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Supporting Information

Supplementary results

Appendix to: Beckmann K, Kearney BJ, Shanmuganathan N, et al. Disease-specific survival for people with chronic myeloid leukaemia, South Australia, 1980–2020: a retrospective cohort study. *Med J Aust* 2025; doi: 10.5694/mja2.70078.

Supplementary results

Table 1. Characteristics of 930 people diagnosed with chronic myeloid leukaemia, South Australia, 1980–2020

Characteristics	Number
All patients	930
Sex	
Men	531 (57.1%)
Women	399 (42.9%)
Age group (years)	
Under 30	62 (6.7%)
30–39	81 (8.7%)
40–49	110 (11.8%)
50–59	176 (18.9%)
60–69	171 (18.4%)
70–79	170 (18.3%)
Over 80	160 (17.2%)
Diagnosis period	
1980-84	94 (10.1%)
1985-89	103 (11.1%)
1990-94	87 (9.4%)
1995-99	112 (12.0%)
2000-04	120 (12.9%)
2005-09	120 (12.9%)
2010-14	127 (13.7%)
2015-2020	167 (18.0%)
Country of birth	
Australia	633 (68.1%)
Other (English-speaking)	113 (12.2%)
Other (not English-speaking)	131 (14.1%)
Missing	53 (5.7%)
Area of Residence (ARIA categories)	
Major city	661 (71.1%)
Inner regional	105 (11.3%)
Outer regional	127 (13.7%)
Remote/very remote	37 (3.9%)
Socioeconomic status (IRSAD quintiles)	
1 (least advantaged)	183 (19.7%)
2	187 (20.1%)
3	191 (20.5%)
4	160 (17.2%)
5 (most advantaged)	209 (22.5%)
Vital status*	
Alive	377 (40.5%)
Died from chronic myeloid leukaemia	399 (42.9%)
Died from another cause	154 (16.6%)

* Median follow-up, 3.8 years; interquartile range, 1.4–9.4 years.
ARIA+: Accessibility/Remoteness Index of Australia (categories are collapsed into major cities; regional (inner and outer) and Remote (remote & very remote)

IRSAD: Index of Relative Socioeconomic Advantage and Disadvantage (remote and very remote categories are collapsed)

Table 2. Risk of death from chronic myeloid leukaemia, by age group and decade of diagnosis, South Australia, 1980–2020: multivariate competing risk regression analysis, with interaction term for age group x diagnostic period*

Characteristic	Adjusted subdistribution hazard ratio (95% CI)
Sex	
Men	1
Women	0.93 (0.75–1.15)
Age group (years)	
Under 40	1
40–49	1.15 (0.72–1.83)
50–59	0.98 (0.66–1.44)
60–69	1.37 (0.88–2.12)
70–79	1.29 (0.75–2.20)
80 or older	1.63 (0.93–2.87)
Country of birth†	
Australia	1
Other (English-speaking)	1.17 (0.83–1.65)
Other (not English-speaking	1.27 (0.96–1.68)
Area of residence (ARIA categories)	
Major city	1
Regional	0.90 (0.64–1.28)
Remote/very remote	1.12 (0.85–1.48)
Socio-economic status (IRSAD quintile)	
1 (least advantaged)	1
2	1.00 (0.72–1.37)
3	1.07 (0.78–1.48)
4	0.99 (0.72–1.37)
5 (most advantaged)	0.96 (0.69–1.33)
Diagnosis period	
1980–1989	1
1990–1999	0.70 (0.54–0.91)
2000–2009	0.27 (0.20–0.37)
2010–2020	0.17 (0.12–0.24)
Age group, by diagnostic period	
40-49 years	
1990-99	0.42 (0.16-1.13)
2000-09	1.06 (0.26-4.31)
2010-20	1.39 (0.12-16.0)
50-59 years	
1990-99	0.84 (0.39-1.79)
2000-09	1.79 (0.52-6.11)
2010-20	4.11 (0.49-34.8)
60-69 years	
1990-99	0.98 (0.43-2.25)
2000-09	0.94 (0.27-3.30)

Characteristic	Adjusted subdistribution hazard ratio (95% CI)
2010-20	1.72 (0.18-16.3)
70-79 years	
1990-99	0.85 (0.36-2.03)
2000-09	3.46 (1.15-10.4)
2010-20	3.70 (0.42-32.5)
80 years or older	
1990-99	0.87 (0.34-2.34)
2000-09	5.23 (1.66-16.4)
2010-20	10.9 (1.35-88.6)

CI = confidence interval.

* Death from other causes as the competing risk; adjusted for sex, age, country of birth, area of residence, socio-economic status, and diagnostic period; with age by diagnostic period interaction. Overall Wald analysis age group x diagnostic period interaction: $P < 0.001$. Fifty-three for whom country of birth information was missing were excluded from the analysis. All variables added as categorical variables, grouped as indicated in the table. Analysis was undertaken using the *stcrreg* command in Stata 17, according to the methods of Fine and Gray 1999 (Fine J, Gray R. A proportional hazards model for the subdistribution of a competing risk. *Journal of the American Statistical Association* 1999; 94:496-509).

STROBE Statement: Checklist of items that should be included in reports of *cohort studies*

Note: The page numbers in this checklist refer to the submitted manuscript, not to the published article or its Supporting Information file

	Item No	Recommendation	Page No
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	title
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	NA
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	1
Objectives	3	State specific objectives, including any prespecified hypotheses	1
Methods			
Study design	4	Present key elements of study design early in the paper	2
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	2
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	NA
		(*b*) For matched studies, give matching criteria and number of exposed and unexposed	NA
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	suppl
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	2
Bias	9	Describe any efforts to address potential sources of bias	NA pop-based
Study size	10	Explain how the study size was arrived at	NA all cases
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	suppl
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	2
		(*b*) Describe any methods used to examine subgroups and interactions	2
		(*c*) Explain how missing data were addressed	Table S1
		(*d*) If applicable, explain how loss to follow-up was addressed	NA
		(*e*) Describe any sensitivity analyses	NA
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	NA
		(b) Give reasons for non-participation at each stage	NA
		(c) Consider use of a flow diagram	NA
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Table S1
		(b) Indicate number of participants with missing data for each variable of interest	
		(c) Summarise follow-up time (eg, average and total amount)	2
Outcome data	15*	Report numbers of outcome events or summary measures over time	Table S2
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	2
		(*b*) Report category boundaries when continuous variables were categorized	NA
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA

Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	2 Table S3
Discussion			
Key results	18	Summarise key results with reference to study objectives	3
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	NA
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	3-4
Generalisability	21	Discuss the generalisability (external validity) of the study results	NA
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	4

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at http://www.strobe-statement.org.