Ethnicity outcomes for Colorectal Cancer Care at Christchurch Hospital – a retrospective review

Canterbury District Health Board
Te Poari Hauora ō Waitaha

Dr Hannah Scowcroft[1], Ms Rebecca Shine[1], Mr Richard Tapper[1], Prof. Frank Frizelle[1,2]

[1]General Surgery Department, CDHB, Christchurch, New Zealand. [2]University of Otago, New Zealand

BACKGROUND

- Colorectal cancer is the third most common form of cancer globally, with the second highest mortality. NZ has the highest age-standardised incidence rate of colon cancer in the world for women, and second-highest for men.
- There are significant disparities in cancer incidence, mortality, stage at diagnosis, and survival between Maori and non-Maori (Robson et al 2006).
- Christchurch is known to have a lower percentage of patient who self-identify as Maori and over this review period percentage of Maori patients in Christchurch increased from 7.9% to 9.4%.

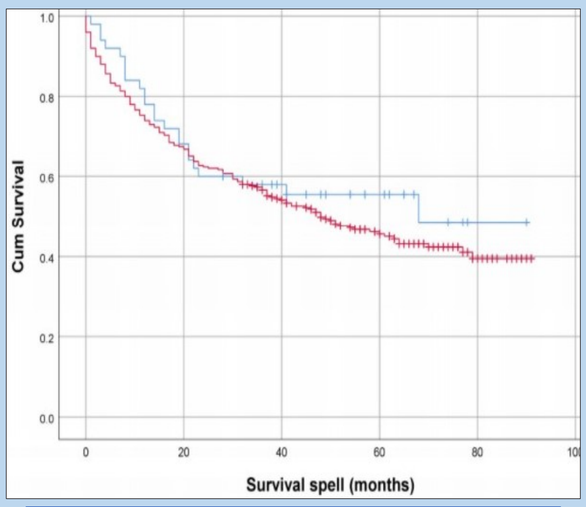
METHOD

- Patients >/= 18 years old with a new diagnosis of colorectal adenocarcinoma, diagnosed and treated at Christchurch Public Hospital within Canterbury District Health Board (CDHB) from 1 Jan 2013 to 31 Dec 2017 inclusive, with a minimum 2-year follow up period.
- Local CDHB database, Binational Colorectal Cancer Audit (BCCA) and Ministry of Health.
- Ethnicity was self-reported
- After inclusion/exclusion criteria were fulfilled – 50 Maori, 1682 European and 71 Other.
- Due to time restraints and purposes of this review, as authors we chose to statistically analyse the 50 Maori patients and a randomly selected 300 NZE patients.
- Survival, duration to diagnosis, stage, complications were among the key parameters investigated

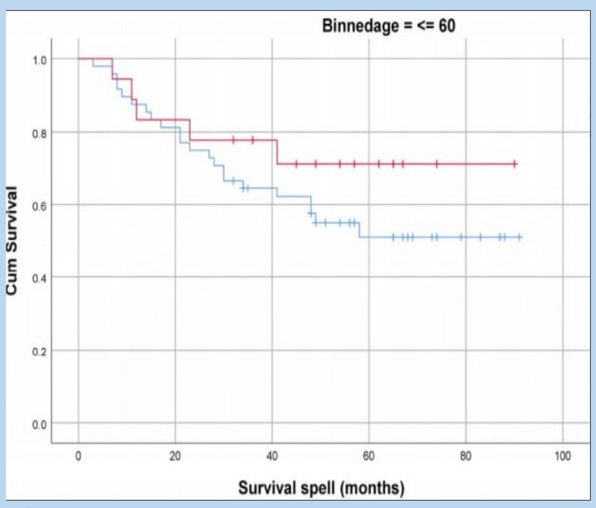
RESULTS

- Mean Maori diagnosis age: overall 65yo, male 67yo, female 61yo
- Mean NZE diagnosis age: overall 72yo, male 70yo, female 74yo
- Average Charlson-Comorbidity Index: Maori 6.3 v NZE 6.48
- Average duration to diagnosis (days): Maori 61.3 v NZE 35.9
- Disease specific mortality – Maori 28% (14/50), NZE 32% (97/300)

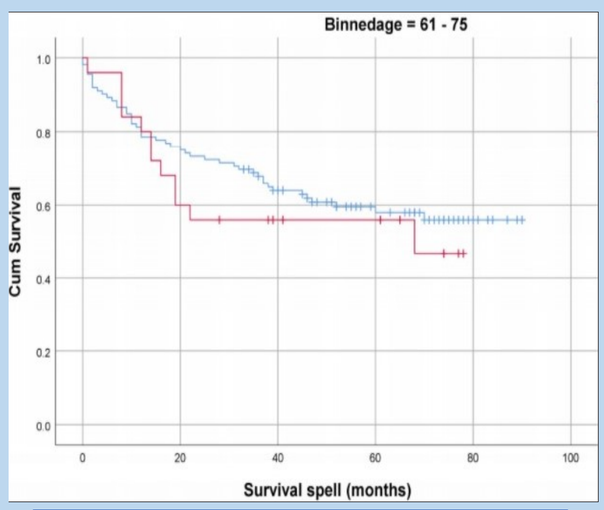
Staging		0	1	2	3	4	Total
Ethnicity	Maori	2 (4%)	10 (20%)	10 (20%)	15 (**30%**)	13 (26%)	50
	NZE	6 (2%)	61 (20.3%)	98 (**32.7%**)	76 (25.3%)	59 (19.7%)	300



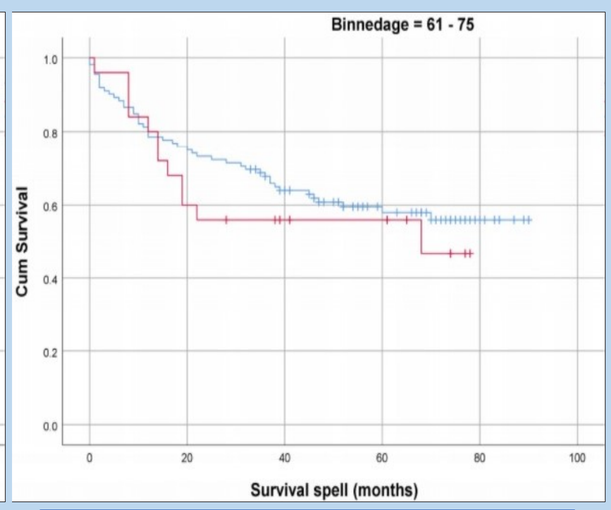
Kaplan Meier showing overall survival curve. Maori – blue. NZE – red.



Kaplan Meier showing survival curve for patients </= 60y. Maori – red. NZE – blue. P value = 0.259.



Kaplan Meier showing survival curve for patients 61-75y. Maori – red. NZE – blue. P value = 0.468.



Kaplan Meier showing survival curve for patients 61-75y. Maori – red. NZE – blue. P value = 0.468.

CONCLUSION

Surprisingly, in CDHB overall there is a non-significant trend towards Maori > NZE/Paheka for overall survival. However we note that Maori were younger, and once stratified for this, can observe that Maori are dying quicker than NZE in some age categories. As authors we appreciate the reduced power of this truncated review however there is a very real need to consider how the health-care system as a whole may disadvantage Indigenous patients and why we believe it is worth re-investigating to illustrate any potential interval progression or regression for ethnic discrepancies in Maori colorectal patients within our DHB, to ensure equal access and quality of cancer treatment, especially due to the recent role out of The National Bowel Cancer Screening Programme within our community.