulting in an identified recipient, found to have died, declining testing, tested and found to be positive for HCV.
- b) using the observed prevalence of anti-HCV in Scottish blood donors

Other parameters, e.g. the probability of a component being transfused, were based on observations from the English lookback programme, i.e. it was assumed that the English measures of these parameters were generalisable to Scotland and were more robust than available Scottish data as based on a larger number of cases.

Results

Number of individuals probably infected with HCV by blood transfusion: -	Total	Not known to be dead (by 1995) ⁴	Known/expected to be dead
Identified by the HCV lookback programme in Scotland	106 ¹	106	0
Who received components that entered the lookback in Scotland, but did not receive testing in that programme	1,243 ²	628	615
Who received components issued between 01/01/1980 and 31/08/1991 that did not enter the HCV lookback programme in Scotland	2,149 ³	878	1,271
Total	3,498	1,612⁴	1,886

¹ Median age in 1995 (English LB) was 55 years, i.e. median 62 years in 2002.

² Median age in 1995 (English LB) was 73 years, i.e. median 80 years in 2002.

³ Median age in 2002 expected to be higher than 80 years, as these components were issued longer ago.

⁴ Note that there has been no adjustment to allow for mortality since 1995, i.e. this figure overestimates the number of recipients still alive in 2002.

Comment

Many assumptions were used to generate these estimates – some of uncertain validity. More robust and accurate estimates may be obtained by further work. The distribution of the ages of these recipients could also be estimated with extra data and further work.

These estimates do not predict how many people may claim transfusion is the source of HCV infection. Many of these infections may remain undiagnosed. For diagnosed infections, these estimates do not provide any means of distinguishing blood recipients who are infected with HCV by their blood transfusion from transfused, infected individuals who have acquired their HCV infections from some other sources. Determining the probability that transfusion was the source of infection for any individual case would require assessment of any archive samples of implicated donations, and of the recipient's history of other possible exposures to HCV infection.

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