

Incidence, prevalence, and mortality of Waldenström macroglobulinemia (WM) in Australia

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Aim :

WM is a rare type of lymphoid neoplasm. There is limited information on its incidence, prevalence, and mortality in Australia. This study aims to examine the epidemiology of WM and predict 30-year trends in incidence and prevalence in Australia.

Method:

All WM cases from Jan 2009 to Dec 2018 in Victoria, Tasmania, Australian Capital Territory, and Queensland were extracted from the Australian cancer registry database using the International Statistical Classification of Diseases (ICD-10-AM code C88.0, histology code 9761). Australian Institute of Health and Welfare-established methods and DisMod II were used to calculate incidence, prevalence, and mortality rates. Thirty-year incidence and prevalence rate predictions were modeled using a least-squares linear regression, and Kaplan-Meier (KM) survival analysis was constructed. All analyses were stratified by sex, age group, and year, when applicable.

Results:

The crude annual incidence rate of WM was higher in males than in females (63-116 vs 28-70 per 10,000,000 person-years), with an increased crude incidence trend over 10 years (male: coefficient, 4.17; $P=.020$; female: coefficient, 2.32; $P=.087$). Age-standardized incidence rates ranged from 42 to 78 per 10,000,000 person-years. WM prevalence was lowest in the 50- to 59-year age group (83-207 and 53-89 per 10,000,000 persons for males and females, respectively) and highest in the ≥ 80 -year age group (485-1319 and 159-525 per 10,000,000 persons, respectively). A continuous increase in the prevalence of WM was predicted (male: coefficient, 44.87; $P<.001$; female: coefficient, 31.29; $P<.001$). Females had a lower mortality rate than males (under 5-18 vs 7-41 per 10,000,000 persons). The mortality rate was highest in 2016 and lower in recent years. The KM curve showed that the 10-year survival rate was 42%, regardless of sex.

Conclusion:

The incidence and prevalence of WM in Australia have been increasing over the last decade, while mortality and survival have improved since 2016.