Advanced Breast Cancer in the Wellington Region. How do we do?

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INTRODUCTION:
In 2018 the Breast Cancer Foundation of New Zealand (BCFNZ) published a comprehensive report which found that patients in NZ with advanced breast cancer (ABC) do considerably worse than our overseas counterparts (such as Netherlands, Germany, USA, Candada).[1 2] The average life expectancy in these countries after diagnosis of ABC is generally 2-3 years as compared to 16 months in New Zealand.[1 2]

OBJECTIVES:
The areas analysed in the BCFNZ report were:
- How soon after diagnosis of breast cancer do people relapse?
- How long to people with ABC survive?
- What impact does tumour pathology and patient demographics have on survival?

This anaylsis involved patients across four regions (Auckland, Waikato, Wellington, and Christchurch) over a 15 year period (2000-2015) representing 9 district health boards. 12% of the patients in this report were from Wellington. The purpose of this study was to review the Wellington data and compare this to the national figures published in the BCFNZ report. The primary aim was to see if patients with breast cancer in the Wellington Region have the same survival as their counterparts across the country.

CONCLUSIONS:
The median survival of patients with advanced breast cancer in Wellington is in keeping with the national average and below our counterpart countries. Subtype analysis also revealed similar survival in Wellington patients as compared with patients nationally.

REFERENCES:
1. Breast Cancer Foundation New Zealand (2018) *"I'm still here" Insights into living – and dying – with Advanced Breast Cancer in New Zealand*, New Zealand: BCFNZ
2. Carodosa, F. et al (2018) Global analysis of advanced/metastatic breast cancer: Decade report (2005-2015), *The Breast*, (June)39 pp. 131-138.

METHODS:
Data was gathered prospectively across the Wellington region from 2010 to 2016. All woman diagnosed with advanced breast cancer during this time were included. This included patients in the Hutt Valley and Wairarapa seeking care in both the public and private sector.

RESULTS:
There were 2546 new cases of breast cancer diagnosed over a 10 year period (2010-2016). 196 of those patients had metastatic disease (8%). 91 patients presented with de novo metastatic disease (3.7%) and 105 patients had early breast cancer which progressed to metastatic disease (4.3%). Examination by receptor status demonstrated that for de novo disease 58% of woman were ER+ve HER2 –ve (Luminal A, Luminal B1), 14% were ER +ve HER2 +ve (Luminal B2), 19% were ER–ve HER2 +ve, and 9% were triple negative. For relapsed disease, the corresponding percentages were 50%, 14%, 6%, and 30%. The median survival depending on subtypes in our study was similar to the 2018 BCFNZ report, with patients with triple negative disease having the worst prognosis. Median survival for all patients with advanced breast cancer was 16.5 months. This is comparable to the BCFNZ report which had a median survival of 18.8 months, and lower than our counterpart countries. There was a significant difference in median survival between patients with de novo disease and relapsed disease at 26 months vs 14.5 months.

	Total patients	De-novo patients	Median Survival (months)	Relapsed patients	Median Survival (months)	Median Survival (all patients)	ABC survival (2010-2015)
ER+/ HER2-	105	53	28m	52	14.5m	20m	Luminal A-27.3m Luminal B1-15.6m
ER+/ HER2+	28	13	36m	15	17m	24m	Luminal B2-5.6m
ER-/ HER2+	23	17	20m	6	23m	20m	13.3m
Triple negative	40	8	12m	32	8m	8m	6.6m
Overall	196	91	26m	105	14.5m	16.5m	18.8m

SURVIVAL: DE-NOVO DISEASE VS RELAPSED DISEASE		
	De-novo disease	Relapsed disease
Median Survival	26 months	14.5 months
1 year survival	75%	47%
5 year survival	14%	3%