

Recent causes of death in people with haemophilia in New Zealand

Topic: Medical – Comorbidities

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OBJECTIVES

There is a lack of collective data on mortality in people with haemophilia (PWH) in New Zealand. With PWH living longer, the causes of death can be expected to have evolved in recent years.

The aim of this study was to review the causes of death in PWH after the peak of the HIV epidemic.

This study presents mortality in 33 people with haemophilia A or B in the New Zealand between 2000 and 2013, with follow-up until 31 December 2013.

METHODS

This retrospective study reviewed the records of people with haemophilia A or B (all severities) who died in New Zealand between 2000 and 2013. Candidates were identified through records of the Haemophilia Foundation of New Zealand Inc. (HFNZ).

Causes of death were ascertained from death certificates, where available, or from reports from clinicians, family and/or as recorded in the HFNZ database. Causes of death were attributed to the underlying cause unless a more specific cause was described.

Causes of death were categorised according to groupings used in similar published reports and those used by the Ministry of Health.

RESULTS

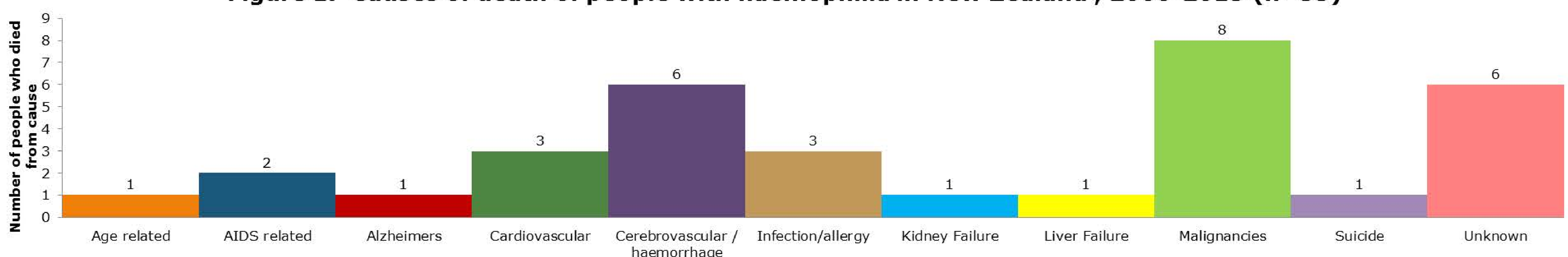
Demographic information

In total 33 PWH died between 2000 and 2013. All were males, 73% had factor VIII deficiency and 48% were classified as severe. The mortality rate of males with haemophilia in New Zealand over this time period was 7.30 per 1000; higher than the 6.64 crude mortality rate in New Zealand (2010)¹.

Average age at time of death was 63 years, with a range from 28 to 92 years. The most deaths (45%) occurred between the ages of 60-79 years, followed by 39% between the ages of 40 and 59 years and 12% aged 80 years and above. Only one PWH aged under 30 years died between 2000 and 2013.

Nearly all who died had been infected with hepatitis C (91%) and 78% had chronic HCV infection at the time of their death.

Figure 1. Causes of death of people with haemophilia in New Zealand, 2000-2013 (n=33)



Causes of death

Causes of death are summarised in Figure 1. Causes of death included malignancies (n=8, 24%), cerebrovascular disease/ haemorrhage (n=6, 18%), cardiovascular disease (n=3, 9%), other infection or allergic reaction (n=3, 9%), AIDS-related (n=2, 6%), age- or Alzheimer's-related (n=2, 6%), liver failure – without malignancy (n=1, 3%), kidney failure (n=1, 3%), and suicide (n=1, 3%). The cause of death was unknown for 6 subjects (18%).

Despite the high infection rate, only six of the deaths (18%) were attributable to HCV. Another six deaths were reported to be haemorrhage-related (18%); all were associated with a stroke or brain bleed.

Despite a higher number of deaths due to cerebrovascular causes in those with severe haemophilia, the numbers were too small to differentiate any significant differences. There were no significant differences in cause of death according to type or severity of haemophilia (Table 1).

Table 1. Causes of death in people with haemophilia in New Zealand 2000-2013, according to severity of haemophilia

Cause of death	Severity of Haemophilia	
	Mild	Moderate / Severe
Age related	1	0
AIDS related	1	1
Alzheimers	1	0
Cardiovascular	1	1
Cerebrovascular / haemorrhage	2	4
Infection/allergy	1	2
Kidney failure	0	1
Liver failure (non-cancer)	1	0
Malignancy	4	4
Suicide	1	0
Unknown	1	5

CONCLUSIONS

Results show that major causes of death PWH in New Zealand between 2000-2013 are similar to those reported for the general New Zealand male population for the same period, except for the notable absence of deaths due to diabetes and motor vehicle accidents in the haemophilia population².

Although comorbidities associated with ageing are prevalent, bleeding or viral infection as a result of the treatment of haemophilia remains an underlying cause of premature death among PWH in New Zealand. While some people with mild haemophilia lived long lives, the majority of the PWH analysed died an average of 10 years before the average life expectancy of non-Māori males in their New Zealand birth cohort.

REFERENCES: 1. Statistics New Zealand. 2011. Deaths and Life expectancy. *Demographic Trends 2011*. Wellington: Statistics New Zealand. Available at: www.stats.govt.nz
2. Ministry of Health. 2013. *Mortality and Demographic Data 2010*. Wellington: Ministry of Health.

