

LETTER TO THE EDITORS

Research Letter

Dear Editor,

Proportion of melanoma excisions performed by different specialties in Australia

Melanoma of the skin is a very frequently diagnosed cancer in Western populations and is also a significant cause of death.^{1,2} As different specialties may have different treatment outcomes for melanoma,^{3,4} it is useful to know what proportions of melanoma are excised by each specialty group. The latest national-level data were collected years ago in 2001 and 2005, and they do not include the proportion of excisions performed by dermatologists and surgeons.⁵ The aim of this study was to investigate, using more recent data, changes in the number of melanoma excisions in Australia and the proportion of excisions performed by different specialties.

Medicare has a database of all definitive surgical excisions of melanoma performed in Australia (item numbers 51300–51355) and the specialty groups (general practitioners, dermatologists and surgeons) that performed them. These data have previously been validated.⁶ The surgeon specialty group included general, cardiothoracic, neuro, orthopaedic, paediatric, plastic, urology and vascular surgery.

In the financial year of July 2003 to June 2004, 23 047 definitive excisions of melanoma were performed. In the financial year of 2013–2014, 38 304 excisions were performed, an increase of 66% over the 10-year interval. Table 1 shows the number of excisions in each state and the proportions performed by each specialty. The table also shows the mean number of excisions per dermatologist, calculated using the number of practicing Fellows in 2014 according to the Australasian College of Dermatologists.⁷ Almost all excisions were performed by general practitioners, dermatologists and surgeons (98% in 2003–2004 and 99% in 2013–2014). Over the 10-year interval the proportion of excisions performed by general practitioners increased (43 to 49%) and the proportion performed by surgeons decreased (40 to 34%), while the proportion performed by dermatologists remained stable (15 to 16%). The trends in the state data were largely consistent with national data. However, Queensland general practitioners performed a higher proportion of excisions than those in other states. Although Queensland dermatologists performed a lower proportion of excisions than those in other

states, the mean number of excisions per Queensland dermatologist was comparable with other states. Western Australian dermatologists performed a higher proportion of excisions and performed a higher mean number of excisions per dermatologist than in other states.

The estimated population in June 2004 was 20,111,500 and in June 2014 it was 23,490,700.^{8,9} Thus, the excision rate was 1.15/1000 people in 2003–2004 and 1.63/1000 in 2013–2014.

In 2004 there were 22 011 primary care practitioners, 1358 general and plastic surgeons and 348 dermatologists in Australia.¹⁰ Therefore, on average, each general practitioner performed 0.5 excisions, each surgeon 6.8 excisions (assuming that surgeons who excise melanomas are predominantly general and plastic surgeons) and each dermatologist performed 9.9 excisions. In 2014 there were 26 885 general practitioners, 1705 general and plastic surgeons and 445 dermatologists in Australia.¹¹ Therefore, on average, each general practitioner performed 0.7 excisions, each surgeon 7.5 excisions and each dermatologist 13.8 excisions. The mean number of excisions performed by each clinician in all three specialty groups increased during the 10-year interval.

Using previously published data, the trend of an increasing burden of melanoma in Australia over a 13-year period can be seen. Using the same method as our study, Askew and colleagues found that 20 414 excisions were performed in 2001 and 25 580 excisions in 2005, while we found that 23 047 excisions were performed in 2004 and 38 304 excisions in 2014.⁵ The excision rate per 1000 people has also progressively increased, at 1.05 in 2001, 1.15 in 2003–2004, 1.26 in 2005 and 1.63 in 2013–2014.⁵

Much of the increasing burden of melanoma over time is due to increasing numbers of *in situ* melanoma rather than invasive melanoma. This can be deduced from the fact that the increase in melanoma excisions (including *in situ* melanomas) in our study from 2004 to 2014 was greater than the increase in invasive melanoma diagnoses reported by Whiteman and colleagues during a similar period. Melanoma excisions increased by over 15 000 from 23 047 to 38 304 in our study, whereas Whiteman and colleagues found the annual number of invasive melanoma diagnoses increased by over 1000 from 10 095 to 11 162 between the periods 2002–2006 and 2007–2011, with a further projected increase to 12 283 in the period 2012–2016.¹²

Given the large and increasing role of general practitioners in melanoma treatment, it would be useful to compare the quality of treatment given by general practitioners and other specialists. On this matter the existing data in the literature are conflicting and limited.^{5,4} Treatment by general practitioners may be more convenient and less

Conflict of interest: None.

Table 1 Number of excisions in country and states and proportions performed by different specialties[†]

State	Specialty	2003–2004		2013–2014	
		Excisions (n)	%	Excisions (n) [‡]	%
New South Wales	GP	3252	40	5860	47
	Surgery	3261	41	4195	34
	Dermatology	1352	17	2222 (15.1)	18
	‘Other’	185	2	215	2
	Total	8050		12 490	
Victoria	GP	1195	30	2354	35
	Surgery	1954	50	3011	46
	Dermatology and ‘other’	795	20	1259 (10.1)	19
	Total	3944		6604	
Queensland	GP	3775	58	7300	62
	Surgery	2336	36	3395	29
	Dermatology and ‘other’	432	7	1012 (12.7)	9
	Total	6541		11 707	
Western Australia	GP and part of ‘other’	965	44	2105	49
	Surgery and part of ‘other’	606	28	904	21
	Dermatology and part of ‘other’	615	28	1272 (31.8)	30
	Total	2184		4279	
South Australia	GP and part of ‘other’			649	33
	Surgery			865	44
	Dermatology and part of ‘other’			454 (11.4)	22
	Total	1448		1948	
Tasmania, Northern Territory and Australian Capital Territory	Total	904		1276	
National	GP	9965	43	18 854	49
	Surgery	9282	40	12 860	34
	Dermatology	3445	15	6147 (15.6)	16
	‘Other’	555	2	445	1
	Total	23 047		38 304	

[†]Some specialty groups were combined to maintain confidentiality due to the small number of services provided. [‡]Numbers in brackets indicate mean number of excisions per dermatologist. GP, general practitioner.

costly, especially for rural patients. If the quality of treatment by general practitioners is lower, they can receive extra training or refer more difficult cases. Some general practitioners have a special interest in skin excisions and perform more excisions than average, and have already received extra training.

It is possible that Medicare data overestimate the proportion of melanoma definitively excised by general practitioners. It is hypothesised that general practitioners, who on average have less experience in billing the melanoma excision item codes, may incorrectly use the definitive excision codes for both definitive and diagnostic excisions, thus billing one case twice. However, the Medicare data has previously been validated.⁶ Secondly, in the state data, specialty groups were sometimes combined to maintain confidentiality. The specialty group of ‘Other’ was most commonly combined with another specialty group. However, the ‘Other’ group accounted for only 1–2% of excisions in the country so was unlikely to contribute significantly when grouped with another specialty.

In conclusion, we found the number of melanomas excised in Australia increased substantially from 2003–2004 to 2013–2014. The proportion of melanoma excised by general practitioners was large and increasing, but with low mean excision rates per clinician. Dermatologists

performed the greatest mean number of excisions per clinician, 20 times more than general practitioners. Given the increasing role of general practitioners in melanoma excisions, studies to compare treatment and patient outcomes between different specialities may have implications for training and policy.

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