

## THEME

GPs and the environment



# Skin malignancies in general practice

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The BEACH program, a continuous national study of general practice activity in Australia, gives us an overview of consultations involving the management of malignant skin neoplasms across the geographic classes of Australia. This provides a backdrop against which articles in this issue of *Australian Family Physician* can be further considered.

**Skin malignancies are associated with environmental factors and were therefore considered an appropriate selection for this issue of *Australian Family Physician*. The Australian Standard Geographical Classification (ASGC), which measures geographical remoteness from goods and services, was used to compare general practice activity across areas. Comparisons were made between major cities (MC), inner regional (IR), and a combination of outer regional/remote/very remote (OR) Australia. The encounter data were standardised to the age and gender distribution of all Australian encounters in 2005. Differences in crude rates across regions that remain after standardisation are not explained by the different age and gender distribution of these samples, and therefore are likely to represent real differences between geographical areas.**

There were 490 800 encounters recorded in BEACH between April 2002 and March 2007. Malignant skin neoplasms were recorded on 5459 occasions, at a rate of 1.1 per 100 encounters (*Figure 1*). This represents an estimated average of 1.1 million encounters per annum at which these problems were managed in general practice across Australia.

Malignant skin neoplasms were managed significantly more often in both IR and OR areas (1.7 per 100 encounters), at almost twice the rate of MC (0.9 per 100 encounters). This difference remained significant after adjustment.

### Gender and age of patients

Overall, males were significantly more likely to have this problem managed (1.5 per 100 male encounters)

than females (0.9 per 100 female encounters). The management rate of skin malignancies steadily increased with age from 0.4 per 100 encounters with patients aged 25–44 years, 1.4 in those aged 45–64 years, 2.1 in those aged 65–74 years, and 2.5 per 100 encounters in those aged 75 years and over.

### Treatments

Procedures were performed for 49% of skin neoplasm problems on average. Excisions were performed by MC general practitioners at 37.5% of skin malignancy presentations, IR at 40.5% and OR areas at 38.6%.

Clinical treatment provision decreased as remoteness increased, with 9.9 clinical treatments per 100 skin malignancies in MC, compared with 6.3 in OR areas. Counselling occurred more frequently in MC (3.5 per 100 encounters) than in IR (1.8) and OR areas (1.6). Advice/education occurred at 3.1 per 100 of these problems in MC and IR areas, and 2.0% in OR areas.

The GPs rarely prescribed/advised for over-the-counter purchase/supplied medications for this problem (6.7 per 100 malignant skin neoplasms). All these differences remained after standardisation.

### Referrals

The MC GPs referred their patients to specialists significantly more often (23.9 referrals per 100 problems) than did GPs in IR areas (15.4 per 100) and twice as often as OR (12.7 per 100) areas. Following standardisation, these differences remained significant.

Referrals in MC were mainly to dermatologists (13.1 per 100 malignant skin neoplasms), and these were far less common in IR areas (5.2 per 100 encounters), and

decreased to 2.8 in OR areas. Referrals to plastic surgeons were also significantly more frequent in MC (6.5 per 100 skin malignancies) than in IR (3.1 per 100 encounters) and OR areas (2.6 per 100 encounters), where patients were more likely to be referred to surgeons (6.1 and 6.2 respectively) than to dermatologists (Figure 2). These differences remained after standardisation.

### Pathology

Overall, histopathology was ordered at 32.5 per 100 skin neoplasm problems. This was consistent throughout all regions.

### Conclusion

Malignant skin neoplasms are managed at a significantly higher rate in males than in females. Outer regional/remote GPs provide these patients with counselling and advice/education less often than in other areas, perhaps

due to time restraints. The referral rate, particularly to dermatologists, is far higher in MC than in IR and OR areas – probably due to poorer access – but the rate of excisions and histopathology orders is relatively consistent throughout all regions.

Conflict of interest: none.

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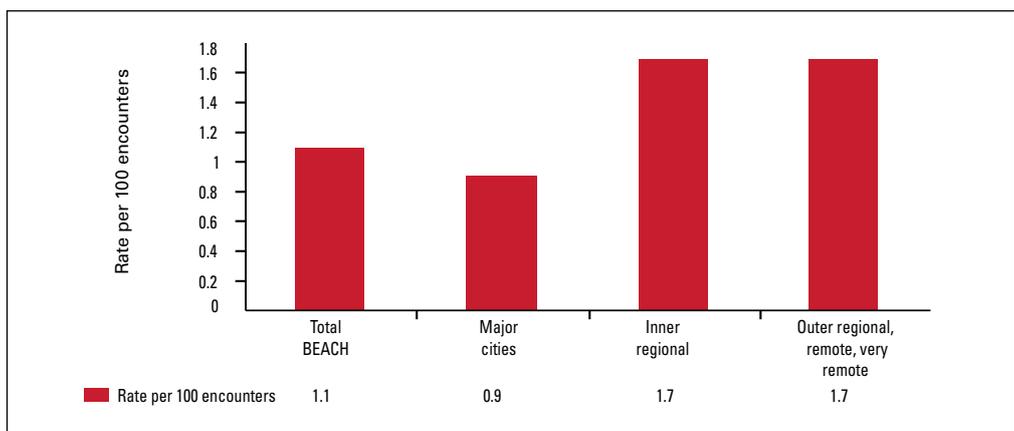


Figure 1. Management of malignant skin neoplasms (rate per 100 encounters 2002–2007, n= 490 800)

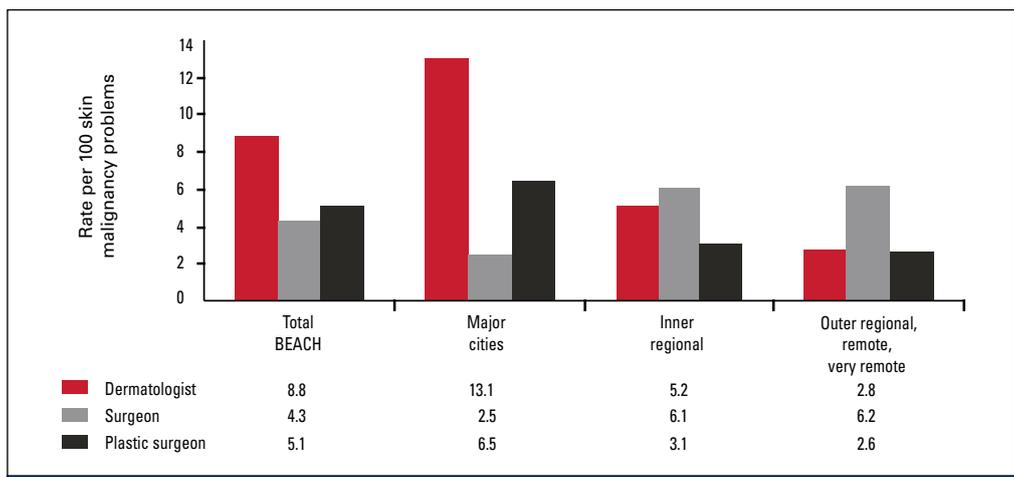


Figure 2. Referral to specialists for malignant skin neoplasms (rate per 100 skin malignancy problems 2002–2007, n=1084)